

Victoria M. Ateca-Amestoy
Victor Ginsburgh · Isidoro Mazza
John O'Hagan · Juan Prieto-Rodriguez
Editors

Enhancing Participation in the Arts in the EU

Challenges and Methods



Supported by
the CULTURE Programme
of the European Union



Springer

Enhancing Participation in the Arts in the EU

Victoria M. Ateca-Amestoy • Victor Ginsburgh •
Isidoro Mazza • John O'Hagan •
Juan Prieto-Rodriguez
Editors

Enhancing Participation in the Arts in the EU

Challenges and Methods

 Springer

Editors

Victoria M. Ateca-Amestoy
Foundations of Economic Analysis II
University of the Basque
Country (UPV/EHU)
Bilbao, Spain

Victor Ginsburgh
ECARES
Brussels, Belgium

Isidoro Mazza
Department of Economics and Business
University of Catania
Catania, Italy

John O'Hagan
Trinity College Dublin
Dublin, Ireland

Juan Prieto-Rodriguez
Department of Economics
University of Oviedo
Oviedo, Spain

ISBN 978-3-319-09095-5

ISBN 978-3-319-09096-2 (eBook)

DOI 10.1007/978-3-319-09096-2

Library of Congress Control Number: 2017942952

© Springer International Publishing AG 2017

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, express or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Printed on acid-free paper

This Springer imprint is published by Springer Nature

The registered company is Springer International Publishing AG

The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

This volume was sent to the publisher on the very day Iñigo was born. Though the baby's birth was easy, while that of the book was less so, the editors decided to dedicate it to Iñigo.

Foreword

This academic work comes at a timely moment. The Eurobarometer published in November 2013 shows a fall in cultural participation in the EU compared to 2007 when the last survey on the topic was carried out.

According to the summary findings “in general fewer Europeans are engaging in cultural activities, as performers or spectators. Only 38% actively took part in a cultural activity, such as singing, dancing or photography, in the past year. In terms of ‘passive’ participation, the number describing their cultural engagement as high or very high is down to 18% compared to 21% in 2007”.¹

One can only assume that the financial and economic crisis of the past years has taken its toll in terms of active and passive participation in the cultural activities of our continent. This is something that worries me as an EU policymaker, since culture is a multidimensional public good that is key for our moral development as human beings, but also acts as an engine for economic growth and further European integration.

The book *Enhancing Participation in the Arts in the EU: Challenges and Methods* is bound to become a classic in the field, since it tackles the topic from different but relevant perspectives, by addressing the issue of measuring participation in cultural activities, its financing models and its effects on society and economic performance. I found its contents enriching and helpful in understanding the dynamics of culture from a sociological and economic perspective. As an economist by training, I was particularly interested in those sections devoted to specific sectors with growth potential, such as the video game industry, which as a new form of cultural participation in the country I know best appears to have an edge in terms of the analysis of attendance as compared to more traditional cultural activities such as theatre and cinema. This book also offers a European outlook and incorporates cross-country and national case studies for the reader.

If there is something that unmistakably defines Europe, it is culture, as evidenced by the millions of tourists welcomed by the Union every year in capitals ranging from Lisbon to Budapest. This is true because of the cultural and historic heritage that it

¹http://europa.eu/rapid/press-release_IP-13-1023_en.htm

treasures and the universal impact European culture has had upon literature, painting or architecture. Europe is also defined culturally by its traditional government support for the arts, as opposed to reducing the latter to mere merchandise. It is not by chance that our key security and trading partner, the United States, a country shaped in its origins by Europe, still lacks a Minister of Culture and well-defined cultural policies.

Thus, culture is one of Europe's key comparative advantages. As such, we should think big in crafting a European cultural strategy that not only preserves the non-market role of cultural activities in the context of financial and productive globalisation but additionally makes culture a driving force for the creation of badly needed jobs in the European Union. It is essential for us to be creative in devising new financing mechanisms for artistic start-ups, which will provide the latter with the necessary access to small, cheap loans and grants that aid in mobilising local economies. We have to consider mixed public-private partnerships for the development of cultural enterprises as outlined by one of the contributions contained herein based on the Italian experience with *Officine Culturali*. Additionally, we must strive for a culture-friendly fiscal framework, with reduced Value-Added Tax rates across Europe, in contrast to the policies adopted by Spain's conservative government from 2011 onwards. Cultural activities can only play a role in enhancing human well-being and socio-economic development if there is an audience willing to pay the price charged for attending the performance. Such a price must not be inflated by excessive taxation. On the contrary, lowering taxes for cultural products and activities sends a clear signal of our commitment to the values and principles that have shaped Europe through the centuries.

Finally, culture can play a key role in bringing about the ideal of an ever closer union in Europe. Since 1950, Europeans have embarked upon one of the greatest voyages of mankind, namely, the free and voluntary construction of a federation of nation states in an utterly divided and diverse continent. We started by pooling our coal and steel production, the key ingredients of the war machine at the time, in 1951. This was followed by the trade and customs union, the monetary union and, more recently, the banking union. Now, we brace ourselves for the financial and fiscal union, the social union and the political union.

But political union cannot be based solely on new treaty changes, or even a European Constitution. A united Europe needs a soul, a shared feeling of belonging by its citizens. Thus, our European dream also calls for a type of "cultural union", in which we are able to pool and disseminate the great diversity of our common heritage. European culture is not just the sum of national cultures, as evidenced by the cross-border architectonic styles of the Romanic and Gothic cathedrals, the European building par excellence, or the development of a common European understanding of the Second World War and the moral collapse symbolised by Auschwitz.

It is by an open exchange and debate facilitated by such a union that we Europeans will be able to rediscover our common culture while embracing all diversity as our own. The gradual development of this shared European political and cultural conscience will define the future of Europe, united, whole and free.

Jonas Fernandez
Member of the European Parliament

Acknowledgments

This project was awarded a European Grant in the CULTURE 2007–2013 programme from the European Union. Thanks to the EACEA funding for the project “Assessing effective tools to enhance cultural participation” we were able to form a group to study the relationships among Participation in the Arts, the University, the City and Culture. We settled on the acronym PUCK for our project to reflect this goal. Puck was also of course a character in Shakespeare’s *A Midsummer Night’s Dream!* The contacts that we made at the initial seminar organised by the EACEA in October 2012 allowed us to find ways to solve the project’s difficulties in a timely and smooth way. In particular, we are indebted to Maria Benito who more than once helped us to overcome some problems. We are also very grateful to the team at the Creative Europe Desk—Culture Spain at the Spanish Ministry of Education, Culture and Sports, especially to Augusto Paramio for his support before, during and after the submission of the project.

Oviedo

The University of Oviedo, as coordinator of this project, had the opportunity of organising two workshops. We would like to thank the invited speakers to both seminars: Javier Menendez (Opera de Oviedo), Jorge Otero (Stormy Mondays), Sydney Borjas (Grupo SGAE), Luis Cesar Herrero (University of Valladolid), Benjamin Weil (at the time, director of LABoral Art and Industrial Creation Centre and now at the Centro Botin de las Artes y la Cultura), Ignasi Miro (Fundación La Caixa), Fernando Rubiera (University of Oviedo), Carlos Lana (MagmaCultura), Ivan Diaz (Filmax International), Jorge Fernandez Leon (Ayuntamiento de Gijon) and Ruth Towse (Bournemouth University). During the second workshop, we organised a seminar on classical music chaired by Michel Hambersin and Victor Ginsburgh. This meeting was possible thanks to the support of OviedoGenera and Oviedo Municipality, especially Gema Gonzalez Zas and Beatriz Montes Duran. Members were kindly invited by Opera de Oviedo to attend the general rehearsal of *Turandot*. The research team from Oviedo would also like to thank our associated partners, Fundación Municipal de Cultura de Avilés and MagmaCultura.

Brussels

The meeting of our group in Brussels was devoted to music. It took place during the Ars Musica Festival at Flagey, an exceptional Art Deco building. Both the Festival and Flagey were extremely cooperative and should be gratefully thanked. So should Mrs. and Mr. Hambersin, who invited all of us to have dinner at their house. Mrs. Barbara Gessler (Head of the Unit Culture of the EACEA) was kind enough to give the opening address. Tarquin Billet (General Manager, Ars Musica), Benoît Jacques de Dixmude (director of Musiq3 radio station), Jean-Luc Fafchamps (Composer and Professor, Conservatoire de Mons), the late Harry Halbreich (Honorary Professor, Conservatoire de Mons) and Michel Hambersin (Université libre de Bruxelles, and President, Ars Musica) participated in a round-table discussion on contemporary music.

Bilbao

The meeting in Bilbao was devoted to data and digitisation. It was hosted by the University of the Basque Country (UPV/EHU), and we would like to thank the invited speakers to the workshop in Bilbao: Noam Shoval (Hebrew University of Jerusalem), Jon Kepa Gerrikagoitia and Aurkene Alzua (CIC-Tourgune), Hasan Bakhshi (Nesta), Patricia Sojo (Sociedad Filarmónica de Bilbao), Itziar Martija Recalde (Museo de Reproducciones Artísticas de Bilbao), Ana Viñals (University of Deusto) and Patxi Azpillaga (UPV/EHU). People from other research projects also joined us to present their initiatives: Jennifer Edmon (Trinity College Dublin), Marta González (Tecnalia) and Aiala Fernández (EIKEN—Basque Audiovisual Cluster). The research team from Bilbao would also like to thank our associated partner, the Museum University of Navarra. We were happy to invite them to join and to see their commitment to our group. Miguel López-Remiro became a regular contributor to the group.

Catania

The meeting held in Catania focused on cultural multi-product firms and social inclusion. It was hosted by the Department of Economics and Business at the University of Catania and the associated partner Zo Cultural Centre. We would like to thank the speakers invited to the workshop (in alphabetical order): Johanna Archbold (Block T, Dublin), Gianluca Collica (Fondazione Brodbeck, Catania), Francesc Duart (Magma Cultura, Barcelona), Giuseppe Lana (BOCS, Catania), Renato Lombardo (The Brass Group, Palermo), Francesco Mannino and Anna Mignosa (Officine Culturali, Catania), Adolfo Morrone (ISTAT—Italian Institute of Statistics), Felicita Platania (Zo Centre, Catania), Antonio Presti (Fondazione Fiumara d'Arte, Tusa—Messina), Nino Romeo (Teatro Coppola, Catania), Michele Trimarchi (University of Catanzaro) and Daniele Zappalà (Scenario Pubblico, Catania). We are particularly grateful to Paolo and Nadia Brodbeck, respectively, president and vice-president of the Brodbeck Foundation, for their warm hospitality.

Dublin

The team from Trinity College Dublin would like to thank all of those who attended the Dublin Workshop, including the three other presenters, Anna Villarroya (University of Barcelona), Annalisa Cicerchia (Italian National

Statistical Institute) and Pete Lunn (Economic and Social Research Institute in Dublin), who are the authors of Chapters “Measuring Participation in the Arts in Spain”, “Measuring Participation in the Arts in Italy” and “Attendance at/Participation in the Arts by Educational Level: Evidence and Issues” in this volume. We are particularly grateful to our associated partners, National Library of Ireland (Ireland) and Block T (Dublin, Ireland), for their generous collaboration. We would also like to thank the members of the organising group for the project and thank Juan Prieto-Rodriguez and Victoria Ateca-Amestoy, in particular, for bringing this project to fruition in the form of this book. Finally, Professor John O’Hagan is also very grateful for the considerable assistance of his PhD students Karol Borowiecki, Alan Walsh, Sara Mitchell and Lukas Kuld.

Introduction

This book is the product of a collaborative process organised around a research project where academics, experts and arts managers had the opportunity to exchange and share their ideas and views on all issues related to participation in the arts. From the beginning, our main concern was the link between the arts and society, especially how participation in the arts may enhance social inclusion. Much has been written in the last 30 years on this issue. Many have argued that social inclusion involves not just reacting in material terms to low incomes but also responding to the imagination of individuals and groups. The key question for our purposes is how participation in the arts adds to social capital and hence to social cohesiveness. If it does, then there could be real concern if a broad spectrum of the population does not participate in the arts, especially if the arts are funded by public money (see National Economic and Social Forum 2007).

It is clear that there is a very uneven distribution in participation in the state-funded arts sector at all levels. Whether or not this is considered a real concern is debatable, as some doubts may be cast on the reasons why some commentators decry the uneven distribution.

Benefits in Principle of Participation in the Arts

But how does cultural participation in the arts, *in principle*, contribute to the creation of more reflective and inclusive societies? We need to consider this in terms of benefits, both to the individual and to the collective society of which he/she belongs. McCarthy et al. (2004) provide perhaps the best coverage of such benefits.

As this study examines cognitive, behavioural and community-level social benefits, it is a useful starting point for the interested reader.

There are strong personal benefits for some people from being involved in classical music, or painting, but there are also similar individual benefits from walking in the countryside, working in the garden, doing charity work, taking yoga classes and so on. The issue here though is how participation in the arts contributes specifically to a more reflective and inclusive society, assuming that these are desirable policy objectives in relation to the state-funded arts sector. Let us list some of the suggested benefits in this regard.

The arts, it is claimed, create cognitive, attitudinal and behavioural benefits for children (see e.g. Fiske 1999). Children are of course a particularly important grouping in society in relation to the arts because of the developmental significance of childhood experiences and their economic dependence. As such, many would argue that they warrant special attention in terms of policy and cultural inclusion.

The arts, for example, can be used as a pedagogical tool to help children learn. Children have different styles of learning, both in and out of school, and use many different forms of intelligence in the learning process. As such, individuals have different preferences and abilities for learning modes, and the use of the arts is recognised as one important learning mode. Instruction in the creation of art, both within and outside school, appears though to be a fruitful way of generating educational and societal benefits. Part of the reason for this is that the learning process involved in such instruction differs from the learning process more generally. It appears that hands-on training can involve an integrated and progressive approach to teaching both practical skills and concepts and, as such, is well suited to the cumulative nature of the learning process. This will induce a more rounded education and, hopefully, a more reflective society in time.

This leads us to the most important missing incentive to consume art: arts education. Unfortunately, formal education at primary and high school is more and more neglected in most European countries. This is how Cicerchia describes the situation for Italy in her contribution to this volume:

Data reflect the results of the weak Italian investment in cultural education and dissemination, which were tacitly left in the care of schools, where, paradoxically, music and the arts occupy a negligible role in almost all levels and curricula, and arts history has virtually disappeared as a result of a controversial school reform in 2011 [. . .] Music education is one of the weaknesses of the Italian school system. Since the early 1920s, it was treated as a professional option, not as key component of a basic curriculum. It is no wonder that barely over nine percent of those aged six and over have attended a classical music concert at least once in the previous 12 months.

And the United States does not escape from this either: Harlow (2014) makes clear that younger generations tend to have less exposure to the arts in school than previous generations.

We should all have Bresler's (2007) handbook on our desk. Though we go in the wrong direction by dropping the arts from schools, education may indeed seem to be the most important action that could, in the long run, increase audiences. Indeed, surveys show that arts education, both at school and in the family or close

community, increases participation in the arts. Bergonzi and Smith (1996) even show that providing both types of education (school and family) has super-additive effects on participation; that is, they increase participation by more than the mere addition of the two effects. There are also dynamic effects at play, since parents will transmit to their children the knowledge they were exposed to while young. Education has therefore the usual direct effect on children and the indirect effect through the transfer from parents to children. Becker and Tomes (1986) reinforce this view by suggesting that culture is “automatically transferred from parents to children”.¹

The demand for performing and visual arts is also subject to habit formation, as well as to learning by consuming (or taste cultivation), and addiction. Demand is influenced by past exposure and may end up by consumers becoming addicted. If, as Seaman (2006, p. 442) suggests, this is true, “arts managers should go to great lengths to introduce the arts to young audiences with regularly scheduled targeted programs to get them into the habit of attending.”

Turning now to adults, some argue that the arts provide perhaps a different form of captivation and pleasure to most other goods and services. The thesis here is that participation in the arts creates new ways of seeing and experiencing the world. The key contention then is “that these effects are private benefits that spill over into the public realm by developing citizens who are more empathetic and more discriminating in their perceptions and judgments about the world around them” (McCarthy et al. 2004, p. 17). A vibrant democratic society, it is believed, requires individuals who can be reflective and are understanding of and considerate towards the views of others, and that individual experience of the arts therefore can play a unique role in this regard. Individual experience of the arts can also bring other cognitive and reflective benefits. Aesthetic experiences in, for example, narrative literature, drama and film can often involve participation of the reader’s or spectator’s cognitive and emotional faculties in discovering and interpreting the narrative in ways that cannot be gained through other methods of learning.

The private consumption of the arts can also lead to benefits that are almost wholly public or societal in nature. These arise from shared individual responses such as in sports and other events. The point to make here is that they also arise in relation to the arts. The arts though can provide the means for community-expressed emotion that may not be the case for other activities. Music, dance, poetry and the visual arts are used to mark significant events such as funerals, marriages, local festivals, etc., to capture both religious and secular narratives valued by the community. This is because the arts may allow private feelings to be *jointly* expressed, something that people may desire but cannot achieve in any other ways.

The other relevant public benefit resulting from the arts is related to the expression of communal meanings. Works of arts sometime manage to convey what whole communities wish to express but cannot do so as well by any other means. For example, the writings of Irish or Spanish playwrights and other authors have helped to define uniquely the Irish or Spanish experience, including its finest

¹See also Champarnaud et al. (2008).

aspirations. The arts can also mark national traumas, national triumphs and national heroes. For example, public monuments throughout Italy and France provide an artistic legacy that captures the history and values of entire communities and possibly provide mechanisms whereby people can re-imagine and define their own identities. The arts can also be a means by which new “voices” are introduced to a community, voices that can redefine the fabric of the national or local culture. As such, they can play a pivotal role, if used properly, in integrating excluded minorities or new immigrant communities into the wider society, thereby lessening the potential for social conflict and exclusion. They can also be used to build a transversal strategy to promote a European rich identity. Actually, in the current work programme of Horizon 2020—the flagship initiative of the European Union to enhance cooperative research—the European Commission recognises the fact that a better understanding of Europe’s cultural and social diversity and of its past will inform the reflection about present problems and help to find solutions for shaping Europe’s future (European Commission 2016).

The arts can also contribute to inclusive societies in rather more pragmatic ways. At the most basic level, they provide, like many other activities, opportunities for people to gather through attendance at local arts events such as arts festivals, drama or choir groups, art classes and art creation. Many people may also be involved in organising such events. The organisation of arts festivals in particular often involves a wide range of individuals in a community, which can help create linkages across different socio-economic groups, thus developing communal cohesion.

Indeed, other activities such as sports and village/town associations can provide similar communal benefits, but the arts may be able to do so in a unique way given the communicative nature of the arts, the personal nature of creative expression and the trust associated with revealing one’s creativity to others. This may make joint arts activities particularly conducive to forging social bonds and bridges across social divides. It is also through the arts perhaps, more so than through sports or other local activities, that different ethnic groups can develop and maintain their cultural heritage and communicate their cultural identity to the rest of the community.

Price, Quality and Demand for the Arts

The volume is devoted to enhancing participation in the arts. Conventional demand analysis is based on demand functions derived from (aggregate or individual) utility maximisation under (aggregate or individual) budget constraint(s). The demand that is derived for each (homogeneous) commodity is a function of its own price, all other prices and income. The only policies that can be used to increase demand (audiences) is to reduce the own price (assuming that the prices of substitutes will remain constant), an option that the producer can exercise, or to increase income, an option that is not available to the producer, but maybe to the policy maker.

Analysing demand for the arts—in particular audiences, such as museum-, theatre-, concert-, ballet- or operagoers—differs in several ways from this classical

approach, since artworks (including works by performing artists) are much more complicated commodities and hardly fit into this extremely simple framework. First, they are what we call *experience goods*, i.e. they take time to consume and they have a symbolic meaning that needs to be decoded by the consumer. Under these circumstances, the relevant price paid by consumers is the implicit price that includes the nominal price of the ticket but also the costs associated with the time needed to consume. This implies that consumers do not respond just to ticket prices since they represent only a fraction of the total cost of attending an opera or visiting a museum. Defining the relevant prices and how they influence demand are theoretical and empirical questions still under research.² As noted by Levy-Garboua and Montmarquette (2011, p. 182), theory, rather than empirical analysis, suggests that the demand for the arts is likely to be price elastic. And indeed, Seaman (2006, pp. 424–431) lists 29 econometric studies reporting the effects on demand of own prices and confirms this opinion. Twelve studies find that (own) prices have no influence on demand, while only four studies isolate a strong effect of prices.

Segmenting audiences by income groups seems to show that high-income consumers are less sensitive to prices, but this evidence is not fully conclusive, and may also be due to Throsby's (1994, pp. 3, 7–8) argument that high-income consumers are usually "established" consumers of so-called high arts and for them "qualitative characteristics of performances are likely to be decisive". And indeed, many opera *aficionados* would be willing to pay (at least) twice as much to listen to soprano Cecilia Bartoli than to two performances of less brilliant singers. This is the essence of the superstar effect (Rosen 1981) which applies not only to opera singers but to all performing and visual arts, as well as to museums and heritage.

Quality is difficult to define and to measure because it is multifaceted and often subjective.³ It makes artworks extremely heterogeneous, while the general theory alluded to earlier assumes that goods are homogeneous. Even a single theatre produces very heterogeneous goods: Shakespeare's *King Lear* with Laurence Olivier is not the same as *King Lear* with an unknown actor, and a play by Shakespeare is not the same as one by Lope de Vega, though both authors lived and wrote during the same century, and though Laurence Olivier may be playing in both instances. It is therefore difficult to estimate robust demand functions for the performing arts (as well as for the visual arts), because it is difficult to define what is meant by "the commodity". Is it the theatre, or the writer of the plays, or the main actor, or the director or a mix of all the ingredients? Does one have to estimate a demand function for comedy, and another one for drama? This obviously poses the problem of disaggregated datasets, which are often not available, and the number of observations is usually insufficient to estimate econometric models and gauge price elasticities.

We have to admit that we do not know much about the effect of prices on audiences and cannot claim that prices are too high and prevent lower income

²For other empirical problems related with the estimation of price elasticities for the arts, see Fernandez-Blanco et al. (2013).

³For a more complete description of quality in the arts, see Seaman (2006, pp. 453–459).

spectators and listeners to attend, though they are ready to pay high prices for hard rock concerts and soccer matches. And we do not know either whether price decreases would increase their number, without even going into the issue of whether price decreases are feasible without more private or public subsidies.⁴

Other Ways of Increasing Demand

According to the previous argument, cultural producers have little leeway in influencing and motivating local audiences directly through prices and, given the failures of (mostly public) education in many countries (with some exceptions such as Germany, Austria, Northern and Eastern Europe), have chosen other ways to increase audiences using the following strategies: (a) organise local “events” to attract local but also non-local audiences, (b) move parts of their human or capital endowment to other locations or even other countries, and (c) more recently, given the progress in the speed of information transfer, broadcast artistic events in real time, without losing too much quality. Museums and the performing arts organise this in slightly different ways but take into account that audiences do no longer want copies: they want to see the original Mona Lisa and listen to the real Cecilia Bartoli, which is not necessarily what we want to see happening as this entails exactly what Hannah Arendt (1968) and more recently Nobel Prize winner Mario Vargas Llosa (2015) had in mind in their writings.

(a) *Local events: art exhibitions and festivals* This is a technique that is old but still used very often. It attracts visitors, but it is often difficult to assess whether they are newcomers, who may after some time become regular customers, or whether they are traditional customers, who would then not increase the usual audiences. There is also the problem that there may be too many such events, which compete with each other: 1800 festivals are organised every year in France for example, which means that, on average, every French citizen can attend a festival in a circle within a radius of some 15 km. And the answer to the question of whether this is welfare improving is only very seldom analysed.⁵

(b) *“Exporting” part of our cultural heritage* Orchestras, theatres, dance and opera companies are used to visiting (and performing in) foreign countries. And so do artworks that go on world tours. But these are temporary exports and usually both performers and artworks come back after their tour. This has changed for artworks that are now following “migrating museums”. Thomas Krens, the former director of the Guggenheim Museum between 1988 and 2008, was probably the first to launch this new concept. He exported not only the name of the museum but also parts of its

⁴This is of course strongly related to the Baumol and Bowen (1966) cost disease. See also Towse (1997).

⁵See the paper by Gergaud and Ginsburgh in this volume as well as Frey and Busenhardt (1996).

collections (on the Guggenheim Bilbao, see Plaza 2006, Plaza et al. 2011). This is also the case of the Tate Gallery, which delocalised part of its collections to Liverpool and St Ives, during the 1980s. Centre Pompidou created an outpost in Metz, as Laurent Le Bon, its associate director, “wants to show that a Matisse seen in a room in Paris may not have the same flavor in Metz” (*The Art Newspaper (TAN)*, November 2008, p. 30). The Louvre built a satellite in the northern city of Lens (*TAN*, February 2010, p. 13). The London Victoria and Albert Museum analyses the possibility of an expansion in Blackpool (*TAN*, January 2009, p. 1). The Guggenheim Bilbao considers building a branch near Guernica, 40 km east of Bilbao (*TAN*, November 2009, p. 1). A rather more complex situation arises when part of a museum collection migrates to another country. In this case, the increase of (foreign) demand links to international trade issues. The opening of the Louvre (together with other French museums, but under the Louvre brand name) in Abu Dhabi “may well be the biggest cultural transaction in history”. France will receive one billion Euros over 30 years for loaning 750 works (*TAN*, June 2008, p. 13). The British Museum, together with Tate, the V&A, the British Library, the natural History Museum and the Royal Botanic Gardens at Kew, is encouraged to forge ties with Asia and Africa. Though Neil MacGregor from the British Museum (at that time) is more careful than Henri Loyrette from the Louvre, he claims “nowadays, you can’t have a domestic policy, at least in London, without a foreign policy” (*TAN*, May 2008, pp. 32–34). And German museums in Berlin, Munich and Dresden have entered into a collection-sharing agreement with Dubai, though there seems to be no money involved in this case (*TAN*, June 2008, p. 13).⁶ During the last years, many universities have exported part of their knowledge and faculty to other countries. It may be worth analysing whether similar arrangements could work for well-known opera houses and theatre companies.

(c) *Broadcasting events in real time* As mentioned earlier, people want to see originals and not copies. And some opera houses (and theatres) have taken the idea on board, but instead of sending their artists to foreign countries, they film their performances and broadcast them in real time. This gives almost the impression that, though the performance is only shown on a big screen, one feels being at the very audience of the Met in New York or of the Théâtre Royal de la Monnaie in Brussels. This is further discussed in some depth in Bakhshi’s and Hambersin’s chapters, in this volume. In a couple of years, some advanced technology will certainly make it possible for every viewer/listener to have the impression that he/she is sitting next to Anna Netrebko during her arias.

Most moves described above and in Part IV of our book certainly go in the right direction to increase and deepen audiences. Whether they are welfare improving has to be examined. But clearly education is the most important determinant, and the teaching of culture should be reinforced and often reintroduced in the programmes of most schools. This would need more public investment in

⁶See Ginsburgh and Mairesse (2013).

education, but in the long run, the increasing audiences that are likely to result would probably allow decreasing subsidies to the arts.

Outline of Book

In this book, the reader will find a variety of issues, starting from some more technical problems such as how to measure equity in access to the arts and how this problem is related to social inclusion. It then proceeds to an analysis of specific art sectors (music, cinema, heritage) and considers the related topic of cultural travel. Finally, the presentation of some prospective tools, trends and policies targeted at increasing engagement with the arts and at driving innovation and economic development are presented at the end of the book.

The topics are organised into four parts. Part I is dedicated to measurement of participation in the arts, with a special focus on the factors that encourage or prevent people from getting engaged, and on how participation in the arts can contribute to social inclusion. Chapter “European Statistics on Participation in the Arts and their International Comparability” by O’Hagan shows how participation is conceptualised and measured in European statistics. There are many issues that affect the international comparability of results derived from those sources. National sources of statistics on participation are explored in Chapters “Measuring Participation in the Arts in Spain” and “Measuring Participation in the Arts in Italy”. Ateca-Amestoy and Villarroya discuss the various sources that exist in Spain and summarise some of the contributions by Spanish researchers who used these data, pointing out the diversity of research topics and some open questions. Cicerchia presents the main source of statistical information in Italy, with a detailed description of methodological issues and a discussion on how statistics offices deal with recent trends, such as the blurred distinction between consumers and producers, the relevance of new information and communications technologies (ICTs) or the huge opportunities to access digital cultural goods. Obvious differences in participation rates appear by age, sex and location. The best predictor for explaining individual participation is explored by O’Hagan in Chapter “Attendance at/Participation in the Arts by Educational Level: Evidence and Issues”. Using data from the United States and for a sample of European countries contained in Eurobarometer 233, he explains attendance at the arts and active engagement by means of artistic practices. Not surprisingly, education is the best predictor for participation. Each of the chapters points out the limitations of measurement and analysis of arts engagement using available data. In Chapter “Measuring Participation or Participating in Measurement? The Cautionary Tale of an Accidental Experiment in Survey Accuracy”, Lunn shares his scepticism and caveats about what is being measured and how, using the data collection processes in Ireland; he raises the problem of selection bias due to who accepts to participate in the surveys. The last chapter in Part I by Martorana, Mazza and Monaco considers the individual and social impact of participation in the arts and discusses its usefulness as a tool for individual improvement and social cohesion.

Part II of the volume gathers sectorial analyses of participation in Europe, combining approaches and raising questions related to how humans react to art experiences, differences in audience profiles and motivations, links between cultural industries and audience tastes, public planning of art infrastructures, partnerships and multi-product orientation in artistic organisations. The chapters are grouped according to the sector they analyse. The opening chapters are on music. Chapter “Musical Rhythm Embedded in the Brain: Bridging Music, Neuroscience, and Empirical Aesthetics”, by Nozaradan, overviews the effect of music exposure on the brain, presenting and interpreting medical findings on the reactions that humans experience when exposed to music. Neuroscience will certainly provide us with many new insights about the drivers and effects of participation in the arts. Menger analyses the audiences for contemporary music in France in Chapter “Contemporary Music and its Audience. A Tale of Benevolent Asceticism?”. The diversity of profiles leads to reflections about the effects of commitment or exposure to novelty and different attitudes to risk. Chapter “Looking Into the Profile of Music Audiences” by Fernández-Blanco, Perez-Villadoniga and Prieto-Rodriguez uses data for Spain to characterise different consumer profiles. They find supportive evidence for the “omnivoreness” hypothesis and show that education is the best predictor not only for music consumption but also for other genres consumed by the individual.

Participation in the arts is not only determined by consumers’ decisions but also by supply-driven factors. Chapters “The Evolution of Theatre Attendance in Italy: Patrons and Companies”, by Castiglione and Infante, and “Raiders of the Lost Ark. A European Market for European Movies?”, by Fernandez-Blanco and Gutierrez-Navratil, explicitly consider the role of public institutions for theatre demand and the role of the production sector in the European movie market. Hence, authors not only consider consumers’ profiles to characterise attendance but bring into the discussion some arguments related to differences in supply and to the national structure of the market for movies in different European markets.

Heritage and museums are among the most popular ways of accessing the arts. This is also related to cultural travellers’ motivations and behaviours and influences where to locate such institutions and what kind of services they can offer to attract visitors. Chapter “A Geographical Approach to ‘Smart’ Location of Museums” by Suarez and Mayor discusses the factors that determine where museums and other major facilities should be located. Recent insights and tools of economic geography applied to cultural infrastructures are applied, together with the suitability of considering that culturally rich locations are also attractors of talent (or creative classes). Museums need services to increase attendance and to build wider and better-engaged audiences. These are surveyed in Chapter “New Lines of Action for Museums” by Fondevilla Guinart. Some of these services are further complemented with the vision of Chapters “Public Private Partnership for the Enhancement of Heritage. The Case of the Benedictine Monastery of Catania”, by Mannino and Mignosa, and “The Multi-product Nature of the Firm in the Arts Sector: The Case of ‘Centro Zo’”, by Cellini, Martorana and Platania. These are two cases studies

conducted in Sicily which illustrate the ways university researchers and managers of art institutions can collaborate.

Part III contains two chapters on cultural travellers. In Chapter “Evaluating the Efficiency of Cultural Travel Destinations: A DEA Approach”, Herrero-Prieto tries to understand why some Spanish regions or cities are preferred by travellers and are more efficient in attracting them than others. Chapter “An Empirical Investigation of Cultural Travellers Preferences and Behaviours in a Destination with Mixed Environmental Features” by Guccio, Levi Sacerdotti and Rizzo analyses the behaviour of such travellers in Italy.

The role of new technologies is the main topic of Part IV. Preferences and behaviours elicited by using traditional valuation methods (based on observed preferences, on travel costs or on stated preferences as in contingent valuation) can be complemented nowadays with the analysis of user-generated digital data. Digitisation is probably one of the biggest disruptive changes in the arts sector and in the media industries. This has affected not only what consumers enjoy, but also goods and services themselves, and the way they are produced and distributed by art organisations. Bakhshi, in Chapter “Digital Research and Development in the Arts”, provides a general view of digital innovation, changes in artistic institutions and tools to promote wider and more engaged artistic audiences. He discusses past experiences and analyses performed by Nesta on different art institutions in England. The richness of information contained in big datasets of user-generated content can be used to manage cultural destinations in a better way.

In Chapter “Implementation of Tracking Technologies for Temporal and Spatial Management of Cultural Destinations: Hong Kong as an Example”, Shoval and McKercher describe some tools aimed at collecting and analysing relevant data. A special chapter is dedicated to the Internet itself, with a review prepared by Handke, Stepan and Towse who discuss the effects on the provision and consumption of cultural content. Internet and digitisation are said to create new opportunities for art institutions to engage new audiences and create new cultural goods whose consumption might encourage young audiences to also participate at traditional artistic manifestations. In Chapter “Classical Music: New Proposals for New Audiences”, Hambersin explores new typologies of music audiences, new trends in consumption and opportunities for music institutions. Together with the digital and ICT tools, more traditional variables such as location, programmes and environment of the performances are considered. Borowiecki and Prieto-Rodriguez (Chapter “The Cultural Value and Variety of Playing Video Games”) examine video gaming. Using data from Denmark, the authors establish typologies of video gamers based on the genres of games they play and describe the cultural habits of these types in their attendance at more traditional forms of art. They find that video gamers also consume more other arts (reading, museums, music and theatregoers) than those who are not interested in video games.

The collection, analysis and interpretation of data is revisited in Chapter “Measuring the Economic Effects of Events Using Google Trends” by Gergaud and Ginsburgh. They also suggest working with user-generated content to quantify and analyse the impact of cultural events, since other traditional methods for impact assessment of cultural infrastructures or events are either difficult to use or lead to biased results.

The volume ends with two overview chapters that relate participation in the arts with two important questions: funding and innovation. Chapter “Are Less Public Funds Bad? New Strategies for Art Providers”, by Cuccia, Monaco and Rizzo, puts into perspective funding resources at different administrative levels. Generalised cuts in public funding have led cultural institutions not only to become more multi-product (as discussed in Chapter “The Multi-product Nature of the Firm in the Arts Sector: The Case of ‘Centro Zo’”) but also to explore and create new business models. Chapter “Arts, Culture and Creativity as Drivers for Territorial Development, Innovation and Competitiveness”, by Plaza and Haarich, presents the framework of creative and cultural regional innovation policies, contributing to analysing how the arts can improve territorial development.

This volume is the result of a research project funded by the EACEA within the Culture Programme 2007–2013 of the European Union, with the participation of scholars from different fields, managers, technicians and practitioners in different countries (Belgium, Denmark, France, Germany, Great Britain, Ireland, Israel, Italy and Spain). Obviously, it would not have been possible without the generous EU grant.

The collaborative nature of the project is the main reason why many chapters are joint contributions that were written throughout the project. This mix of perspectives and topics implied that sometimes the inclusion of a particular chapter in one or other part was difficult to decide. In particular, papers in Part IV on new strategies and technologies could have been included both in Parts II or III as well.

The editors would like to express their thanks to all those, people and institutions, who made this book possible including the EACEA for their financial support.

Victoria M. Ateca-Amestoy
 Victor Ginsburgh
 John O’Hagan
 Isidoro Mazza
 Juan Prieto-Rodriguez

References

- Arendt, H. (1968). The crisis in culture. In H. Arendt (Ed.), *Between past and future*. New York: Viking Press.
- Baumol, W., & Bowen, W. (1966). *Performing arts: The economic dilemma*. New York: The Twentieth Century Fund.

- Becker, G., & Tomes, N. (1986). Human capital and the rise and fall of families. *Journal of Labor Economics*, 4, S1–S39.
- Bergonzi, L., & Smith, J. (1996). *Effects of arts education on participation in the arts*. Santa Ana, CA: National Endowment for the Arts.
- Bresler, L. (Ed.). (2007). *International handbook of research in arts education*. Springer International Handbooks of Education.
- Champarnaud, L., Ginsburgh, V., & Michel, P. (2008). Can public arts education replace arts subsidization? *Journal of Cultural Economics*, 32, 109–126.
- European Commission. (2016). *Horizon 2020- Work Programme 2016–2017 (1.3. Europe in a changing world – inclusive, innovative and reflective societies)*. Brussels: European Commission Decision C(2016)4614 of 25 July.
- Fernandez-Blanco, V., Orea-Sánchez, L., & Prieto-Rodríguez, J. (2013). Endogeneity and measurement errors when estimating demand functions with average prices: An example from the movie market. *Empirical Economics*, 44(3), 1477–1496.
- Fiske, E. (1999). *Champions of change: The impact of the arts on learning*. Washington, DC: Arts Education Partnership.
- Frey, B., & Busenhardt, I. (1996). Special exhibitions and festivals. In V. Ginsburgh & P.-M. Menger (Eds.), *Economics of the arts*. Amsterdam: Elsevier.
- Ginsburgh, V., & Mairesse, F. (2013). Issues in the international market for cultural heritage. In I. Rizzo & A. Mignosa (Eds.), *A handbook of the economics of cultural heritage*. Cheltenham: Edward Elgar.
- Harlow, B. (2014). *The road to results. Effective practices for building arts audiences*. New York: Bob Harlow Research and Consulting.
- Lévy-Garboua, L., & Montmarquette, C. (2011). Demand. In R. Towse (Ed.), *A handbook of cultural economics* (2nd ed., pp. 177–189). Cheltenham: Edward Elgar.
- McCarthy, K., Onddaatje, E., Zakaras, L., & Brooks, A. (2004). *Gifts of the muse: Reframing the debate about the benefits of the arts*. Santa Monica, CA: Rand Corporation.
- National Economic and Social Forum. (2007). *The arts, cultural inclusion and social cohesion* (Report No. 35). Dublin: NESF.
- Plaza, B. (2006). The return on investment of the Guggenheim Museum Bilbao. *International Journal of Urban and Regional Research*, 30, 452–467.
- Plaza, B., Gonzalez-Flores, A., & Galvez-Galvez, C. (2011). Testing the employment impact of the Guggenheim Museum Bilbao via Tourism Satellite Accounts. *Tourism Economics*, 17, 223–229.
- Rosen, S. (1981). The economics of superstars. *American Economic Review*, 71(5), 845–858.
- Seaman, B. (2006). Empirical studies of demand for the performing arts. In V. Ginsburgh & D. Throsby (Eds.), *Handbook of the economics of art and culture* (Vol. 1, pp. 453–459). Amsterdam: North Holland.
- Throsby, D. (1994). The production and consumption of the arts: A view of cultural economics. *Journal of Economic Literature*, 32, 1–29.
- Towse, R. (1997). *Baumol's cost disease, the arts and other victims*. Cheltenham: Edward Elgar.
- Vargas Llosa, M. (2015). *Notes on the death of culture: Essays on spectacle and society*. New York: Farrar, Straus & Giroux.

Contents

Part I Measurement of Participation in the Arts

European Statistics on Participation in the Arts and Their International Comparability	3
---	----------

John O'Hagan

Measuring Participation in the Arts in Spain	19
---	-----------

Victoria Ateca-Amestoy and Anna Villarroya

Measuring Participation in the Arts in Italy	35
---	-----------

Annalisa Cicerchia

Attendance at/Participation in the Arts by Educational Level: Evidence and Issues	51
--	-----------

John O'Hagan

Measuring Participation or Participating in Measurement? The Cautionary Tale of an Accidental Experiment in Survey Accuracy	67
--	-----------

Pete D. Lunn

Participation in the Arts and Social Inclusion in Disadvantaged Neighbourhoods	79
---	-----------

Marco Ferdinando Martorana, Isidoro Mazza, and Luisa Monaco

Part II Sectorial Analyses of Participation in the Arts in Europe

Musical Rhythm Embedded in the Brain: Bridging Music, Neuroscience, and Empirical Aesthetics	99
---	-----------

Sylvie Nozaradan

Contemporary Music and Its Audience: A Tale of Benevolent Asceticism?	115
--	------------

Pierre-Michel Menger

Looking Into the Profile of Music Audiences	141
Victor Fernandez-Blanco, Maria J. Perez-Villadoniga, and Juan Prieto-Rodriguez	
The Evolution of Theatre Attendance in Italy: Patrons and Companies	155
Concetta Castiglione and Davide Infante	
Raiders of the Lost Ark: A European Market for European Movies?	171
Víctor Fernandez-Blanco and Fernanda Gutiérrez-Navratil	
A Geographical Approach to ‘Smart’ Location of Museums	191
Patricia Suárez and Matías Mayor	
New Lines of Action for Participatives Museums	199
Imma Fondevila Guinart	
Public Private Partnership for the Enhancement of Cultural Heritage: The Case of the Benedictine Monastery of Catania	207
Francesco Mannino and Anna Mignosa	
The Multi-product Nature of the Firm in the Arts Sector: The Case of ‘Centro Zo’	221
Roberto Cellini, Marco Ferdinando Martorana, and Felicita Platania	
Part III Cultural Travellers	
Evaluating the Efficiency of Cultural Travel Destinations: A DEA Approach	237
Luis César Herrero-Prieto	
An Empirical Investigation of Cultural Travellers’ Preferences and Behaviours in a Destination with Mixed Environmental Features	249
Calogero Guccio, Sara Levi Sacerdotti, and Ilde Rizzo	
Part IV The Role of New Technologies	
Digital Research and Development in the Arts	269
Hasan Bakhshi	
Implementation of Tracking Technologies for Temporal and Spatial Management of Cultural Destinations: Hong Kong as an Example	281
Noam Shoval and Bob McKercher	
Cultural Economics, the Internet and Participation	295
Christian Handke, Paul Stepan, and Ruth Towse	
Classical Music: New Proposals for New Audiences	311
Michel Hambersin	

The Cultural Value and Variety of Playing Video Games 323
Karol J. Borowiecki and Juan Prieto-Rodriguez

Measuring the Economic Effects of Events Using Google Trends 337
Olivier Gergaud and Victor Ginsburgh

Part V Funding and Innovation

Are Less Public Funds Bad? New Strategies for Art Providers 357
Tiziana Cuccia, Luisa Monaco, and Ilde Rizzo

**Arts, Culture and Creativity as Drivers for Territorial
Development, Innovation and Competitiveness 371**
Beatriz Plaza and Silke N. Haarich

Editors and Contributors

About the Editors

Victoria Ateca-Amestoy is Associate Professor at the University of the Basque Country (UPV/EHU). She served as book review editor for the Journal of Cultural Economics and is a member of the *Asociación Española de Gestores de Patrimonio Cultural*. She has worked in the design and management of cultural projects for private firms, professional associations and public administrations. Her research interests are cultural economics, behavioural economics and social indicators. She has published papers in international journals such as *The Journal of Socio Economics*, *Journal of Cultural Economics*, *Social Indicators Research* and *European Journal of Operational Research*, and she has contributed to handbooks on the economics of leisure and on the economics of cultural heritage. She has also coordinated international and national research projects on the determinants of cultural participation, on cultural statistics and on the economic and social impact of cultural projects.

Victor Ginsburgh is Honorary Professor of Economics at Université Libre de Bruxelles and former co-director of the European Center for Advanced Research in Economics and Statistics (ECARES). He is also a member of the Center for Operations Research and Econometrics (CORE), Université Catholique de Louvain, since 1972. He was visitor at Yale University, University of Chicago, University of Virginia and University of Louvain, as well as in Marseilles, Paris, Strasbourg and Alexandria (Egypt). He wrote and edited 15 books (among which *The Structure of Applied General Equilibrium*, Cambridge, MA: MIT Press, 1997, with M. Keyzer; *How Many Languages Do We Need*, Princeton University Press, 2011, with Shlomo Weber; and edited with D. Throsby the two volumes of *The Handbook of the Economics of Art and Culture*, Amsterdam: Elsevier, 2006, 2013). He is the author or co-author of over 200 papers on topics in applied and theoretical economics, including industrial organisation, general equilibrium analysis, the economics of art, culture and languages. His work has appeared in the *American Economic Review*, *Journal of Political Economy*, *Games and Economic Behavior*,

Journal of Economic Perspectives, Economic Journal, Journal of the European Economic Association, Empirical Studies of the Arts, Journal of Cultural Economics and Journal of Wine Economics.

Isidoro Mazza holds degrees from the University of Catania (Laurea), University of Maryland (MA) and University of Amsterdam (PhD). He is Full Professor of Public Finance at the University of Catania. His main research interests include cultural policies, art market, interest groups, migration, voluntary provision of public goods, fiscal federalism, voting and urban economics. He has published in international journals such as *European Economic Review*, *Journal of Cultural Economics*, *European Journal of Political Economy*, *Public Choice*, *International Tax and Public Finance*.

John O'Hagan is Emeritus Professor of Economics and Senior Fellow at Trinity College Dublin, Ireland. He was President of the Association for Cultural Economics International from 1998 to 2000. He is on the scientific committee of the European Workshop in Applied Cultural Economics, with the eighth workshop to be held in Krakow in 2017. He was Chair of a government-appointed group reviewing value for money in the allocation of Irish Arts Council expenditure, the Report of which was completed in September 2015. He has published widely in cultural economics, as well as on the Irish economy, including a 13th edition of his popular edited *Economy of Ireland* book (Palgrave London) due out in 2017.

Juan Prieto-Rodriguez is Full Professor of Economics in the University of Oviedo. His fields of specialisation are cultural, public and labour economics. His main interests in cultural economics are cultural participation and cultural industries. He is the current Executive Secretary-Treasurer of ACEI. He has published more than 60 articles in applied and theoretical economics in international journals such as *Economics Letters*, *European Journal of Operational Research*, *Industrial and Labor Relations Review*, *International Journal of Forecasting*, *Journal of Economic Psychology*, *Journal of Cultural Economics* and *Kyklos*. He was the coordinator of PUCK.

List of Contributors

Victoria Ateca-Amestoy Foundations of Economic Analysis II, University of the Basque Country (UPV/EHU), Bilbao, Spain

Hasan Bakhshi NESTA, London, UK

Karol J. Borowiecki Department of Business and Economics, University of Southern Denmark, Odense, Denmark

Concetta Castiglione University of Bologna, Bologna, Italy

Roberto Cellini Department of Economics and Business, University of Catania, Catania, Italy

Annalisa Cicerchia Italian National Statistical Institute (ISTAT), Rome, Italy

Tiziana Cuccia Department of Economics and Business, University of Catania, Catania, Italy

Victor Fernandez-Blanco Department of Economics, Universidad de Oviedo, Oviedo, Spain

Imma Fondevila Guinart MagmaCultura, Barcelona, Spain

Olivier Gergaud KEDGE—Bordeaux Business School, Talence, France

LIEPP, Sciences Po, Paris, France

Victor Ginsburgh ECARES, Université Libre de Bruxelles, Brussels, Belgium

CORE, Université Catholique de Louvain, Louvain-la-Neuve, Belgium

Calogero Guccio Department of Economics and Business, University of Catania, Catania, Italy

Luisa Fernanda Gutiérrez Navratil Departamento de Economía, Universidad Pública de Navarra, Pamplona, Spain

Silke N. Haarich Haarich Regional Research and Development, Datteln, Germany

Michel Hambersin Université Libre de Bruxelles and Royal Academy of Belgium, Brussels, Belgium

Christian Handke ESHCC, Erasmus University Rotterdam, Rotterdam, The Netherlands

Luis César Herrero Prieto University of Valladolid, Valladolid, Spain

Davide Infante University of Calabria, Cosenza, Italy

Sara Levi Sacerdotti Higher Institute on Innovation Territorial Systems (SiTI), Turin, Italy

Pete Lunn Economic and Social Research Institute (ESRI), Dublin, Ireland Trinity College Dublin, Dublin, Ireland

Bob McKercher School of Hotel and Tourism Management, The Hong Kong Polytechnic University, Hung Hom, Hong Kong

Francesco Mannino Officine Culturali, Catania, Italy

Marco Ferdinando Martorana Department of Economics and Business, University of Catania, Catania, Italy

Matías Mayor Department of Applied Economics, University of Oviedo, Oviedo, Spain

Governance and Economics Research Network (GEN), Vigo, Spain

Rimini Centre for Economic Analysis (RCEA), Rimini, Italy

Isidoro Mazza Department of Economics and Business, University of Catania, Catania, Italy

Pierre-Michel Menger Collège de France, EHESS, PSL, Paris, France

Anna Mignosa Officine Culturali, Catania, Italy

Erasmus University Rotterdam, Rotterdam, Netherlands

Department of Economics and Business, University of Catania, Catania, Italy

Luisa Monaco Department of Economics and Business, University of Catania, Catania, Italy

Sylvie Nozaradan MARCS Institute, Western Sydney University (WSU), Penrith, NSW, Australia

Institute of Neuroscience (Ions), Université catholique de Louvain (UCL), Brussels, Belgium

International Laboratory for Brain, Music and Sound Research (BRAMS), Montreal, QC, Canada

John O'Hagan Trinity College Dublin, Dublin, Ireland

Maria J. Perez-Villadoniga Department of Economics, Universidad de Oviedo, Oviedo, Spain

Felicita Platania Centro Zo, Catania, Italy

Beatriz Plaza Faculty of Economics and Business Studies, University of the Basque Country, UPV/EHU, Bilbao, Spain

Juan Prieto-Rodriguez Department of Economics, Universidad de Oviedo, Oviedo, Spain

Ilde Rizzo Department of Economics and Business, University of Catania, Catania, Italy

Noam Shoval Department of Geography, The Hebrew University of Jerusalem, Jerusalem, Israel

Paul Stepan Austrian Society for Cultural Economics and Policy Studies (FOKUS), Vienna, Austria

University for Music and Performing Arts Vienna, Vienna, Austria

Patricia Suárez Department of Economics, University of Oviedo, Oviedo, Spain

Ruth Towse Bournemouth University—Business School, Bournemouth, UK

Anna Villarroya Department of Economics, University of Barcelona, Barcelona, Spain

Part I
Measurement of Participation in the Arts

European Statistics on Participation in the Arts and Their International Comparability

John O'Hagan

Abstract This paper is devoted to establishing why reliable internationally comparable statistics on cultural participation are needed. It addresses the major and various difficulties that arise in comparing national surveys, both over time and to each other. It considers the problems that persist even with cross-national surveys for comparative purposes. Section 5 will conclude the paper with some policy recommendations.

Keywords National survey comparison • EU • Participation • Culture

1 Introduction

1.1 *Need for EU Comparative Data*

As public budgets tightened in Europe in the years following the economic recession, there has been an increased emphasis on evidence-based policy making in the cultural domain (see Arts Council of England 2013; Ministry of Education and Cultural Policy, Finland 2011). As a result, arts policy-makers seek indicators of participation in the arts, and the determinants of variation in participation rates, as a matter of some priority. Policy-makers wish to know not just the overall level and socioeconomic composition of participation rates, but also indicators of what causes variation in these rates. In particular, it is important to know what indicators of variation in participation are susceptible to policy action.

This is understandable, as governments should be concerned about how taxpayers' monies are being spent and whether or not objectives are being reached in some broadly verifiable way. For this, reliable data are needed relating to the measurement of progress in the meeting of objectives. One key objective in most countries relates to a desirable socioeconomic composition of participation and,

This is a reprint of O'Hagan, J. (2016). European Statistics on Cultural Participation and Their International Comparability. *International Journal of Cultural Policy*, 22 (2), pp. 291–303.

J. O'Hagan (✉)
Trinity College Dublin, Dublin, Ireland
e-mail: johagan@tcd.ie

with this in mind, many countries (e.g. England, Italy and Spain in Europe) carry out large national surveys to provide evidence in this regard.

Policy in the EU and its member states also needs to be evidence based and should make appropriate use of both quantitative and qualitative indicators with relevant analytical methods.¹ Moreover, member states need reliable cross-national measures. As Jowell (1998, p. 168) states:

The importance and utility to social science of rigorous cross-national measures is incontestable. They help to reveal not only intriguing differences between countries and cultures, but also aspects of one's own country and culture that would be difficult or impossible to detect from domestic data alone.

Lievesley (2001) and Madden (2004) also address this issue, outlining further reasons for good comparative transnational statistics and indicators.

The first reason they argue is to enable EU countries to gain a greater understanding of their own situation by comparing themselves with others, thus learning from one another and sharing good practice. They also argue that increased global and in particular EU integration of nation states makes internationally-focused analysis superior to nationally-focused analysis. Related to this is the argument that there exists an innate suspicion of national and potentially 'nationalistic' cultural policies, meaning that policy development can only be trusted in the context of international independent justification. Finally, they hold that the aggregation of data across countries provides a global picture, enabling design of international, including EU, initiatives informed by evidence.

1.2 Progress to Date

Thus the need for a European or international approach to this issue appears clear-cut. The development of harmonised cultural statistics is still in its infancy though. The main reason for the slow start and slow advancement of cultural statistics at EU level, according to one Eurostat official (see Skaliotis 2003), is the fact that Community competencies in the area of culture are limited. At EU level, cultural action (not cultural policy) and cultural cooperation (not cultural decisions) are talked about. Nonetheless, some progress has been made in the last 10 years with *Eurobarometer* Surveys related to culture in 2001, 2003, 2007 and 2013² and the

¹The Commission, in response to a request from member states, set up the Leadership Group on Culture Statistics (LEG) in 1997. 'One of the project's primary objectives was to harmonize statistics on cultural employment, financing and practices, these being central elements in the framing and monitoring of cultural policies' (European Commission 2001, p. 5). The conclusions and recommendations were adopted by the Statistical Programme Committee of the Commission, in 1999. See Allin (2000) for a discussion on the work of the Group.

²The *Eurobarometer* Survey Series was launched by the European Commission in 1974 and provides a regular monitoring of the social and political attitudes of the public. Today these public opinion surveys are conducted on behalf of and coordinated by DG Press and Communication

establishment of the European Social Survey.³ There is also the EU-SILC panel survey, which includes a module on social and cultural participation, and an Adult Education Survey, which includes some recommendatory questions on cultural participation.

The debate at national level though following these surveys concentrated on observed differences in cultural participation rather than to question the precision of the estimates. Skaliotis (2003, p. 19) notes for example that: “In some cases it was necessary to bring into the discussion other relevant national sources of data that would have otherwise been (almost) unknown even to national policy-makers. In this respect, international comparisons have helped to raise awareness on the existence of national data sources’ as well ‘as provide cultural policy stakeholders in the EU with comparable basic figures on cultural participation’.”⁴

A major study funded by the European Commission (2006) recommended that: ‘More work needs to be done at national and European level to adopt appropriate standards and definitions as well as to prioritize the collection of statistically sound data right across the cultural and creative sector’ (p. 4).

The latest development was the establishment in 2009 of the *Working Group European Statistical System Network on Culture* (ESSnet-Culture), co-ordinated by the Luxembourgish Ministry of Culture, the first report of which appeared in late 2012 (see ESSnet-Culture 2012). The specific objectives were to update and develop the methodology of the existing European framework for cultural statistics (see European Commission 2001) in order to favour the development of comparable cultural statistics as well as the analysis of cultural phenomena in Europe, with special emphasis on cultural funding, development of economic indicators and participation at/participation in cultural activities. It is the last mentioned of these that will be the section of interest for this paper.

(Opinion Polls Sector) and special topics are carried out at the request of the responsible EC Directorate General. Four of these surveys were devoted to cultural participation.

³The *European Social Survey* since 2001 monitors attitude change in over 30 countries. It was initiated by the European Science Foundation and the European Commission and it now has around 35 separate funders ‘dedicated to discovering more about changes in Europe’s social, political and cultural fabric’. The Commission funds the project’s overall design, coordination and control. The intent is to improve methods of quantitative social measurement in Europe and beyond, providing a means by which societies may judge themselves, at least partly. It is one of the first collaborative research projects to become a European Commission ‘Infrastructure’. Questionnaires at each round of the survey, which takes place every 2 years, cover a range of topics that tap into key issues facing contemporary Europe. The questionnaires combine continuity with change through a consistent core module and a series of rotating modules, selected via a Europe-wide competition.

⁴The Council of Europe and the European Institute for Comparative Cultural Research (ERICarts) provide web-based and permanently updated information and a monitoring system of national cultural policies in Europe. It is a long-term project, which aims to include 48 member states co-operating within the context of the European Cultural Convention.

2 Main Difficulties with Using National Surveys for Comparison Purposes

Differences can arise in participation rates when comparing national surveys and indeed cross-national surveys based on the following three factors (Schuster 2007). First, sampling errors arise due to sampling per se, rather than taking a census in each country. Second, errors arise due to having sampled poorly or inconsistently in some or all of the countries. Third, differences attributable to variations in the design of the studies can arise and lastly there can of course be real differences in participation rates.

This section will concentrate on the second and third of these issues. The first is inherent to all sample surveys and one must bear in mind that small differences between participation rates in different countries could arise solely from this factor; just like differences in say party share of the popular vote in opinion polls can be explained entirely at times by sampling error. This arises even in the case when all countries have near perfect sampling procedures. However, this of course is not the case and a major part of the problem both in using national studies and cross-national data arises from poor or inconsistent sampling techniques. As will be seen later also, major differences can be attributable to differences in the design of the various studies. As Schuster (2007) states the third source of comparison error is omnipresent and cannot be merely assumed away. They can be designed away in time but this as shall be seen later is highly unlikely due to the huge cost involved and also probably the lack of political will to do so.

Design differences arise in the following ways [see Schuster (2007) for a discussion of each]⁵: goals of study, dependent variable used, independent variables used, design of questions, population surveyed, sample size and length of reference period for activity being surveyed. Each of these will be examined briefly.

2.1 *Goals and Boundaries of Analysis*

Participation studies are not all initiated for the same reason, quite the contrary. Many of these studies claim to address policy concerns but the extent to which policy concerns actually inform the design of the survey questionnaire can often be minimal.

⁵The Wallace Foundation commissioned the Curb Center, Vanderbilt University (USA), to undertake a project on comparing participation in the arts and culture covering 35 countries and one Canadian province. The outcome of this research was Schuster (2007). The study, following on other similar studies (see for example, Jowell 1998; Lievesley 2001; Skaliotis 2003; King et al. 2004; Madden 2004, 2005; Morrone 2006; UNESCO 2012) is salutary in demonstrating the problems with such comparisons. For some countries of course no data at all may exist.

The goals in fact of any particular participation study usually turn out to be an amalgam of the goals primarily of those who commissioned the study, plus perhaps a variety of less important stakeholders. It is important therefore to understand that very different agencies are involved with different surveys, and hence have varying goals which in turn could lead to very different questionnaires and analyses of results.

What is considered as part of the arts and culture and the classification of the constituent components is at the heart of this issue. This links to the above, as the boundaries adopted will depend on the commissioning agency/agencies.

A further complication is that the boundaries can change over time, which makes comparison over time for the same country or region difficult.

The question then is what variable we are actually trying to measure and hence in time explain. In the past the emphasis was only on looking at participation of people as consumers or attendee. Hence the variable to measure is attendance at various cultural events. However, there has in recent years been an emphasis also on participation as performers or creators of culture. In this case we want to find out, for example, who played a musical instrument or performed in a choir. Another more recent development is an emphasis on the use of the internet for cultural purposes, given the huge increase in this medium for so many different purposes. The recent *Eurobarometer* survey (European Commission 2013) for example had a major section on internet access, in terms of direct use (e.g. reading a book on-line) and indirect use, namely using the internet to purchase cultural products.

This survey also illustrates one of the main points made earlier, namely how the goals are influenced by who commissions the study. In this case there was a section of the survey on access to and participation in relation to other EU countries' cultural activities to identify the extent of transnational circulation of cultural artistic output in the EU.

2.2 *Independent Variables*

A crucial issue for researchers and indeed policy-makers is what independent variables determine variation in the variable we are interested in and has the survey provided data by which the hypotheses could be tested? It is *why* people behave the way they do rather than a description of *how* they behave in such a way that is at the core of research. Does the survey allow testing of these hypotheses and if so through which questions? And can international comparisons be made then on the differences in the why of participation at the arts?

What is even more relevant perhaps is through which if any of these variables can policy-makers have an influence? Many of the variables of interest are not under the control of the policy-maker (at least in the short to medium term) and hence the question arises why study these variables, especially as the cost of ascertaining the extra data collection involved could be quite substantial.

Related to this is the variation across studies in terms of identifying barriers to participation in the arts, something of real value to policy-makers. Indeed until quite recently few studies if any addressed this issue at all, and in particular did not devote much attention to non-attendees with regard to their reasons for not attending.⁶

In terms of the relevance of the above to international comparisons, the key point as Schuster (2007, p. 126) states, is “to develop and to test hypotheses as to which characteristics of nations, in addition to all of the other independent variables that vary within a nation, are likely to explain cross-national differences in participation rates”. However, if there is huge variation across surveys, as there is, with regard to what data are gathered in relation to the various independent variables of interest, then such comparisons are not possible, no matter how much academic researchers might desire otherwise.

2.3 *Wording of Questions and Categories Chosen*

The issue here is the classification of the different constituent components of the arts and culture. For example, for the performing arts the list could run to 40 or more, from classical music, to popular music, circus, popular dance, ballet, to drama and so on.⁷ The problem is that the categories can vary enormously across national surveys. On top of this the meaning of supposedly the same category can vary across countries. For example, the word gallery can mean a place where paintings are sold in some countries to an art museum in others. In Italy people are first asked which kind of theatre performances did they see, where theatre performance is defined in the questionnaire as ‘theatre; opera; classical music performance; ballet; musical and operetta; dialect theatre; theatre for children; circus; other.’ In the English-speaking world of course theatre usually just relates to drama performances, a word probably with no direct translation into other languages.

⁶See Keaney (2008) for a good discussion of this issue and how often qualitative data are required to throw real light on barriers to non-participation, perceived and real. The recent *Eurobarometer* survey (European Commission 2013) did though include specific quantitative questions about reasons for non-attendance.

⁷In the English *Taking Part* survey, the question reads: “In the last 12 months, have you been to any of these events?” The answers are: film at a cinema or other venue; exhibition or collection of art, photography or sculpture; craft exhibition (not crafts market); event which included video or electronic art; event connected with books or writing; street arts (art in everyday surroundings like parks, streets or shopping centres) or circus (not animals); carnival, culturally specific festival (for example, Mela, Baisakhi, Navrati), play; drama, other theatre performance (for example, musical, pantomime), opera; operetta, classical music performance, jazz performance, other live music event, ballet, contemporary dance, African people’s dance or South Asian and Chinese dance, other live dance event.

Another complicating factor (see later) is whether to or not to include professional and non-professional productions (for example a child's school performance), which can make a major difference to reported participation rates.

There is also the problem of poor taxonomies being used. As Schuster (2007, p. 129) states, the "survey classifications might mix institutions (museums), activities (attending an exhibition), art forms (visual arts), and artistic products (exhibitions of paintings or events) in a single hierarchical system".⁸ On top of this, reported participation rates can vary according to the number of categories offered for each question. For example, people may merge opera and musical plays if they are not listed separately, or jazz and rock music. Thus if say rock was added in a subsequent year, the participation rate could for jazz could show a large drop.

2.4 *Population Surveyed and Timing Issues*

The first issue here is the different definition of 'adult' used in different surveys. Another issue though is sample size used, a particular problem in *Eurobarometer* surveys (see later). The bigger the sample size of course the smaller the sampling error, but there are rapidly diminishing returns in this regard. Much more important, additional sample size makes it possible to analyse subgroups within a particular population and allow the derivation of estimates that are within acceptable limits. The bigger the population of a country the more important is this type of analysis, but in the case of the *Eurobarometer* surveys almost the same sample size applies whether the country has a population of 80+ million (Germany) or Ireland (4+ million). In relation to country surveys this problem does not arise in many cases, as England, France, Italy, Spain and the US for example carry out surveys involving very large sample sizes.

There are three issues that arise in relation to timing: the frequency with which surveys are conducted, when in the year they are conducted and the period of time over which they measure participation. In relation to the first issue there is clearly great variation across countries, depending on cost considerations and the perceived importance of such data to cultural policy. This and the issue of the time of year in which the survey is undertaken are not nearly as important, though, for international comparison purposes as to what period the reported level of participation/participation relates. The Spanish survey for example lists an extraordinarily complicated array of time possibilities for attending ballet, opera, Spanish operetta and theatre.⁹

⁸For example, the "historical monuments, museums, art galleries or archaeological sites" category in the English survey reads in the Spanish questionnaire as "lugares de interés cultural" (cultural interest places). What does "cultural interest places" mean to an English speaker or indeed to a Spanish speaker?

⁹The first questions in the Spanish survey regarding "cultural participation" are: Please, could you classify your interest for each of the following activities? (where: 0 = no interest and 10 = maximum interest): . . . , Cinema, Theatre, Opera, Spanish Operetta, Ballet, Music. When did you go to

Apart from the fact that different countries use different time periods, there is a problem general to all such surveys, namely that the time period really should vary depending on the type of cultural activity. For example, as attending a theatre is a rare enough event the period of the last 12 months might suffice, whereas watching TV, reading a newspaper, listening to music the period chosen might be much shorter. The issue here though is whether or not all are using the same time period for the different cultural activities.

Another issue is that the longer the time period the more 'fuzzy' is the memory. A different but related problem is that if the period is too short, respondents might overstate participation, this being the so-called 'telescoping' effect. For example when asked how many times you have been to the theatre in the last month many often in fact report participation in a longer period. Variation with regard to this factor can lead also to differences in reported rates.

One final factor to consider is not just participation/non-participation in a certain time period but also the frequency of such. Again there is huge variation across national surveys with regard to this, making not only international comparison questionable but impossible. Very often the frequency of participation can in fact be of more relevance than a yes/no answer in relation to participation over a certain period.

3 Problems with Cross-National Surveys

While a great deal of comparative work is done on the basis of parallel data collected initially for strictly national purposes, there are many tailor-made cross-national studies: even with these as will be seen there are major problems in dealing with what Jowell (1998, p. 170) argues are "deep-routed cultural and methodological divides".

3.1 *ISSP Surveys*

Jowell (1998) provides a good resume of the difficulties encountered in international surveys, using the International Social Survey Programme (ISSP),¹⁰ one of

the . . . (Ballet, Opera, Spanish Operetta, Theatre) last? Within last 3 months; Last year; More than 1 year ago; Never or almost never. Then only if people went within last 3 months. How many times did you go to . . . (Ballet, Opera, Spanish Operetta, Theatre) within the last 3 months? Finally, only if you went to the theatre last year: in relation to the last time that you went to the theatre: On which day of the week was it? What kind of admission did you use?

¹⁰The International Social Survey Programme (ISSP) is a continuous programme of cross-national collaboration running annual surveys on topics important for the social sciences. The programme started in 1984 with four founding members—Australia, Germany, Great Britain, and the United

the most widely used, rigorous and successful models of cross-national social surveys. Despite its high ambitions and the diligence of the researchers involved, Jowell argues that inconsistencies still abound, on a level never seen in national surveys.

In trying to achieve equivalence in multinational surveys he argues that researchers are likely to be defeated to some extent by a host of major cultural differences, among which language and idiom are just one large component. The fact is Jowell (1998, p. 170) states, “that different languages are not just equivalent means of defining and communicating the same ideas and concepts. In many respects, they reflect different thought processes, institutional frameworks, and underlying values”.

Such surveys as shall be seen later in relation to the EU-SILC surveys are he argues prone also to country-specific differences in methodological and procedural habits, even in a supposedly standardised international survey; for example, preferred modes of interviewing, different and often deeply-ingrained sampling methods, esoteric use of visual cues, different methods of training interviewees, different socio-demographic classifications, differences over acceptable response rates, and so on.

In relation to the IISP surveys the rules are uncompromising but yet in terms of what members actually do on the ground, major differences emerge. For example he outlines how the treatment of non-responses differs to such an extent that the recorded response rates in some countries are improbably high.

Another problem he highlighted is the difference in terms of the definition of ‘adult’ (see earlier). They vary markedly across countries, partly because the IISP is a self-financed survey in each country and partly because the IISP module is often incorporated into another existing survey vehicle as a cost-saving measure. Thus for example, some surveys exclude people aged over 74, others include everyone aged over 14 and others just those aged over 18.

English is usually laid down as the ISSP’s official language and every country then has to “translate the words into their own functionally equivalent words and phrases” (Jowell 1998, p. 171). In only one case at the time did a country translate back into English and continue with the process iteratively until achieving a near perfect match. Moreover because of the expense few member nations it appears employ specialist translators. As such, “some (apparently) fascinating cross-national differences may be partially, or wholly, illusory” (Jowell 1998, p. 172).

And some of these difficulties may be insuperable. For example as Jowell argues, are there ever going to be comfortable and functional equivalents in say

States—and has grown to [48 member countries](#) from all over the world in 2013. The ISSP is noteworthy in a number of ways: First, the cross-national collaboration is not ad hoc or intermittent, but continuous. Second, the programme is based on voluntary co-operation. Major decisions on modules or questionnaires, on membership or membership obligations are taken by the ISSP in common, by votes in the ISSP’s general assembly. Third, each ISSP member funds its own survey, there are no central funds. Implementation and archiving of modules are carried out in accordance with the ISSP [Working Principles](#) and the requirements for data and background variables.

Polish, Bengali or Japanese of the English phrases 'slightly agree' or 'just a bit'? So despite the best efforts of ISSP the language problems may never be overcome, partly because the involvement of each member state is self financing and hence for some the effort to standardise the language may be just too costly.

Because of the absence of central funding, it is likely also that the periods for IISP fieldwork differ widely by country, varying by up to 18 months. To cut down on expense many countries piggyback their questionnaires onto other convenient surveys that are already funded. This again is a major source of inconsistency across supposedly standardised surveys.

3.2 *EU Surveys*

Given the strong intergovernmental involvement at so many levels in the EU, some of the most harmonized statistics in the world exist for member states of the EU, especially in the sphere of economics. This one might have thought should also apply in the cultural area, which it is to a certain extent, but this does not in any way imply that there are no major problems also with survey data on culture generated at an EU level.

Schmeets et al. (2012) bring home forcefully the problems with surveys even when conducted at an EU level.¹¹ Their task was to consider the comparability of data on social and cultural participation in European surveys, paying particular attention to the source, EU-Statistics on Income and Living Conditions (EU-SILC). They also covered the European Social Survey (ESS) and the Adult Education Survey (AES), but to a lesser extent.

Their initial examination of the results from some of these surveys suggested that the differences between countries were so diverse that they could be explained only by comparison difficulties. For example, is it plausible that in Denmark only 16% visit the cinema whereas 75% do so in Latvia and Lithuania? Similar implausibly large differences were noticed in 'going to live performances' and 'visiting cultural sites'. They found even more striking differences when other aspects of the EU-SILC surveys were reviewed. In Denmark and the UK for example 99% provide help to others such as friends and neighbours or relatives in a 12-month period but only 4% in the Czech Republic and 13% in Belgium.

They do not speculate as to which country the most reliable data apply though, as the causes of the differences are so varied, including as mentioned earlier language. Besides, it is not easy to get access to national data to check the accuracy of the European data, as different questions are asked and also many countries do not carry out regular national surveys.

¹¹Eurostat data are used by researchers for comparative work (see for example Brook 2011), noting caveats but still proceeding to draw perhaps unjustifiably firm conclusions from them.

Although they did not look at the *Eurobarometer* surveys, equally implausible findings emerge. For example, is it really believable that only 9% of adults in Portugal had not been at a performance of a ballet, dance or opera in the previous 12 months, whereas the corresponding figures for Denmark and Germany were 27% and 19% respectively? Likewise, is it believable that only 18% of adults in Poland had not been to the theatre in the previous 12 months when the corresponding figures for the Czech Republic and the UK were 44% and 41% respectively? And again in relation to cinema participation is it believable that only 22% of adults in Bulgaria had not been to a cinema in the previous 12 months when the corresponding figures for Denmark and Ireland were 69% and 66% respectively. Differences of this scale between broadly similar countries cannot be due to real differences in participation but due to the other factors listed earlier.

Apart from the distributions, Schmeets and Huynen (2010) and Schmeets et al. (2012) also found implausible variations in correlations between participation levels and background socioeconomic characteristics in these surveys.

One obvious explanation for these implausible results they argue is the framing of the questions (echoing again the earlier concerns of Jowell 1998). The first thing they looked at was how the questions were phrased and for this they had to carry out their own extensive translations. For the sample of 15 countries for which they had satisfactory translations, the number of identical questions they found for the following were: going to cinema, 14; going to a live cultural performance, 10; visits to a cultural site, 7. Thus in the last case we are not even comparing results from the same question in almost half of the countries surveyed, even though the survey is EU sponsored and conducted at an EU level.

This difficulty could be compounded, or lessened, as exact information concerning interviewer instructions was not available to the researchers. It might therefore be the case that a sentence may not be specified in the questionnaire, whereas the interviewer still has to read this particular question aloud from an instruction sheet. Consequently, as the authors state the questions could be more similar or even more different than their preliminary analysis indicated.

Let us take the question relating to the number of times people go to a live cultural performance, provided by either amateurs or professionals. The instruction was that going to such events to watch one's own children should be included, whereas own participation should be excluded. Ten of the fifteen countries had a very similar question. However, in France the instruction was explicitly to exclude events where one's own children were performing. In Finland, Norway and Austria other questions were used, and the question was constructed out of sub-questions in all three. In Austria for example, a list of possible types of live cultural performances is given, with individuals asked to tick opposite each one, thereby almost certainly increasing overall participation as more performances will be remembered using such prompts.

The next potential problem is the data-collection mode. There is in fact a substantial variation in the data collection modes across countries in the EU-SILC. Some use CATI (computer assisted *telephone* interviews) whereas others

use CAPI (computer-assisted *personal* interviews). Others used PAPI (paper and pencil interviews) and CAWI (computer-assisted *web* interviews).

They illustrate the striking differences than can emerge using the same questions but different modes of data collection, using an example they encountered in the Netherlands. Between 2005 and 2006 the mode for a major survey there changed from CAPI to CATI. In relation to the question percentage of people who volunteer, the figure rose from 43% in 2005 to 54% in 2006, back to 43% in 2007 when they reverted to the CAPI method. They attempt to explain this in terms of differences in coverage effects and non-response bias between the two methods.

In relation to the EU-SILC surveys their research showed that countries which use CATI show substantially higher participation rates on all 16 social and cultural activities in comparison to the CAPI/PAPI countries, even when adjusted for differences in the phrasing of questions. Their key argument for the higher figures for the CATI countries is that people with fixed landlines and disclosed telephone numbers are much more likely to be involved in society than those not fitting into this category. Further factors they suggest are that some countries use interviews by proxy and that the response rate can vary substantially across countries.

The authors conclude by arguing that most of these problems could be overcome by much more input harmonization, as with the European Social Survey (ESS). The latter is an example of an input-harmonised survey, with identical questions, sampling and response targets they point out. However, standardisation can be very costly and be resisted by many countries, especially in the cultural domain, which as noted earlier is seen by many countries as the preserve of national and not EU policy-makers and statistical bodies.

On top of this of course is the sample size in each country, around 1000, discussed earlier. This is far too small a sample to carry out any in-depth analysis as once the subsamples fall below 500 or so the margin of error rises dramatically. It is difficult to understand, apart from political concerns, why such a uniform sample size is applied to such vastly differing population levels, thereby undermining the truly cross-national dimension to the surveys.

4 Concluding Comments

While the above may appear as a withering critique of international comparisons of cultural participation, it has to be recognised that very significant progress at an EU level has been accomplished in the last 15 years or so, with the recent ESSnet-Culture Report (2012) being another major step in the move to harmonised and reliable European statistics. Data that are comparable enough to reach any firm policy or research conclusions though are still into the future but progress is being made and the key thing is to learn from each step of the process. The words of Jowell (1998, p. 173) are even more apt today than 15 years ago, namely that “the unique and largely intractable measurement difficulties faced by cross-national studies are hardly a reason for abandoning them. They are far too important for

that and are becoming more so with globalization of the world economy and moves in Europe towards cross-national governance”.¹²

Jowell (1998) and Madden (2004, 2005) in particular have offered wise advice as to how to progress in the meantime, with suggested ‘rules’ which are particularly relevant for participation in arts and culture data.

The *first* recommendation is to be very circumspect about any findings until reliable cross-country data can be generated.

The *second* recommendation, and of particular relevance to EU studies, is do not generate data for too many countries. The EU understandably perhaps given the nature of the project generate data for all member states, no matter how small or large. This is a particular problem for surveys on culture because the sample size used for the larger countries is then much too small and more important the language/translation difficulties looked at earlier in relation to cultural activities become almost insurmountable.

Six of the large EU countries, France, Germany, Italy, Poland, Spain and the UK account for 80% of the EU population but only around 25% of the sample used for *Eurobarometer* for example. Would it not be better to consider conducting a single large survey covering these countries every 4/5 years, thereby capturing cultural practices of the vast majority of the EU population, with small very general surveys for each of the smaller countries? The near ‘obsession’ with having data for every country really dilutes the quality of many research reports, as the scope and detail tend to be much more limited. Besides, using just the six large member states for the bigger surveys reduces hugely the language and translational difficulties associated with surveying 28 countries with a similar number of languages.

The *third* recommendation is that there needs to be stringent and well-policed rules for the conduct of the surveys. This will be impossible perhaps to achieve until the surveys are centrally funded, something that is unlikely to happen for the foreseeable future. Central funding would imply much better control of standards and also allow such surveys draw on the vast translation facilities available already at an EU level to overcome so many of the problems outlined earlier in relation to language.

The crunch issue is whether or not policy-makers appreciate the use of these surveys, given that cultural policy as already mentioned a few times is conducted almost exclusively at national and not EU level. There is even a problem in this regard within states, where for example in the UK the major survey in relation to cultural activities applies only to England, with separate arts councils existing for each other regions.

In the meantime there are many large national surveys to examine, but again language is the problem. Given that English has become the *lingua franca*, much is

¹²The National Endowment for the Arts (NEA) in Washington DC has commissioned surveys on participation in the Arts in the United States for more than 30 years. They have also commissioned many studies to examine the determinants of variation in participation/participation rates in various art forms.

written and known about participation studies in England and the US, much less though about the very large participation studies undertaken for example in France, Italy and Spain in particular. Much could perhaps be learned from comparing these studies, in a way that is fully cognisant of the comparability difficulties alluded to in this paper. This may be too much to be hoped for as in the meantime each country will probably continue with their own large survey work and analysis largely independent of the work in other countries.

This will allow these countries to continue to provide evidence on outcomes in terms of participation of the expenditure of taxpayers' monies, but none of the advantages outlined earlier of having reliable comparative EU data on cultural participation can be realised. Moreover, there is an increasing need for evidence in relation to cultural objectives at an EU level, and funded by EU money. How can we know without evidence whether or not the objectives of the 2007 Cultural Programme, with a budget allocation of 400 million euros, are being achieved? The *Eurobarometer* surveys are intended to provide some such evidence, but will continue to be deficient in terms of cross-country reliability until some of the key problems identified above are more fully addressed.¹³

Acknowledgements I wish to thank Concetta Castiglione and Victoria Ateca-Amestoy for assistance with translation of parts of the Italian and Spanish surveys alluded to in the paper. I also wish to record that the work for this paper greatly benefitted from participation in a project on Assessing Effective Tools to Enhance Cultural Participation (PUCK) funded by the Education and Culture DG of the European Commission under its Culture Programme. The current version of the paper benefitted greatly from the comments of two anonymous referees for the journal from which this article is reproduced.

References

- Allin, P. (2000). The development of comparable European cultural statistics. *Cultural Trends*, 10 (37), 65–75.
- Arts Council of England. (2013). *Great art and culture for everyone*. London: Arts Council of England.
- Brook, O. (2011). *International comparisons of public engagement in culture and sport*. London: Department for Culture, Media and Sport.
- ESSnet-Culture. (2012). *European statistical network on culture: Final report*. Luxembourg: Eurostat.
- European Commission. (2001). *Cultural statistics in the EU. Final report of the LEG* (Working Paper 3.2001. No. 1). Luxembourg.
- European Commission. (2006). *The economy of culture in Europe*. Brussels: European Commission.

¹³UNESCO has made valiant attempts to provide guidelines for the comparable measurement of cultural participation but even more difficult problems are faced by researchers there, given the vast array of countries which are members of UNESCO. Nonetheless, Morrone (2006) and UNESCO (2012) provide useful general frameworks for the measurement of cultural participation, not least an survey on international case studies of surveys of cultural participation.

- European Commission. (2013). *Cultural access and participation* (Special Eurobarometer 399). Brussels: European Commission.
- Jowell, R. (1998). How comparative is comparative research? *American Behavioral Scientist*, 42(2), 168–177.
- Keaney, E. (2008). Understanding arts audiences: Existing data and what it tells us. *Cultural Trends*, 17(2), 97–113.
- King, G., Murray, C. J. L., Salomon, J. A., & Tandon, A. (2004). Enhancing the validity and cross-cultural comparability of measurement in survey research. *American Political Science Review*, 98(01), 191–207.
- Lievesley, D. (2001). Making a difference: A role for the responsible international statistician. *Journal of the Royal Statistical Society: Series D (The Statistician)*, 50(4), 367–406.
- Madden, C. (2004). *Making cross-country comparisons of cultural statistics: Problems and solutions* (Working Paper No. 2). Australia Council for the Arts.
- Madden, C. (2005). *Statistical indicators for the arts* (D’Art Report 18). International Federation of Arts Councils and Culture Agencies (IFACCA).
- Ministry of Education and Culture. (2011). *Effectiveness indicators to strengthen the knowledge base for cultural policy*. Helsinki: Ministry of Education and Culture.
- Morrone, A. (2006). *Guidelines for measuring cultural participation*. Montreal: UNESCO Institute for Statistics.
- Schmeets, N., & Huynen, B. (2010). Social and cultural participation in EU-SILC and the problem of output harmonization. In *Proceeding of Q2010 – European Conference on Quality in Official Statistics*. Helsinki.
- Schmeets, N., Kloosterman, R., & Huynen, B. (2012). Measuring social and cultural participation in European surveys. In *ESSnet-Culture* (pp. 419–430).
- Schuster, M. (2007). Participation studies and cross-national comparison: Proliferation, prudence, and possibility in the arts and culture. *Cultural Trends*, 16(2), 99–196.
- Skaliotis, M. (2003). *Key figures on cultural participation in the European Union*. Eurostat, Unit E3.
- UNESCO. (2012). *Measuring cultural participation. 2009 UNESCO framework for cultural statistics handbook n° 2*. Montreal: UNESCO Institute for Cultural Statistics.

John O’Hagan is Emeritus Professor of Economics, and Senior Fellow, at Trinity College Dublin, Ireland. He was President of the Association for Cultural Economics International from 1998 to 2000. He is on the scientific committee of the European Workshop in Applied Cultural Economics, with the eight workshop to be held in Krakow in 2017. He was Chair of a government-appointed group reviewing value for money in the allocation of Irish Arts Council expenditure, the Report of which was completed in September 2015. He has published widely in cultural economics, as well as on the Irish economy, including a 13th edition of his popular edited *Economy of Ireland* book (Palgrave London) due out in 2017.

Measuring Participation in the Arts in Spain

Victoria Ateca-Amestoy and Anna Villarroya

Abstract This chapter provides an overview of the primary sources of statistical information available on cultural participation as well as some research over the last two decades. We start by presenting alternative sources of information: official statistics provided by the Spanish National Statistics Office and by the Spanish Ministry of Education, Culture and Sport (or by the former Ministry of Culture), and international, national public opinion surveys, and regional statistics. We proceed reviewing research using the aforementioned information. We also identify some areas that deserve future attention, and conclude with a discussion of comparative issues and policy recommendations.

Keywords Cultural participation • Official statistics • Spain • Research on cultural economics • Research on cultural sociology

1 Introduction

Economic and econometric analysis is by no means the only alternative for analyzing cultural attendance from a social sciences perspective. Sociologists also make use of data on cultural participation to test hypotheses of the effect of social classes, stratification, status and identity of both individual and social behaviour, thus providing useful social classifications such as highbrow and lowbrow, or omnivore and univore cultural consumers (Chan 2010). Other social and humanities areas, such as cultural anthropology, media studies and cultural rights research also contribute to the area.

V. Ateca-Amestoy (✉)

Foundations of Economic Analysis II, University of the Basque Country (UPV/EHU), Bilbao, Spain

e-mail: victoriamaria.ateca@ehu.eus

A. Villarroya

Department of Economics, University of Barcelona, Barcelona, Spain

e-mail: annavillarroya@ub.edu

Empirical research undertaken by economists and by other disciplines relies on analyzing data derived from surveys carried out on representative samples of the population. Surveys produce the values of different variables of interest and economists use quantitative methods to analyze the patterns and, most importantly, to distinguish between simple correlations and causality if policy makers wish to use the results in order to change participation habits (Gergaud and Ginsburgh 2017; Seaman 2005; UNESCO 2012). Cultural participation has changed during the last decades, just as society and cultural goods and institutions have also changed (Balling and Kann-Christensen 2013; Ateca-Amestoy and Villarroya 2014). The *UNESCO Framework for Cultural Statistics 2009* provides a suitable framework for analysis that tries to be flexible enough to cope with continuous changes (UNESCO 2009). It was developed and national surveys around the world were reviewed in UNESCO (2012). The UNESCO framework is complemented by the European approach and the recommendations made by the *ESS-net* group on cultural statistics, which dedicated a special working group to statistics on cultural participation (Eurostat 2012).

In Spain, the evidence contained in large surveys representative of the whole Spanish population (or of people over 15 or 18) provides valuable information on cultural practice, habits, and the money or time dedicated to culture. See Herrero-Prieto (2009) for an excellent overview.

In this chapter, we present an overview of primary sources of information and research conducted on cultural participation during the last two decades (1994–2014). In Sect. 2, we briefly discuss the official statistics system in Spain, and present the main instruments for measuring cultural participation. In Sect. 3, we discuss alternative sources of information derived from international statistics, national opinion polls, and regional and municipal statistics. Section 4 offers a selection of research on cultural participation published in national or international journals and in research series. Here we concentrate on the areas of cultural economics and the sociology of culture. In Sect. 5, we conclude and identify some areas of research and policy-making that, in our opinion, deserve further attention.

2 Cultural Official Statistics in Spain

The official national statistics system in Spain provides a suitable analytical framework for the cultural sector. Some operations are directly conducted by the Ministry of Education, Culture and Sport,¹ whereas others make specific use of the general statistics collected by the National Statistics Institute (INE), such as *National*

¹The current Ministry of Education, Culture and Sport replaced in 2012 the former Ministry of Culture and the former Ministry of Education. For a description of the Spanish cultural policy system, see the Spanish profile of the COMPENDIUM of Cultural Policies and Trends in Europe (Villarroya and Ateca-Amestoy 2015).

Accounts (for the *Satellite Account on Culture*), or the *Economically Active Population Survey* (to derive estimates of cultural employment). Spanish official statistics are defined in the four-year *National Statistics Plans*; the current one covers the period 2013–2016 (BOE 2012).

Apart from statistical operations, the cultural statistics system also has some transversal operations aimed at giving access to the main indicators and results. In particular, the projects *CULTURAbase*, a databank with cultural statistics series accessible on the Internet, and the *Cultural Statistics Yearbook*, provide most of the statistical, numerical and methodological information that the Ministry produces, systematizes or disseminates. The access regime to the micro data of each of the operations depends on the unit responsible for its execution.

The many dimensions of cultural participation in Spain cannot be captured by a single survey, but through different surveys focused on participants or attendees at cultural activities, on the time and money spent on cultural goods, services as well as on the experience of individuals and households. Measures to model cultural participation in Spain come from the *Surveys of Cultural Habits and Practices in Spain* (*SCHP*), and from other surveys such as the *Household Budget Surveys* (*HBS*) or the *Time Use Surveys* (*TUS*). These three types of surveys are all widely described as suitable instruments by the *2009 UNESCO Framework*, which even incorporates a proposal of the codes to delimit what should be considered as expenditure on cultural goods or how the time devoted to cultural activities is presented (UNESCO 2009).

2.1 *Surveys of Cultural Habits and Practices in Spain*

This operation was included in the *National Statistics Plan* for the first time in its 2002–2003 annual operational plan (*NSP2001–2004*). At that time, it was a joint project by the Spanish Society of Authors and Editors (SGAE) and the Spanish Ministry, for which no periodicity had been established. The main antecedent of this operation was the *Habits of Cultural Consumption Survey* (*HCCS*) conducted in 1998 by the SGAE. The two following editions of the survey, covering 12 months in 2006–2007, and in 2010–2011, were the sole responsibility of the Spanish Ministry of Culture, already programmed as periodic operations to be done every 4 years, and included in the corresponding *NSP* (Ministerio de Cultura, 2003; 2007; 2011).

Ariño (2010) and Ateca-Amestoy and Villarroya (2014) provide a general description of the structural changes produced in the different releases of the *SCHP* and point out some problems derived from the comparison between the two editions 2002–2003 and 2006–2007, such as the different scale construction, wording of questions, as well as the categories for frequency. The analysis of the questionnaires of each of the releases, combined with the examination of indicators, cross-tabulation of results and reports accessible by *CULTURAbase* and by the *Cultural Statistics Yearbook* allows tracking the changes in what is being measured (cultural participation) as well as reflecting the changing composition of the Spanish society (Ateca-Amestoy and Villarroya 2014).

2.2 Household Budget Surveys

The *Household Budget Continuous Survey (HBCS)* covers the period 1985–2005, providing quarterly and annual information on sources and amount of household income, on expenditure on goods and services for final consumption, as well as imputed expenditures (for self-supplied services, for dwelling in own house. . .). The survey was replaced in 2006 by the *Household Budget Survey (HBS)*, which provides annual information “on the nature and destination of consumption expenses”. Expenditure on different categories on cultural goods (durables and non-durables) and services are accounted for, using the COICOP classification applied to the *HBS (base 2006)*.² The estimates for these expenditures are determined by the Ministry of Culture and are included in the *Cultural Statistics Yearbook* and in *CULTURAbase*. The unit of observation is the household; approximately 24,000 households are included per year (each household remains in the sample for two consecutive years).

2.3 Time Use Surveys

A complementary vision of monetary expenditure on cultural goods and services is to consider the time spent on the production and enjoyment of cultural experiences. According to UNESCO (2012), time use surveys prove to be particularly appropriate for measuring home-based cultural activities, such as TV watching or reading. There are two releases of the *Time Use Survey (TUS)*, corresponding to 2002–2003 and 2009–2010, both harmonized according to European standards.

According to the INE, the main objective of this survey is: “obtain information on the dimension of non-remunerated work carried out by households, the distribution of family responsibilities in the household, the participation of the population in cultural and leisure activities, the use of time by special social groups (young people, unemployed, old people, etc.) with the objective to formulate family policies and gender equality and estimate the satellite accounts in the household sector”.³ In contrast to what usually occurs with monetary expenditure on cultural goods and services, and unlike to what happens in other countries, no specific use is made of the estimates derived from the *STUS* in the Spanish Cultural Statistics System. It is surprising that indicators derived

²The methodology for the exploitation of the *HBS* “Expenditure on Cultural Consumption of the Households” is available at: <http://www.mcu.es/culturabase/pdf/metodologiaT4P4.pdf>

³The file of its inclusion in the current *Inventory of Statistical Operation* is available at: http://www.ine.es/ss/Satellite?c=TFichaIOE_C&p=1254735038414&pagename=IOEhist%2FIOEhistLayout&cid=1259931130921&L=1

The file for this statistics in the *Inventory of Statistical Operations* is available at: http://www.ine.es/ss/Satellite?L=en_GB&c=TFichaIOE_C&cid=1259931064593&p=1254735038414&pagename=IOEhist%2FIOEhistLayout

from such data are not included in the *CULTURAbase* or in the *Cultural Statistics Yearbook*.

The survey produces a very rich dataset of multi-member households that contains information on households and on individuals. Specifically, by means of the completion of a time diary, information is obtained on what activity each individual is carrying out during each daily slot of 10 min, with whom the activity is shared, whether it is carried out simultaneously with another activity, and if it is being done via the Internet. One drawback is that there is only information for 1 day, so that activities typically performed with a less than “daily” frequency are difficult to represent. There are numerous variables with zero values that are treated as “sample zeros” when undertaking the analysis of time spent.

The *Time Use Survey 2002–2003* contains information on 60,493 individuals living in 20,603 households, and turns out to be particularly interesting for cultural participation analysis since, aside from the time diary and personal files, it contains a special module for leisure activities. Information is available on an individual basis of the number of times that an individual has performed the following activities over the last 4 weeks: cinema-going, theatre- and dance-going, concerts attendance, monument visits, museum and art gallery visits, and library visits. Though not as exhaustive as the *Survey of Cultural Habits and Practices* in terms of cultural practice measurement, the fact that the information contained in the special module can be combined with the more extensive information on individual and household characteristics included in the main modules, makes it unique. Unfortunately, the module did not appear in the 2009–2010 edition of the survey. The *Time Use Survey 2009–2010* is also harmonized, and follows basically the same structure. The main difference lies in the much smaller sample size (19,295 individuals living in 9,541 households) and the way in which activities are recorded (with a 3 digit codification). The reduction in sample size makes it harder to run an analysis for restricted samples of individuals or households with special characteristics. The change in codification makes the analysis of cultural activities harder, since many of them get merged together with other uses of leisure time.

3 International, Regional and Public Opinion Polls

There is no single unified instrument for the measurement of cultural participation in Europe. The *ESS-net* provided guidelines that are followed by each country (Eurostat 2012) and Eurostat has published some pocketbooks analyzing cultural statistics in order to describe the cultural sector at the European level (Eurostat 2007, 2011).

The *EU-Statistics on Income and Living Conditions (EU-SILC)* is the EU reference source of information for income distribution and social inclusion at the European level. The survey is conducted annually and provides cross-sectional and longitudinal data (for a 4 year period) on income, poverty and living conditions. Apart from this stable ongoing structure, *ad hoc* modules exist which are developed

each year with the objective of “highlighting unexplored aspects of social inclusion”. In the year 2006, a module on ‘Social participation’ was developed for 28 European countries that included cultural participation questions. The survey contains information on participation and frequency of participation (over the last 12 months) for cinema, live performances (plays, concerts, operas, ballet and dance performances), and visits to cultural sites. The ad-hoc module for 2015 accounted for “Social and cultural participation and material deprivation”, also including information about the reasons for non-participation.⁴

Without a predefined periodicity, the EU runs public opinion surveys, called *Eurobarometers*, that provide an overview of differences on cultural access across European countries, but the samples are of small size (in general, 1000 individuals per country). As indicated by UNESCO (2009), this limits their use as reliable data sources to support policy, although they can still provide useful contextual information at country level. The following surveys exist for the last decade: in 2001, the *Eurobarometer 56.0* “ICT, Financial Services and Cultural Activities”; in 2007, the *Eurobarometer 278* “European Cultural Values”⁵; in 2013, the *Eurobarometer 399* “Cultural Access and Participation”.⁶

At the national level, the Sociological Research Centre (CIS) runs its own opinion polls and has some valuable sources of information, that frequently consist of measurements of attitudes and values that impact cultural practices. Some examples are as follows: *Study on Leisure and Reading Habits February 2003* (on newspapers, magazines, books by way of acquisition, reading, etc.)⁷; *Barometer March 2007* (internet, attitudes and values regarding illegal acquisition of cultural goods and regarding funding of the cultural sector)⁸; and *Barometer June 2009* (reading habits, attitudes, valuation of cultural policies).⁹

The problem related to the representativeness of samples at a lower than original level (national in the case of *Eurobarometer*; regional in the case of national statistics) is solved by using specific operations that consider the population being analyzed and the design of a suitable sampling method. In Spain there are some regions and municipalities that, on a regular basis or sporadically, run their own surveys. Some examples are the *Basque Survey on Cultural Habits, Practices and Consumption* (for the period 2007–2008), the *Catalan Survey of Cultural Consumption and Practices for the population aged 15 or more* (2001 and 2006) and the *Survey on Cultural Consumption and Habits in Andalusia* (2010). Catalonia has

⁴COMMISSION REGULATION (EU) No 67/2014 of 27 January 2014 implementing Regulation (EC) No 1177/2003 of the European Parliament and of the Council concerning Community statistics on income and living conditions (EU-SILC) as regards the 2015 list of target secondary variables on social and cultural participation and material deprivation. OJEU 28.1.2014.

⁵http://ec.europa.eu/public_opinion/archives/ebs/ebs_278_en.pdf

⁶http://ec.europa.eu/public_opinion/archives/ebs/ebs_399_en.pdf

⁷http://www.cis.es/cis/opencm/ES/2_bancodatos/estudios/ver.jsp?estudio=3210

⁸http://www.cis.es/cis/opencm/ES/2_bancodatos/estudios/ver.jsp?estudio=6738

⁹http://www.cis.es/cis/opencm/ES/2_bancodatos/estudios/ver.jsp?estudio=9560

also run a specific survey for the population aged 6–14 years (the *Survey of Children's Cultural Consumption and Practices 2007–2008*). At the municipal level, in 2005, the Centre for Cultural Studies and Resources (CERC) of the Barcelona Provincial Council undertook a survey of cultural habits and consumption in 17 towns in the Barcelona province, following Eurostat's guidelines. The Catalan Communication and Culture Audiences Foundation is responsible for the *Barometer of Communication and Culture* that analyzes media and cultural consumption in Catalan-speaking regions (Catalonia, Valencia and the Balearic Islands) three times a year.

4 An Overview of Two Decades of Research on Cultural Participation in Spain

Most of the research that we review here uses data derived from the *Survey of Cultural Habits and Practices in Spain*. Although the first official edition refers to the 2002–2003 period, its direct antecedent, the *Habits of Cultural Consumption Survey (HCCS)* conducted in 1998 by the Spanish Society of Authors and Publishers (SGAE), has been widely analyzed in reports (Fundación Autor 2000), monographs (Fernández-Blanco et al. 2002) as well as in scientific papers using different approaches. We start with some of the papers that analyze the evidence contained in the *HCCS*.

Researchers from economic backgrounds used these datasets to describe the characteristics of cultural consumers and to examine whether different types of cultural practices were complements or substitutes. For instance, Fernández-Blanco et al. (2002) study the profile of media consumers (cinema goers, video renters and buyers, and television watchers). The determinants of movie going as a complement or substitute to media consumption (videos or DVD) is also explored in Prieto-Rodríguez and Fernández-Blanco (2006). Collins et al. (2009) exhibit the complementary nature of video consumption and other audiovisual commodities (TV and cinema), as well as the greater capacity for discernment of video buyers with respect to video renters (due to the effect of education). In a deeper analysis of movie going, Fernández-Blanco and Prieto-Rodríguez (2003) focus on the determinants of preferences for Spanish and American movies, analyzing audience and movie characteristics for each of those groups. Taste heterogeneity is modelled by estimating a latent class model by Fernández-Blanco et al. (2009) to show that multiple segments exist in the population of moviegoers. Fernández-Blanco and Prieto-Rodríguez (2004) test models for museum attendance using a dataset derived from that same survey.

Some sociological studies also used the same survey to test for the stratification of cultural consumption and different lifestyle patterns in several domains. Their aim is to contribute to the controversy concerned with measuring cultural consumption. López-Sintas and García-Álvarez (2004) suggest using analytical tools to look for some evidence supporting the symbolic meaning of the attendance of

performing arts combined to how tastes are related to the consumers' social position. For the performing arts, using a latent class cluster model and a mixed-effects general linear model, López-Sintas and García-Álvarez (2005) establish four classes of consumers (sporadic, popular, snob and omnivores) playing three symbolic games (namely boundary-effacement, omnivorouness and distinction). They extend their analysis to other media, such as the audiovisual sector (García-Álvarez et al. 2007) or the music sector (López-Sintas et al. 2008); they also analyze the effect of local content policies on the demand for music CDs in the two Spanish regions of Catalonia and the Basque Country (Filimon et al. 2011).

The literature based on the evidence contained in the different official editions of the surveys (*SCHP*) has also pointed to remarkable findings.

Using the *SCHP 2002–2003*, Fernández-Blanco and Prieto-Rodríguez (2009) explain the determinants of visits to libraries, frequency of reading and number of books read during the last quarter. They find that cultural capital is a key factor to explain both activities, and that libraries are the main cultural infrastructure in small towns. Azuela-Flores et al. (2012a, b) estimate a nested logit model to describe movie review readers, suggesting that they are mainly educated young women without family responsibilities.

The subsequent release (*SCHP 2006–2007*) has also been used in some empirical studies. Matters related to digitizing, to illicit consumption and to the intangible nature of cultural goods that can be embodied into different cultural practices, are among the research questions. For the music sector, Montero-Pons and Cuadrado-García (2011) study live and pre-recorded popular music participation, finding some similarities across the patterns of participation for both markets (gender effects and the role of cultural capital) but also some differences (time availability, the use of technology and economic-related variables which have an asymmetric effect on participation). More interestingly, the authors confirm the existence of a positive externality from recorded music consumption to concert attendance. Herrera-Usagre (2012) investigates in depth the impact of digital file sharing on album purchases and concert attendance. The results reveal that the more albums individuals share, the more albums they purchase in physical format, and the more likely they are to attend concerts. Using a sociological approach, the author has also tries to identify what social characteristics are most influential in the segmentation of the cultural habits of Spaniards (Herrera-Usagre 2010, 2011). Access to music is also researched by López-Sintas et al. (2014); they study how the age and social position of the individual (measured education) are factors that socially structure the alternatives that an individual considers to consume music, as well as his/her motivations and observed behaviour. This allows to identify four consumers' profiles and to explain the factors that determine the adscription to one group or another.

Using the last edition available, *SCHP 2010–2011*, Ateca-Amestoy and Villarroya (2014) study digital cultural consumption and the widespread presence of the Internet, although cultural practices where already adopting forms that were not captured in the questionnaire. Montoro-Pons and Cuadrado García (2013) quantify the effect of copyright infringement on recorded music purchases and

live music attendance for Spanish frequent music consumers, and measure its effect on participation for all music consumers, showing a positive and significant effect on live attendance, a net positive effect of copyright infringement on full album purchases and a non significant one for tracks. The factors that explain attendance to live performances and how attendance relates to media participation are analyzed in Montoro-Pons et al. (2013), where different music demand segments are also identified. Fernández-Blanco et al. (2017) analyze music consumption profiles and explain the adscription to one group or the other in terms of personal characteristics. Borowiecki and Prieto-Rodríguez (2015) use data derived from this last survey to explore the demand for video games. They show that playing video games is not negatively associated with involvement in other cultural practices.

Evidence derived from the different releases of the main survey on cultural practices in Spain, highlights how research questions have been changing over time. For instance, the impact of technology has drawn the attention of researchers to analyze the complementary nature of some goods and its impact on the consumption habits of the population or to examine the effect of the digital shift on cultural institutions and habits, as Villarroya and Ateca-Amestoy (2016) for libraries. We draw some attention to the limitations of the survey and how these curtail the research questions that can be addressed. For instance, the fact that the *SCHP* is not a household survey limits those who want to consider the social dimension of cultural participation. This is important since some cultural activities are social practices: cultural preferences and habits might be transmitted via the family, and cultural equipment is often shared by all the members of the household. Apart from a special module included in the *SCHP 2010–2011* edition that considers the cultural participation of children aged 10–14 who live with the interviewee, there are no possibilities to conduct any intra-household analysis. This limitation can be overcome by using the household budget and time use surveys.

The analysis of expenditure on cultural goods and services has to be done at the household level. Papers using the data from household budget surveys have concentrated on determining the characteristics that explain variations in the composition and level of expenditure for some goods, or on performing simulations to assess the impact of alternative fiscal policies. Regarding expenditure for different cultural goods and services, Escardíbul and Villarroya (2009) use the *2004 Household Budget Continuous Survey* to estimate models that explain the determinants of household consumption of newspapers. Villarroya and Escardíbul (2010a, b) extend their analysis to museums and to books and periodicals using data from the *2005 Household Budget Continuous Survey* and the *2006 Household Budget Survey* respectively. From a more global perspective, Mañas and Gabaldón (2001) explore the evolution and internal composition of household consumption of cultural services, as well as the socioeconomic traits of Spanish households over the period 1980–1997, using the *1980–1981*, *1990–1991* and *1996–1997* editions of the *Household Budget Survey*. Using data from the *Household Budget Continuous Survey* 1985 (third quarter) to 1995 (fourth quarter), Prieto-Rodríguez et al. (2005) estimate expenditure and price elasticities of cultural goods and simulate the effect of different tax alternatives on cultural goods, finding regressive changes in welfare.

Time is the other scarce resource that individuals have to allocate to competing alternatives. Time use surveys in Spain are household surveys that have as yet remained virtually unexplored though, in our opinion, they deserve much more attention. The *Time Use Survey 2002–2003* is particularly interesting since, aside from the time diary and personal files, it contains a special module for leisure practices. Some papers exist that focus their attention on the latter issue. Muñiz et al. (2011) estimate models, using seemingly unrelated regressions, to determine the time allocation decision for cultural and sport activities; they find evidence of a complementary relationship and distinct behaviour depending on gender. The special module for social participation (participation and number of times that the individual participated in the previous 4 weeks), allows Muñiz et al. (2014) to explore the differences in gender for sports and for cultural habits. AtECA-Amestoy (2010) uses information from the time diaries and from the special module to characterize observed choices—live attendance, media consumption and active participation—as well as resource allocation issues. Another group of papers considers cultural participation indirectly in analyzing parental time allocation to activities with children. For instance, Sevilla-Sanz et al. (2010) analyze the impact of the relative position of fathers and mothers in the distribution of household chores, considering cultural activities conducted with children as educational, childcare or recreational. Gracia (2014) explicitly considers intra-household decisions and explores time dedicated by fathers and by mothers to activities as interactive childcare (for instance, reading). To our knowledge, there are no published papers that have used the data from the *Time Use Survey 2009–2010* to conduct research on cultural participation.

5 Some Insights and Challenges for the Future

Cultural participation in Spain has been the subject of a growing body of high-level scientific research that has resulted in some noteworthy findings. National researchers, together with some international colleagues, have contributed towards the global literature regarding the determinants and changing patterns of cultural participation whilst, at the same time, contributing to a better knowledge of the Spanish society. The evidence presented in this chapter has also highlighted how research questions have changed over time, under the influence of technological innovation and social needs, and how some very relevant issues still require analysis.

This is the case for the cultural participation of some population groups such as immigrants and disabled people. Although since the 2006–2007 edition, the *Survey of Cultural Habits and Practices in Spain* includes a question regarding nationality (though not country of origin) and (perceived or self-assessed) health status, empirical research has not drawn much attention to the analysis of participation of disadvantaged groups in cultural activities. In fact, the only existing empirical

research on cultural participation of immigrants does not rely on *SCHP* surveys, but on qualitative data (Santamarina 2005; Retis 2011; Huertas et al. 2013).

We should also highlight the very scarce knowledge of intra-household decision-making and on the way cultural habits and practices are informally transmitted in family. In our view, very little research has been conducted using the evidence contained in the *Time Use Surveys*, which could be especially appropriate in analyzing the everyday cultural habits of families or of particular social groups. Further analysis is obviously needed.

The difficulties of comparing the information derived from the different releases of the *SCPH* are pointed out in Ariño (2010) and in Ateca-Amestoy and Villarroya (2014). Concerns also arise with regard to international comparability of these major cultural data, as is made clear by O'Hagan (2017) and Lunn (2017). Although all official editions of the Spanish survey meet the recommendations promoted by European statistical instances (Eurostat and the *ESS-net*), this can only be considered as a first step. Aspects such as the goal of the study, the scope of analysis, the selection of dependent and independent variables, and the design of questions need to be addressed to determine the extent to which the surveys are comparable (Schuster 2007; O'Hagan and Castiglione 2010; Brook 2011), so that the forthcoming results can be jointly interpreted.

From a wider political and academic point of view, official cultural statistics in Spain suffer from some of the problems identified in the UNESCO (2012) handbook on cultural participation. First, there exists a wide gap between researchers and decision makers. For example, in the *Strategic General Plan 2012–2015* of the Secretary of Culture of Spain (Ministerio de Educación, Cultura y Deporte 2012), there is not a single reference to the officially produced statistics, no diagnosis of the starting situation, no attempt to define any indicator with which to evaluate the achievements of the plan, and non consideration of cultural statistics in any of the actions or programs to achieve the proposed aims. This leads to a second problem, namely, the underutilization of data. The rich evidence collected on a regular basis could easily be converted into a more useful tool for the design of evidence-based-policies, and for policy evaluation. For academic purposes (and we should not forget that researchers constitute a qualified group of official statisticians and econometricians who produce findings from raw data), it might be a better strategy to conduct empirical research on other countries and/or areas whose data are easier to access and more user-friendly and publish their results in international journals. Thirdly, surveys fail to include many variables that are susceptible to be controlled by policy makers; this means that it may prove hard to derive useful policy recommendations from existing data. Lastly, both statistics on cultural participation and general statistics that can be used to study cultural participation share a common problem: they do hardly cope with challenges such as digitization and the rapid emergence of new ways of producing and consuming cultural goods. Some open questions also remain, such as how to consider the social dimensions of cultural participation, how social networks can influence cultural tastes and cultural practices. Nowadays, the analysis of extensive data can complement survey data, but it may well be the case that surveys bring a more updated, accurate and richer

description of who is participating, when, how, with who and why (IPA 2013; Bakhshi 2017).

Acknowledgements The authors wish to thank participants at the Helsinki Compendium Experts Research Forum 2012 on Participation in Culture, and at the PUCK Seminar celebrated in Trinity College Dublin in 2013. This chapter is based on the presentation and discussion of the paper “Spanish surveys measuring cultural participation” prepared for the Dublin seminar on cultural statistics (September 2013). We are grateful to all the participants for their very helpful comments, particularly to Juan Prieto-Rodríguez, who acted as discussant of our work. We are also grateful to Víctor Fernández-Blanco, Nela Filimon, Victor Ginsburgh, Luis César Herrero-Prieto, Rubén Gutiérrez del Castillo, Manuel Cuadrado-García, and Juan de Dios Montoro-Pons, who provided us with very valuable information.

References

- Ariño, A. (2010). *Prácticas culturales en España. Desde los años setenta hasta la actualidad*. Barcelona: Editorial Ariel.
- Ateca-Amestoy, V. (2010, October 14). *Cultural participation patterns: Evidence from the Spanish Time Use Survey*. ESA research network sociology of culture midterm conference: Culture and the making of worlds, Milan. Accessed July 15, 2016, from <http://ssrn.com/abstract=1692024>
- Ateca-Amestoy, V., & Villarroya, A. (2014, September). *Cultural participation: An analytical exercise and sundry reflections*. Mimeo, University of Barcelona and University of the Basque Country.
- Azuela Flores, J. I., Fernández-Blanco, V., & Sanzo Pérez, M. J. (2012a). Movie reviews: Who are the readers? *ACEI Working Paper Series*, AWP-3-2012.
- Azuela Flores, J. I., Fernández-Blanco, V., & Sanzo Pérez, M. J. (2012b). The effects of critics reviews on movie demand. *Contaduría y Administración*, 57(2), 201–222.
- Bakhshi, H. (2017). Digital research and development in the arts. In V. M. Ateca-Amestoy, V. Ginsburgh, I. Mazza, J. O’Hagan, & J. Prieto-Rodríguez (Eds.), *Enhancing participation in the arts in the EU: Challenges and methods*. Cham: Springer.
- Balling, G., & Kann-Christensen, N. (2013). What is a non-user? An analysis of Danish surveys on cultural habits and participation. *Cultural Trends*, 22(2), 67–76.
- Boletín Oficial del Estado/Official State Gazette (BOE). (2012, December 8). *Real Decreto 1658/2012, de 7 de diciembre, por el que se aprueba el Plan Estadístico Nacional 2013–2016* [Royal Decree 1658/2012, of 7 of December, by which the National Statistics Plan 2013–2016 is approved]. BOE 295, 84151–84322.
- Borowiecki, K. J., & Prieto-Rodríguez, J. (2015). Video games playing: A substitute for cultural consumptions? *Journal of Cultural Economics*, 39(3), 239–258.
- Brook, O. (2011). *International comparisons of public engagement in culture and sport*. London: Department of Culture, Media and Sports and the Economic & Social Research Council.
- Chan, T. W. (2010). *Social status and cultural consumption*. Cambridge: Cambridge University Press.
- Collins, A., Fernández-Blanco, V., & Prieto-Rodríguez, J. (2009). Characteristics of buyers and renters of cultural goods: The case of movies. *Applied Economics*, 41(2), 195–210.
- Escardibul, J. O., & Villarroya, A. (2009). Who buys newspapers in Spain? An analysis of the determinants of the probability to buy newspapers and of the amount spent. *International Journal of Consumer Studies*, 33(1), 64–71.
- Eurostat. (2007). *Cultural statistics, population and social conditions pocketbooks*. Luxembourg: Publications Office of the European Union.

- Eurostat. (2011). *Cultural statistics, population and social conditions pocketbooks*. Luxembourg: Publications Office of the European Union.
- Eurostat. (2012). *ESS-net on culture statistics – Final report*, Doc.Eurostat/F/12/DSS/01/3.5 EN. Eurostat. Directorate F: Social statistics. Luxembourg: Publications Office of the European Union.
- Fernández-Blanco, V., Perez-Villadoniga, M. J., & Prieto-Rodríguez, J. (2017). Looking into the profile of music audiences. In V. M. Ateca-Amestoy, V. Ginsburgh, I. Mazza, J. O'Hagan, & J. Prieto-Rodríguez (Eds.), *Enhancing participation in the arts in the EU: Challenges and methods*. Cham: Springer.
- Fernández-Blanco, V., Orea-Sánchez, L., & Prieto-Rodríguez, J. (2009). Analyzing consumers' heterogeneity and self reported tastes: A latent class model applied to identify differences in demand. *Journal of Economic Psychology*, 30(4), 622–633.
- Fernández-Blanco, V., & Prieto-Rodríguez, J. (2003). Building stronger national movie industries: The case of Spain. *Journal of Arts Management, Law and Society*, 33(2), 142–160.
- Fernández-Blanco, V., & Prieto-Rodríguez, J. (2004). Análisis económico de los museos con una aplicación a sus visitantes en España. *Revista Asturiana de Economía*, 29, 33–59.
- Fernández-Blanco, V., & Prieto-Rodríguez, J. (2009). Análisis de los hábitos de lectura como una decisión económica. *Estudios de Economía Aplicada*, 27(1), 111–136.
- Fernández-Blanco, V., Prieto-Rodríguez, J., Gutiérrez-del-Castillo, R., & Muñiz-Artime, C. (2002). *Cinéfilos, videoadictos y telespectadores. Los perfiles de los consumidores de productos audiovisuales en España*. Madrid: Colección Datautor, Fundación Autor.
- Filimon, N., López-Sintas, J., & Padrós-Reig, C. (2011). A test of Rosen's and Adler's theories of superstars. *Journal of Cultural Economics*, 35(2), 137–161.
- Fundación Autor. (2000). *Informe SGAE sobre Hábitos de Consumo Cultural*. Madrid: Colección Datautor, Fundación Autor.
- García-Álvarez, E., Filimon, N., & López-Sintas, J. (2007). Reliable entertainment: Spanish consumer's preferences regarding a film's country of origin. *International Journal of Nonprofit and Voluntary Sector Marketing*, 12(3), 217–229.
- Gergaud, O., & Ginsburgh, V. (2017). Measuring the economic effects of events using Google trends. In V. M. Ateca-Amestoy, V. Ginsburgh, I. Mazza, J. O'Hagan, & J. Prieto-Rodríguez (Eds.), *Enhancing participation in the arts in the EU: Challenges and methods*. Cham: Springer.
- Gracia, P. (2014). Fathers' child care involvement and children's age in Spain: A time use study on differences by education and mothers' employment. *European Sociological Review*, 30(2), 137–150.
- Herrera-Usagre, M. (2010). Estratificación social y estilos de vida culturales. *Documento de Trabajo, Centro de Estudios Andaluces*, 4, 1–53.
- Herrera-Usagre, M. (2011). El consumo cultural en España. Una aproximación al análisis de la estratificación social de los consumos culturales y sus dificultades metodológicas. *Empiria. Revista de Metodología de Ciencias Sociales*, 22 (Julio–diciembre), 141–172.
- Herrera-Usagre, M. (2012). El impacto del intercambio de música sobre la compra de discos y la asistencia a conciertos. El caso de España. *Papers*, 97(4), 751–772.
- Herrero-Prieto, L. C. (2009). La investigación en economía de la cultura en España: un estudio bibliométrico. *Estudios de Economía Aplicada*, 27(1), 35–62.
- Huertas, A., Martínez, Y., & Moreras, J. (2013). *Prácticas y consumos mediático-culturales del colectivo marroquí en España*. Documento de Trabajo, Fundación Alternativas (n. 11, pp. 1–72). Madrid: Fundación Alternativas.
- Institute of Practitioners in Advertising (IPA). (2013). *The big opportunity: Audience research meets big data*. London: IPA.
- López Sintas, J., & García Álvarez, M. E. (2004). Omnivore versus univore consumption and its symbolic properties: Evidence from Spaniards' performing arts attendance. *Poetics*, 32(6), 463–483.

- López Sintas, J., & García Álvarez, M. E. (2005). Four characters on the stage playing three games: Performing arts consumption in Spain. *Journal of Business Research*, 58(10), 1446–1455.
- López Sintas, J., García Álvarez, M. E., & Filimon, N. (2008). Scale and periodicities of recorded music consumption: Reconciling Bourdieu's theory of taste with facts. *The Sociological Review*, 56(1), 78–100.
- López-Sintas, J., Cebollada, A., Filimon, N., & Gharhaman, A. (2014). Music access patterns: A social interpretation. *Poetics*, 46, 56–74.
- Lunn, P. (2017). Measuring participation or participating in measurement? The cautionary tale of an accidental experiment in survey accuracy. In V. M. Ateca-Amestoy, V. Ginsburgh, I. Mazza, J. O'Hagan, & J. Prieto-Rodríguez (Eds.), *Enhancing participation in the arts in the EU: Challenges and methods*. Cham: Springer.
- Mañas, E., & Gabaldón, P. (2001). Los servicios culturales desde la perspectiva del gasto familiar. *Información Comercial Española*, 792, 61–78.
- Ministerio de Cultura de España. (2003). *Encuesta de hábitos y prácticas culturales en España 2002–2003*. Madrid: Ministerio de Cultura.
- Ministerio de Cultura de España. (2007). *Encuesta de hábitos y prácticas culturales en España 2006–2007*. Madrid: Ministerio de Cultura.
- Ministerio de Cultura de España. (2011). *Encuesta de hábitos y prácticas culturales en España 2010–2011*. Madrid: Ministerio de Cultura.
- Ministerio de Educación, Cultura y Deporte de España. (2012). *Plan Estratégico General de la Secretaría de Estado de Cultura (2012–2015)*. Madrid: Ministerio de Educación, Cultura y Deporte.
- Montoro-Pons, J. D., & Cuadrado García, M. (2013). Empirical insights into recorded music consumer behavior and copyright infringement. In M. Deflem (Ed.), *Music and law. Sociology of crime law and deviance* (Vol. 18, pp. 245–267). Bingley: Emerald Group Publishing Limited.
- Montoro-Pons, J. D., Cuadrado García, M., & Casasús-Estellés, T. (2013). Analysing the popular music audience: Determinants of participation and frequency of attendance. *International Journal of Music Business Research*, 2(1), 35–62.
- Montoro-Pons, J. D., & Cuadrado-García, M. (2011). Live and pre-recorded popular music consumption. *Journal of Cultural Economics*, 35(1), 19–48.
- Muñiz, C., Rodríguez, P., & Suárez, M. J. (2011). The allocation of time to sports and cultural activities: An analysis of individual decisions. *International Journal of Sport Finance*, 6(3), 245–264.
- Muñiz, C., Rodríguez, P., & Suárez, M. J. (2014). Sports and cultural habits by gender: An application using count data models. *Economic Modelling*, 36, 288–297.
- O'Hagan, J. (2017). European statistics on participation in the arts and their international comparability. In V. M. Ateca-Amestoy, V. Ginsburgh, I. Mazza, J. O'Hagan, & J. Prieto-Rodríguez (Eds.), *Enhancing participation in the arts in the EU: Challenges and methods*. Cham: Springer.
- O'Hagan, J., & Castiglione, C. (2010, October 14). *European statistics on cultural attendance and participation and their international comparability*. ESA research network sociology of culture midterm conference: Culture and the making of worlds, Milan. Accessed July 15, 2016, from <http://ssrn.com/abstract=1692083>
- Prieto Rodríguez, J., Romero Jordán, D., & Sanz Sanz, J. F. (2005). Is a tax cut on cultural goods consumption actually desirable? A microsimulation analysis applied to Spain. *Fiscal Studies*, 26(4), 549–575.
- Prieto-Rodríguez, J., & Fernández-Blanco, V. (2006). El mercado del cine en España. *Cuadernos de Economía de la Cultura*, 4-5, 7–30.
- Retis, J. (2011). Estudio exploratorio sobre el consumo cultural de los inmigrantes latinoamericanos en España: el contexto transnacional de las prácticas culturales. Documento de Trabajo, Fundación Alternativas (9, pp. 1–126). Madrid: Fundación Alternativas.

- Santamarina, C. (2005). *Consumo y ocio de los inmigrantes latinoamericanos en España. Un acercamiento desde la perspectiva cualitativa. Documentos del Observatorio Permanente de la Inmigración*. Madrid: Ministerio de Trabajo y Asuntos Sociales.
- Schuster, J. M. (2007). Participation studies and cross-national comparison: Proliferation, prudence, and possibility. *Cultural Trends*, 6(2), 99–196.
- Seaman, B. A. (2005). *Attendance and public participation in the performing arts: A review of the empirical literature* (Working Paper 06–25). Andrew Young School of Policy Studies, Research Paper Series.
- Sevilla-Sanz, A., Gimenez-Nadal, J. I., & Fernández, C. (2010). Gender roles and the division of unpaid work in Spanish households. *Feminist Economics*, 16(4), 137–184.
- UNESCO. (2009). *2009 UNESCO framework for cultural statistics*. Montreal: UNESCO Institute for Cultural Statistics.
- UNESCO. (2012). *Measuring cultural participation. 2009 UNESCO framework for cultural statistics handbook n° 2*. Montreal: UNESCO Institute for Cultural Statistics.
- Villarroya, A., & Ateca-Amestoy, V. (2015). [Spain] in Council of Europe/ERICarts. (Eds.), *Compendium of cultural policies and trends in Europe* (17th ed.). Accessed July 21, 2016, from <http://www.culturalpolices.net>
- Villarroya, A., & Ateca-Amestoy, V. (2016). Changing trends in Spanish library services: Conceptualization and measurement in official statistics. *Journal of Librarianship and Information Science* (online first). doi:10.1177/0961000616664400.
- Villarroya, A., & Escardíbul, J. O. (2010a). Panorámica de la situación museística en España. In *Economía dos Museos* (pp. 73–98). Brasilia: Instituto Brasileiro de Museus, Ministério da Cultura.
- Villarroya, A., & Escardíbul, J. O. (2010b). La demanda de libros y publicaciones periódicas en España. *Estudios de Economía Aplicada*, 28(1), 1–22.

Victoria Ateca-Amestoy is Associate Professor at the University of the Basque Country (UPV/EHU). She has worked in the design and management of cultural projects for private firms, professional associations and public administrations. Her research interests are cultural economics, behavioral economics and social indicators. She has published papers in international journals such as *The Journal of Socio Economics*, *Journal of Cultural Economics*, *Social Indicators Research*, *European Journal of Operational Research*, and has contributed to handbooks on the economics of leisure and on the economics of cultural heritage. She has also coordinated international and national research projects on the determinants of cultural participation, on cultural statistics and on the economic and social impact of cultural projects.

Anna Villarroya is Associate Professor in the Department of Economics at the University of Barcelona, where she teaches different courses related to the economics of culture. Her main research interests include: cultural policies, cultural participation, and women and culture. She has taken part in several research projects funded by international (such as the Council of Europe, the World Bank or the European Institute for Comparative Cultural Research) and national bodies (such as the Spanish Ministry of Culture and the Catalan Department of Culture). Since 2010, she is vice president of the European Association of Cultural Researchers (ECURES). She has published in international journals such as the *International Journal of Consumer Studies*, *Journal of Cultural Economics* and the *International Journal of Cultural Policy*.

Measuring Participation in the Arts in Italy

Annalisa Cicerchia

Abstract Over the last two decades, cultural participation has vastly changed its modes and contents. Its measurement is undergoing a thorough revision by relevant institutions, such as UNESCO and Eurostat. Today, studies on cultural participation focus today on the *conscious* nature of the phenomenon, and on the complex and interrelated information, communication, community, enjoyment, expression and transaction aspects. The blurred distinction between consumers and producers, the relevance of new ICTs and the easy access by virtually anyone to unprecedented amounts of cultural material, all require to be taken into serious consideration by researchers. The Italian National Statistical Institute surveys, covering over 50,000 individuals, represent an interesting case for study purposes and more so in view of the future challenges.

Keywords Cultural participation • Cultural statistics • Cultural sector • Cultural activities • Measures of well-being

1 What We Measure When We Measure Cultural Participation

The definition of *cultural participation* depends largely on that of *culture*. Working on the over 150 definitions identified as far back as the 1950s by Kroeber and Kluckhohn (1952) and Zygmunt Bauman (1973) proposed a threefold distinction:

- (a) Culture as a *hierarchical concept*: one that is acquired and value-saturated, so that having “culture” is like having a badge;
- (b) a *differential* understanding of culture: there are a variety of ways to live. Culture(s) in this paradigm (the plural form here is significant) are co-extant and comparable;

A. Cicerchia (✉)
Italian National Statistical Institute (ISTAT), Rome, Italy
e-mail: acicerchia@istat.it

- (c) a *generic understanding of culture*: one that appreciates that relationships engaging people and places with plants, animals and larger eco-political systems are both actual and performative.

Measures of culture-related attitudes, behaviours, values, norms and practices need to be rooted in a clear notion of culture itself. UNESCO and Eurostat have made relevant efforts in recent years.

UNESCO (2014a, b) proposes a simplified twofold distinction:

- (a) Culture as way-of-life, values, attitudes, knowledge, skills, individual and collective beliefs (constitutive definition) and
- (b) culture as an organised sector of activity (functional definition).

UNESCO's (2009) framework for cultural statistics (FCS) defines cultural participation as including cultural practices that may involve consumption as well as activities that are undertaken within the community, reflecting quality of life, traditions and beliefs, and attendance at formal events, such as going to a movie or to a concert, as well as informal cultural action, such as participating in community cultural activities and amateur artistic productions or everyday activities like reading a book.

Cultural participation also covers both active and passive behaviour. It includes the person who is listening to a concert and the person who practices music. Cultural participation does not concern activities carried out for employment purposes; for example, cultural participation would include visitors to a museum but not the paid guide.

Eurostat. For measurement and analysis, it is crucial to acknowledge that cultural participation is a conscious act. According to the Leadership Group Culture (LEG) on cultural statistics, "there is participation in cultural activities when in any context and through any channel, with a shared general code of communication, we have senders and receivers paying much attention to forms and contents of messages to increase their own informational and cultural baggage" (European Commission 2000). For instance, passing a monument by chance while window shopping cannot be considered a conscious act of cultural participation. The element of awareness has gained importance in the past few years, with the diffusion of new forms of 'unintentional' consumption fostered by new technologies.

Moving forward from the LEG definition of 2000, the 2012 report of the European Statistical System—ESSnet Culture, a European Union-wide review and update of the LEG project, has adopted the so-called ICET model, which acknowledges four forms of cultural participation:

- (a) Information: to seek, collect and spread information on culture;
- (b) communication and community: to interact with others on cultural issues and to participate in cultural networks;
- (c) enjoyment and expression: to enjoy exhibitions, art performances and other forms of cultural expression, to practice the arts for leisure, and to create online content; and
- (d) transaction: to buy art and to buy or reserve tickets for shows.

ESSnet Culture distinguishes between attending/receiving, amateur practice, and social participation/volunteering (Eurostat 2012).

Reasons for Measuring

The two cases I have mentioned in the previous sections (UNESCO and Eurostat-ESSnet Culture) represent examples of policy-related measurement, with policy intended in a very broad sense. In the case of UNESCO, cultural policies are conceived as a tool for attaining wider development goals, while the effort of ESSnet Culture is mainly focused on the occupational, economic and social impact of the cultural sector in Europe, considered strategic by the Commission.

Policy-related measurement is generally meant to meet two possible objectives: *ex ante*, acquiring information for the design of evidence-based policies (needs, opportunities, distribution and equity issues, target groups, etc.), and, *ex post*, assessing the adequacy and effectiveness of policies and interventions. Measurement is necessary for evaluating the performance of cultural organizations, appreciating the (social) value of their activity, increasing their legitimacy and accountability (Bergamo and Cicerchia 2014; Cicerchia 2015).

Measurement of cultural participation will therefore depend greatly on the subjects who are in charge of it, and on their strategic vision, goals and targets. For instance, in a hypothetic highly conservative and patriarchal society, authorities will define the optimal women's cultural participation as different in intensity, contents and practice from that of men, while a progressive and inclusive society would orientate measurement toward minimizing the existing gender inequalities. The statistical representations of cultural participation in the two different societies would be shaped by their distinctive values and customs.

2 Surveys on Cultural Participation in Italy

2.1 Who Is in Charge

Cultural policy and policies have a significant impact on the very process of production of cultural statistics, since they underlie and orientate the public demand of data and information. In Italy, such policies are generated and implemented on three levels, almost independent of one another: municipalities, regions and the central state. With the exception of very small localities, most of the circa 8100 municipalities (half of which with less than 5000 inhabitants) and all the 20 regional administrations, are equipped with a Department of Culture of a sort, although in various and significant institutional combinations: education, heritage, research, environment, tourism, sports, youth policies, or identity.

Their variety and the differences in their activities make it advisable to address the present exercise to central state policies, rather than to local and regional

policies. This level is mainly¹ represented by the Ministry of Cultural Heritage and Activities, recently reformed and now also responsible for Tourism (*Ministero dei beni e delle attività culturali e del turismo, MiBACT*): here it is not denominated as a Ministry of Culture for reasons that go beyond pure nominalism or the typical verbosity of the Italian language. A Ministry of Culture did indeed exist in Italy during the period of Fascism: In 1937, inspired by the Nazi German organization of culture, and especially by Göbbels' Reichsministerium für Volksaufklärung, the former Ministry of the Press and Propaganda changed its name to "Popular Culture". During World War II, the *Ministero della cultura popolare* exercised an iron control on information and cultural activities, with severe censorship on private communication, and of course on books and press, theatre, cinema and radio. It was abolished in 1944. In 1946, the democratic Constitution included culture among the fundamental principles of the Republic: "Art.9. The Republic promotes the development of culture and scientific and technical research. It safeguards landscape and the historical and artistic heritage of the Nation". Nonetheless, the early Italian democratic governments did not provide themselves with any Ministry of Culture. The Ministry of *Cultural and environmental goods* was established only in 1974, through a breakdown of the Ministry for Public Education, formerly responsible for heritage, the archives and libraries. Its mission and functions were mainly conservative and centred on the protection of antiquities and fine arts, academies and libraries, State archives and musical archives, plus book publishing and cultural dissemination.

Some 25 years later, the name was changed once more to Ministry for Cultural Goods and Activities, and more functions were added: sports (removed after a few years), subsidies for cinema and the live performing arts (theatre, music, opera, circus, etc.). Despite the enlargement of its mission, protection of heritage and the custody of archives and libraries were and remain the core business, and channel over 60% of the present MiBACT expenditure,² while together, cinema, music, theatre and other performing arts and contemporary visual and plastic arts, which the Ministry only supports, but does not manage directly, reach 28% of the budget (2013). In broad and rough terms, since their commencement, State cultural policies in Italy have tended to coincide with heritage policies, with a strong emphasis on the supply, rather than the demand side. Cultural dissemination and business and promotion or audience development have never gained top priority. In 1994, culture (chiefly understood as cultural heritage) was included among the strategic sectors of intervention within the structural funds. It was regularly linked to tourism but with very little, if any, concern for its participatory aspect and the domestic public (OpenCoesione 2016).

¹The Cabinet of the Prime Minister, the Ministry for Foreign Affairs, the Ministry of the Interiors, the Ministry of Infrastructures and transportation, and the Ministry of Industry have additional competences in the areas of publishing, Italian cultural institutes in the world, protection of built heritage seized from the Catholic Church in the Nineteenth Century, and radio and television. The Ministry of Education is in charge for all artistic education (from music to drama, from architecture to cinema).

²Not including running and staff costs, which are for the most part allocated for heritage conservation and cataloguing.

2.2 *The National Statistical Institute (ISTAT)*

ISTAT is the only national public organization that collects data on cultural participation on a regular basis, through both targeted surveys and indirect methods, within other surveys or censuses.

Aspects of Daily Life ADL (*Aspetti della vita quotidiana*)

Started in 1993, this sample survey is a part of an integrated system of social surveys (The Multipurpose Surveys on Household, MSH) and collects fundamental information on the daily life of individuals and their households.

The survey provides information on the citizens' habits and everyday life. The questionnaires focus on different social aspects of the quality of individual life, i.e.: satisfaction with living conditions, occupational status, education, economic situation, the neighbourhood, public services, etc. School, work, family and social life, leisure time, political and social participation, health, life style and access to services and ICTs are all investigated from a point of view which focuses on how behaviour, motivations, and opinions contribute to the overall picture.

Due to its comprehensiveness, the MSH general survey provides a wide range of additional information about social and economic conditions, work and educational levels, demographic size of the city, health status, satisfaction, style of life and consumption, etc. The interviews address all the members of the households in the sample, from the age of 3. Households are randomly selected from municipal population offices lists, according to a sampling strategy aimed at attaining a statistically representative sample of the Italian resident population.

MSH is carried out yearly on a sample of about 24,000 households (nearly 54,000 individuals), distributed in about 850 Italian municipalities of various demographic size. (Additional technical information is provided in Annex).

So far, this huge store of data is still largely untapped, but a first attempt at correlating personal satisfaction with life and cultural participation yielded interesting outputs, as did the comparison of reading habits of parents and children in the same household.

Leisure Time Survey-LTS (*I cittadini e il tempo libero*)

LTS is included in the MSH system as a thematic survey. It started in 1995 and was carried out every 5 years until 2006. The 2011 edition was suspended in view of a major re-thinking, while the ADL survey, including a module on the ICTs, was regularly run. From 1995 to 2006, LTS made it possible to describe systematically a complex and fragmented field such as leisure time and cultural participation, scanning the deep social and cultural transformations impacting leisure time and daily life which were taking place in Italy.

The survey focused on notions, attitudes and behaviours related to the leisure time sphere and in particular to that set of behaviours and activities that are tied to cultural participation such as sports practice, self-care and self-fulfilment. Such themes were analysed using both traditional and innovative perspectives, with a

variety of in- depth examinations in the questionnaire sections, ranging from TV to book reading and from ICTs use to vocational training. Observed phenomena can be seen in Table 1.

The questionnaire of the new edition, largely revised in line with 2012 ESSNet Culture recommendations, was launched in 2015. It takes into account the blurring identification of places/mediums (e.g. “going to the cinema”) with contents (“watching a film”), the availability of e-books, web radio and TV and TV on demand, and streaming and investigates in more detail practices and active participation, in an attempt to capture the cultural dimension of well-being. In particular, motivations, interests and passions for cultural practice (playing music, taking photos, dancing, painting, acting, etc.) and the possible impact of the economic crisis on cultural consumption have been added. In general, the new questionnaire is characterised by a more detailed and subjective approach. Another important novelty of the last survey is the adoption of a mixed mode, including a web step with CAWI technique with a self-administered questionnaire, followed by the traditional PAPI.

Table 1 Leisure time survey.
Observed phenomena

Amateur activities
Attendance at museums and art exhibitions
Available cultural services
Book reading
Cinema attendance
Concert attendance
Friendship relations
Games and other leisure activities
Interests and passions
Language(s)
Listening to music
Magazine reading
Newspaper reading
Ownership and use of mobile phones
Ownership of goods for leisure time use
Parents’ attitudes toward leisure time activities of their children
Perception of leisure time
Radio and television
Socio demographic characteristics of resident population
Sport and physical activity
Theatre attendance
Use of libraries
Use of personal computer
Use of the Internet
Work and leisure time

Indirect Data Collection on Cultural Participation

In 2012, ISTAT, the Cultural heritage Ministry and the Italian Regions promoted a census of the nearly 5000 Italian public and private museums, monuments and archaeological sites. The questionnaire was mainly supply-side oriented; nonetheless, a section was devoted to participation (visitors, supporting associations and voluntary workers):

- Total number of admissions (excluding virtual tours, special admissions and activities outside the regular opening hours);
- Total number of paying admissions (with regular and reduced admission fee);
- Total number of free admissions (museum card, ICOM card, other special admission cards);
- Total number (or estimated share) of foreign visitors;
- Total number (or estimated share) of young people/senior citizens;
- Total number of admissions to temporary exhibitions with separate fees;
- Total net revenue (admission fees, season tickets, museum pass, city pass etc., goods and services sold, including cafeterias, restaurants, etc.);
- Visitor studies carried out by the Museum in the last 7 years;
- Voluntary workers in Museum staff.
- Museum's Friends associations.

The 2016 survey (over 6000 units), slightly enriched on the visitor side, is currently in the stage of data check and processing.

Household Final Consumption Expenditure for Culture

Data are collected on a quarterly basis at the national and sub-national level. They include average monthly expenditure and expenditure for culture and leisure purposes (recreational and cultural services, books, newspapers and magazines, stationery, personal computers, laptops, etc.; paid access to the Internet, cameras and video recorders, etc.). They can be used as a proxy measure of cultural practice and participation.

Cultural Participation and the Measures of Well-Being

In line with the most advanced experiences that are being developed all over the world, at the end of 2010 the National Council on Economy and Labour (CNEL) and ISTAT committed themselves to produce a measurement tool capable of identifying the underlying elements of well-being in Italy. The process has been carried out with the involvement of some of the leading experts in the various subjects relevant to the general definition of well-being (health, environment, employment, economic conditions, etc.), together with thousands of citizens, using polls and surveys, in parallel with meetings held with institutions, social stakeholders and NGOs. The set of measures of Equitable and Sustainable Well-being (Bes, in Italian) is divided into 12 dimensions of well-being and comprises 129 indicators. Cultural participation is one of these, in the domain of Education and training. It is a synthetic indicator based on the aggregation of the following indicators:

- percentage of people aged 6 and over, in the 12 months preceding the interview, have gone at least once to cinema, theatre, exhibitions and museums, archaeological sites, monuments, concerts of classical music, opera, concerts of other kind of music;
- percentage of people aged 6 and over who read the newspaper at least once a week, who read at least one book in the 12 months preceding the interview, who usually read some magazines (weekly or periodic), who watch DVDs at home.

3 Illustrative Statistics

Recent Trends

Data reflect the results of the weak Italian investment in cultural education and dissemination, which were tacitly left in the care of schools, where, paradoxically, music and the arts occupy a negligible role in almost all levels and curricula, and arts history has virtually disappeared, as a result of a controversial school reform in 2011. If we look at heritage, i.e. MiBACT's key concern, the share of Italian citizens aged over 6 who have visited a museum at least once a year is now 31% (2016), but dropped as low as 25.9% in 2013. Visitors to monuments and archaeological sites are even lower: 21.7% in 1997, 20.7% in 2013 and 24.9% in 2016. MiBACT collects monthly data on admissions to the 441 State museums, galleries, monuments and archaeological sites and their revenue, but the information only relates to the type of venue and paying/non-paying admission. No further detail on visitors is collected.

Data on specific aspects of cultural participation, e.g. book reading³ and use of libraries have been collected in Italy since 1925. Those cultural statistics were related to a distinctive educational concern of the public authorities. When Italy was unified, in 1861, 77.7% of the citizens were illiterate⁴ (47% in France, 31% in the UK, 20% in the USA, 36% in Japan). In 1960, that rate had dropped to 8.3%, and in 2013 to 3.5% (alas, the OECD Survey on Adult skills⁵ found that in 2013 the functionally illiterate in Italy were about 47%). In 1927, the 32 State libraries were used by slightly over 1 million readers. In 2013, State libraries were 46, but their public (over 2.5 million in 1997), hardly reached 1.4 million. In 1965, people aged 6 and over who had read at least one book in the prior 12 months were 18.6%; in

³Book reading was dealt with by two separate surveys in 1965 and 1973, and from 1993 is regularly investigated by ISTAT.

⁴“A person is functionally illiterate who cannot engage in all those activities in which literacy is required for effective functioning of his group and community and also for enabling him to continue to use reading, writing and calculation for his own and the community's development.”. OECD (2001), <http://stats.oecd.org/glossary/detail.asp?ID=1279>

⁵OECD (2013), OECD Skills Outlook 2013: First Results from the Survey of Adult Skills, OECD Publishing. See <http://dx.doi.org/10.1787/9789264204256-en>

1973, 33.7%, in 2016, 40.5%. As we will discuss in further detail, Italy is not a country of assiduous readers: In 2016, 45.1% read three books at most, while only 14.1% read 12 books or more in 1 year. The Publishers Association provides data on book sales, while, since 1951, ISTAT runs an annual census survey on book production.

Data on the supply and tickets sold for the various forms of entertainment (from concerts to cinema, from theatre to sports shows) are not collected by MiBACT or ISTAT, but by a large private copyright association. Between 1936 and 2012, both supply and demand of live entertainment have undergone profound changes⁶: in 1936, theatre and music performances days were circa 73,000, with about 21 million tickets being sold. In 2014, the days of performance had more than doubled, reaching nearly 170,000, but the number of tickets was barely 33.1 million. In 2016, only 20% of the respondents in the ISTAT survey had been at least once to the theatre. Those who had participated at least once in a classic music concert or other kind of concert were 8.3% and 20.8% respectively. A comparison with data collected 20 years ago shows only a modest increase (+1.3% for classic music, +3.8% for other music, +4.5% for theatre) in the participation rate. In 1936, cinema shows were 480,000, with 260.5 million tickets sold; in 2014, over 3 million, but the tickets sold were barely 98.3 million.

Aspects of Daily Life 2015

ADL covers a wide span of themes in the area of leisure and culture, including sports and ICTs, which I will not report here. 2016 data released to-date (ISTAT 2015) describes cultural participation in terms of *attending* cultural events, *visiting* places such as museums and archaeological areas, and *reading* books and newspapers. It does not cover aspects such as the creation or amateur practice of artistic and cultural activities.

In 2015, 64.6% of the Italian population aged 6 and over had participated at least once over the last 12 months in one of the following activities: visits to museums, exhibits, archaeological sites and monuments, concerts, theatre, cinema. After an overall decrease in the past 2 years, participation as a whole records a slight rise: In 2014, 62.6% of the respondents reported at least one activity.

Heritage The share of those who have visited museums in 2016 is 31% (+1% vs. the previous year), monuments and archaeological sites 24.9% (+1.3%). About $\frac{3}{4}$ of museum goers show a low frequency (1–3 times per year). Young people record the highest rate of participation in the field of heritage: 47.7% of those aged 11–14 report visits to museums or exhibits, and about 33.6% of those aged 18–19 have visited monuments or archaeological sites. School trips favour this behaviour, which consequently cannot be considered as a habit, since over 80% aged less than 15 report a very low frequency (1–3 times per year). Women, especially under

⁶Because of the war, data collection on entertainment was suspended in 1943, and resumed in 1949 for theatre and music, and in 1947 for cinema.

34, are more assiduous than men. The senior museum-goers show a higher frequency: 13.7% of those aged 65–74 report seven visits or more per year. Those living in the Centre-North of the country show a higher interest for heritage: 38% against 21% of those living in the South. Ironically, people from the South, where the largest concentration of sites can be found, barely reach 18.3% in terms of visits to archaeological areas, with the exception of the Sardinians, who are close to 31%. Museums goers are most frequently found in metropolitan areas (41.8%).

Cinema Despite the fact that it is still the most attractive entertainment, cinema is also the one which has decreased most in the last 5 years: While in 2010 circa 52.3% of those aged 6 and over had been at least once to the cinema, in 2015 the share dropped to 49%, but in 2016 the average was again 52.2%.

Over 78% of young people (<24) go to the cinema, with the highest share being attributable to the 15–17 age range (82.3%). Cinema-goer numbers diminish with age: 62.1% for those aged between 35 and 44, and only 24.7% for those aged between 65 and 74. Gender differences are also relevant, with men bordering on 54% and women 51%, but the opposite happens for those under 24. Only 18% indicated having gone to the cinema seven times or more, while 58% of the respondents reported one to three times at the most. Residents in the central regions of Italy record a higher rate of participation (57.5%) than the rest of the country, while those living in the south and the Islands score lower rates (48.6%). In the metropolitan areas, where the supply is larger, the proportion of cinema-goers rises to about 60%.

Concerts Music education is one of the weaknesses of the Italian school system. Since the early 1920s, it was treated as a professional option, not as key component of a basic curriculum (Badolato and Scalfaro 2013). It is no wonder that barely 8.3% of those aged 6 and over have attended a classical music concert at least once in the previous 12 months. Audience increases (20.8%) when other kinds of concerts are considered. The highest participation rate is found among people aged 60–64 (11.4%). Also those aged 18–34, and the age group 20–24 like live music: 10.1% go to classical music concerts and 43.2% to other kinds of concerts. As for other cultural activities, ageing is accompanied by a continued decrease in participation. Attendance to concerts is gender-neutral. 80.1% of those who say they have gone to a concert specify as doing so at the most three times per year, while 11% of respondents claim to have gone seven times or more to classical music concerts and another 6.8% of respondents to other kinds of concerts. The oldest (75 and over) are the most assiduous in both kinds of concerts. Residents of the Southern regions and the Islands are less inclined to go to concerts of classical music: 6.2%, as opposed to the 9.6% of the North-Eastern regions and the central regions. Metropolitan areas record the highest attendance to concerts: 11.9% for classical music and 20.4% for the other typologies.

Theatre One Italian out of five has been to the theatre at least once in the past 12 months. School, again, sustains that option, over 30% of youngsters aged 11–17 report having been to the theatre.

Women's participation is constantly higher than men's: 21.9% vs. 18.1% on average, with the widest gap in the age group 15–17, where girls show a difference of more than +11 points over their male peers.

Theatre participation is nonetheless weak: 80% of theatre-goers have been no more than three times, while only 7.2% indicate seven times and more. A theatrical taste develops over time with 15.4% of respondents in the age-range over 75 having been to the theatre seven times or more in 1 year.

The central regions, with a 23.5% participation rate, score a difference of 3.5 points over the national average and seven points over the southern regions. Despite a tradition of local historical theatres active in many small-medium cities in the north and centre of the country, nowadays theatre attracts more participants in the metropolitan areas (30.7%) and their surroundings (21.7%) and cities over 50,000 (20.7%).

TV and Radio Watching TV is a well-established habit in the population aged three and over: 92.2% mention it, and 97% among them watch TV every day. Listening to the radio is instead less widespread: 53% among those aged three and over, only 60% of which on a daily basis.

Women watch TV slightly more than men (92.9% vs. 91.4%). The participation rate is a little higher than average among the young aged 11–14 (96.4%) and the elderly aged 65–74 (over 96%). The north-west scores the lowest rate (90.9%) and the south the highest (93.9%).

Gender, age and geography mark clear differences when it comes to listening to the radio. Radio listeners reach 67.4% among those aged 35–44; men score 54.3%, against 51.8% achieved by the female audience. The rate is 58.4% in the north-east, about 53% in the centre and 48% in the south.

Newspaper Reading Less than one half of the Italians read newspapers: 44% of those aged six and over read a newspaper at least once a week. The highest rate, 57.2%, is reached by the age group 60–64. Men read newspapers more than women: 49% vs. 39%. Geographic differences are notable: 53% in the north-east, 45% in the centre, 34% in the south. Sardinia is an exception, with a rate of 57%, which is higher than many northern regions. Only 35.4% of the readers reported a frequency of five times or more per week. The share grows with age.

Book Reading People aged six and over who have read books (for reasons different from school or work) in the past 12 months represent 41% of the sample. The highest rate is recorded by the 11–14 age group attaining 51.1%. Contrary to newspaper reading, regular book reading is more widespread among women (47.1% vs. 33.5% of the men).

Geographical differences are even more defined than in the case of newspaper reading: Books are read by 27.5% of those residing in the South, but Sardinia records 45.7%, while the Centre scores 43%, and the North 49%. Book readers are more frequent in the metropolitan areas (49%), with the highest quota of "strong" readers (about 17%).

Non-participants

A cross-section reading of the data enables us to shed light on a relevant group (18.6%) of absolute non-participants, i.e. persons who have not taken part in any of the cultural activities described above. Age, gender, region, and urban setting contribute towards shaping a tentative profile of the non-participant.

It is among the citizens over 65, of both sexes, that the share of the totally excluded exceeds 25%, and tends to grow with age. Women over 75 score 50% (vs. 34% among men). In a society like Italy, second in Europe after Germany in terms of ageing rate, this issue should create some concern.

29% of residents in the South have never visited museums, shows, archaeological sites or monuments, read a newspaper or one single book, gone to the cinema, the theatre or a concert. In the North East the absolute non-participation rate reaches its lowest with only 12.5%.

Absolute-non participants are nearly 24% for those who live in centres with less than 2000 inhabitants, which account for about 44% of the municipalities and about 6% of the Italian population.

Cultural Expenditure

In 2014, the total Italian households' final expenditure for recreation and culture was 65,420 million Euros, with a 2.2% increase over 2013 (while the total expenditure only increased by 0.4%). Excluding from the calculation leisure expenditure for holidays, pets, flowers and plants, the most relevant category is represented by *cultural and recreational services* (42.6%): Live shows, cinema, radio and TV, museums, etc.

15.2% of the expenditure is due to PC, tablets and laptops, photo and video cameras, double the spending on newspapers and stationery.

Cultural expenditure of the Italian households as percentage of the total expenditure is practically constant in time: 7.3% in 2011, 7.1% in 2014, but with relevant geographic differences: In the north-west it reaches 8.5% as compared to only 5.7% in the south.

4 Looking Ahead

Measuring cultural participation is a challenge for researchers and policymakers. There is a long way to go, and new questions arise which have never been addressed in satisfactory terms. To name a few:

- How is cultural participation induced, fed, supported? How does this relate to inequality and social inclusion?
- What are the motivations for participation and for non-participation?
- What are the effects of de-localisation and de-materialisation of culture on cultural participation?
- How can we measure the border between formal and informal practice?
- How can pro-consumer behaviour be taken properly into account?

- How is willingness to pay for cultural activities changing over time?
- How do measures of cultural participation reflect cultural diversity and include traditional practices (including languages) and the intangible cultural heritage?
- What is the relationship between cultural participation and well-being?

Annex Technical Details of the MSH Survey

Data collection mode: Face to face interviewing with paper questionnaire.

Self-administered paper questionnaire—delivery and collection by interviewers.

A pilot introduction of Web self-administered questionnaire was started in 2015.

Periodicity: Yearly.

Survey design

Partly single-stage and partly two-stage sampling with stratification of primary sampling unit.

Approximate size: 24.000.

Primary sampling units: Municipalities. Approximate size 850.

Stratification variables: Demographic size of the municipality, Regions.

Inclusion probabilities: Proportional to demographic size.

Selection scheme: Random.

Reporting units: Households (Municipal population office).

Inclusion probabilities: Equal Selection scheme. Systematic.

Estimation process: Variables with known population totals used to constrain Population: Age classes, Gender, Educational level, Occupation.

Municipalities classified according to socio-demographic characteristics, Region.

Domains: Geographical area (Five geographical areas: North-West, North-East, Centre, South, Islands); Regions; Italy.

Analysis units: Individuals.

Observed phenomena (cultural participation): Ownership of household and/or individual durable goods (books, computers, television, musical instruments, etc.), attendance at museums and art exhibitions, attendance at music events, cinema attendance, listening to the radio and watching television, reading books, reading newspapers, theatre attendance.

Cultural participation questions

The individual form (considering both the interview and the self-administered form)

- Have you taken lessons or courses of a cultural/artistic nature paid by yourself/ your family in the last 12 months?
- Have you used recreational services or centres for children and teenagers in the last 12 months?
- Have you accessed the Internet (via pc or mobile/tablet) in the last 3 months:
 - To read or download newspapers, news and magazines
 - To read or download online books or e-books

- To listen to the radio
 - To watch TV
 - To watch films in streaming
 - To watch videos
 - To podcast audio or video files
 - To play or download games, images, films or music
 - To upload contents of your creation
 - To create websites or blogs
 - To participate in social networks
- Have you purchased over the Internet in the last 12 months:
- Films, music
 - Books or e-books
 - Cameras or videocameras
 - Tickets for shows
 - Digital contents
 - CDs/DVDs
- How often have you gone, in the last 12 months, to.
- The Cinema
 - Theatre
 - Museums, exhibitions
 - Classic music/opera concerts
 - Other concerts
 - Sports shows
 - Discos/night clubs
 - Archaeological sites/monuments
- Do you read newspapers at least once a week?
- Have you read books in the last 12 months? How many? (textbooks and professional excluded)
- Do you usually read magazines? How often?
- Are you a member of a cultural/recreational association?
- Have you taken part in cultural/recreational associations meetings in the last 12 months?

The household form

- Does your family own Video recorder, Video camera, DVD player, stereo hi-fi, colour TV, satellite dish, digital terrestrial TV decoder?
- Does your family access the Internet?
- Does your family own books? How many?

References

- Badolato, N., & Scalfaro, A. (2013). L'educazione musicale nella scuola italiana dall'Unità a oggi. *Musica Docta*, 3(1), 87–99.
- Bauman, Z. (1973). *Culture as praxis*. London: Routledge & K. Paul.
- Bergamo, L., & Cicerchia, A. (2014). *Measuring well-being: Towards a system of cultural indicators* (mimeo).
- Cicerchia, A. (2015). Why we should measure, what we should measure. *Economia della Cultura*, 2, 11–22.
- European Commission. (2000). *Cultural Statistics in the EU: Final report of the LEG* (Eurostat Working Papers: Population and social conditions, 3/2000/E/N°1). Luxembourg: European Commission.
- Eurostat. (2012). *ESS-net on culture statistics – Final report* (Doc.Eurostat /F/12/DSS/01/3.5 EN. Eurostat. Directorate F: Social statistics). Luxembourg: Publications Office of the European Union.
- ISTAT. (2015). *Annuario statistico italiano 2015*. Accessed July 15, 2016, from <http://www.istat.it/it/archivio/171864>
- Kroeber, A., & Kluckhohn, C. (1952). *Culture: A critical review of concepts and definitions*. New York: Vintage Books.
- OECD. (2001). *Glossary of statistical terms*. Accessed July 15, 2016, from <http://stats.oecd.org/glossary/detail.asp?ID=1279>
- OECD. (2013). *OECD skills outlook 2013: First results from the survey of adult skills*. OECD Publishing. Accessed January 11, 2015, from <http://dx.doi.org/10.1787/9789264204256-en>
- OPENCOESIONE. (2016). *Verso un migliore uso delle risorse: scopri, segui, sollecita*. Accessed October 2, 2016, from <http://www.opencoessione.gov.it/>
- UNESCO. (2009). *2009 UNESCO framework for cultural statistics*. Montreal: UNESCO Institute for Cultural Statistics.
- UNESCO. (2014a). *UNESCO culture for development indicators: Methodology manual*. Paris: Unesco. Accessed January 11, 2015, from <http://en.unesco.org/creativity/system/files/digital-library/CDIS%20Methodology%20Manual.pdf>
- UNESCO. (2014b). *UNESCO culture for development indicators: Implementation toolkit*. Paris: Unesco. Accessed January 11, 2015, from <http://en.unesco.org/creativity/system/files/digital-library/CDIS%20TOOLKIT.pdf>

Annalisa Cicerchia is Senior Researcher at the Italian National Statistical Institute. She is a Member of the European Expert Network on Culture (EENC) and the Editorial Board of *Economia della cultura*. In 2011–2016, Italian member of the European Group for Museum Statistics (EGMUS), and the Eurostat Working Group on cultural statistics. She is a Professor of Economics and Management of Tourist and Cultural Activities and Management of creative enterprises at the Faculty of Economics—Roma Tor Vergata University. She has been director of the EC funded research project on Culture and Well-being impact measures for Culture Action Europe's (2014–2017). Her research areas are cultural economics, cultural indicators, social impact of culture, culture and wellbeing, cultural and creative economy, cultural sustainability, cultural participation, cultural heritage, and museums.

Attendance at/Participation in the Arts by Educational Level: Evidence and Issues

John O'Hagan

Abstract The socioeconomic composition of attendance at the arts has interested researchers and policy-makers for decades, with marked differences in attendance by social class, particularly educational level, persisting over time. Drawing on the 2012 US Public Participation in the Arts survey, and to a lesser extent a 2013 Eurobarometer survey, this chapter outlines attendance by educational level at arts events; and then considers differences by educational level in active participation in the arts. Such active participation includes attendance at classes in for example music or painting or dance, or creating art experiences at home or elsewhere. The reasons for the uneven pattern of attendance are then discussed and the article concludes with a short discussion of why these patterns have persisted for so long and the possible general policy implications.

Keywords The arts • Cultural attendance • Cultural participation • Eurobarometer • SPAA

1 Introduction

The socioeconomic composition of attendance at the arts has interested researchers and policy-makers for decades (see O'Hagan 1996) and re-emerges as an issue every few years,¹ especially when the funding levels of say a European opera house or art museum or symphony orchestra are up for public debate. In the past, the main concern was that some art forms are elitist in terms of attendance, and at the same time are the recipients of large public funding, especially when this is crudely converted into subsidy per attendee. Such funding therefore is seen as very

This chapter is a reprint of O'Hagan, J. (2014). Attendance at/Participation in the Arts by Educational Level: Evidence and Issues, *Homo Oeconomicus*, 31(3), 411–429.

¹Researchers also have devoted much work to analysing the determinants of attendance at cultural events in different countries which is related of course to the topic of this paper. For recent examples, see: Vander Stichele and Laermans (2006), Chan and Goldthorpe (2007), Lunn and Kelly (2008), Bunting et al. (2008), and Palma et al. (2013).

J. O'Hagan (✉)
Trinity College Dublin, Dublin, Ireland
e-mail: johagan@tcd.ie

inequitable. This concern remains but relates to just one form of involvement with the arts, namely the consumption of or attendance at the arts.

In recent years there has been an increasing interest in another dimension of arts funding—the socioeconomic composition of participation in the arts. The emphasis here is not on attendance but on participation in a much more active sense, namely making one's own art experiences, be it through attendance at classes in say music or painting or dance, creating art experiences at home or elsewhere and organizing and participating in community-based arts events.

However, in many countries it is very difficult to get an accurate measure of the level of public funding allocated to such participation, as the sources of funding are so varied. Finances come via different state departments such as ministries for art, education, employment, regional policy and language, or local government agencies. Much of the funding also goes to the arts not as part of some specific arts policy, but instead for example to an employment or regional development program or an education initiative.

This paper will examine the composition by educational level both of attendees and participants in the arts, drawing on US data, as these data are based on such a large sample of questionnaires (see later) and have been conducted now on a consistent basis for more than two decades. The paper though also draws on recent useful Eurobarometer data, which in particular focus on reasons for not attending more.

Section 2 will start with a discussion of what is meant by access, attendance/participation and how performance in this regard is measured. Section 3 will then examine the evidence in relation to the pattern of attendance at arts events with large public funding by educational level. Section 4 will examine the evidence in relation to the composition by educational level of active participation in the arts and compare it to participation in other non-art activities. Section 5 will consider the barriers that might be causing the very uneven attendance levels. Section 6 will consider why these barriers exist and the possible general overall policy implications of this.

2 Definitions and Measurement

2.1 Access to What?

It is possible to speak of access to the arts on at least four levels. First, there is the issue of access to the supply of arts services to consumers, e.g. has everyone access to employment as for example an actor or as a violinist or as a production manager? Second, one may speak of access to the decision-making process of arts policy and the organization of arts events, something that may impinge on the other aspects of access. Third, one may also refer to the consumer and the consumption of arts

services or simply attendance at arts events.² Finally, there is access to the ‘making/doing’ of art, in classes and at an amateur/personal and community level.

This paper will concentrate on the last two aspects of access to the arts, or what shall be called from this point *attendance at* and *participation in* the arts. The first of the four aspects of access relates to employment law and, while of interest, will not be developed in this paper. Where possible some reference will be made to the second dimension of access but data are very limited.³

Concentrating now on attendance, the first issue is: To what type of art form does access applies? The primary focus of this paper will be on the art forms that absorb the bulk of public expenditure on the arts (see O’Hagan 1998, 2010, for a discussion of this issue). The reason is that concern with access to attendance arises mostly in relation to areas of the arts where large public expenditure is involved. As such, it is interesting to ascertain what art forms (broadly defined or defined by the respondents themselves) people with lower levels of education attend.⁴ A related issue is whether or not to include art forms consumed through home entertainment, such as TV/radio and mobile devices, as opposed to those consumed outside the home, i.e. through theatre, concerts, etc. A very large component of exposure to the arts could be through home entertainment, e.g. listening to classical music, watching a film/concert on TV/radio or reading a book. However, little of this is publicly funded, with the possible exception of public broadcasting style television with a large arts component.

²Within this category, one might identify *passive* consumption as opposed to *active* consumption. The latter consumption requires active mental engagement between the consumer of the art and the work of art. The dividing line between passive and active consumption is a grey area, although we all can think of areas of the arts where appreciation of the art form requires some preparation and/or prior knowledge and active mental engagement and others where the opposite applies. Some suggest that the so-called ‘classical arts’ involve a high level of skill to execute on the production side and a high level of accumulated experience and knowledge to appreciate on the consumption side, and it is this that distinguishes them from the ‘popular’ arts (see later). While this might be the case in general, *within* an arts form, for example film or classical music, there are also marked gradations in terms of these requirements on the production and consumption sides of the activity. Nonetheless, the above distinctions and considerations are useful to bear in mind in the discussion that follows. DiMaggio and Mukhtar (2004) also touch on this issue, and they define high culture art forms as artistic genres that are treated by critics as ‘serious’, characterised by a tendency for evaluation to place greater priority on responses of critics and artists than on responses of the general public, are represented in college and university curricula, are likely to receive subvention from government agencies or through tax breaks to private patrons based on the perceived aesthetic value of their product and are usually produced and distributed by nonprofit organizations.

³See Garfias (1991) and Yoshitomi (1991) for discussions of this issue in an American context.

⁴As Keaney (2008) points out though attendance/participation surveys do not differentiate between those sections of the arts with state funding and otherwise. Nor do they differentiate between attendance/participation in home country and abroad. Nonetheless it is clear which art forms do receive the bulk of their funding from the state in relation to attendance but probably not in relation to participation.

In relation to participation in the arts—the making/doing of art, including attendance at classes and the organization of events—the issue is not so clear-cut. It may be that the collective benefits of the making/doing of art applies to all art forms and for this reason a much wider range of such activities will be examined later in this paper. Besides, in relation to this dimension of public funding the focus is often not on any particular art form, with funding provided to institutions to provide more inclusive participation in the arts as they see fit.

2.2 *Meaning of Equal Access?*

At a minimum, equal access could be defined in terms of *equality of rights* to access cultural life, where such rights are construed as the absence of legal and institutionalized barriers to entry in a given institution or system. This effectively ensures the absence of discrimination in the access of anyone to the arts and it is an equality objective with which few would argue.

Equality of formal rights though does not guarantee more equal attendance at/participation in the arts. A second and more useful indicator of equality therefore might be *equality of opportunity*. This involves not only providing formal rights, but enabling and encouraging certain sections to attend/participate on an equal footing with others. For example, if those on low incomes are to attend/participate on equal terms with those on middle incomes in the arts, then a policy of zero or low entry charges for attendance at or classes in the arts might be necessary to ensure equality of opportunity to attend/participate. It may also be necessary to encourage attendance/participation of certain groups, through a proactive policy of advertising and/or education regarding the arts. This is clearly a more far-reaching concept of equal access.

Enabling and encouraging equal attendance/participation facilitates but does not of course ensure equal attendance/participation in the arts. Thus a further equality objective might relate to equality in terms of outcome or success, i.e. actual *equality of attendance/participation* in the arts.

2.3 *Measurement*

It may relatively speaking not be too difficult to establish whether or not equality of rights of access to the arts exists. In most developed countries it may be assumed that this objective is largely achieved. It is almost impossible though to arrive at any direct measure of equality of opportunity. This is why many people prefer to use the concept of equality of outcome in terms of attendance/participation. Attendance/participation rates clearly can be used to measure this. Indeed, it could be argued that where the attendance/participation rates refer to broad socioeconomic groupings, as they normally do, then any marked variation in such rates is suggestive not

only of the existence of unequal outcome but also unequal opportunity across these socioeconomic groups. Whether or not this is a matter of concern will be discussed later.

Attendance/participation rates then, in practice, are central to any analysis of access to the arts. In the aggregate they refer to the percentage of the population which attends/participates in the consumption or making/doing of the arts in a given time period, usually the preceding 12 months. The aggregate figure is important in a public policy context, in the sense that if it is very low then regardless of the socioeconomic composition of those attending/participating in the arts it is an indication that very few people are attending/participating and therefore perhaps benefiting from public expenditure on different areas of arts activity.

Figures disaggregated by different variables to show the pattern of attendance/participation by income, educational level, age, sex, ethnic group, region, etc., are also usually available, and from an equality point of view it is these figures which are of most relevance. This paper will concentrate on the variation in attendance by educational level, as this is the dominant predictor of variation in attendance/participation rates in the arts.⁵ Greater equality in the distribution of measured access by broad groupings then is the objective of those wishing to achieve equality of outcome, both in terms of attendance at and participation in the arts. We will examine now the evidence in relation to both and then later ask should more equal access of attendance by educational group be an objective at all of policy.

3 Composition by Educational Group of Attendance at the Arts

The most comprehensive data in relation to participation by educational level in the arts where large public funding is involved appear to exist for the United States, where NEA commissioned Surveys of Public Participation in the Arts (SPPA), held between 1982 and 2012, and based on very large samples.⁶

⁵Education was found to be the driving determinant of differences in participation in the arts in England for example (see Bunting et al. 2008 and also O'Hagan 1996). This though does not address the issue of access by ethnic group, an issue of significant importance in the United States and Europe. This aspect of cultural equity could be the subject of an interesting further paper (see Yoshitomi 1991).

⁶There have been some problems with aspects of the 2012 data, as evidenced by the following. "On the week of June 22, 2014, the U.S. Census Bureau confirmed that it had used a different technique for identifying completed interviews for the 2012 SPPA than had been used in prior years of the survey. As this methodological choice has serious effects on how the survey data are weighted, the National Endowment for the Arts has requested a fully revised data file for the 2012 SPPA." See more at: <http://arts.gov/publications/additional-materials-related-to-2012-sppa#sthash.yFRaSQdv.dpuf>. As such, some of the data in the tables must be treated with caution. Also where there were particular problems identified in the source, 2008 data were used in the tables in this paper.

Table 1 Percentage attendances in previous 12 months, by educational level, US, 2012

	Opera	Art museum	Arts/craft fairs	Ballet	Theatre
Grade school	0	4	5	0	1
Some high school	0	5	8	0	2
High school grad	0	11	17	1	5
Some college	2	21	25	3	9
College grad	4	39	37	5	16
Postgrad	9	53	40	9	24

National Endowment for the Arts (2013), various tables

Note: Numbers are rounded to nearest whole number; a 0 does not imply no attendance, simply an attendance rate of less than 0.45%

Table 2 Percentage attendance in previous 12 months, by educational level, EU, 2013

Education up to age	Visited heritage sites	Visited museum or gallery	Been to theatre	Been to ballet, dance or opera	Visited public library
≤15 years	27	16	13	7	14
16–19 years	48	32	23	14	24
≥20 years	70	57	42	29	42

Source: *Cultural Access and Participation* (Special Eurobarometer 399), European Commission, Brussels, November 2013

As may be seen in Table 1 there is a very marked variation in attendance at different arts activities with large public funding by educational grouping.⁷ Those who only went to grade (elementary) school have very low attendance rates, with just 4% having attended an art museum in the previous 12 months and 1% or less ballet, opera or theatre. In contrast, approximately 53% of those with a graduate degree had been to an art museum. A very similar pattern by educational level is evident in relation to opera, arts/craft fairs, ballet and theatre.

Table 2 provides similar but not as rich data for the European Union for 2013. The sample size is large but the educational categories are not nearly as nuanced. To make the table comparable with that for the US we would need a further breakdown of the 20+ age group by educational level. The attendance rates for the EU are considerably higher than those for the US, but it is difficult to know whether the data are directly comparable. What then is of more relevance and probably reliability is the variation by educational level.

⁷Other factors apart from educational level may explain this variation. The main other factor here would be income. As such, the variations in the data in the tables that follow reflect joint differences in educational and income levels to a certain extent. As educational and income levels are so correlated though it is impossible to separate their individual effects in regression without leaving out the *combined* influence of each, because of the multicollinearity problem. As such, the data in the table tell a more complete story of the variation by broad educational/income group than any regression analysis. Besides, as pointed out in Footnote 4, other studies have shown that education is by far the best indicator of attendance rates in the arts.

Table 3 Percentage which accessed the arts through TV/radio, by educational level, US, 2012

	Classical music	Theatre	Visual arts
Grade school	3	1	2
Some high school	4	2	4
High school grad	7	4	4
Some college	14	8	9
College grad	19	10	11
Graduate school	27	13	15

Source: As for Table 1. Note visual arts include documentaries/films on visual artists

Table 4 Percentage which likes best by type of music, by educational level, US, 2008

	Classic rock	Country	Gospel	Latin
Grade school	19	18	8	19
Some high school	20	25	13	7
High school grad	29	24	10	3
Some college	26	18	8	4
College grad	28	11	7	2
Graduate school	27	7	5	3

Source: The early data for 2012 for above were particularly suspect and hence 2008 data were used here

While the variation by educational level is not as pronounced as in the US, it is still very marked, especially in relation to visiting museums, going to theatre and visiting a public library, three of the big areas of public expenditure on the arts in the EU.

Table 3 shows that the audience for programs in the arts via TV/radio is just as skewed by educational level as for live arts activities. For example, only 3% of those in the lowest educational category access classical music via TV/radio, whereas nine times this percentage does so from the top educational grouping. This may indicate that since there is no real financial barrier to watching/listening to this art form via TV/radio, the data could represent the best distribution of arts audiences by educational level, given present preference patterns.

Table 4 throws more light on the art forms that have a high 'listening' rate and a much more even composition of rates by educational grouping. The question asked is which 'types of music do you like best'. There is almost no variation by educational level in relation to 'classic rock' music. The patterns for the other types of music listed are interesting, with 'country', 'gospel' and 'Latin' being preferred by a high proportion of those with lower-educational levels. This table then conveys clearly the message that many people in the lower educational groups listen to, and probably attend live events featuring these types of music, in marked contrast to the cases of classical music and opera. The latter of course are the music categories with large public funding.

4 Composition by Educational Group of Active Participation in the Arts

Examination of data collected on the participation of adults in the arts in the previous 12 months indicates that, as with attendance, there are significant differences in levels of participation by educational level (see Table 5). For almost all activities, the proportion of those taking part increases with the level of education. This is particularly striking when looking at participation in classical music and painting. The only activity that displays less striking differences is weaving/sewing.

In general, those with grade school education only have very low rates of participation in any artistic activity apart from weaving/sowing. Rates of participation increase strongly for those with at least some college education, and are generally highest of all for those with graduate school education. The level of participation in all activities for the three groups with the highest levels of education appears high, relatively and in an absolute sense. For example, over one in eight of those who attended graduate school participated in painting and one in just under 12 in a classical music performance in the previous 12 months, in marked contrast to the figures for those with the lowest educational attainment.

Table 6 illustrates that the overall picture with regard to active involvement in the arts in the EU is similar to that in the US. The meaning though of some terms in the EU survey is ambiguous, such as for example 'dance'. But in relation to the other categories shown, there is a very marked variation by educational level in the EU, in terms of literary writing, playing a musical instrument, drawing/crafts and creative computing.

Table 7 indicates though that in terms of participation, the arts rank low compared to all of the other activities listed. The comparison with exercise/sport and doing charity work is instructive, given that some (but not all) of the purported public benefits of active participation in the arts could also apply to these activities.

There is still a marked difference by educational group in terms of participation in these two activities, with only 7% of those with grade school doing charity work compared to 57% for those who attended graduate school. The same applies to community work, with 8% of those with grade school education only participating

Table 5 Percentage of adults personally participating at least once in last 12 months in various arts activities, by educational level, US, 2008

	Classical music	Choir	Painting	Pottery	Weaving/sowing
Grade school	0	3	3	2	10
Some high school	3	5	9	4	8
High school grad	1	4	5	4	11
Some college	3	6	11	8	16
College grad	5	6	11	8	15
Graduate school	8	8	13	8	15

Source: The early data for 2012 for above were also suspect and hence 2008 data were used

Table 6 Active involvement in cultural activities in last 12 months by educational level, EU, 2013

Education up to age	Dance	Sang	Acted	Literary writing	Musical instrument	Drawing/crafts	Creative computing
≤15 years	8	6	1	1	2	5	2
16–19 years	12	10	2	3	6	8	5
≥20 years	15	14	3	6	12	15	12

Source: *Cultural Access and Participation* (Special Eurobarometer 399), European Commission, Brussels, November 2013

Table 7 Percentage of adults personally participating at least once in last 12 months in various leisure activities, by educational level, US, 2012

	Exercise/sport	Charity work	Community work	Gardening
Grade school	15	7	8	32
Some high school	22	14	11	32
High school grad	35	21	18	35
Some college	49	34	28	41
College grad	64	47	39	48
Graduate school	69	57	52	56

Source: As for Table 1

compared to 52% for those who attended graduate school. Only in relation to gardening are the variations by educational group not so marked.

This may suggest that the same educational groups take part in almost every outside activity, whether funded by the state or not. This in turn could suggest that there may be health or social problems underlying the observed phenomenon in relation to participation in the arts. The data outlined earlier in relation to access to the arts via TV/radio though would suggest that this is not a crucial factor in explaining the variation by educational level in attendance at and participation in the arts.

Turning now to the other aspect of participation in the arts, namely taking classes, the data in Table 8 are instructive. The table shows that there is again a marked variation by educational group in terms of ever having taken a class in these arts activities. Let us concentrate maybe on the data for music classes. The proportion that took music classes was 4% of those with only a grade school qualification, 13% for those with some high school and 53 and 57% for college graduates and those who attended graduate school. These are remarkable variations. Table 8 tells another interesting story with regard to future attendance.

Findings in the US indicate that there is strong evidence that the majority of current attendees at live symphonic music developed their initial interest in classical music before the age of 14 and that three-quarters learned to play an instrument as a child (Zieba and O'Hagan 2013). This would imply that the pattern of attendance say in 20 years time in the US at live classical music is already predetermined by the pattern of participation in music classes evident in Table 8.

Table 8 Percentage who have taken classes, by educational level, US, 2012

	Music	Art	Theatre	Dance
Grade school	4	2	0	2
Some high school	13	6	2	6
High school grad	26	12	4	10
Some college	42	24	12	19
College grad	53	29	13	27
Graduate school	57	31	16	35

Source: As for Table 1

Thus there is an almost unbreakable circle at work here. Parents with higher educational qualifications attend arts events more than others and also encourage their children to take classes in the arts when young, reinforcing the already existing patterns of unequal attendance by educational level into the future.

5 Barriers to Attendance

The evidence above in relation to composition of attendees by educational level probably confirms a picture that most people are familiar with from their own countries. It is a picture that has changed little, to the best of our knowledge, in any country in the last 40 years. Why then are arts ministries and other arts bodies still 'going through the motions' of emphasizing the importance of access for all to attendance at the high arts when it is known that so little changes? A second question is why has so little changed, i.e. what are the barriers that are preventing greater access to attendance at the high arts for those with low educational attainment? The latter question is the focus of this section.

5.1 *Cost and Physical Issues*

Monetary barriers are often cited as the cause of the unequal patterns of attendance observed above, as those with low educational attainment will most likely also have low incomes. These barriers may either be the cost of admission, considered in absolute terms or relative to the price of substitute goods and services; or any of the many ancillary costs incurred in attending the arts outside the home. However, insofar as all people face the same price of admission, price is only of concern if incomes vary appreciably, which they do.

Thus it could be the low incomes of people with low educational attainment, and not price, that is the real financial barrier to equal participation by educational level. It could be argued that such a barrier is dealt with most effectively as part of an

income distribution policy and not as part of a policy on equal attendance at the arts. The price of 'high arts' events relative to those for popular events (especially films, the price of entry to which can be one-third or less of that to a play) may however partly explain the greater attendance of those with low levels of education at the latter art categories. It does not though explain any of the differences in consumption patterns of home-based arts entertainment by educational group, as the price in this case is broadly similar across art forms.

Non-monetary barriers may be either physical or psychological or contain elements of both. First, there is the well-documented tendency of the high arts market to strong centralization not only towards but also within larger cities. A similar type of barrier may arise from the fact that free markets are often not geared to minority tastes, especially when there are economies of scale in production. In this situation, production is still influenced by consumers' tastes rather than being externally imposed, but individual consumers are rewarded for conformity, or, conversely, penalized for diversity. Thus, performances that have a minority ethnic or cultural appeal may not be staged at all.⁸ This of course affects not only potential consumers but also suppliers of such services.

The physical surroundings, as well as the location and type of production, may also hinder greater participation by those on low incomes and/or with low educational attainment in the high arts. In recognition of this, governments have attempted to 'take high arts out' of the imposing institutions in which they are housed/take place, moving them to more familiar surroundings such as schools, community halls, churches, etc.

As mentioned earlier, people with low educational level may suffer from worse health problems than other groups or belong to the older age groups and hence might be less mobile. This could explain their relatively very low attendance at/participation not just in the arts but also other activities. Studies quoted at the end of this paper show though that even when these factors are taken into account, there remains a very marked variation in attendance by educational level.

5.2 *Preferences*

The real barrier to greater attendance in the 'high arts' by those with low educational attainment, though, may relate simply to preferences. The 'equation' it could be argued is simple: people with certain abilities/aptitudes stay longer in the education system, gain higher levels of qualifications, earn higher incomes, and tend to have a greater preference for certain art forms. It may be that people with similar educational attainment, but different exposure to the arts when they were young, will have different attendance rates when they are adults. However these differences, even if they could be demonstrated, are likely to be slight when

⁸See Garfias (1991) and Yoshitomi (1991) for good discussions of these issues.

Table 9 Percentage who stated 'lack of interest' as reason for more participation in various cultural events by educational level, EU, 2013

Education up to age	Visited heritage sites	Been to theatre	Visited public library
≤15 years	42	46	55
16–19 years	27	37	45
≥20 years	17	26	33

Source: *Cultural Access and Participation* (Special Eurobarometer 399), European Commission, Brussels, November 2013

compared to the differences by broad educational category. If preferences are the real barrier to greater attendance by those with low incomes/low educational attainment in certain art forms, then it is no wonder that policy in the past has failed to redress the situation.

Strong evidence for this can be seen in Keane (2008). She reported in relation to the large English attendance/participation studies that many people asserted that the real barrier for them was that they are not interested, which is another way perhaps of saying the high arts are not part of their preferences. Why this is the case is another issue but the evidence suggests that an ability to appreciate certain art forms takes time and a certain level of cognitive ability (see later) and with the utility deriving from each successive attendance increasing (at least up to a point) when familiarity and understanding accumulate. What Keane (2008) pointed out unambiguously either way is that price is not the real problem.

A recent Eurobarometer survey throws further considerable light on the debate in this regard (see Table 9). Respondents were asked to identify the barriers to accessing culture, in terms of lack of interest, lack of time, cost, limited supply in area, lack of information and other/don't know. The results are striking. As seen in Table 9, almost half of those educated only up to age 15, indicated lack of interest as the main reason for not attending.

The variation by educational level is also striking. For example, just 17% of those educated to age 20+ indicated lack of interest as the reason for not attending heritage sites and 26% for not going to theatre. Only 4% of those educated up to age 15 years quoted 'expense' as a reason, lack of time in fact being the second most important reason, followed some way back by 'limited choice' in area. Lack of time comes out strongly as the most important factor for those educated up to 20+ years: this is most striking in relation to visiting heritage sites. As much as 47% of them indicated lack of time as a reason for not attending, as opposed to just 17% due to lack of interest and 6% due to expense.

Put simply then, it could be argued on the basis of the data presented earlier and elsewhere that people with lower levels of education have little preference for, and hence wish to attend, the so-called high arts, but that they do appreciate and participate in art forms other than the high arts, for example in the case of music,

classic rock, gospel, Latin and folk music. It may also be the case that there are many high art forms that are attended by minority groups but are not recognized as such and hence are not or cannot be funded by the state.⁹

6 Explanations and Policy Outlook

The central focus of this paper is on the skewed composition by educational level of attendance at the main publicly funded arts sectors and the possible barriers to a more even distribution. New evidence on both issues was provided. It is clear that the variation by educational level is very marked indeed, whether in terms of attendance or active participation. It is also clear that the reasons for this have little to do with price, but mainly to do with preferences. What then it might be asked determines the different preferences for the publicly funded arts activities by educational level.

6.1 *Possible Explanations for Preference Variation by Educational Level*

Much has been written on the role of cultural participation and status. (See Notten et al. 2015), for a summary of the key literature). They in particular examined the contrasting explanations for the variation by educational level in cultural participation, namely status and cognitive capacity. The first of these posits that people participate in cultural life chiefly as an expression of their social status. Thus according to this argument well-educated individuals participate in high culture because it indicates their belonging to the elite. To the extent that cultural consumption is driven by status motivation, then the variation in association between education and cultural participation is to be expected on these grounds alone.

There are though others who argue strongly that cultural participation is primarily a function of an individual's cognitive capacity. In this context, education is seen as a proxy for a person's information-processing capacity. Individuals with greater

⁹As Yoshitomi (1991, p. 209) states: "We appear to be operating under the assumption that the most important music is that which is played by ensembles in 3000-seat concert halls, because that is where most of our public funds to support music are allocated. The gospel music sung by millions of people every Sunday morning cannot be supported. . . . unless it is taken out of its natural support mechanisms, the church. Because it cannot be supported directly, by connotation we are saying to each other that one type of music is more important than another. Or to put it another way, we may be saying that one of the only live cultural experiences an African American child encounters on a weekly basis is not art." When at school, "I learned that Japanese prints that my grandmother hung on the walls in our home were not the 'real' art that was described in the books. I learned that ikebana and bonsai were hobbies, not art".

such capacity are then it is argued driven to seek cultural activities that offer more complex information in order to satisfy their cognitive needs. Thus according to Notten et al. (2015, p. 182) a “person’s educational level relates to a specific form of cultural participation not because of the status benefits that such participation may generate or express, but merely because of the information-processing competencies it requires”.

The evidence in this paper certainly suggests that it is not price or lack of good-quality suitable facilities that deter attendance at the high arts. Lack of interest is by far the main barrier and this could arise from no interest in status among the lower educational groups and/or lack of information-processing capacity. Whichever of these two explanations is correct, it implies that acting on price or through outreach programs in the arts will make little difference to the attendance at the high arts by educational level, something that is supported by the evidence presented earlier. This brings the discussion back then to the equity issues associated with continued public funding of the high arts.

6.2 *A Policy Concern?*

The main policy concern arising from an uneven pattern of attendance by educational level at arts events is that the bulk of public money goes to high art forms, namely those art forms not attended by those with low incomes/educational attainment.¹⁰ One has to be careful here though. It is argued by many that the high arts create benefits that are not confined to those who attend, but also create benefits that are public in nature (see O’Hagan 1998, 2010). Thus the public subsidy may be provided simply to cover/pay for the collective benefit (which accrues to everyone), with those in attendance paying in full for the private benefit received and thereby receiving no direct public subsidy at all. In other words, it is only when the private benefit is being funded from public money that redistribution to those attending the high arts arises. What the breakdown of the total benefit is between private and collective benefit though is an unanswered question.

It has to be remembered then that public funding of the high arts is justified not solely, not even mainly, on the grounds of improving access for those with low educational attainment. For example, the innovation/experimental argument for public subsidy is not dependent on the level and/or composition of the initial audiences for the subsidized art form. Neither is it dependent on the other collective benefit arguments relating to national identity, economic spillover effects and national pride/prestige (see O’Hagan 1996, 2010); they may be dependent though to some extent on a reasonably high and even level of attendance.

¹⁰As mentioned earlier, it is almost impossible to ascertain the level of public funding of active participation in the arts, given the diverse funding sources; partly because of this there is much less concern with the equity aspects of this state expenditure.

Caution is called for on other fronts as well before one can say that public funding of high arts is regressive and diverts money from the poor to the rich (see Netzer 1991).

First, public subsidy may in fact benefit the producers and not the consumers of the art form in question and the socioeconomic profile of producers could differ significantly from that of consumers of high art. The issue of whether it is producers (artists, managers, etc.) who benefit (in the form of better wages and working conditions) or consumers (in the form of lower prices or better-quality productions) from the subsidy is critical to this debate and is a largely unresolved issue. In a European context, though, with large civil-service type arts organizations, it is likely that the greater rent in fact accrues to the producers. Thus, the public subsidy could in effect be a subsidy to employees and not to the attendees, assuming that the public subsidy more than covers the public benefit.

Second, high-income earners in the United States pay disproportionately towards the taxes that fund public subsidies to the arts and hence they may simply be benefiting from their own tax payments to the state. This is particularly so as much of public expenditure on the arts in the United States is through tax expenditures, whereby donors must contribute directly from their own resources before the public element of the donation can come into play (see O'Hagan 2012).

The crucial issue in this debate though is the extent of the public benefit from subsidies to the so-called high arts. The higher the public benefit, the lower the subsidy, if any, of the private benefit of the attendees. While attempts have been made to estimate the scale of the public benefit, the difficulties of estimation are so formidable that at the end of the day the judgment/decision will be one for politicians.

Acknowledgements I would like to thank three anonymous referees for the journal from which this chapter is reproduced for helpful comments on an earlier draft of this paper, as well as Sara Mitchell for assistance in compiling some of the data relating to the US.

References

- Bunting, C., Chan, T., Goldthorpe, J., Keaney, E., & Oskala, A. (2008). *From indifference to enthusiasm: Patterns of arts attendance in England*. London: Arts Council of England.
- Chan, T., & Goldthorpe, J. (2007). Social stratification and cultural consumption: Music in England. *European Sociological Review*, 23, 1–29.
- Di Maggio, P., & Mukhtar, T. (2004). Arts participation as cultural capital in the United States 1982–2002: Signs of decline? *Poetics*, 32, 169–194.
- European Commission. (2013). *Special Eurobarometer 399, Cultural access and participation*.
- Garfias, R. (1991). Cultural equity Part 1: Cultural diversity and the arts in America. In S. Benedict (Ed.), *Public money and the muse* (pp. 182–215). New York: Norton and Company.
- Keaney, E. (2008). Understanding arts audiences: Existing data and what it tells us. *Cultural Trends*, 17, 97–113.
- Lunn, P., & Kelly, E. (2008). *In the frame or out of the picture? A statistical analysis of public involvement in the arts*. Dublin: National Economic and Social Forum.

- National Endowment for the Arts. (2013). *2012 Survey of public participation in the arts*. Washington, DC: National Endowment for the Arts Research Division.
- Netzer, D. (1991, May). *Distributional effects of cultural subsidies: Some conceptual questions and empirical evidence for the US*. Paper presented at a conference in Venice.
- Notten, N., Lancee, B., van de Werfhorst, H. G., & Ganzeboom, H. B. (2015). Educational stratification in cultural participation: Cognitive competence or status motivation? *Journal of Cultural Economics*, 39(2), 177–203.
- O'Hagan, J. (1996). Access to and participation in the arts: The case of those with low incomes/ educational attainment. *Journal of Cultural Economics*, 20, 269–282.
- O'Hagan, J. (1998). *The state and the arts: An analysis of key economic policy issues in Europe and the United States*. Cheltenham: Edward Elgar.
- O'Hagan, J. (2010). The arts and the wealth of nations: The role of the state. *Journal of Irish and Scottish Studies*, 2, 40–52.
- O'Hagan, J. (2012). Tax expenditures: Pervasive, 'hidden' and undesirable subsidies to the arts? *Homo Oeconomicus*, 29, 95–118.
- Palma, M. L., Palma, L., & Aguado, L. F. (2013). Determinants of cultural and popular celebration attendance: The case study of Seville spring fiestas. *Journal of Cultural Economics*, 37, 87–108.
- Vander Stichele, A., & Laermans, R. (2006). Cultural participation in Flanders: Testing the cultural omnivore thesis with population data. *Poetics*, 34, 45–64.
- Yoshitomi, G. (1991). Cultural equity Part 2: Cultural democracy. In S. Benedict (Ed.), *Public money and the muse* (pp. 216–252). New York: Norton and Company.
- Zieba, M., & O'Hagan, J. (2013). Demand for live orchestral music – The case of German Kulturorchester. *Jahrbücher für Nationalökonomie und Statistik*, 235, 225–245.

John O'Hagan is Emeritus Professor of Economics, and Senior Fellow, at Trinity College Dublin, Ireland. He was President of the Association for Cultural Economics International from 1998 to 2000. He is on the scientific committee of the European Workshop in Applied Cultural Economics, with the eighth workshop to be held in Krakow in 2017. He was Chair of a government-appointed group reviewing value for money in the allocation of Irish Arts Council expenditure, the Report of which was completed in September 2015. He has published widely in cultural economics, as well as on the Irish economy, including a 13th edition of his popular edited *Economy of Ireland* book (Palgrave London) due out in 2017.

Measuring Participation or Participating in Measurement? The Cautionary Tale of an Accidental Experiment in Survey Accuracy

Pete D. Lunn

Abstract While survey results are always subject to measurement error, it is generally assumed that surveys of cultural participation are no less accurate than surveys in other areas of social science. The present chapter casts doubt on this assumption via a cautionary tale of events that befell an established national survey in Ireland. An organisational change led the survey to be conducted via the same method but using a different set of interviewers. The result was a surprising and dramatic increase in the headline figures, which related to participation in sport, both active and social. Subsequent data pointed to a systematic relationship between the decision to participate in the different surveys and in the activity being measured. The implication is that surveys of cultural participation may be subject to a specific form of selection bias. Furthermore, the effect size reported here suggests that this bias may be uncomfortably large.

Keywords Measuring participation • Survey design • Sampling problems

1 Introduction

The collection and analysis of survey data are vital empirical tools in the study of cultural participation and, by extension, in the formation of cultural policy. Since it is understood that surveys measure participation in cultural activity with some degree of error, both researchers and policymakers are inclined to place greater weight on surveys that employ good methodology. Emphasis is placed on large random samples, consistent definitions and sound processes of statistical inference. Headline percentage figures are routinely used to inform us as to which countries and regions have the highest levels of cultural participation, which forms of participation are most popular, which sections of society participate the most, which lag behind, and how participation changes over time (e.g., Eurostat 2011, pp. 139–193).

P.D. Lunn (✉)
Economic and Social Research Institute (ESRI), Dublin, Ireland
Trinity College Dublin, Dublin, Ireland
e-mail: pete.lunn@esri.ie

Some of the potential pitfalls of surveys are well known. Firstly, obtaining a truly representative sampling frame is not easy. Standard techniques include randomising over dwellings or telephone numbers, but both have drawbacks, such as the requirement for accurate contemporaneous information on household structure, or the need to account for the declining incidence and use of fixed-line telephones, or the difficulty of making contact with hard to reach groups, such as minorities and the socially disadvantaged. Secondly, while researchers can employ various techniques to boost response rates, the potential for selection bias is ever-present. Samples are generally reweighted to match control totals for population subgroups from a reliable source, such as a census of population. Yet even where this is accomplished and a sample is representative with respect to observable characteristics, there remains the possibility that those who agreed to participate in the survey are different from those who did not, with respect to unobservable characteristics.

A number of guides to conducting good surveys exist, some of which are specific to cultural participation (e.g., Morrone 2006; ESSnet Culture 2012; UNESCO 2012). As well as advising on appropriate survey methodologies, these guides discuss some of the debates over definitions that accompany research in cultural participation. It is generally assumed, however, that the familiar issues of sampling and selection that surround all surveys afflict cultural research to no greater or lesser degree than they afflict other research domains. The current chapter challenges this assumption. It describes some evidence that the problem of selection bias may be of greater concern for surveys of cultural participation than for surveys that generate most other kinds of social statistics.

Ultimately, whether an individual takes part in a survey is a decision made by that individual. The probability that any one individual opts to undertake a survey, when encountering a telephone call, visitor on the doorstep, or questioner in the street, may vary substantially across individuals. By definition, the extent of this variation, its correlation with other individual characteristics and its relationship to the type of survey, are not known. After all, it is hard to obtain reliable information about people who do not wish to answer survey questions. However, for researchers interested in cultural participation, there is an issue of particular interest, or perhaps concern. The individual decision that is crucial to determining the potential extent of selection bias is, itself, a decision whether to *participate* in something. Hence a hypothesis worth exploring is whether the likelihood that individuals participate in different kinds of surveys is correlated with the likelihood that individuals participate in cultural activities. This hypothesis, if true, is potentially discomfoting, because it implies that the extent of selection bias encountered by surveys designed to measure cultural participation might be greater than that generally encountered by other social, economic or consumer surveys.

The present chapter addresses the issue via a chronological account of a specific survey conducted between 2007 and 2011, in which an apparently minor change in the method of collecting survey responses produced an abrupt change in headline participation. The result provides an empirical estimate of the potential extent of selection bias—one that ought to give any quantitatively inclined researcher pause for thought.

The survey in question concentrated on the measurement of participation in sporting activity and sports clubs. No universal agreement exists as to whether

participation in sport falls under the definition of cultural participation, or whether it should be considered merely a related activity (e.g., Deroin 2011, p. 3; UNESCO 2012, p. 48). For present purposes, this debate is ignored. Whether the effect reported here applies with similar strength across different cultural domains remains an empirical matter; the potential for bias might vary between surveys of participation in sport and, say, the arts. The contribution of the present chapter is rather to raise awareness about the potential size of selection biases in surveys where the goal is to measure *participation*, including high quality surveys that employ established good practice. The issue represents another area where cultural and sport economics might benefit from recognition of their overlap (Seaman 2003). Specifically, the suggestion made here is that within the very concept of participation may reside the underlying cause of an effect that has the potential to undermine the validity and comparability of quantitative surveys that set out to measure various kinds of cultural participation.

The opportunity for the analysis that follows arose by chance, when the contractual arrangements surrounding an ongoing national telephone survey of participation changed. The result was a natural experiment in survey accuracy, with a surprising outcome. Simply changing the people making the phone-calls and asking the survey questions, while the sampling frame, sampling method and questionnaire remained constant, produced a dramatic jump in the headline participation rate. Various hypotheses put forward to explain this finding were subsequently explored by the research team behind the survey and are described below. It is concluded that the most likely explanation is that, first, the willingness to participate in the survey was highly sensitive to immediate impressions of voices and background noise on the telephone and, that second, this sensitivity was correlated with responses to the main participation question. The implication is that even where survey questions are well designed, consistent and harmonised across countries or data collection providers, headline rates of cultural participation may be subject to high levels of selection bias—certainly much higher than this author would have countenanced prior to the events described. What follows amounts, therefore, to a cautionary tale for researchers in cultural participation.

The remainder of the chapter proceeds as follows. Section 2 describes the relevant background to the specific survey and the initial headline figures it produced. Section 3 provides an account of what happened when a change was made in the way the survey was conducted, resulting in a natural experiment. Section 4 outlines potential hypotheses to explain the outcome and describes how they were tested over subsequent months following the discovery of the problem. The final section considers the possible implications of biases of such magnitude for surveys of cultural participation.

2 The Irish Sports Monitor (ISM)

In many ways the Irish Sports Monitor (ISM) is a good example of modern government attempting to integrate research into policymaking. The ISM was commissioned by the Irish Sports Council in 2006 and began in January 2007, following a

competitive tendering process to determine who would carry out the survey work and associated statistical analysis. The aim was to record and then to monitor headline rates of participation in sport. This was to include not only active participation in sport and exercise, but also attendance at sporting events, club membership and volunteering. Thus, the focus of the survey was not only on the health benefits of physical activity, but on the broader picture of participation surrounding sport in Ireland, with all the potential benefits in relation to social capital.

Much effort went into the telephone survey's design [described in Lunn et al. (2009), where the full questionnaire is also available]. Because international research suggested that participation rates in sport varied only slowly over time, a large annual sample of over 9000 people aged 16 years and over was employed, with data collection spread throughout the year. The main participation questions were designed to be open and were coded in such a way as to permit the matching of other definitions of participation, so that headline rates could be compared with other surveys in Ireland, policy targets and participation rates elsewhere.

Thus, the overall aim was to measure the extent of participation, to monitor how it changed over time, and to be able to compare these levels and trends across regions and with equivalent participation rates in other countries. The intention was also that the survey would build an invaluable data resource over a period of years, permitting analysis of the relationships between different forms of participation and a variety of socio-demographic variables. The ISM, therefore, represented a considerable investment in the acquisition and use of evidence to inform policy.

The issue of selection bias was a concern in the initial design of the survey. If potential respondents had been asked whether they were willing to participate in a survey about their involvement in sport, there would have been an obvious risk of a positive selection bias. Instead, the ISM questionnaire was attached to a long-running economic sentiment index, consisting of a brief set of questions about prospects for the economy. Pilots showed that having agreed to take part in the economic survey, almost all respondents were willing to continue the conversation and to complete the questionnaire on sport.

The initial results of the ISM for 2007 were encouraging. Figures 1 and 2 provide examples of how the initial headline rates corresponded with other benchmarks. Figure 1 compares the proportion of respondents who had actively participated in sport (at least 20 min within the past 7 days) with weekly participation rates recorded in other surveys carried out in Ireland in previous years. This includes a 2006 survey based on a sample of around 40,000 people surveyed face-to-face for the *Quarterly National Household Survey* conducted by Ireland's Central Statistics Office, the successor to the old EU *Labour Force Survey*. Some of the usual sorts of measurement issues are relevant to the comparison. The ISM questionnaire asked respondents to recall activity they had undertaken in the past 7 days, while the two comparison surveys asked about activities undertaken within the past year, before asking a follow-up question about the frequency of participation in order to obtain a weekly rate. The ISM was a telephone survey, while the other two surveys were face-to-face. In spite of these differences, the weekly participation rates from the three surveys were, at least initially, an encouraging match.

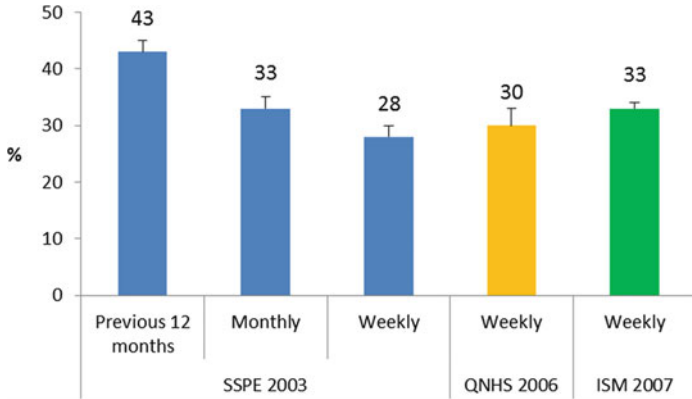


Fig. 1 Initial results of the ISM survey for active participation in sport (>20 min), compared to other participation surveys in Ireland. Sources: Survey of Sport and Physical Exercise (Fahey et al. 2004); Quarterly National Household Survey (Central Statistics Office 2007); Irish Sports Monitor (Lunn et al. 2009)

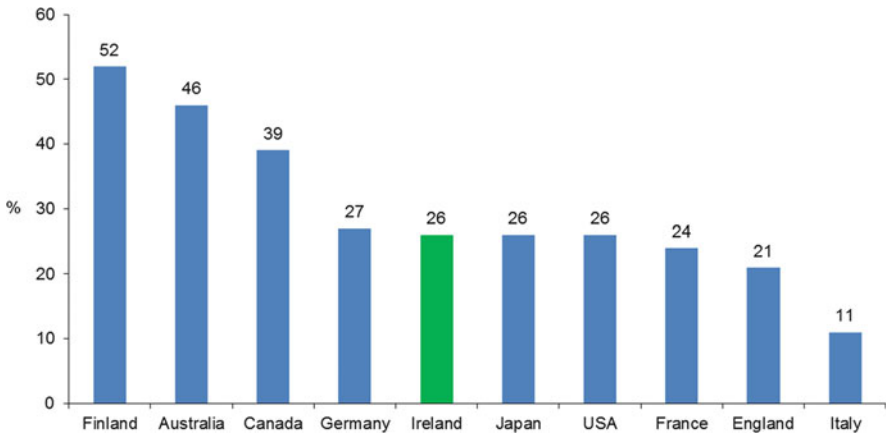


Fig. 2 Comparison of participation in sport for Ireland and selected other countries. Sources: Carter (2005) and Lunn et al. (2009)

Figure 2 is an international comparison of active participation reported in Lunn et al. (2009), derived by adapting the definition of participation (at least half-an-hour per week) to match data provided in a similar international analysis conducted for the UK government (Carter 2005). International comparisons based on matched definitions like this are made routinely by governments and international organisations, including the European Union (e.g., European Commission 2010). This kind of analysis is thought to be important for policymakers. Where some countries achieve a substantially higher level of participation, the implication is that other countries might learn lessons from the policies of the higher participation nations and apply these lessons to improve their own participation rates. The sample-size of the ISM also allowed a regional breakdown of participation rates within Ireland and more detailed econometric analyses of the determinants of different kinds of participation, including club membership, attendance at events and volunteering.

The initial results produced by the ISM were therefore considered a successful contribution to understanding an important component of cultural participation in Ireland. The survey appeared to be in line with other surveys conducted by alternative methods and placed Ireland as a middling country in an international comparison of participation. So far, so good.

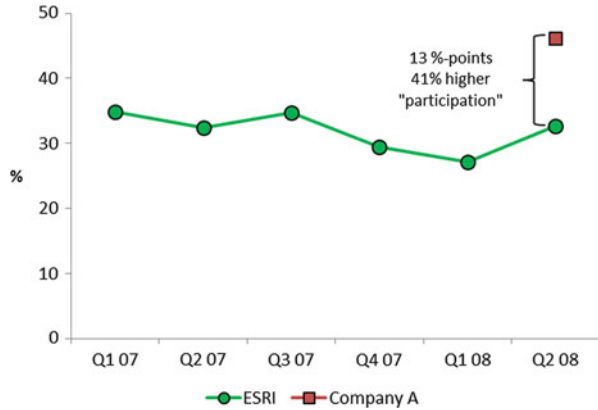
3 An Accidental Experiment in Survey Accuracy

The initial contract for the ISM was awarded to Ireland's national research institute, the Economic and Social Research Institute (ESRI), and was to run for 3 years from 2007 to 2009. In Spring 2008, however, it encountered a difficulty when an unexpected decision was taken, on economic grounds, to discontinue the operations of the ESRI Survey Unit. There was no option other than to transfer the collection of the data to another provider. The ESRI outsourced the data collection to an established Dublin-based market research company with experience in telephone interviewing (hereafter, Company A).

This amounted, therefore, to an accidental experiment in survey accuracy. It was unanticipated and, at the time, it was not thought that this would cause a difficulty. The survey methodology was to remain constant, the survey questions were to be the same, and the data would continue to be recorded and coded as before. All that changed was which organisation was to make the phone calls. Nevertheless, to be on the safe side, it was decided that in the final month of the ESRI Survey Unit's operation, April 2008, in addition to the final sample of 1000 respondents surveyed by the Unit, Company A would collect a first sample of over 500 respondents for comparison.

For all those involved, the results were, to say the least, a revelation. The experiment took place just after the onset of Ireland's deep recession, which took hold in late 2007 and early 2008. As the quarterly time-series in Fig. 3 shows, participation in sport had just dipped by 3–4 percentage points, before recovering slightly. Later analysis would reveal that the primary reason for the fall was a reduction in memberships of gyms and golf clubs and, furthermore, that the rapid

Fig. 3 Comparison of participation rates recorded by ESRI and by Company A, using the same survey method and questionnaire. Source: Lunn and Layte (2009); ESRI internal calculations



recovery was genuine and was mainly caused by working people having more free time (Lunn and Layte 2009). These fluctuations of several percentage points were statistically significant and considered to be important—equivalent to around one in ten participants giving up their involvement in sport. Yet they were very small in comparison to the difference that emerged as a result of who was asking the survey questions. Company A recorded participation to be 13.5 percentage points higher than the ESRI’s figure, equivalent to a 41% jump in the number of participants.¹ Note that for the sample-size involved, the standard error on these headline figures was less than 3 percentage points.

It is worth contextualising the scale of the effect uncovered. Were the result obtained by Company A to match reality, it would mean that one in every five people not involved in sport had suddenly become participants. Ireland would have been lifted from a middle-ranking country for sports participation into one of the world leaders. The Irish Sports Council, which had made a strategic commitment at the time to target a 3 percentage point increase in participation over 3 years, would have met its goal four times over. The result obtained was, plainly, not credible.

4 What Caused the Discrepancy in Participation Rates?

The initial diagnosis was that this result had to be caused by some kind of simple error. Yet, upon investigation, no obvious candidate emerged.

Furthermore, the socio-demographic breakdown of the sample collected by Company A was no different to that obtained by the ESRI—participation was

¹For ease of exposition, the analysis here concentrates on active participation in sport, but similar jumps in participation were also recorded for volunteering with sporting organisations and for attending sporting events, although not for club membership. The reasons for this remain unclear, although membership was volatile around this time, due to the depth of Ireland’s recession.

simply recorded as higher for both genders and across age groups. Over successive months of data collection in June, July and August 2008, the organisations behind the ISM attempted a sequence of minor changes to the approach used by Company A and, in doing so, effectively conducted a series of hypothesis tests regarding the cause of the discrepancy between surveys.

A number of hypotheses were entertained. One possible culprit was the sampling method. While in theory this was the same for both organisations, since it was based on the random generation of telephone numbers, different software was used to accomplish this. In June, the same software was used to generate the telephone numbers, so that the sampling method was identical. In July, a change was made to the wording of the opening script. It was hypothesised that different people might be likely to respond positively to a request to participate in a survey when it was being conducted by a national research institute than when it was being conducted by a market research company. Consequently, in July, the interviewers from Company A introduced themselves to potential respondents by stating that they were “doing a study for the ESRI”, just as the ESRI’s own interviewers had done previously. At this point, the sampling method, the introductory script, all information given to respondents and the questionnaire being used by Company A, were identical to those that had been in use when the ESRI Survey Unit collected the data.

The results of this succession of hypothesis tests are provided in the data from April to July presented in Fig. 4. As a result of these interventions, the participation rates recorded by Company A fell marginally, but not statistically significantly. Meanwhile, the rate remained substantially higher than anything previously recorded by the ESRI in any month since the beginning of the survey in January 2007. At this point, with

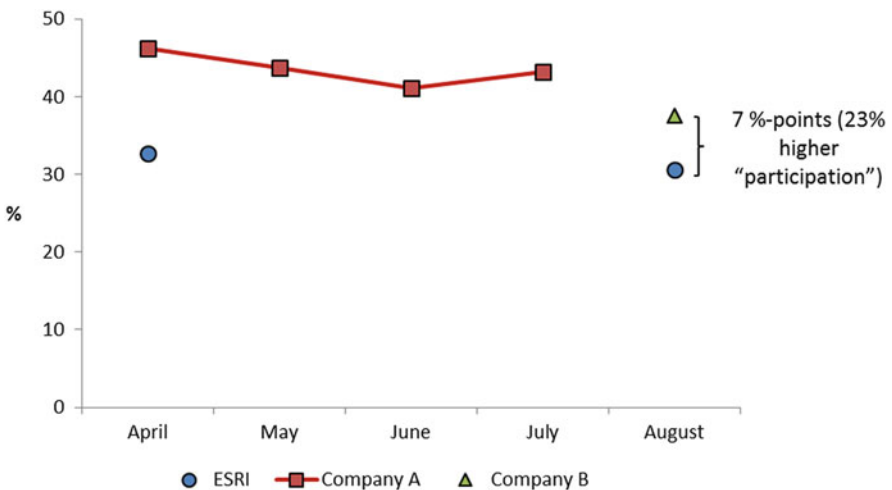


Fig. 4 Comparison of participation rates recorded in 2008 by the ESRI, by Company A and by Company B, using the same survey method and questionnaire

identical sampling, scripts and methods, options with Company A were seemingly exhausted and data collection with this market research company was stopped.

One possible clue to what was going on remained. It now seemed, by a process of elimination, that the only difference able to account for the contrasting results was what the call sounded like to the potential respondents. Although the script was identical, there would have been differences in the tone of the voice and the ambient sound. The ESRI interviewers were, on average, older and more experienced than those of Company A and, furthermore, they made their calls from home, not from a call centre. Thus, it might have been that different people were willing to undertake a questionnaire when called by interviewers of different ages, or when called by what sounded like a business rather than an individual. Also, while the overall response rate for the survey, at 48%, was good by the standards of telephone surveys, it was slightly lower for Company A than for the ESRI.

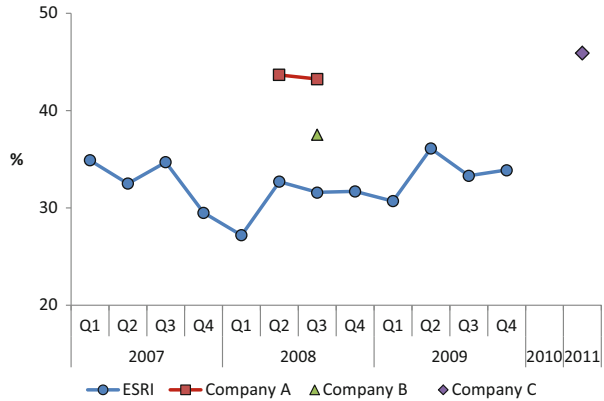
In August 2008, the ESRI re-hired a group of their former interviewers for 1 month to conduct the ISM data collection, but also engaged a second market research company, Company B, to undertake simultaneous data collection, again using exactly the same sampling, script and method. At the time, Company B was a more established firm than Company A, with a somewhat older profile of interviewers and a reputation for obtaining good response rates.

The data for August are also given in Fig. 4. Company B produced a participation rate that was 7 percentage points higher than the contemporaneous ESRI rate, equivalent to an increase of 21%, or more than one-in-ten non-participants suddenly getting involved in sport. Although the gap between Company B and the ESRI was smaller than was the case for Company A, it remained substantial and statistically significant. It is also worth noting that the gap in participation as measured by the two market research companies was statistically significant.

In the introduction to this chapter, it was suggested that the decision to participate in different types of survey may be correlated with individual characteristics linked to the likelihood of cultural participation. If so, then the type of selection bias at issue in this chapter might be more of a problem for research on cultural participation than for other kinds of research employing survey data. Recall also, from Sect. 2, that the survey in question was appended to a brief survey of economic sentiment. These responses were collected alongside the responses to participation questions, by the same interviewers and companies. One interesting question to ask, therefore, was whether the responses to economic sentiment questions (which included agreement or disagreement with statements about whether the economy would get better or worse over the coming year and predictions for the rise or fall of unemployment) were similarly affected by the change of organisation collecting the data. The straightforward answer was that they were not. The economic sentiment responses were subject to a bit more month-by-month noise than the participation responses, as might be expected given the economic volatility in Ireland in mid-2008, but no equivalent step-jumps were recorded in the time-series.

It is important to note also that whatever the cause of the difference in participation rates, it was not specific to an identifiable socio-demographic group, which would allow correction by sample reweighting. Rather, across socio-demographic

Fig. 5 Comparison of participation rates recorded by the ESRI, by Company A, Company B and Company C, using the same survey method and questionnaire



groups, people who participated in sport apparently took different decisions with respect to willingness to undertake the different surveys, compared to people who did not participate in sport. One possibility is that those who did not participate in sport may have been more inclined to agree to be interviewed by an older interviewer calling from a quiet location than by a younger interviewer calling from an office. Alternatively, those who participated in sport may have been less likely to agree to be interviewed by the older home-based interviewers than by younger interviewers in a call centre. Some combination of the two was clearly possible. What was striking was the scale of the effect and its uniformity across socio-demographic groups.

The final twist is that this cautionary tale involves another market research company, Company C. From September 2008 onwards, Companies A and B were dropped and the old ESRI interviewers continued to collect the ISM data until the end of 2009. At this point, the ESRI lost the contract to Company C. Figure 5 shows what happened next. No data were collected in 2010, but Company C published its first figures for the ISM survey in 2011. For comparison, the previous data from Companies A and B are also included. Since there is a gap of 2 or 3 years, it is of course possible that Ireland underwent a sporting revolution during this period, which propelled it from being a mid-ranking nation for participation in sport into a world leader. The problem, of course, is that the results obtained are strikingly similar to those recorded in the data collected by Company A back in 2008. In truth, we simply cannot ascertain from these data whether participation has increased or decreased, nor indeed where Ireland truthfully stands relative to other countries.

This last point captures the upshot of the ISM story. The scale of the effect observed was so large as to be comparable with or greater than differences that are routinely taken to be meaningful by researchers and policymakers, such as disparities in participation rates between countries (e.g., those depicted in Fig. 2). Indeed, the gap was much larger than typical changes in participation rates over medium-term periods. This was the case even though the survey differed only in the sound of a voice and the ambient noise that surrounded it when receiving a telephone call.

5 Conclusions

The cautionary tale told in this chapter reveals that the potential for selection bias in surveys of cultural participation is discomfotingly large. It is of course possible that the differences in participation rates described might not apply to other forms of cultural participation; perhaps (both active and social) participation in sport is an exception. Yet there are good reasons to doubt this. The findings imply a correlation that is too strong to ignore between the decision to participate in different surveys and the decision to participate in sport. The former decision involves willingness to engage in a social interaction and, in most cases, so does the latter. The same is true of most decisions to participate in cultural activity. Willingness to participate is common to all these decisions and the implication is that other forms of cultural participation may hence be prey to similar effects.

The scale of the effect reported is troubling from the perspective of comparative analysis. Even where surveys are harmonised, questions are accurately translated into different languages and sampling methods are matched, the implication is that substantial differences in participation rates could arise if different organisations, or even interviewers with different profiles from within the same organisation, collect the data in each country. Thus, where even quite large cross-country differences are recorded, they may or may not be valid.

None of this is to suggest that survey data are not useful for the study of cultural participation, only that great care is needed when interpreting headline results. In particular, relying on a single survey as a valid indication of differences or changes in participation rates is perhaps not advisable. Where findings are consistent across multiple surveys collected via different methods, such as telephone, face-to-face and online, we can have more confidence in what they indicate. In the case of participation in sport in Ireland, while it is not possible to be sure which of the ISM results most closely matched the true picture, the consistency of the results from three surveys conducted between 2003 and 2007, collected via different sampling frames and contact methods (Fig. 1), suggests that the ESRI participation rate may be the more accurate. Similarly, we might have more confidence in findings that are common across surveys based on asking respondents to recall participation directly, recording time-use and gathering consumer expenditure data.

Lastly, the findings reported in this chapter indicate that further research is needed to address directly the validity and reliability of cultural participation surveys. The experiment in survey accuracy described here occurred by accident, but similar comparisons of survey outcomes could be made by design. Variation in headline participation rates could be studied in controlled trials that systematically varied the profile of interviewers conducting both face-to-face and telephone surveys. Such research would be likely to improve understanding of the potential scale of selection bias and its underlying causes. Ultimately, it might permit cultural participation surveys to be designed in such a way that we can be more confident about their validity. The confidence of the present author, given the events described here, remains dented.

Acknowledgements For assistance related to the material in this chapter, I thank the Irish Sports Council, Dorothy Watson, Peter Smyth and John O’Hagan. I also thank the patient staff of Companies A and B, who did their best to get to the bottom of the difficult issues raised.

References

- Carter, P. (2005). *Review of national sport effort and resources*. Report for HM Treasury and The Department of Culture, Media and Sport, London, UK.
- Central Statistics Office. (2007). *Quarterly National Household Survey: Sport and physical exercise*. Cork: Central Statistics Office.
- Deroin, V. (2011, December). *European statistical works on culture* (Culture Études, 2011–08).
- ESSnet Culture. (2012). *European statistical network on culture: Final report*. Luxembourg: Eurostat.
- European Commission. (2010). *Sport and physical activity*. Special Eurobarometer 334. Brussels: European Commission.
- Eurostat. (2011). *Cultural statistics*. Luxembourg: Publications Office of the European Union.
- Fahey, T., Layte, R., & Gannon, B. (2004). *Sports participation and health among adults in Ireland*. Dublin: Economic and Social Research Institute.
- Lunn, P., & Layte, R. (2009). *The Irish Sports Monitor: Second annual report, 2008*. Dublin: Irish Sports Council/Economic and Social Research Institute.
- Lunn, P., Layte, R., & Watson, D. (2009). *The Irish Sports Monitor: First annual report, 2007*. Dublin: Irish Sports Council/Economic and Social Research Institute.
- Morrone, A. (2006). *Guidelines for measuring cultural participation*. Montreal: UNESCO Institute for Statistics.
- Seaman, B. A. (2003). Cultural and sport economics: Conceptual twins? *Journal of Cultural Economics*, 27, 81–126.
- UNESCO. (2012). *Measuring cultural participation*. 2009 Framework for Cultural Statistics Handbook No. 2. Montreal: UNESCO Institute for Statistics.

Pete Lunn is a behavioural economist at the Economic and Social Research Institute in Dublin, Ireland. He has a Ph.D. in Neuroscience and an M.Sc. in Economics, both from the University of London. His research interests cover a broad range of economic decisions, from everyday consumer purchases to long-term lifestyle choices. Pete has published extensively on how and why some people are more active than others, with a focus on participation in sport. As part of this work, he has devised and analysed multiple national participation surveys. This work includes a unique statistical reconstruction of participation in grassroots sport in Ireland spanning half a century. Pete has also published research on participation in the arts.

Participation in the Arts and Social Inclusion in Disadvantaged Neighbourhoods

Marco Ferdinando Martorana, Isidoro Mazza, and Luisa Monaco

Abstract This study investigates the problem of cultural participation in economically and socially disadvantaged neighbourhoods. It aims at ascertaining if and how arts can contribute to reduce the problems of social inclusion and foster urban regeneration. The analysis provides a comparative overview of different types of private supply of cultural goods, which are investigated with respect to their effectiveness in accomplishing these goals. Past experiences in the disadvantaged areas of the city of Catania are then used as a case study to identify critical aspects of each investigated form of private supply and to derive general suggestions for the design of public policies.

Keywords Cultural participation • Urban regeneration • Social inclusion • Development

1 Introduction

The preservation and valorisation of urban centres and the social inclusion of peripheral poor urban areas are two important problems common to many cities. We often observe, particularly in developing countries, that more affluent residents tend to migrate from historic centres to amenable enclaves where they can have larger houses and better security. The recent crisis and the interruption of many commercial and productive activities have exacerbated social inequity and the deterioration of many neighbourhoods, even in central areas. Different policies are available to tackle these problems and initiate a process of urban regeneration. Among these, the provision of cultural services in poor districts is widely believed

M.F. Martorana (✉) • I. Mazza • L. Monaco
Department of Economics and Business, University of Catania, Catania, Italy
e-mail: marco.martorana@unict.it; imazza@unict.it; luisamonaco@inwind.it

to favour an improvement in social integration as well as social capital, through wider cultural participation.¹

This chapter investigates different outcomes that can derive from private provision of cultural goods in deprived areas. The latter are categorised according to the urban location of the suppliers and consumers. This classification is used to identify the efficacy of various forms of cultural activities, primary related to arts, in guaranteeing a wide participation that is not restricted to more privileged social strata. The comparative analysis highlights that the private supply of cultural goods, although helpful in revitalising a disadvantaged urban district, may prove insufficient for the purposes of promoting cultural participation among the district's residents and reducing social exclusion. Some private initiatives may start in poor districts simply because rents are relatively low, although they aim at providing services directed to non-residents. They do not involve the local community in the definition of their programmes but do, occasionally, employ the local labour force. It is thus highly unlikely that such initiatives, although very important for the cultural growth of the whole town, will contribute towards visible improvements of cultural participation in disadvantaged neighbourhoods. On the contrary, they may cause gentrification in the medium to long term. Symmetrically, an improvement in the cultural participation of the residents of a specific neighbourhood may not be sufficient to reduce social exclusion. Indeed, in some cases, a local community organizes and finances the supply of cultural goods—or is at least involved in the decision-making—and represents also the final user of the cultural goods provided. In such cases, we observe a favourable environment for cultural participation, but not necessarily an improvement in terms of social inclusion. We claim that, in order to be effective in this sense, art supply should be designed to enhance social and cultural exchange. With respect to the last issue, it is worth clarifying that our investigation is restricted to cultural aspects. Therefore, we omit considering several determinants of the multifaceted problem of social integration. Moreover, our investigation is restricted territorially, as we focus on the supply of cultural activities in more disadvantaged neighbourhoods, and on the participation of their residents. We disregard the potential consumption of cultural goods supplied in other (non-poor) urban areas.

Furthermore, the investigation highlights that the arts education of young students has a central role in promoting cultural participation, and not just for the obvious reason that it lowers the barriers to cultural consumption determined by lack of knowledge. Youngsters active in the arts may transmit their interests into the household and thus contribute to reducing the resistance and prejudices that elders may have against cultural participation, especially in deprived neighbourhoods.² Anticipating the message of the *Fondazione Presti*, whose experience is among

¹See Suarez and Mayor (2017) for an analysis of potential policies of localization of cultural facilities.

²Our approach then differs from the traditional one where education proceeds from the old generation to the young one (see, for example, Champarnaud et al. 2008).

those illustrated in this study, young generations must be educated with respect to beauty in order to be able to perceive and produce it also in their own neighbourhood.

The study also includes significant exemplary experiences from the city of Catania. This city in the eastern part of Sicily, with a population of about 300,000 inhabitants, is characterized by a relatively large historical centre where high and low income residences and deprived and gentrified areas co-exist.³ A number of cultural activities are located in the town centre, often in deprived or semi-gentrified areas.

The identification of critical aspects, related to the different combinations of suppliers and consumers that we specifically investigate, is then used as the ground for discussion about the ways in which the public sector can improve upon private supply, and the characteristics that public policies should incorporate, if they are to support cultural participation effectively.

This chapter is organized as follows. Section 2 overviews the reasons for which cultural participation can act as an essential tool for the purpose of regenerating deprived neighbourhoods. Section 3 provides a comparative analysis of different types of phenomena related to specific cultural projects that we can typically find in these areas. The discussion will be backed by some experiences observed in Catania. Section 4 summarises the findings of the analysis in the previous section, in order to outline some suggestions for the design of policies aimed at supporting cultural participation. Section 5 concludes the chapter with few final comments.

2 Cultural Participation as Determinant of Urban Regeneration

The supply of projects favouring cultural production and participation is a growing phenomenon of modern cities. Cultural projects of this kind have increasingly been recognised as fundamental inputs to accomplish urban regeneration (Landry et al. 1996; Belfiore 2002). Several explanations have been put forward in the literature to support this claim. In a nutshell, the basic reasoning is that arts and culture would contribute to social capital accumulation, reduce social exclusion and, thereby, foster economic development in more deprived neighbourhoods (European Commission 2005). Along this line of thought, local and central governments in several countries have funded projects aimed at improving cultural participation and

³The centre corresponds approximately to the expansion of the city's territory up until the two main disasters which occurred in the late seventeenth century: Etna's eruption in 1669 and the earthquake in 1693 that almost completely destroyed the city. Its actual condition is the result of the economic development process undertaken in the post-war period, the city's renovation policies adopted in the 1990s and the more recent decline over the last decade, which has blocked the process of gentrification and has substantially increased the degree of deterioration of those already problematic areas.

removing barriers that typically tend to exclude low-income residents and less developed urban areas.⁴ This issue is crucial in Italy where the rates of cultural participation are particularly low in a European context where the EU itself is characterized by declining rates (European Commission 2013). Moreover, within the country, a strong gap exists between the northern and southern regions, especially among the youth.

However, the theoretical foundations and the procedures to implement programs supporting social inclusion and building social capital are far from unambiguous. A debate has developed around the concept of social inclusion among those putting forward contrasting perspectives based on different interpretations of citizens' rights. This discussion has eventually led to the identification of various determinants and different forms and degrees of public regulation and support. Therefore, the co-existence of different interpretations of social inclusions in official documents, programs and studies should not come as a surprise.⁵ Wood et al. (2002) reminds how social inclusion was initially meant to reflect the social and political implications of poverty and deprivation, emphasising the relational problem of people kept at the margin of society. The concept has recently developed to incorporate the additional problems caused by globalisation and multi-ethnic societies (see, e.g., Kearns and Paddison 2000). The latter topics will not be specifically addressed in our study. Even focusing exclusively on participation in the arts, as we do here, the dynamic process leading to an accumulation of social capital and reduction of social exclusion is rather complex. The fact that a substantial length of time is needed to produce tangible results evidently generates further problems of measurement and evaluation of specific programmes.

Following the indications of the European Commission (2005), a wider access to, and participation in cultural activities can contribute to develop team-working attitudes and self-confidence (especially among people who had difficulties to cope with formal education), promote a sense of identity for groups at risk of exclusion,⁶ reduce cultural and ethnical discrimination and also create employment opportunities in low-income neighbourhoods. The multidimensional effect of cultural participation reflects the multidimensional nature of social capital, which has been studied in different research fields, from sociology to economics, criminology, and political science (Bourdieu 1986; Coleman 1988, 1990; Burt 1997; Byrne 1999; Putnam 2000; Li 2007; Lin 2000; Blokland and Savage 2008). In general, social

⁴In Italy, for example, higher rates of cultural participation are associated with a more healthy and active lifestyle (that affects life expectancy), as well as higher levels of education, income and social cohesion (Morrone and De Mauro 2008).

⁵Moreover, ambiguities may emerge in the overlapping use of the terms 'social exclusion', 'social cohesion' and 'social capital' (Fine 2002). For example, an influential study by Kearns and Forest (2000) includes several dimensions of 'social cohesion', such as: common values, civic culture, social order, solidarity and reductions in wealth disparities, social networks and social capital, all of which have to be evaluated according to the specific territorial tier under investigation.

⁶For a theoretical analysis of the economic effects of the individual perception of group identity, see Akerlof and Kranton (2000).

capital can be interpreted as the set of actual and virtual individual resources deriving from social interactions and networks (Bourdieu 1986). This definition is of particular relevance for the purposes of this work since it strictly connects cultural and economic capital. By defining the three sources of resource mobilisation (economic, cultural and social capital), Bourdieu emphasises that different levels of capital accumulation and different access to the three sources of capital are relevant determinants of social positions of individuals and groups. In contrast, Coleman (1988, 1990) defines social capital as obligations, expectations, and sanctions that arise within families and communities and generate human capital. Finally, according to Putnam (2000), social capital is a specific public good deriving from civic engagement and is a key determinant of social cohesion and democratic involvement.

Although the definition issue is not merely a matter of terminology, we claim here that the promotion of cultural participation as well as the revitalisation of social interactions and the empowerment of communities have been recognised, in neighbourhood regeneration studies, as key aspects to mitigate social exclusion. Among the several available policies aiming at renovating and strengthening social connections in disadvantaged areas, a recent strand of studies highlights the role of arts and culture in promoting social inclusion and neighbourhood regeneration (Belfiore 2002). It is worth reminding that the role of culture in promoting pro-social behaviour in local communities stretches back to movements and ideas that flourished in the late 1960s. The usage of arts and culture as tools for urban renewal policies further developed in the 1970s, especially in Italy, France, West Germany and Britain, as a practice of local governments which, under the influence of urban social movements, often challenged the traditional view of cultural policy as politically neutral (Bianchini and Parkinson 1993). Such cultural strategies were aimed at promoting forms of ‘public life’ accessible to everyone in response to the increase in social and economic disparities in Western Europe cities. Their focus was on promoting cultural and social participation. Cultural policies evolved in the following decades moving towards the promotion of tourism. Their goal was to strengthen and diversify the local economy by regarding cultural policy as a potential resource for urban valorisation and economic development rather than as a strategy to assess social inclusion (Garcia 2004). The UNESCO World Heritage List (WHL) project has further supported this view. Indeed, national and local level policy makers compete to obtain the inscription in WHL, as a quality certification of the cultural relevance of their pieces of heritage, in order to differentiate their sites in the tourism destination market (Cuccia 2012). Moreover, the participation in WHL inscription procedures can be considered a signal for a cultural-oriented local development strategy.⁷

This short review suggests that social participation is a multifaceted concept, which can be addressed using different approaches, and with ramified implications.

⁷The effect of the inscription in WHL on (cultural) tourism flows and the performance of destination sites is however controversial (Yang et al. 2010; Yang and Lin 2011; Cellini 2011; Cuccia et al. 2016).

It concerns, for example, political rights, policy-making, wealth distribution, urban planning and development. In the following analysis, we focus on the subcategory of participation in the arts in deprived areas. We then relate the former to the cultural policies supporting participation and pro-social behaviour as fundamental elements for the renewal of deprived neighbourhoods. This perspective is, in our view, in line with the recent interpretation that interprets community participation as a prerequisite for projects to be consistent with the needs of that specific community and the self-sustainable development of disadvantaged urban areas.

3 Private Supply of Cultural Goods: An Appraisal Based on Cultural Participation

Cuccia et al. (2017) highlight the benefits that can arise from the coordination among private suppliers of cultural goods. Here, we consider the private cultural initiatives that may take place in disadvantaged neighbourhoods. We then try to ascertain how, and to what extent, they can contribute towards improving the cultural participation of the communities living in those neighbourhoods, and thereby limit social exclusion. This analysis represents the backdrop for the public intervention indications described in the next section.

Our focus is on degraded areas where the provision of cultural goods is mainly organised by the private sector and where extensive public programs of urban regeneration have not yet been achieved. This situation may be quite frequent in municipalities suffering financial and/or political adversity. However, for the specific emphasis we assign to private enterprises, our analysis could be inappropriate for wealthier and more developed municipalities where the public, rather than the private, is likely to be the initial promoter of urban renewal.

In our analysis of the impact of cultural activities on cultural participation and social exclusion, we describe scenarios that are distinct along two dimensions: the localisations of the production inputs (management and capital, especially) and of the typical users, with respect to borders of the specific neighbourhood under investigation. Therefore, in Table 1, we define a 2×2 matrix, where cultural goods, such as artistic projects for example, may be provided and financed either by agents belonging to the community of that neighbourhood or by external subjects. Similarly, the users of those services may, or may not be part of that community. Our focus is, generally, on people whose family have resided in poor neighbourhoods for several years. In this respect we refer to them as residents or as a community.⁸

⁸We do not consider immigrants, because this is a rather recent phenomenon and, more importantly, because the cultural integration of people from other countries and different ethnicities raises additional and perhaps more demanding questions that go beyond the scope of our study.

Table 1 Outcomes from supply of cultural goods in a poor neighbourhood

Users	Inputs	
	Internal	External
Internal	1. Community provision	2. Patronage
External	3. Visiting	4. Colonisation

We also introduce into the discussion some real examples from disadvantaged neighbourhoods in Catania. This city faced an extensive and fast economic and demographic development in the post-war period. However, poor urban planning caused an inevitable decline.⁹ Its expansion in the post-war period left the historical centre in a state of decadence until the last decade of the twentieth century. At that time, the town showed a relative cultural effervescence and economic development, the historical centre was revitalized and a number of cultural and economic activities settled in this area. Public and private investments resulted in a process of partial gentrification of the historical centre. However, this process did not involve the whole historic centre. Relatively large zones (especially in the districts of San Cristoforo, Fortino, San Berillo) with disadvantaged population, poor services and housing, and characterized by social exclusion, still exist.¹⁰ In addition there are a number of poor peripheral neighbourhoods (Librino, San Leone, San Giorgio, Picanello), urbanized mainly in the post-war period as a consequence of the town’s economic development, which was not followed by cultural and social regeneration policies. In general, such neighbourhoods feature high unemployment rates, family fragmentation, crime and social exclusion and low cultural participation.

Community Provision

Starting from the upper left corner of the matrix in Table 1, we address the case where specific art enterprises are financed by the district’s residents, who are also the main consumers. We define this case as ‘community provision’. This situation shows valuable features relating to cultural participation. Firstly, these cultural programmes are likely to guarantee a lasting participation of the local residents because they are the result of an endogenous process of decision-making. Secondly, since programmes are consistent with community preferences, and are the result of the direct involvement of the residents in the organisation and implementation, they possess the appropriate features to guarantee a sustainable cultural participation. Thirdly, community participation contributes towards the enhancement of the

⁹The district of San Berillo was almost completely demolished in the 1957 in order to link the industrial sulphuric area, the train station on the seaside and town centre. After the demolition, this area remained mainly abandoned with the population deported to the new peripheral quarter of San Leone in the western part of the city.

¹⁰In contrast, regeneration projects involved areas outside the historical centre. For example, the former sulphuric industrial area (*Centro fieristico le Ciminiere*) was completely renewed and is now a relevant cultural and fair centre. There we find *Centro Zo*, a cultural association involved in planning and production of cultural events. For an analysis of its multidisciplinary cultural activities, see Cellini et al. (2017).

residents' cohesion. In contrast, a serious limitation of the community provision is that services may not be sufficiently attractive for external residents and even resolve into a phenomenon of alleged sub-culture. In this case, the community goods would not only be ineffective to reduce social exclusion but may even reinforce the marginalisation of that community.

An example of community provision of cultural programs, organized and enjoyed almost entirely by residents of poor neighbourhoods in Catania, is given by the neo-melodic music concerts. They have a primary relevance in Catania, which is one of the most important hubs in Italy for production, broadcasting and performing. The neo-melodic music, that is the contemporary Neapolitan-language pop music, has been increasingly studied, especially by anthropologists (see, for instance, Pine 2012), as it embodies the sub-culture of poor neighbourhoods in southern Italian towns, characterized by the overlapping of formal and informal (illicit) economy, high unemployment rates and social exclusion. It represents an artistic opportunity for many young people in such areas to escape from poverty and gain a local or even national fame. Neo-melodic music is indeed produced, performed and consumed in the same social, cultural and economic context. Although some neo-melodic artists managed to gain national or international notoriety, the neo-melodic music remains a cultural product strictly linked to the inhabitants of poor neighbourhoods in southern Italy or to emigrants from that region. As a result, this culture is well rooted within Italian enclaves in Europe, Australia and America.

In Catania, several concerts are organized every year (especially in summer). They are generally performed in the main square of the neighbourhood and the audience is usually limited to residents although more famous artists may attract a wider public from other districts or provinces. Frequently, live concerts are organized to promote new business openings. Sometimes, concerts may have a social purpose: In areas where cultural mainstream events are sporadic, a single resident or a group of residents may finance a local small festival so asserting their social role within the community or their economic well-being. In other words, such events configure a voluntary private contribution to the provision of a public good. Occasionally, the municipality cooperates by supplying the stage, in consideration of the large participation by residents. No matter the function, such events represent the main cultural activity in the poorer areas of Catania. The participation of residents in concerts is impressive. In contrast, there is no more than a little cross-cultural exchange between those areas' cultural attitudes and the mainstream cultural activities organized in the rest of the town.

Another interesting example of cultural participation that originated endogenously is the street art in the Spanish Quarters (*Quartieri Spagnoli*) of Naples, a town having several similarities with Catania. In this deprived neighbourhood, a group of artists painted walls, entrance doors, and shutters of residences and shops, generally upon requests of the inhabitants.¹¹ The substantial amount of works produced forms an interesting public art space generated through the exclusive

¹¹For a description of this activity and others performed in the Spanish Quarters, see Cyop and Kaf (2013).

support of the neighbourhood. Unlike the case of neo-melodic concerts, this cultural supply could be of some appeal also to residents from wealthier districts.

Patronage

‘Patronage’ is the second outcome we wish to highlight (see the upper right corner of Table 1). In this case, we refer to the situation where a cultural programme primarily aims at reaching the residents of the neighbourhoods but, contrary to the previous circumstance, it is financed by external subjects. As indicated for the case of ‘community provision’, a wide participation of the community—from the initial planning up to the implementation of the programme—is an essential element for success and sustainability and a powerful engine to support social cohesion in the community. Moreover, with respect to the case of ‘community provision’, this kind of programmes may have a larger degree of innovation, due to the patron’s stimulus, which can ignite a regeneration of the neighbourhood. Therefore, these programmes could be considered as equivalent to others realized in wealthier districts. This aspect has specific value inasmuch as it could favour integration more effectively. The main caveat is, however, the need of guaranteeing that the community perceives the project as its own because otherwise cultural participation may not emerge as strong as it could and would be subject to the risk of failure in the case of disinvestment.

A very important example of patronage has developed in Librino, a district with 80,000 inhabitants in the southwestern periphery. It was originally planned in the 1970s by the Japanese architect Kenzo Tange as a completely autonomous *new town*, but it finally resulted in a deprived low-income area characterized by high crime and social exclusion. Since 1999, Librino has been the object of a privately funded programme *Terz’occhio Meridiani di Luce* focused on the cultural and social renewal of the district. This programme has been run by *Fondazione Antonio Presti—Fiumara d’Arte*, which is one of the most interesting experiences of cultural projects in deprived areas in Catania. In order to rehabilitate the district, the foundation promoted several cultural and educational activities. These initiatives aim at establishing a common awareness, among inhabitants for respecting and promoting the local territory. Moreover, they support the dissemination of values related to civil commitments. Residents, especially children, are often called to participate directly in the various cultural projects, as a means of conveying a cultural consciousness to their families thereby encouraging their participation too in cultural initiatives.

The *Fondazione* also carried out additional programmes in Librino. ‘*Poeti a Librino*’ was implemented in 2002 and aimed at the promotion of poetry in schools. It involved poets visiting the neighbourhood schools to read their poems and discuss them with the children. ‘*Porta della bellezza*’ (Gate of beauty) is a monumental work in terracotta completed in 2009 and realized by ten artists with the assistance of 2000 children residents. In 2010, in collaboration with the *National Geographic* photographer Reza Deghati, a laboratory of photography for the primary and junior high school students of Librino was created. Finally, the foundation has planned the project ‘*Sole di Mezzanotte*’ (Midnight sun), consisting

in an outdoor/indoor permanent exhibition of photographs and multimedia and the creation of a museum that will be donated to the city of Catania. The project will initially involve 100 condominiums of Librino that have chosen to participate. Every year, ten sites will be identified and each of them will become the exhibition space of the visual works created by artists specifically invited to collaborate. Images depicting the residents living in any selected building will be projected on its blind facades. In addition, the museum will keep photographs of the people of Librino, as well as poems, short stories, and video installations.

The foregoing overview of the foundation's activities obviously reveals an ambitious mission of ongoing regeneration and empowerment of the neighbourhood. These goals are to be achieved through a unique cultural programme that combines cultural education and the supply of art with an intensive and constant participation of the residents, especially the young ones, in the production of specific cultural projects. Moreover, the primary role attributed to child participation aims at producing a threefold outcome. First, the supplementary education that they receive contributes towards accumulating cultural capital and reducing the frequency of crimes and deviant behaviour. Second, participation in the cultural production process and the permanence of the art sites contribute towards building self-confidence and a sense of identity that should weaken the perception of social exclusion (European Commission 2005). Third, the education and the involvement of the youngest generations are effective ways of transferring culture, art and beauty into the household, blindsiding the resistances that we associate with a deprived and marginalized neighbourhood also characterized by a high level of criminality. We note however, that in the event of disinvestment, the effects of such initiatives risk being diluted in the long run, unless the community feels the programme as its own.

Visiting

The third category of cultural phenomenon that we are going to examine is what we label as 'visiting' (lower left corner of Table 1), which occurs when the cultural activity is provided in a poor neighbourhood that (partly or entirely) organises and finances it, whereas a substantial share of users come from other areas. The evaluation of such activities in terms of their ability to build cultural participation and social inclusion depends on their characteristics and duration. Consider two quite different cases: street art¹² and religious festivals. Street art is experiencing a rapidly growing interest, also from the media, and it is now a fairly widely recognized form of art (think of Keith Haring and Banksy, just to mention the most prominent street 'writers'). Street art has the advantage of being easily accessible and could generate a durable cultural participation of the residents of a neighbourhood, introduce innovative forms of expression, make the urban environment more amenable and eventually contribute towards building the self-esteem of

¹²This case differs from the previous one of the Spanish quarters in Naples because, in the latter case, the production of wall paintings was mainly directed towards satisfying the demand of the residents and not as a public space art.

residents. Moreover, if able to attract significant flows of visitors, it may help to reduce the social isolation of the neighbourhood and also favour its economic development. One potential major shortcoming is that such cultural participation may prove rather 'passive' and unable to determine the tangible social transformation. This is more likely to happen when the initiative is not matched with adequate educational programs.

The case of religious festivals differs from the previous one due to their tested organization and coordination in more urban districts and their very limited time span. If a festival involves poor neighbourhoods, it can contribute towards improving cultural participation and the development of a community identity through preservation and transmission of local traditions. A religious festival is also likely to attract residents from other districts. The fact that this happens for a day or little more is, however, not sufficient to predict lasting effects on the former poor neighbourhood. In conclusion, a festival may be a very important occasion for cultural participation, but it is too restricted in terms of its time span for the purpose of determining concrete effects on social inclusion.

An important example of a religious festival is that of Saint Agatha (3–5 February). This is probably the sole cultural event in Catania that is attended by (almost) the whole population, as well as by many tourists and pilgrims. It is assumed to be among the top religious festival in the world in terms of number of participants (about 1 million) and it is organized and financed by the local government with the cooperation of the archdiocese of Catania and by the guilds. It takes place in the historic centre, with the procession also touching the more deprived districts. The festival represents the main expression of the town's cultural identity, beyond social distinctions and is also the most relevant economic and touristic event. It is worthwhile pointing out that neighbourhoods' communities are also directly involved in the organization. For example, in order to assert their social role within the community, private residents, merchant guilds, and local religious groups fund the so called *Candelore*, wooden structures ranging from 400 to 900 kg, which are carried by groups of about 12 men during parades that start 10 days before the main festival.

Finally, a peculiar experience is that of *Teatro Coppola*, an occupied theatre located in an abandoned publicly owned building (formerly the oldest municipal theatre in Catania). The theatre is situated in the Civita district, one of the historical neighbourhoods of the city. In common with other comparable experiences run in Italy (Teatro Pinelli in Messina, Teatro Valle and Teatro Volturmo in Rome) as well as analogous practices in the town (Campo San Teodoro Liberato),¹³ the group of artists who occupied the unutilized building aimed at restoring it in order to make it available once again to the public by offering an extensive programme of events (music, theatre, cinema, readings, book

¹³Campo San Teodoro Liberato is a former abandoned soccer pitch located in Librino, which has been occupied by a social voluntary group. Currently, it organizes several social and sport activities.

presentations). However, despite its link to neighbourhood tradition, the cultural participation of people living there is still relatively modest.

Colonisation

The last type of cultural phenomenon to be analysed is what we call cultural ‘colonisation’, which occurs when cultural activities, although located in a poor neighbourhood, do not originate in that same neighbourhood and users generally come from different, wealthier neighbourhoods. Cultural firms, associations, and foundations often settle in poor neighbourhoods because they find interesting locations at relatively low prices. The transfer of economic and cultural activities from developed areas to deprived districts could potentially prove to be a powerful engine for a process of urban regeneration. We frequently observe in several countries how urban areas once deprived have become cultural districts that pullulate with commercial art galleries, museums and shops. However, we may ask ourselves whether this process of ‘colonisation’, which contributes a large deal to enhance the cultural stance of a town, is really helpful in improving cultural participation and social inclusion of the community traditionally living in that neighbourhood. A well-known risk is that, without public intervention, the process will end with a gentrification of the neighbourhood that pushes long-standing residents towards different deprived areas that have similar unsolved problems to the neighbourhood they have left. This case highlights how the upsurge of cultural services provided privately to a neighbourhood may in fact have a negative impact on social inclusion of the resident population.

Catania offers some experiences that are particularly helpful in illustrating the points already discussed. We previously mentioned the densely populated neighbourhood of San Cristoforo, which is a particularly degraded area close to the harbour of Catania. Only recently, two non-profit entities, *Fondazione Brodbeck* and *Bocs*, established themselves there. They are quite different to each other but are both involved in the promotion of contemporary art. *Fondazione Brodbeck* is a foundation for contemporary art that aims at enhancing and promoting its private collection as well as the Sicilian contemporary artistic legacy. It also provides educational activities and intends to support the social and economic development of San Cristoforo’s neighbourhood. Its headquarters are located there, in a large abandoned factory that was partially renovated and made accessible. The foundation carries out production and exhibition programmes as well as artist residency programmes. The production and implementation of specific exhibitions tend to involve local enterprises. *Bocs* is a cultural association that aims at promoting cultural exchange in the contemporary art world, in order to contribute to Sicilian artistic and cultural growth. For this purpose, *Bocs* provides an ‘artist run space’ where young artists, especially Sicilian ones, exhibit their projects. Exhibitions and book presentations, experimental music projects and other projects related to the world of contemporary art are examples of artistic activities held in the ‘artist run space’.

The fact that both subjects focus on contemporary art with a particular emphasis on research and have successfully initiated numerous national and international

collaborations (although on a different scale), is of paramount importance for a town that has historically been lacking public spaces devoted to contemporary art. However, no other activities followed the example of such experiences—which remain unique in this district, and have not triggered any gentrification process.

Contemporary art, however, can be very demanding in terms of the cultural capital accumulation required in order to appreciate it. Therefore, it should not be surprising that the participation of the neighbourhood's residents in their exhibitions is close to nil. Residents are often involved in the production process, providing services required for the shows, but they hardly ever venture one step further to become users. These experiences have nonetheless the potential for not just enhancing the economic conditions in that neighbourhood but more importantly removing the barriers to cultural participation and social inclusion. To reach this goal, we believe it is important to supply educational programmes (laboratories, for example) to attract local youngsters and made them aware of the specific activities. In this way one could trigger a virtuous cultural contamination within households extendible thereafter to the whole community.

For example, educational programmes in a relatively poor part of the historic centre of Catania are supplied by *Officine Culturali*,¹⁴ which is a private association located in the former Monastery of Benedictines that now hosts the Department of Humanities of the University of Catania. The association aims at enhancing tangible and intangible cultural heritage, as well as stimulating knowledge, and raising overall awareness. *Officine Culturali* also intends to create employment among young people through culture. Although the main activity is the organisation of guided tours, the association devotes a specific attention to children, by offering special tours, laboratories and various additional initiatives. The main difficulties with the supply of educational programmes are that, on the one hand, local residents may not be able to afford to pay tuition fees and, on the other hand, cultural operators may not be able to bear the full cost of provision. Public support can represent a possible solution. We discuss this issue in the following section on public intervention.

4 Implications for Public Intervention

The analysis presented in the previous section offers useful insights for the definition of public policies aimed at promoting the cultural revitalization of disadvantaged neighbourhoods and the removal of barriers to social inclusion. Private initiatives directed to provide new museums, theatres, dance and music clubs, and spaces for visual art are invaluable contributions to the cultural development of a town. These and similar initiatives may also have a decisive impact on the

¹⁴See Mannino and Mignosa (2017), for more information about *Officine Culturali*'s mission and cultural activity.

regeneration of deprived areas. However, we have seen that this may not always be the case. In some cities, for example, they led to gentrification. Considering the experiences in Catania, private initiatives alone, although meritorious and important, in many cases have proved unsuccessful in trying to advance the cultural participation and social inclusion of disadvantaged communities in a significant way. In contrast, a total empowerment of a community with respect to the choice of cultural production may suffer from the shortcoming of a more popular and scarcely innovative production, although it is always difficult to define criteria for evaluating the quality of cultural expressions. Moreover, it may not reduce the feeling of separation from other, wealthier neighbourhoods (as in the discussed case of neo-melodic concerts).¹⁵ An obvious consequence of the above reasoning is to verify whether and how the public sector can deal with this problem and move forward. In the present context of economic distress, public support to culture is likely to be progressively curtailed. It is, therefore, of paramount importance to reshape public intervention in the most cost-effective fashion.

In what follows we summarise some suggestions. Firstly, the analysis clearly shows that the episodic provision of cultural services is not sufficient to guarantee adequate cultural participation. Local public policies, therefore, cannot be focused first and foremost on financing festivals and concerts in a town. These types of programmes pay scarce attention to the promotion of cultural participation in disadvantaged neighbourhoods, where the access to culture is generally restricted by the socio-economic conditions of residents. Efforts should be addressed to eliminate socio-economic barriers—such as those concerning the access to information and the costs of participation—for the residents in those areas that present lower participation rates. In this respect, subsidies can prove to be a cost-effective policy in increasing cultural participation when they concentrate on more receptive categories such as students and youngsters, who show a higher willingness to participate (European Commission 2013).

Secondly, it is unrealistic to think that some cultural goods will be consumed because people have sufficient means to pay for it. Education in the arts is vital to foster cultural participation, especially in the case of artistic representations that generally experience a relatively scarce attendance (such as contemporary visual art or theatre), or the case of experimental productions. Educational programmes should preferably start at an early stage in order to make the best use of children's potential. Children can in fact transmit their cultural knowledge and interest to their siblings, multiplying the impact that education may have on cultural participation. As demonstrated by the experience of *Fondazione Presti*, educating children to beauty and arts might be a more effective way for mobilising social capital and improving pro-social behaviour.

¹⁵In this respect, the presence of artists is not sufficient (see the Spanish Quarters of Naples). Actually, artists have often worked in contexts which can be defined as affected by social exclusion (Arts Council 2000), also involving individuals living in such a context, but this does determine a socially inclusive activity, if it does not tackle issues associated to social exclusion (Jermyn 2001).

Thirdly, the direct provision of cultural services by the local government should foremost avoid overlapping with private supply, especially when this has proved to be broad and relevant. In contrast, public intervention should focus on complementary services that are able to nurture an urban cultural milieu, such as art laboratories, and on the provision of adequate and equipped spaces for the production and fruition of cultural activities. Associations and voluntary workers have shown to be more effective in supporting cultural participation in disadvantaged neighbourhoods, often in absence of local government support. A rather inexpensive way of supporting them may lie in the assignment of vacant public buildings in poor areas, which would allow them to carry out cultural programmes (art labs, theatres, workshops, exhibitions, art schools).

Fourthly, the experiences indicate that community empowerment is an essential factor for a sustainable cultural participation in poorer neighbourhoods. The community engagement is important to ascertain the needs of the community and to strengthen cohesion and the building up of social capital.

Finally, gentrification of poor neighbourhoods is a risk that should be taken into account. Public regulation, for example through rent control, may be an effective policy for protecting old tenants and traditional commercial activities in their original neighbourhood.

5 Concluding Remarks

This study has investigated the problem of cultural participation in disadvantaged neighbourhoods. The analysis of different scenarios of supply and demand of cultural goods, categorised according to the urban location of suppliers and consumers, reveals that such a supply *per se* is not sufficient to promote the cultural participation of the residents in a deprived district or to eventually reduce social exclusion. In this respect, some key characteristics of the cultural programmes have been highlighted, based also upon the real experiences of the city of Catania. Engagement of the community in decision-making and the arts education of younger generations have both emerged as necessary elements of any programme of sustainable cultural participation that aims at supporting social inclusion.

References

- Akerlof, G. A., & Kranton, R. (2000). Economics and identity. *Quarterly Journal of Economics*, 115(3), 715–753.
- Arts Council of England. (2000). *Social exclusion: A response to policy action team 10 from the Arts Council of England*. London: Arts Council of England.

- Belfiore, E. (2002). Art as a means of alleviating social exclusion: Does it really work? A critique of instrumental cultural policies and social impact studies in the UK. *International Journal of Cultural Policy*, 8(1), 91–106.
- Bianchini, F., & Parkinson, M. (1993). *Cultural policy and urban regeneration: The west European experience*. Manchester: Manchester University Press.
- Blokland, T., & Savage, M. (2008). Social capital and networked urbanism. In T. Blokland & M. Savage (Eds.), *Networked urbanism – Social capital in the city* (pp. 1–20). Aldershot: Ashgate Publishing Limited.
- Bourdieu, P. (1986). The forms of capital. In J. G. Richardson (Ed.), *Handbook of theory and research for the sociology of education* (pp. 241–258). Westport: Greenwood Press.
- Burt, R. S. (1997). The contingent value of social capital. *Administrative Science Quarterly*, 42(2), 339–365.
- Byrne, D. S. (1999). *Social exclusion*. Buckingham: Open University Press.
- Cellini, R. (2011). Is UNESCO recognition effective in fostering tourism? A comment on Yang, Lin and Han. *Tourism Management*, 32(2), 452–454.
- Cellini, R., Martorana, M. F., & Platania, F. (2017). The multi-product nature of the firm in the arts sector: The case of ‘Centro Zo’. In V. M. Ateca-Amestoy, V. Ginsburgh, I. Mazza, J. O’Hagan, & J. Prieto-Rodriguez (Eds.), *Enhancing participation in the arts in the EU*. Cham: Springer.
- Champarnaud, L., Ginsburg, V., & Michel, P. (2008). Can public arts education replace arts subsidization? *Journal of Cultural Economics*, 32, 109–126.
- Coleman, J. S. (1988). Social capital in the creation of human capital. *The American Journal of Sociology*, 94, 95–120.
- Coleman, J. S. (1990). *Foundations of social theory*. Cambridge: Harvard University Press.
- Cuccia, T. (2012). Is it worth being inscribed in the world heritage list? A case study of “the Baroque cities in Val di Noto” (Sicily). *RIEDS – Rivista Italiana di Economia, Demografia e Statistica – Italian Review of Economics, Demography and Statistics*, 46(2), 169–190.
- Cuccia, T., Guccio, C., & Rizzo, I. (2016). The effect of UNESCO World Heritage list inscription on tourism destinations performance in Italian regions. *Economic Modelling*, 53, 494–508.
- Cuccia, T., Monaco, L., & Rizzo, I. (2017). Are less public funds bad? New strategies for art providers. In V. M. Ateca-Amestoy, V. Ginsburgh, I. Mazza, J. O’Hagan, & J. Prieto-Rodriguez (Eds.), *Enhancing participation in the arts in the EU*. Cham: Springer.
- Cyop & Kaf. (2013). *QS. Quartieri spagnoli Napoli 2011/2013*. Napoli: Arti grafiche Zaccaria.
- European Commission. (2005). *The role of culture in preventing and reducing poverty and social exclusion* (KE-67-05-492-EN-C). Brussels: European Commission.
- European Commission. (2013). *Cultural access and participation* (Special Eurobarometer 399). Brussels: European Commission.
- Fine, B. (2002). They f**k you up those social capitalists. *Antipode*, 34, 796–799.
- Garcia, B. (2004). Cultural policy and urban regeneration in western European cities: Lessons from experience, prospects for the future. *Local Economy*, 19(4), 312–326.
- Jermyn, H. (2001). *Arts and social exclusion: A review prepared for the Arts Council of England*. London: Arts Council of England.
- Kearns, A., & Forrest, R. (2000). Social cohesion and multilevel urban governance. *Urban Studies*, 37(5/6), 995–1017.
- Kearns, A., & Paddison, R. (2000). New challenges for urban governance. *Urban Studies*, 37(5/6), 845–850.
- Landry, C., Green, L., Matarasso, F., & Bianchini, F. (1996). *The art of regeneration: Urban renewal through cultural activity*. Stroud, UK: Comedia.
- Li, Y. (2007). Social capital, social exclusion and wellbeing. In A. Scriven & S. Garman (Eds.), *Public health: Social context and action* (pp. 60–75). London: Sage.
- Lin, N. (2000). Inequality in social capital. *Contemporary Sociology*, 29(6), 785–795.

- Mannino, F., & Mignosa, A. (2017). Public private partnership for the enhancement of heritage. The case of the benedictine monastery of Catania. In V. M. Ateca-Amestoy, V. Ginsburgh, I. Mazza, J. O'Hagan, & J. Prieto-Rodriguez (Eds.), *Enhancing participation in the arts in the EU*. Cham: Springer.
- Morrone, A., & De Mauro, T. (2008). *Livelli di partecipazione alla vita della cultura in Italia*. Roma: Fondazione Mondo Digitale.
- Pine, J. (2012). *The art of making do in Naples*. Minneapolis, MN: University of Minnesota Press.
- Putnam, R. D. (2000). *Bowling alone. The collapse and revival of American community*. London: Simon & Schuster.
- Suarez, P., & Mayor, M. (2017). A geographical approach to smart location of museums. In V. M. Ateca-Amestoy, V. Ginsburgh, I. Mazza, J. O'Hagan, & J. Prieto-Rodriguez (Eds.), *Enhancing participation in the arts in the EU*. Cham: Springer.
- Wood, M., Randolph, B., & Judd, B. (2002). *Resident participation, social cohesion and sustainability in neighbourhood renewal: Developing best practice models* (AHURI Positioning Paper No. 26).
- Yang, C. H., & Lin, H. L. (2011). Is UNESCO recognition effective in fostering tourism? A comment on Yang, Lin and Han: Reply. *Tourism Management*, 32(2), 455–456.
- Yang, C. H., Lin, H. L., & Han, C. C. (2010). Analysis of international tourist arrivals in China: The role of world heritage sites. *Tourism Management*, 31(6), 827–837.

Marco Ferdinando Martorana is Research Fellow at the Department of Economics and Business of the University of Catania. He received the Laurea in Economics and Business from the University of Catania, where he also completed the Doctorate program in Public Economics, and the Master of Science in Applied Economics and Data Analysis from the University of Essex. His research areas of interest include cultural economics, public economics, econometrics and political economy. His recent works focus on the evaluation of public sector efficiency in the fields of education, health and cultural heritage.

Isidoro Mazza holds degrees from the University of Catania (Laurea), University of Maryland (M.A.) and University of Amsterdam (Ph.D.). He is Full Professor of Public Finance at the University of Catania. His main research interests include: cultural policies, art market, interest groups, migration, voluntary provision of public goods, fiscal federalism, voting, higher education, urban economics.

Luisa Monaco graduated in Economics (University of Catania, Italy) and holds a Ph.D. in Public Economics (University of Catania, Italy). She collaborated in research projects concerning health policy with the Department of Economics and Business of the University of Catania. Currently she is a professor at the secondary school. Her research interests focus on welfare. More specifically, they concern the assessment of efficiency of higher education institutions, the economic impact of cultural policies, and the effect of public intervention on health. Further research interests are referred to demography, specifically the impact of demographic dynamics on the labour market, and the effects of ageing population on public health expenditure.

Part II
Sectorial Analyses of Participation
in the Arts in Europe

Musical Rhythm Embedded in the Brain: Bridging Music, Neuroscience, and Empirical Aesthetics

Sylvie Nozaradan

Abstract Entrainment to music seems ubiquitous in human cultures. The impact of musical features on individuals has already been explored extensively in music theory, anthropology and psychology. In contrast, it is a relatively new field in neuroscience. Recently, a wave of neuroscience research has grown up exploring the interaction with music in both human and non-human brains, and in evolutionary terms. This chapter briefly reviews some of the biological evidence of music processing, particularly focusing on how the human brain interacts with musical rhythm. The neural entrainment to musical rhythm is proposed as a model particularly well-suited to address objectively, within an experimental set up, how biological rules shape music perception within a limited range of complexity. However, these limits are not fixed. Other aspects such as familiarity, culture, training and context continuously shape brain responses to rhythms and to music in general. Taken together, these studies propose answers to the question of how natural and cultural constraints shape each other, building a vivid motor of aesthetic evolution.

Keywords Music cognition • Musical rhythm perception • Neuroimaging • Empirical aesthetics • Art and science

1 Introduction: Music and Neuroscience

Musical sound seems to have a large impact on a human being. Typically, it is a highly rewarding stimulus for human listeners. For instance, it is played in restaurants and department stores, as it has been shown to improve sales, presumably because of its positive influence on mood (Bruner 1990; North et al. 2003). Listening to our

S. Nozaradan (✉)

MARCS Institute, Western Sydney University (WSU), Penrith, NSW, Australia

Institute of Neuroscience (Ions), Université catholique de Louvain (UCL), Brussels, Belgium

International Laboratory for Brain, Music and Sound Research (BRAMS), Montreal, QC, Canada

e-mail: sylvie.nozaradan@uclouvain.be

favourite music activates in the human brain the same reward pathways that are stimulated by food, cocaine and sex for instance (Blood and Zatorre 2001; Salimpoor et al. 2011). The reward of listening to music motivates to consume a large amount of music, and to expend important resources for it.

The impact of musical features on individuals has already been explored extensively in music theory, anthropology and psychology. In contrast, it is a relatively new field in neuroscience. For neuroscientists, there are many open questions concerning the nature of our response to music, including where music is processed within the human brain (Peretz and Zatorre 2003), whether it is related to other cognitive abilities such as language (Patel 2008), or why music entrains people to move the body synchronously. Hence, studying the biological foundations underlying the perception and production of music could provide insights not only on the social and individual aspect of this human behaviour, but also on numerous fundamental brain mechanisms.

Natural and cultural constraints continuously interact with each other. Natural constraints include physical and biological rules, whereas cultural constraints are conditions imposing the limits on what is appreciated and considered as valid within a given culture (Leman 2008). Although natural and cultural constraints differ fundamentally in their essence and dynamics, their continuous interaction is thought to constitute the motor of a cultural evolution and of the evolution of artistic expression (Leman 2008). In other words, this interaction could be responsible for the fact that a given music is found pleasant or not within a given context. Taken from the perspective of research on the neuroscience of music, the interaction between natural and cultural constraints could correspond to the interplay between how the human brain shapes music perception and performance on the one hand, and in turn, how music shapes the brain structure and function throughout the life span.

2 Entrainment to Musical Rhythms

In all societies, the primary function of music is often considered to be a collective function, to bind people and increase cohesion within a group of individuals (Sacks 2008). People sing and dance together in every culture, and these joint behaviours are thought to have taken place throughout the history of *Homo sapiens*. Also, these musical abilities develop spontaneously, by simple exposure to music within a given culture, and a possible initial trigger appears to lie in maternal vocal singing. Mothers sing to their children, in all known cultures (Phillips-Silver and Keller 2012).

Entrainment to music often refers to the spatiotemporal coordination of one, two or more individuals in response to rhythmic sounds (Phillips-Silver et al. 2010; Phillips-Silver and Keller 2012). People often experience musical entrainment in the automatic, even uncontrollable head-bobbing or foot-tapping that occurs when listening to music containing a regular beat for instance. Although it is an extremely

common behaviour, moving in sync with music, also referred to as *sensorimotor synchronization* (i.e. the synchronization of body movement to an external sensory input such as sounds) is a highly complex activity, which involves auditory, but also visual, or tactile perception. It also requires attention, body movement performance and coordination within and across individuals (Phillips-Silver et al. 2010; Todd et al. 2002). Hence, a large network of brain structures is involved during entrainment to music (Zatorre et al. 2007; Grahn 2012). There is relatively recent and growing interest in understanding the functional and neural mechanisms of the entrainment to music, as it may constitute a unique gateway to understanding how the human brain functions. The present chapter focuses on this research question, as a model illustrating how neuroscience and music can learn from each other, and how biological and cultural constraints interact to build a sense of aesthetics.

The *beat*, which usually refers to the perception of periodicities while listening to music, can be considered as a cornerstone of music and dance behaviours. Even when music is not strictly periodic, humans perceive periodic pulses and spontaneously entrain their body to these beats (London 2004). The beats can be grouped or subdivided in *metres*, which correspond to grouping or subdivisions of the beat over time (e.g., the metre of a waltz, which is a 3-beat metre, corresponds to the grouping of 3 beats in a measure; it thus has a frequency of $f/3$, f being the frequency of the beats). Typically, beat and metre perception is known to occur within a specific frequency range corresponding to the musical tempo (i.e. around 0.5–5 Hertz, or Hz, corresponding to 0.5–5 beats per second) (van Noorden and Moelants 1999; Repp 2005). A major goal in this research area is to narrow the gap between the entrainment to musical rhythms as a human behaviour on the one hand and phenomena of entrainment in the human brain activity on the other hand.

3 Evolutionary Status of Musical Rhythms

Why is our species so musical? There is a vigorous debate over the evolutionary status of music, and musical rhythms. Some argue that humans have been shaped by evolution to be musical (Wallin et al. 2000). This was first proposed by Charles Darwin in 1871, who referred to music and dance as courtship displays. In line with this view, a number of hypotheses have been proposed about the possible adaptive roles of music, and musical rhythm and beat (Fitch 2006). The dominant view lies at the group-level rather than at the individual-level, with music helping to promote group cohesion. This bonding effect of music may well be initialized in the mother-infant interactive pattern created through maternal singing.

Others consider that musical abilities have not been a target of natural selection but, instead, reflect an alternative use of more adaptive cognitive skills, such as language, auditory scene analysis and sensorimotor synchronization (Pinker 1997). This alternative proposition had already been expressed by William James, who thought that attraction toward music was “a mere incidental peculiarity of the

nervous system” (cited in Langer 1942). A way to solve this debate is to examine the innateness, the domain-specificity and the human-specificity of some rhythmic traits in musical behaviours (as described briefly in the following sections) (Patel 2006). This approach presents the advantage to link evolutionary studies of music to empirical research, developed recently by investigating for instance the abilities to interact with musical rhythms in human infants, and in animals, and how these abilities overlap with other cognitive processes such as language or movement coordination.

4 Beat in Music: A Universal Feature?

Music always escapes definitions, probably because there are as many musical forms as musicians and listeners. It can be considered as a communication and signalling process such as language, but remains above all an artistic form of expression (Arom 2000). This implies that humans possess the capacity to ‘decontextualize’ the form of this expression and generate it independently of any context or signifier-signified constraints, in contrast with ordinary language (Arom 2000).

In line with these considerations, it is perfectly conceivable to find music that does not contain beat and metre, either because composers did not write their music by means of a periodic reference frame, and/or, because we do not perceive any beat when listening to these musical pieces (Patel 2008). As a proof of concept, one can ask individuals to move on such musical pieces. In music with no beat, the observed movements are not periodic, and often, these musical pieces do not entrain individuals to move spontaneously. Examples of music that do not contain a beat structure are found in the *cantus planus* from the medieval Gregorian tradition or in the melodic recitation of poems from the classic Persian tradition (Nelson 1985).

Hence, beat and metre do not constitute an obligatory ingredient of music, although this periodic reference frame is widely induced across musical genres and cultures. Actually, its use is likely to be related to the goal of musical expression. When music aims at conveying coordination across individuals, beat and metre are powerful means to improve it.

As one could expect, rhythm and beat in music has not been similarly developed across musical cultures (Pressing 2002). Some traditions, such as the black Atlantic music (i.e. the musical traditions originating from West Africa and their evolution across West African diasporas), have given to rhythmic aspects a prominent importance in their musical behaviours. Particularly, the black Atlantic music has developed a strong culture of *groove* in music, which refers to the urge to move in contact with music (Pressing 2002; Iyer 2002). The various musical features inducing a sense of groove are often found in funk, soul, hip-hop, triphop, drum’n bass, house or jazz, i.e. music genres predominantly originating from the black Atlantic tradition (Witek 2012).

5 A Human-Specific Social Feature?

Surprisingly, animals as highly intelligent and close to humans as chimpanzees have never been shown to process musical beats, even in their most primitive forms and after training, whereas they can voluntarily produce rhythmic movements on a time scale appropriate for beat processing (Merchant and Honing 2014). Moreover, synchronization of movement to a musical beat is not commonly observed in domestic animals, such as dogs, that have lived with humans and their music for thousands of years (Fitch 2006).

To explain this issue, the *vocal learning hypothesis* has been proposed (Patel 2006). Vocal learning refers to the ability of animals to modify vocal signals as a result of experience with sounds usually produced by individuals of the same species. By extension, this definition has been restricted to cases where animals learn to mimic sounds that are not in their species repertoire. Recently, the evidence that specific species, such as parrots, presented abilities for beat processing has corroborated the vocal learning hypothesis: Patel et al. (2009) reported the case of one parrot exhibiting the ability to synchronize body movements with musical beat and to adjust the movements according to changes in the tempo. Hence, the fact that an animal could acquire the ability to process beat from music through training, while unnatural, would suggest that this ability is not part of a selective adaptation for music (Patel 2006).

Importantly, when searching for evidence of beat processing as an ecologically natural behaviour, *Homo sapiens* is the unique species manifesting spontaneous synchronization of periodic body movements to acoustic rhythms, engaging both sexes (Patel 2006). Moreover, this skill develops relatively early in human ontogeny, long before sexual maturity (Fitch 2006). Although vocal learning could provide the neural circuitry required for beat processing in music, this is perhaps not sufficient for spontaneous entrainment to musical sounds (Fitch 2006).

One possibility is that the propensity to engage in joint social action plays a crucial role in triggering and developing these rhythmic behaviours specific to music. This was suggested by the observation that young children improve their synchronization abilities when engaged in a joint action with an adult compared to a disembodied metronome, possibly through the building of a shared body representation and increased motivation (Kirschner and Tomasello 2009). Moreover, it has been shown that the groove in music is associated with positive affects in children and adults (Janata et al. 2012; Witek 2012), and that interpersonal synchrony, even in non-music contexts, increases affiliation (Hove and Risen 2009). Hence, music and dance can be considered as a powerful medium, alternative to speech, to inform on the physical ability and health, or to communicate recognizable emotions across individuals. The tight link between joint social action and musical behaviours would explain why such musical coordinated behaviours play an important role in collective work, rituals or war dance for example, widely across cultures (Hagen and Bryant 2003).

6 Nature Versus Nurture

The study of infants and their interaction with musical rhythms is also relevant to understand the biological basis of music perception and production. However, observations on children are particularly difficult to interpret because rhythm perception and production develop asymmetrically in childhood, due to the distinct maturation speeds of the systems responsible for motor output, for processing sensory input, etc. Also, while musical rhythm production is measured by capturing body movement in response to musical sounds, perception is assessed by indirect measures reflecting attention and familiarity of the infants with the presented musical sounds. Hence, the fundamental differences between the two measures make direct comparisons across the two aspects very limited (Hannon and Johnson 2005).

Already at 9 months, toddlers engage in significantly more rhythmic movement to music and other rhythmic sounds than to speech for instance, and exhibit to some extent tempo flexibility in their body movement in response to music (Zentner and Eerola 2010). Interestingly, while newborns and young infants may grasp basic aspect of rhythm and metre, their experience of listening within a given culture rapidly influences how they respond to such structures. Indeed, several studies have found that 6-months old Western children who have far less exposure to music than adults, are able to discriminate rhythmic disruption in rhythms containing complex metres such as 5-beat metres (complex metres being far less common in Western musical culture than simple metre such as 2-beat or 3-beat metres), whereas 12-month old Western children only discriminate rhythms having simple metres (Hannon and Trehub 2005). This suggests that culture-specific representations begin to emerge and affect behaviour between 6 and 12 months (Hannon and Trehub 2005).

7 Musical Rhythm as a Physical Input to the Human Auditory System

Musical sounds are acoustic stimuli that contain multiple temporal dimensions. They can be summarized in at least two components, the *fine structure* and the *envelope*, which are usual terms to describe waveforms in physics. In acoustics, the fine structure is determined by the fast air pressure variations or air vibrations reaching the ear. The processing of fine structure is involved in pitch perception, which can be defined as the perceptual phenomenon of sounds organized within a scale from low to high tones (Schnupp et al. 2010). The fine structure is itself modulated in amplitude, and the dynamics of this amplitude modulation constitute the sound envelope. In humans, amplitude modulations produce various hearing sensations depending on the modulation frequency. Rhythms, as well as most amplitude modulation frequencies found in ordinary speech for instance,

correspond to envelope frequencies up to 20 Hz (i.e. 20 vibrations of air pressure per second) whereas pitch correspond to amplitude modulation frequencies above 20 Hz. How the human auditory system converts these complex acoustic inputs into a perceptual, subjective, representation of music remains a challenge for neuroscientists.

The human auditory system includes several anatomical relays that constitute the *ascending auditory pathway*. This pathway is described as ascending because it is responsible for the transmission of the sound information from the ear to the cortex. The *cerebral cortex* is the 2–4 mm thick outer layer composed of billions of cells (i.e. the *neurons*) at the surface of the human and other mammals' brain. The cortex plays a key role in memory, attention, perceptual awareness, thought, language and other cognitive or motor coordination abilities.

The first internal representation of the sound is built within the *cochlea*, as the first relay of the ascending auditory pathway located within the ear. At the level of the cochlea, auditory cells respond to the sound envelope, as well as to the fine structure of sounds, by producing an electric signal in response to the sound waveforms. Along the ascending auditory pathway, the sound envelope information is transmitted from the cochlea to the cortex, through a similar principle of input-output transformation.

However, the various relays constituting the ascending auditory pathway do not merely respond to the sounds by faithfully reproducing the sounds waveform. There is increasing evidence that they act as complex processors analyzing and transforming the sound waveform into information relevant to behaviour. Taken in the context of the research on the perception of musical rhythms, the key question is how the human brain processes the air vibrations constituting musical rhythms to support our subjective feeling of beat and metre.

8 How to Explore Brain Responses to Rhythm in Neuroscience?

Research on the brain mechanisms of rhythm perception and production is in line with research in *systems neuroscience*, a subfield of neuroscience that studies the function of neural populations and networks, to understand how high-level mental functions such as perception or sensorimotor synchronization emerge from the interactions building these neural networks. To this aim, systems neuroscientists typically employ techniques measuring the neural function *in vivo*, such as electrophysiology, or functional neuroimaging scanners. Such functional neuroimaging techniques measure an aspect of brain function, often with a view to understanding the relationship between activity generated by certain brain areas and mental functions.

For instance, *functional magnetic resonance imaging* (fMRI) is a functional neuroimaging scanning procedure that measures brain activity by detecting

associated changes in the brain blood flow. The technique relies on the fact that cerebral blood flow and neural activation are coupled. When an area of the brain is in relative use, blood flow of that region increases. Functional MRI can localize activity at the millimetre spatial scale but, using standard techniques, presents a limited temporal resolution of a few seconds. Several studies have investigated the brain responses to musical rhythms using fMRI. They found that rhythm perception recruits motor-related areas, even in the absence of overt movement, showing activity in brain areas such as the premotor cortex, cerebellum, supplementary motor area and basal ganglia (Schubotz et al. 2000; Grahn and Brett 2007; Chen et al. 2008).

Another way to sample brain activity is *electroencephalography* (EEG) (Fig. 1 in the next section). EEG records electric current fluctuations simultaneously generated by large groups of neurons, via multiple captors placed on the head of the participant. The analysis of the EEG signal can then focus on the neural responses to a single external input such as a sound or an image displayed on a computer screen. This is achieved by analyzing for instance the time course of these neural responses or by analyzing the spectral content of the EEG, that is, the type of neural oscillations that can be observed within the signal. In contrast with fMRI, the EEG signal recorded on the head lacks spatial resolution. Indeed, the potentials measured at a given scalp position are not systematically determined by the activity of the portion of cortex located immediately underneath the captor (Nunez and Srinivasan 2006). However, it offers the advantage of measuring neural activity at the millisecond time scale on how the brain responds to rhythm over time.

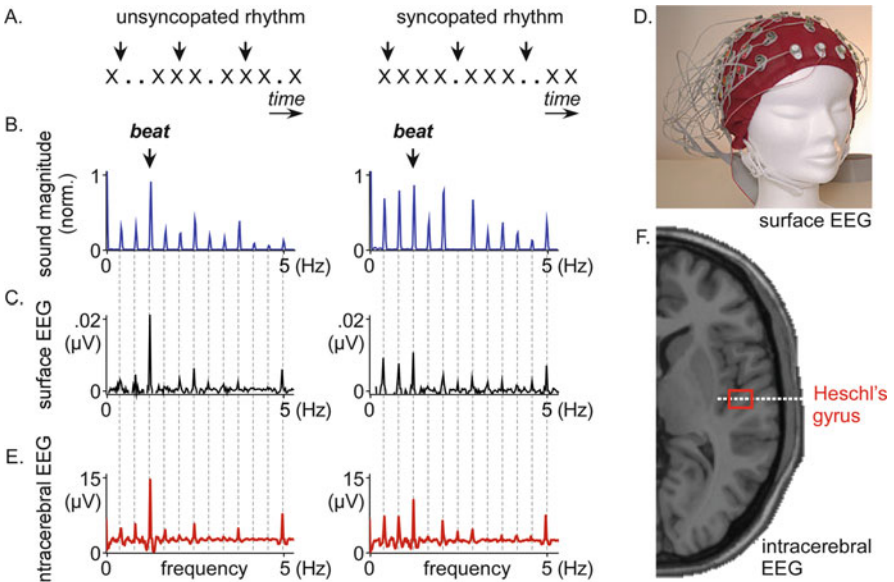


Fig. 1 EEG responses to rhythmic patterns

Several studies have previously explored beat and metre internal representations using EEG. For example, one approach has consisted in recording the brain responses elicited by a deviant sound inserted within a sequence of regular sounds played to induce the beat in the participant's mind. However, this approach only allows capturing *indirect* evidence of internal entrainment to the beat, extrapolated from the brain responses to violations of the expected beat structure (Winkler et al. 2009). To capture the internal representation of the beat without artificially disrupting its internal representation, another approach has consisted in recording movements paced on the perceived beat (Repp 2005). However, this sensorimotor synchronization approach does not allow disentangling the constraints related to *perception* from those related to *movement*.

To try to overcome these limitations, we developed an approach built on the hypothesis that humans perceive the beat from music by synchronizing a large amount of neurons at the frequency of the beat, not only within the auditory system, but also in motor areas of the brain (Nozaradan 2014; Chemin et al. 2014). These neural activities pulsing in sync to the beat perceived when listening to music are captured with the EEG and identified by analyzing the spectrum of the EEG signal (Nozaradan et al. 2011, 2012a, b, 2015, 2016). This also explains why the approach is referred to as *frequency-tagging* (Regan 1989; Nozaradan 2014).

9 EEG Frequency-Tagging to Explore the Entrainment to Musical Rhythms

In a recent experiment, we recorded with EEG the brain activity elicited without moving, in response to a perceived and imagined beat (Nozaradan et al. 2011). We asked eight healthy participants to listen to a regular metronomic sound sequence of less than a minute, and to voluntarily imagine a metre on these metronomic sounds as either binary or ternary. In other words, the participants were asked to imagine the sounds as grouped by two or by three, as in a march or a waltz respectively. After collecting a few repetitions of this procedure, we could observe in the EEG signal that this mental imagery of metre voluntarily imposed onto the sounds without moving was related to the emergence of neural activities at frequencies corresponding exactly to the perceived and imagined beat and metre. This robust synchronization, or entrainment, of the brain activity at beat and metre frequencies could constitute the actual support of how the brain builds a mental representation of beat and metre.

Another EEG experiment was conducted in which participants listened to rhythmic patterns. These rhythms are known to induce the perception of beat and metre, and are commonly found in Western compositions. As represented in Fig. 1 (adapted from Nozaradan et al. 2012b), these rhythmic patterns consisted in sequences of short tones (here represented by crosses) and silences (represented by dots). The vertical arrows indicate the places in the patterns where the beat was

perceived by the participants (i.e. the periodic time points on which they would clap the hand or tap the foot to the rhythm). Note that the pattern presented on the right in Fig. 1 can be considered as syncopated, as some beats occur on silences rather than sounds. The pattern presented on the left in contrast is considered as unsyncopated, as all perceived beats coincide with sounds rather than silences. The second line of Fig. 1 represents the frequency spectrum of the sound envelope. The beat frequency is indicated by the vertical arrow for each rhythm. Note that in the pattern shown on the right, the beat frequency (at 1.25 Hz) is not as prominent as in the pattern presented on the left. The third line in Fig. 1 represents the frequency spectrum of the scalp surface EEG as recorded while the participants listened to these repeated patterns (group-level average from nine participants, and averaged across the 64 EEG captors, as in the picture on the upper right). Finally, the bottom line in Fig. 1 corresponds to the frequency spectrum of the intracerebral EEG as recorded directly within the human auditory cortex (group level average from eight patients implanted with intracranial depth-electrodes for the treatment of intractable epilepsy, and averaged across the captors of an electrode implanted within the Heschl's gyrus, or human primary auditory cortex, as in the picture on the bottom right).

Importantly, we observed that the brain activity was selectively enhanced at beat frequency (pointed by the arrows in Fig. 1). That is, among the multiple peaks of neural activities elicited in response to these complex rhythms, the peaks of neural activity at frequencies corresponding to the perceived beat were selectively amplified in the EEG signal, compared to the neural activity elicited by frequencies contained in the rhythmic patterns that were unrelated to the beat. This selective enhancement occurred even when the beat frequency was not prominent in the rhythm spectrum, as in the pattern on the right of Fig. 1. Moreover, this relative enhancement of the neural activity at perceived beat and metre frequencies was disrupted when playing the rhythmic patterns four times faster, such as to play the same rhythm at a tempo much faster than the common range of tempo in music. This suggests that the brain actually transforms the rhythmic input by amplifying some frequencies that are relevant for perception and behaviour. Moreover, this study illustrates how this methodology allows measuring objectively the transformation between the rhythmic input and the neural response.

In addition, we investigated one of the most fascinating aspects of musical rhythm: its strong relationship with movement. On the one hand music spontaneously entrains humans to move (Janata et al. 2012; Phillips-Silver et al. 2010). On the other hand, movement influences the perception of musical rhythms, already in infants (Phillips-Silver and Trainor 2005, 2007). The EEG frequency-tagging approach can help understanding how neural representations of rhythm are shaped by movement in humans. The EEG was recorded while healthy participants listened to a rhythm, *before* and *after* a body movement training session (Chemin et al. 2014). This movement training of a dozen of minutes consisted in moving the body (i.e. clapping the hand, bouncing the head, moving the torso, etc.), jointly with the

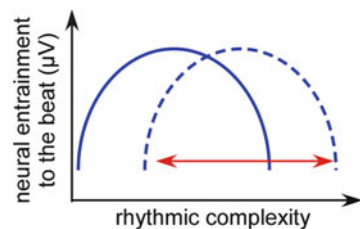
investigator, according to a given metric interpretation of the rhythm. We found that the brain responses to the rhythm as recorded with EEG *after* body movement was significantly enhanced at frequencies related to the metre to which the participants had moved, even though they did not move or focus attention on the metric structure *during* the EEG recording. These results provide evidence that body movement can *selectively* shape the subsequent neural representation of auditory rhythms. In other words, moving the body can directly shape how our brain processes a rhythm, revealing the flexibility of our own mental representation of a rhythm.

10 Discussion: Bridging the Neuroscience of Musical Rhythm with Models of Empirical Aesthetics

We have briefly seen how the brain responses to musical rhythm can be sampled and related to our mental representation of musical rhythm. We measured these responses in the form of peaks of EEG activity elicited at the exact frequency of the perceived beat when listening to a musical rhythm. Based on the results of these experiments, we propose a model of inverted U-curve, as schematized in Fig. 2. In this model, the x-axis represents the metrical complexity of the musical rhythm from which a beat has to be extracted by the participant, and the y-axis represents the brain response to the beat. The latter is measured by EEG frequency-tagging as the relative amplitude of the neural activity at beat and metre frequencies (μV for microvolt, as the unit of amplitude of the brain activity measured with EEG).

According to this view, the rhythm that stands in the left part of the curve, i.e. the most basic rhythm that could be imagined in term of beat extraction, could correspond for instance to a metronomic sound (as in Nozaradan et al. 2011). This case is considered the most basic because no periodic beat has to be extracted by the participant's mind, since the periodicity is given by the periodic sound itself. The top of the inverted U-curve corresponds to rhythms that are not metronomic but from which the listener can extract a beat quite easily despite the complexity of the rhythm structure. This case could correspond to rhythms such as those represented in Fig. 1 (left part of the figure; see also Nozaradan et al. 2012b). In this case, the neural entrainment at beat frequency would be higher in amplitude than the neural activity measured in response to a metronomic sound. In other words, these

Fig. 2 The inverted U-curve proposed to relate the complexity of musical rhythm to the neural entrainment to the beat



rhythms, that are more challenging for the listener's mind due to their relatively complex structure, are thought to recruit a substantial amount of brain processing to grasp and maintain a periodic temporal structure of beat. However, it is a matter of compromise between the ease to extract the beat on the one hand and the degree of complexity on the other hand. Indeed, the rhythm that stands at the right part of the curve is in contrast too complex to induce a spontaneous perception of beat. In this case, it is still possible to measure peaks of brain activity in response to the sound envelope, but these peaks of activity are relatively lower in amplitude and are not selectively amplified compared to the peaks of neural activity elicited by the sounds that are not relevant for beat perception (Nozaradan et al. 2012b). This is the case for a random rhythm, or for a rhythm played too fast or too slow, i.e. at a tempo lying away from the specific tempo range for beat perception (Nozaradan et al. 2012b).

This model of inverted U-curve remains speculative and has to be tested more systematically. Also, how complexity is measured remains critical to move this model forward. Interestingly, this question has already been raised by researchers having related aesthetic response with complexity using a similar inverted U-curve (McDermott 2012). According to this view, stimuli that are too simple or too complex are not aesthetically pleasing, but somewhere in the middle lies an optimum (Berlyne 1971). In fact, an inverted U-curve model relating complexity and aesthetic pleasantness is at least partly consistent with the intuition that something that is too repetitive is boring, while something that is completely random is impossible to grasp to build a mental representation, and thus cannot induce aesthetic pleasure (McDermott 2012).

Taken in the context of musical rhythm, the results of the studies summarized here show how the neural entrainment to musical rhythms is a nice example of biological rules shaping music perception, by constraining the brain responses to the beat within a given range of rhythmic complexity. However, these limits are not fixed. For instance, we have shown that movement training on a rhythm can selectively enhance the brain responses to this rhythm (Chemin et al. 2014). Aside this short-term flexibility, musical practice along the life span could also induce long-term changes in the brain responses to musical rhythm. Our EEG frequency-tagging approach could help clarifying this issue, by comparing the brain responses to musical rhythm in musicians vs. non-musicians. Moreover, to explore the biological foundations of beat and metre properly, it is important to be aware of the diversity encountered across cultures regarding the rhythmic material and metrical forms. As briefly seen in the previous sections, rhythm has not been similarly developed across musical cultures (Pressing 2002). The EEG frequency-tagging approach could also help addressing some of the questions pertaining to cross-cultural differences in beat induction. Finally, this EEG frequency-tagging approach could be used to sample the brain responses to musical rhythms using comparable experimental designs in healthy adults and in infants or even in animals for instance, as it does not require to produce concomitant overt movement. This would allow us to observe possible shift of the inverted U-curve towards less rhythmic complexity depending on factors such as the age of the tested participants or even the species (Fig. 2).

Hence, aside of the biological constraints, four aspects at least could be responsible for shaping the brain responses to rhythms (and to music in general): familiarity, culture, training and context. Many people have experienced the situation of finding a piece of music relatively unrewarding upon first listen, but coming to love it with repeated listens. Moreover, people tend to prefer to listen to the music of their own culture, and often find the music of foreign cultures uninteresting by comparison (McDermott 2012). Also, there is evidence that expertise reduces in general the influence of complexity on preferences (McDermott 2012). Finally, the context of the listening can dramatically shape our preference for a piece of music. For instance, social contexts loom large, as people use music to project an identity (North et al. 2000). However, enjoyment of music is also determined by what we are experiencing at the moment of the listening.

Taken together, the literature reviewed here illustrates how music constitutes a rich framework to explore the phenomenon of entrainment at the level of neural networks and its involvement in dynamic sensorimotor and cognitive processing. It also suggest that the EEG frequency-tagging approach is well-suited to assess the neural entrainment to musical rhythm within various contexts. More generally, these studies illustrate how exploring musical rhythm perception constitutes a unique opportunity to gain insight into the general mechanisms of entrainment at different scales, from neural systems to entire bodies, and into the vivid interaction between biological and cultural constraints.

Acknowledgements The author is supported by the Australian Research Council (DE160101064).

References

- Arom, S. (2000). Prolegomena to a biomusicology. In N. L. Wallin, B. Merker, & S. Brown (Eds.), *The origins of music* (pp. 27–29). Cambridge, MA: MIT Press.
- Berlyne, D. E. (1971). *Aesthetics and psychobiology*. New York: Appleton.
- Blood, A. J., & Zatorre, R. J. (2001). Intensely pleasurable responses to music correlate with activity in brain regions implicated in reward and emotion. *Proceedings of the National Academy of Sciences*, 98(20), 11818–11823.
- Bruner, G. C. (1990). Music, mood, and marketing. *Journal of Marketing*, 54(4), 94–104.
- Chemin, B., Mouraux, A., & Nozaradan, S. (2014). Body movement shapes selectively the neural representation of musical rhythms. *Psychological Science*, 25(12), 2147–2159.
- Chen, J. L., Penhune, V. B., & Zatorre, R. J. (2008). Listening to musical rhythms recruits motor regions of the brain. *Cerebral Cortex*, 18, 2844–2854.
- Fitch, W. T. (2006). The biology and evolution of music: A comparative perspective. *Cognition*, 100, 173–215.
- Grahn, J. A. (2012). Neural mechanisms of rhythm perception: Current findings and future perspectives. *Topics in Cognitive Science*, 4(4), 585–606.
- Grahn, J. A., & Brett, M. (2007). Rhythm and beat perception in motor areas of the brain. *Journal of Cognitive Neuroscience*, 19, 893–906.
- Hagen, E. H., & Bryant, G. A. (2003). Music and dance as a coalition signaling system. *Human Nature*, 14, 21–51.

- Hannon, E. E., & Johnson, S. P. (2005). Infants use meter to categorize rhythms and melodies: Implications for musical structure learning. *Cognitive Psychology*, *50*(4), 354–377.
- Hannon, E. E., & Trehub, S. E. (2005). Metrical categories in infancy and adulthood. *Psychological Science*, *16*(1), 48–55.
- Hove, M. J., & Risen, J. L. (2009). It's all in the timing: Interpersonal synchrony increases affiliation. *Social Cognition*, *27*(6), 949–961.
- Iyer, V. (2002). Embodied mind, situated cognition, and expressive microtiming in African-American music. *Music Perception*, *19*(3), 387–414.
- Janata, P., Tomic, S. T., & Haberman, J. M. (2012). Sensorimotor coupling in music and the psychology of the groove. *Journal of Experimental Psychology General*, *141*(1), 54–75.
- Kirchner, S., & Tomasello, M. (2009). Joint drumming: Social context facilitates synchronization in preschool children. *Journal of Experimental Child Psychology*, *102*(3), 299–314.
- Langer, S. (1942). *Philosophy in a new key*. Cambridge, MA: Harvard University Press.
- Leman, M. (2008). *Embodied music and mediation technology*. Cambridge, MA: MIT Press.
- London, J. (2004). *Hearing in time: Psychological aspects of musical meter*. London: Oxford University Press.
- McDermott, J. H. (2012). Auditory preferences and aesthetics: Music, voices, and everyday sounds. In R. Sharot & T. Dolan (Eds.), *Neuroscience of preference and choice* (pp. 227–256). San Diego: Academic Press.
- Merchant, H., & Honing, H. (2014). Are non-human primates capable of rhythmic entrainment? Evidence for the gradual audiomotor evolution hypothesis. *Frontiers in Neuroscience*, *17*(7), 274.
- Nelson, K. (1985). *The art of reciting the Qur'an*. Austin: University of Texas Press.
- North, A. C., Hargreaves, D. J., & O'Neill, S. A. (2000). The importance of music to adolescents. *British Journal of Educational Psychology*, *70*, 255–272.
- North, A. C., Shilcock, A., & Hargreaves, D. J. (2003). The effect of musical style on restaurant customers' spending. *Environment and Behavior*, *35*, 712–718.
- Nozaradan, S. (2014). Exploring how musical rhythm entrains brain activity with electroencephalogram frequency-tagging. *Philosophical Transaction B*, *369*(1658), 20130393.
- Nozaradan, S., Peretz, I., & Keller, P. E. (2016). Individual differences in rhythmic cortical entrainment correlate with predictive behavior in sensorimotor synchronization. *Scientific Reports*, *6*, 20612. doi:10.1038/srep20612.
- Nozaradan, S., Peretz, I., Missal, M., & Mouraux, M. (2011). Tagging the neuronal entrainment to beat and meter. *The Journal of Neuroscience*, *31*, 10234–10240.
- Nozaradan, S., Peretz, I., & Mouraux, A. (2012a). Selective neuronal entrainment to beat and meter embedded in a musical rhythm. *The Journal of Neuroscience*, *32*, 17572–17581.
- Nozaradan, S., Peretz, I., & Mouraux, A. (2012b). Steady-state evoked potentials as an index of multisensory temporal binding. *NeuroImage*, *60*, 21–28.
- Nozaradan, S., Zerouali, Y., Peretz, I., & Mouraux, A. (2015). Capturing with EEG the neuronal entrainment and coupling underlying sensorimotor integration while moving to the beat. *Cerebral Cortex*, *25*(3), 736–747.
- Nunez, P. L., & Srinivasan, R. (2006). *Electric fields of the brain: The neurophysics of EEG* (2nd ed.). New York: Oxford University Press.
- Patel, A. D. (2006). Musical rhythm, linguistic rhythm, and human evolution. *Music Perception*, *24*, 99–104.
- Patel, A. D. (2008). *Music, language, and the brain*. New York: Oxford University Press.
- Patel, A. D., Iversen, J. R., Bregman, M. R., & Schulz, I. (2009). Experimental evidence for synchronization to a musical beat in a nonhuman animal. *Current Biology*, *19*, 827–830.
- Peretz, I., & Zatorre, R. J. (Eds.). (2003). *The cognitive neuroscience of music*. New York: Oxford University Press.
- Phillips-Silver, J., Aktipis, C. A., & Bryant, G. A. (2010). The ecology of entrainment: Foundations of coordinated rhythmic movement. *Music Perception*, *28*, 3–14.
- Phillips-Silver, J., & Keller, P. E. (2012). Searching for roots of entrainment and joint action in early musical interactions. *Frontiers in Human Neuroscience*, *6*, 26.

- Phillips-Silver, J., & Trainor, L. J. (2005). Feeling the beat: Movement influences infant rhythm perception. *Science*, *308*(5727), 1430–1430.
- Phillips-Silver, J., & Trainor, L. J. (2007). Hearing what the body feels: Auditory encoding of rhythmic movement. *Cognition*, *105*, 533–546.
- Pinker, S. (1997). *How the mind works*. New York: Norton.
- Pressing, J. (2002). Black Atlantic rhythm: Its computational and transcultural foundations. *Music Perception*, *19*(3), 285–310.
- Regan, D. (1989). *Human brain electrophysiology: Evoked potentials and evoked magnetic fields in science and medicine*. New York: Elsevier.
- Repp, B. H. (2005). Sensorimotor synchronization: A review of the tapping literature. *Psychonomic Bulletin and Review*, *12*, 969–992.
- Sacks, O. (2008). *Musicophilia: Tales of music and the brain*. New York: Vintage Books.
- Salimpoor, V. N., Benovoy, M., Larcher, K., Dagher, A., & Zatorre, R. J. (2011). Anatomically distinct dopamine release during anticipation and experience of peak emotion to music. *Nature Neuroscience*, *14*(2), 257–262.
- Schnupp, J., Nelken, I., & King, A. (2010). *Auditory neuroscience: Making sense of sound*. Cambridge, MA: The MIT Press.
- Schubotz, R. I., Friederici, A. D., & von Cramon, D. Y. (2000). Time perception and motor timing: A common cortical and subcortical basis revealed by fMRI. *NeuroImage*, *11*(1), 1–12.
- Todd, N. P., Lee, C. S., & O’Boyle, D. J. (2002). A sensorimotor theory of temporal tracking and beat induction. *Psychological Research*, *66*(1), 26–39.
- Van Noorden, L., & Moelants, D. (1999). Resonance in the perception of musical pulse. *Journal of New Music Research*, *28*, 43–66.
- Wallin, N. L., Merker, B., & Brown, S. (Eds.). (2000). *The origins of music*. Cambridge, MA: MIT Press.
- Winkler, I., Háden, G. P., Ladinig, O., Sziller, I., & Honing, H. (2009). Newborn infants detect the beat in music. *Proceedings of the National Academy of Sciences*, *106*(7), 2468–2471.
- Witek, M. (2012). Groove experience: Emotional and physiological responses to groove-based music. *Proceedings of the 7th Triennial Conference of European Society for the Cognitive Sciences of Music (ESCOM 2009)*, Jyväskylä, Finland.
- Zatorre, R. J., Chen, J. L., & Penhune, V. B. (2007). When the brain plays music: Auditory-motor interactions in music perception and production. *Nature Reviews Neuroscience*, *8*(7), 547–558.
- Zentner, M., & Eerola, T. (2010). Rhythmic engagement with music in infancy. *Proceedings of the National Academy of Sciences*, *107*(13), 5768–5773.

Sylvie Nozaradan (M.D., Ph.D.) is currently a researcher funded by the Australian Research Council Discovery Early Career Researcher Award. She recently joined the MARCS Institute, Western Sydney University. Previously, she was a post-doctoral research fellow at the Institute of Neuroscience, UCL (Belgium). She received a double Ph.D. in neuroscience with highest honours from UCL (Belgium) and the Université de Montréal (BRAMS, UdeM, Canada), for her work on the neural entrainment to musical rhythm. She has a double background in music (Master in music performance and writing, Royal Superior Conservatory of Brussels, Belgium) and medicine (Medical Doctor, UCL).

Contemporary Music and Its Audience: A Tale of Benevolent Asceticism?

Pierre-Michel Menger

Abstract Descriptive statistics on musical consumption from recent surveys on cultural consumption in France show that the typical audience of classical music and opera consists of older, better educated, and of higher social status people than average cultural consumers. It is also located in the largest cities, with Parisians having a clear edge. Explanatory power of these factors is even stronger when people are asked about their taste or distaste for serious contemporary music, with the three factors of high social status, high educational level and strong musical background working together in combination to explain a propensity for contemporary music attendance. In the same time, listening to new music inherently involves a high potential for dissatisfaction. Two types of ensembles and festivals perform and promote new music: the ‘fostering invention’ type and the ‘mixing new with established contemporary music’ type. Audience of the first type is best described as consisting of stakeholders. The ultimate hope of the second type institutions is to reach lay audience. Based on two surveys of the audience of the InterContemporain Ensemble, one of the most important European organisations in the distribution of modern and contemporary music, the paper shows that lay audience displays loyalty to this highly demanding musical consumption only if it is able to supply ascetic benevolence in order to factor in the high potential for dissatisfaction with works of uncertain and variable value.

Keywords Sociology • Musical consumption • Reception of innovation • Potential for dissatisfaction

1 Introduction

Descriptive statistics on musical consumption from most recent surveys on cultural consumption in France show that the typical audience of classical music and opera consists of older, better educated, and of higher social status people than average cultural consumers. It is also located in the largest cities, with Parisians having a

P.-M. Menger (✉)
Collège de France, EHESS, PSL, Paris, France
e-mail: pierre-michel.menger@college-de-france.fr

clear edge. Explanatory power of these factors is even stronger when people are asked about their taste (or distaste) for serious contemporary music, with the three related factors of high social status, high educational level and strong musical background explaining a propensity for contemporary music attendance. At the same time, listening to new music inherently involves a high potential for dissatisfaction. Two surveys of the audience of the Ensemble InterContemporain, the largest European organisation in the distribution of modern and contemporary music, were carried out 25 years apart. A stunning result of the first one was that about three quarters of the audience found it difficult or very difficult to distinguish between the different aesthetic trends within art music today; only music professionals under 35 declare themselves capable of this distinction. The identification of such different behaviours leads to a distinction between novice members, occasional members who are disappointed and give up, and committed members. The loyalty of the latter raises the paradox of a lay interest in modernity that largely lacks direct support based on a strong ability to judge. Building on the results of the two surveys, I will show how to solve this paradox.

2 Musical Consumption: Between the Classical Repertoire and Contemporary Creation

Throughout the twentieth century, composers have progressively or brutally broken with what constituted, for 200 years at least, the shared musical language of European culture, namely the tonal system. At the same time the classical works of the past provided ever more overwhelming competition for new music. Indeed, never have pieces of classical music found such a vast audience, and never has the past been as omnipresent in this unprecedented musical consumption as it is today. Never before has musical creation broken away as radically from its past as it has after the development of the media and the recording industry, which continuously reinforced consumption. Thus, more than in any other art, the place of new music in cultural consumption is limited by the competition of its own past. How can this be explained?

Unlike pieces of popular music, musical creation is above all defined by its relationship with its past. In the nineteenth century, a number of deeply connected transformations led to the dominance of an aesthetics of originality: competition between artists and the relationships between generations of creators expressed themselves through successive breaks with the past. The imperative to drive the 'progress' of musical language became an essential criterion against which the originality of a piece could be measured (Goehr 1992). The triumph of pure music (even in the opera, which became a symphonic genre with Wagner and his successors) symbolises the identification of aesthetic innovation with a rationale of transcendence and progressivity, whereas novelty had hitherto been perceived and

practiced as a fashion, an ephemeral way of renewing stylistic conventions (Dahlhaus 1980). The imperative of originality became the norm in composition: it was the driving force in the move to make erudite creation autonomous. As creation became the systematic search for new technical solutions to the problems posed by the evolution of musical language, the past appeared to be the very thing that was necessary to integrate and transcend; to be that which transmits to the composer the dynamics of movement, and of progress in art.

However, this evolution also progressively imposed another way of performing music, much more faithful to the score, and another way of listening to concerts, whose programs became more homogenous than they once were. The musical qualities of performances took an increasing importance. The role of the performer became reinforced as the competition between musicians concentrated on set of better-known and more familiar masterpieces performed with the maximum degree of skill and originality as possible. The art of performance is in fact valued for itself, if the added value of the rendition can be perceived and appreciated. For this to be possible, the piece in question must be well known enough for the consumer to provoke a specific demand for innovation in the reproduction of the repertoire as well as enough competition between professional performers to satisfy that demand.

The link that must be made between the historical development of the phenomenon of repertoire (Weber 2008) and the move towards the professionalisation of musicians enable us to explain partly why the interests of the two major categories of actors—the composer and the performer—progressively diverge (Menger 1983b). For these divergent interests to express themselves fully, the effects of three decisive evolutions in musical markets had to come together: The decline in the supply of musical works from the 1930s onwards, the aesthetic break with the tonal system on which the classical repertoire and the dominant consumption habits are based, and the decline of not-for-profit organisations' abilities to finance themselves. This resulted in a segmentation of the market which led both distributors and performers to respond to the dominant demand by consumers who were more sensitive and seduced by the classical repertoire privileged by performers, or the rediscovery of neglected works and performance styles, rather than by the more exacting audacities of musical creation.

3 The Specialised Circuits of Contemporary Creation

The omnipresent classical repertoire inflicts an intense competition on contemporary creation, and clearly has a negative impact on its audience by weakening it whilst intensifying the desire for originality among composers. But it also has a long-lasting and powerful positive effect: Living composers can benefit from the increasing prestige of past masters, whose are still widely distributed, valued and even considered sacred. The increase in consumption of cultural goods as well as the increasing number of institutions that supply and support culture disperse what

might be called the social symbolism of creation. In this, the artist appears as the accomplished figure of civilising humanism, a being who is both social and exceptional. The socio-political consequences of rendering the artist sacred are that it appears unjustifiable to abandon creativity to the laws of supply and demand, which would condemn to oblivion those works and composers of the avant-garde who take the bet of anticipating the market. The logic goes like this: If time was so important in consecrating the great artists of the past, how can we allow to hastily threaten (given its dependence on the market and the fever of immediacy) or dismiss the work and creative freedom of contemporary artists?

This is one of the justifications for the creation of a specialised market for musical innovation. The social narrowness of the consumption of a particular type of art or artwork at a given time does not predict with certainty the attitudes of future generations. The argument, and the mechanism of socialisation of artistic risk that results, can be directly applied to those creative works that, though they are in total rupture with the languages of the consecrated music of the repertoire, act as the agents of the drive for movement and innovation in art. Isn't the risk taken by the artist who does not respond to the established demand first and foremost correlated with the uncertainty of the later estimation of the value of the artwork?

In reducing the risk of short-term failure, the specialised agents who produce and distribute new artworks foster among many composers the assimilation of creation with the systematic search for new solutions to aesthetic problems, with uncertain chances of succeeding in the long-term. The number of specialised festivals,¹ contemporary music groups that are subsidised or established in universities, productions of concerts or broadcasts concentrated on new music by public radio stations,² and centres of research and creation all multiplied after 1945. These specialised circuits provide 'niches', in the environmental sense of the work, where composers are able to produce, to be performed, and free to experiment without fearing the effects of unwavering 'natural selection' that would otherwise be imposed on them by the laws of the market.

Over time the musical creation of the post-war avant-garde led to the establishment of an administered market fed by a heavily funded demand from public organisations or subsidised musical institutions, and supported in many different ways by public radio stations (Menger 1983a).

It is easy to see the benefits that creative professionals take from the construction of such specialised organizations. Without them, contemporary musical production would be crushed by the double competition of past masterpieces and popular music. It is towards these circuits—and under the control of the composers involved in decision-making—that public requests for new works, subsidies for the programming of contemporary pieces, assistance for research in musical technology, and career support for specialised performers, are generally directed.

¹Darmstadt, Donaueschingen, Royan, Varsovie, Graz, and many other.

²For example WDR in Cologne, SWF in Stuttgart and Baden Baden, RAI in Milan, ORF in Vienna, BBC in London, Radio-France in Paris, RTE in Madrid.

The separation between orchestras and ensembles reproducing the traditional classical and pre-classical repertoire on the one hand, and circuits of contemporary music on the other, may correspond to a kind of division of labour in the way the risks associated with innovation are managed. Instrumental ensembles and specialised festivals of contemporary music act as a sort of sieve or filter to introduce a large number of works, allowing professionals to make an initial selection. Traditional establishments of distribution are then responsible for distributing among a wider audience those pieces that were well received in this first selection. The protected market thus mimics a traditional strategy for promoting innovation, which is very common in the cultural industries: An independent sector made of small production units functions as a research or testing laboratory, subject to the direct or indirect control of the major firms which ensure the selective valorisation of their products (Bystryn 1978; Accominotti 2017).

This model must be refined in order to be applicable to music, as it can also apply to cultural industries or to the art market—with its galleries, public institutions and foundations. The group of small organisations that promote contemporary music is very heterogeneous. It includes: organisations of specialised performers and subsidised composers (as is often the case in Europe); ensembles working within universities or conservatories (very common in America where composers are also frequently professors); but also more informal initiatives via events jointly organised by actors of the avant-garde circles in music, or theatre, visual arts or multimedia arts, such as in Brooklyn. These many organisations, sharing the space of the major urban centres without interacting, and only brought together very occasionally by festivals, do not seek to enlarge their public beyond the usual circles of amateurs of artistic innovation and experimentation. In each major town, one or two specialised and heavily subsidised ensembles, often affiliated with the public radio, operate outside of this nebula and attempt introducing recent modernity to a lay public. They do so with a program combining new pieces with works and composers already established as classics of the century.

Specialisation also has some less anticipated and more ambiguous effects. The ideal of permeation which is at the basis of this selection model aims at the small number of creators and works that become established over time, as the choices of professionals converge, and end up being incorporated within a reasonable time into the major instrumental, symphonic and lyrical repertoire that attracts the majority of listeners and music-lovers. Yet the coexistence between a specialised and a traditional sphere does not necessarily lead to the desired permeation, but might instead veer to a rigid separation, perpetuated by the two spheres themselves.

Indeed, segmentation plays on the relation between the production of and demand for innovation. The pressure of final demand (of lay consumers) which would weigh on composers if they were directly dependent on the traditional music market, is replaced by the expectations of intermediary demand in the specialised market, that is, of music professionals themselves (composers, critics, cultural administrators, publishers, performers, music teachers, educators, students, etc.) and professionals of other artistic sectors. These intermediary publics are in fact the primary destination of production in specialised spheres, because they are the ones

who are directly interested in the constant renewal of musical supply, in the systematic exploration of innovative possibilities, however esoteric they may be. We can thus see how the specialised sphere is constructed. As these specialised circuits in the distribution of new pieces are established, an increasing proportion of demand from the state, foundations, universities, non-profit cultural organisations, festivals, etc., are directed at these circuits. Thus a form of synchronisation can emerge between the specialisation and the structures of distribution, whose sole mission is to promote novelty and the working conditions for creation, since the pieces are written in accordance with this perpetual norm of aesthetic production, which the public of art professionals present at concerts of contemporary music has priority in judging. In addition, competition through experimentation has prompted composers to use non-standard instrumental ensembles and technologies, making it more complicated and more expensive to integrate new works into the classical repertoire performed by standard orchestras and ensembles.

After 60 years of experimenting with all the parameters of composition, it is easier today to see that the changes introduced into the musical system through innovation and its diffusion cannot simultaneously procure the aesthetic and symbolic benefits of radical emancipation from the past, and a rapid fusion in the listening habits of the consumer between the flow of new pieces and the unceasingly increasing (with successive rediscoveries and interpretative fashions) flow of past works. But the dialectic between innovation and inclusion in the repertoire does not unflinchingly obey this movement towards mutual estrangement. First, the course of aesthetic innovation is not linear, there are movements towards neo-tonality, repetition, and towards eclectic syntheses of compositional solutions that would have seemed irreconcilable only 10 years ago. All this highlights the fact that aesthetic competition is not simply organised according to a teleological scheme of cumulative ruptures with every past convention, as it was in the good old days of the most radical avant-gardism. Second, a two-tier model of distribution of new music gradually emerged. Among the ensembles and festivals promoting new music, the 'fostering invention' type has firmly established itself along the lines of segmentation depicted above, with its audiences made out of stakeholders of the contemporary music creative game. The second type mixes new with 'established' contemporary music consisting of works by famous living composers. Various programming strategies are devised to build a repertoire of contemporary music. Cooperations and alliances with general-purpose orchestras and ensembles are developed to perform it alongside the repertoire of nineteenth and twentieth century masterpieces. My case study of the Paris Ensemble InterContemporain and its audience refers to this second type.

4 Contemporary and Classical Music Audiences: How Close?

Even if challenged by the “cultural omnivorism” argument initially put forward by Peterson and Kern (1996) and widely discussed since, in order to check to what extent people develop a taste for diversity and variety in listening music, the dominant theory in cultural sociology still states that “music is an unusually polarized cultural field. It plays a key role in defining elite cultural forms, but is also central to many kinds of popular sub-cultures (disadvantaged, youth groups, ethnic minorities)” (Savage 2006, p. 161).

As for contemporary music, the “polarization thesis” would assume that it is a simple subfield of what performing right societies call “serious music”. By contrast, proponents of the rise of omnivorism in musical consumption might see it as an area able to blur the frontiers of the various genres, provided that new trends in contemporary music aesthetically echo less polarized consumption behaviors, with a new generation of composers, acting as Trojan horses, willing to get rid of the old-fashioned divisions and battles of the twentieth century.

Actually, as I will demonstrate from data referring to the French situation over the last three decades, the main predictors of preference for classical music have an even stronger explanatory power when it comes to contemporary music: The dream of merging several types of audiences and musical tastes seems less than likely, except for particular events—festivals, musical events marketed as such (e.g. the “Boulez meets Zappa” famous concert).

Over the last 40 years, the successive surveys on cultural consumption in France have repeatedly shown that the typical audience of classical music and opera consists of people that are older, more female, better educated, have higher social and occupational status and are located in the largest cities, with Parisians having a clear edge, as shown in Table 1.

The explanatory power of these factors is even stronger when people are asked about their musical preferences, as shown in Table 2 based on the same survey data.

Given the increase in the level of education and income and their likely impact on cultural consumption as well as the increasing supply of classical music concerts, participation should have been widening over the last decades. Data shown in Table 3 provide a rather disappointing answer. Using a rather rough index (attendance of at least one classical music concert in the past 12 months), surveys show that participation peaked from the late 1980s to the late 1990s and decreased since, in nearly all occupational status and age groups. The only countervailing factor is the obvious advantage of residing in Paris, where the concentration of musical organisations has a major impact, both on the probability of going to a concert or to the opera, but also on the probability of knowing and attending a wide range of musical events.

General cultural consumption surveys very rarely make a special case for contemporary music, as its low popularity makes it nearly impossible to measure the weight and characteristics of its audience in an ‘omnibus’ study. Only once did

Table 1 Musical genre most listened to (% per row)

	French pop songs	World and traditional	International Pop, RnB	Electro music	Hip hop, rap	Metal, hard rock	Pop, rock	Jazz	Opera	Classical music	Other
Total population	68	25	38	15	14	7	28	17	9	27	8
Gender											
Men	62	24	35	19	17	11	32	19	7	25	8
Women	74	26	40	11	11	4	24	16	10	29	8
Age											
15–19	36	14	55	41	42	17	39	7	1	9	6
20–24	50	25	55	33	43	15	41	17	2	14	11
25–34	61	24	54	23	21	11	42	15	3	13	9
35–44	71	27	47	14	10	11	38	17	6	22	9
45–54	77	29	37	7	5	5	30	20	8	29	9
55–64	79	27	20	3	2	1	14	23	13	41	6
65+	79	22	9	2	1	0	2	17	22	49	7
Level of education											
Primary education	77	24	26	10	10	3	12	13	11	29	9
Certificate of professional competence	72	25	43	12	13	8	29	15	6	21	7
Junior secondary education certificate	69	27	38	16	12	6	24	16	9	24	11
High school diploma	68	26	40	14	10	7	30	20	11	33	8
B.A.	69	29	46	12	9	8	47	26	10	34	7
Master+	58	29	35	11	8	8	43	35	16	45	7
Student	40	20	54	40	36	17	47	14	2	13	7
Occupational status											
Self-employed	79	28	38	15	8	9	26	16	4	22	7

Higher managerial and professional occupations	62	30	33	11	10	9	46	33	15	41	7
Intermediate occupations	67	31	46	12	12	10	46	21	7	25	7
Employees	75	23	46	15	13	5	26	14	3	19	8
Workers	67	23	44	21	19	11	31	11	4	15	9
Former self-employed	79	14	7	3	1	1	5	18	14	43	5
Former higher managerial and professional occupations	62	25	15	0	1	0	7	36	27	68	4
Former intermediate occupations	80	27	14	3	0	1	9	22	21	64	5
Former employees	83	26	12	3	0	0	5	17	18	43	8
Former workers	82	20	12	1	2	1	7	10	14	32	10
Unemployed	54	26	52	24	26	9	33	16	4	20	10
University students	43	25	52	37	34	15	50	17	2	16	9
High school students	35	14	56	44	40	20	44	10	1	9	6
Housewives	75	25	33	8	10	5	13	14	12	25	10
Other inactive	82	25	45	7	8	6	29	20	9	26	10
Size of urban area											
Rural commune	75	23	35	12	10	8	26	14	6	23	7
Less than 20,000 inhabitants	69	20	35	16	12	9	25	13	5	24	8
20,000–100,000 inhabitants	68	26	41	16	15	8	29	18	11	26	8
More than 100,000 inhabitants	68	25	41	17	16	7	31	18	9	28	7
Paris suburbs	56	31	39	12	18	6	27	24	10	29	13
Paris	53	35	23	20	11	9	32	35	24	53	7

Source: *Pratiques culturelles des Français*, Paris, Ministère de la Culture, 2008

Table 2 Musical genre preferred to (% per row)

	Non music listeners	French songs	French pop	International pop songs	RnB	Electro pop (tektonic, dance...)	Techno	Rap	Pop	Rock	Jazz	Classical music	Other genre	No genre cited
Total population	8	13	20	6	4	2	2	3	3	7	3	8	15	5
Gender														
Men	7	10	17	6	3	2	3	4	4	9	4	8	17	6
Women	9	15	23	6	4	1	1	1	3	5	2	9	13	5
Age														
15-19	0	1	5	4	16	8	7	16	4	16	1	1	15	6
20-24	2	4	9	5	12	4	6	9	5	13	4	1	19	8
25-34	1	10	17	10	6	4	5	2	7	11	3	1	17	6
35-44	2	11	24	10	3	1	2	1	6	9	3	4	18	7
45-54	6	17	29	6	1	0	1	0	2	8	3	7	15	6
55-64	12	17	28	3			1	0	1	2	4	15	12	5
65+	24	18	18	2		0				1	3	19	12	2
Level of education														
Primary education	18	18	22	4	2	1	2	1	1	2	2	8	16	4
Certificate of professional competence	5	12	25	8	4	1	3	2	3	8	2	7	15	5
Junior secondary education certificate	6	10	24	7	3	4	2	2	2	3	5	10	19	5
High school diploma	4	10	23	7	3	1	1	2	4	8	4	12	14	6
B.A.	1	12	20	7	4	1	1	0	8	11	5	10	13	8
Master+	2	9	14	6	1	3	1	1	5	14	8	18	11	7
Student	0	2	5	6	12	6	6	12	6	18	3	1	15	7
Occupational status														
Self-employed	8	14	27	7	1	1	2	0	4	10	1	7	12	5
Higher managerial and professional occupations	1	8	18	5	2	2	1	1	7	14	9	10	14	7
Intermediate occupations	2	11	20	8	4	1	1	2	7	11	4	7	15	7
Employees	4	15	29	8	3	2	1	2	3	5	2	4	15	6

Workers	5	11	20	10	4	2	6	3	3	7	1	3	18	6
Former self-employed	28	15	21	1						1	4	16	12	3
Former higher managerial and professional occupations	8	10	14	4						4	10	34	14	2
Former intermediate occupations	12	12	24	4		0			0	2	6	28	10	3
Former employees	21	19	24	3		0				0	2	14	12	3
Former workers	25	25	19	2				0		1	1	11	13	2
Unemployed	2	7	15	6	7	4	6	6	3	8	3	5	22	7
University students	1	3	5	7	10	7	6	9	7	16	5	1	15	8
High school students		1	4	4	16	6	6	15	4	22	1	1	16	5
Housewives	11	17	26	6	3	1	1	1	1	1	2	9	16	5
Other inactive	11	18	24	5	4	0	1	2	8	1	6		13	5
Size of urban area														
Rural communes	9	16	26	7	2	1	3	1	3	7	2	7	13	5
Less than 20,000 inhabitants	9	15	22	5	3	2	2	2	2	7	2	9	15	5
20,000–100,000 inhabitants	8	12	19	6	5	3	4	3	3	6	3	7	17	4
More than 100,000 inhabitants	8	12	20	7	5	2	2	3	4	7	3	8	12	6
Paris suburbs	8	9	15	4	4	2	1	3	4	7	5	9	22	7
Paris	6	7	5	2	4	3	1	1	4	14	12	19	18	5

Source: *Pratiques culturelles des Français*, Paris, Ministère de la Culture, 2008

Table 3 Trends in attendance of classical music concerts, 1973–2000 (% of population)^a

	1973	1981	1988	1997	2008
Total population	7	7	9	9	7
Gender					
Men	8	8	10	9	7
Women	6	7	9	10	8
Age					
15–24	6	8	6	6	4
25–39	10	9	10	9	6
40–59	7	8	13	12	8
60+	5	4	8	10	9
Occupational status					
Farmers	4	5	4	3	2
Craftspeople, merchants, entrepreneurs	7	7	8	7	8
Higher managerial and professional occupations	22	25	31	27	20
Intermediate occupations	13	13	14	12	9
Clerical and domestic workers	7	9	7	7	3
Skilled workers	8	5	4	4	2
Unskilled workers	2	4	4	2	1
Retired	5	3	8	9	9
Other	9	9	7	11	6
Size of urban area					
Rural commune	3	4	5	7	5
Less than 20,000 inhabitants	7	4	7	8	4
20,000–100,000 inhabitants	6	6	8	8	6
More than 100,000 inhabitants	10	8	11	10	9
Parisian suburbs	7	13	15	10	8
Paris	15	27	26	27	28

Source: *Pratiques culturelles des Français*, Paris, Ministère de la Culture, 2008

^a% of people interviewed who reported having attended at least one concert of classical music in the past 12 months

the recurrent survey performed by the French Ministry of Culture include ‘contemporary music’ among the kinds of music respondents were asked to mention as the one more often listened. As shown in Table 4, it ranks very low.

An alternative way of approaching the audience and taste for contemporary music in omnibus surveys is to focus on individual musical works. In his statistical portrait of the British musical field, Savage (2006) included Philip Glass’ *Einstein on the Beach* among the works respondents were asked to report as having listened to and liked or disliked, or not listened to or unknown (Table 5). Not surprisingly, very few were familiar with it, in clear contrast with Mahler’s *Fifth Symphony*, not to mention Vivaldi’s *Four Seasons* or pop music. Miles Davis’ jazz piece is in a position that is only slightly more favorable than Phil Glass’ work. Savage concedes that the cultural omnivore thesis may find some support mainly in the highly educated middle class where people are no longer just fans of classical music but

Table 4 Musical genre most listened to (% of total population)

French popular songs	47.0
International popular songs	19.9
Classical music (incl. baroque music)	18.6
World music (reggae, salsa, etc.)	10.4
Rock music	10.2
Background music, dance music	7.3
Jazz	7.3
Folk music	4.9
Opera	3.8
Film music, musicals	3.5
Operetta	3.5
Hard rock, punk, trash, heavy metal	2.4
Rap	2.2
Contemporary music	1.3
Children's music	1.0
Military music	0.9
Other genres	1.5

Source: *Enquête sur les pratiques culturelles des Français* (1997), DEP/Ministère de la Culture
 Note: Total is larger than 100% as respondents could cite more than one musical genre

Table 5 Knowledge and taste of musical works in the UK (%)

	Listened and liked	Listened, do not like	Not listened, have heard of	Have not heard of	Don't know
Wonderwall, Oasis	46.6	13.8	13.2	26.2	0.2
Stan, Eminem	31.1	17.8	16.4	34.6	0.1
4 Seasons, Vivaldi	55.7	6.1	17.6	20.5	0.1
Einstein on Beach, Glass	3.3	2.7	10.5	83.4	0.1
Symphony 5, Mahler	19.3	6.1	21.1	53.2	0.3
Kind of Blue, Miles Davis	12.7	3.3	14.3	69.5	0.2
Oops, I Did it Again, Britney Spears	26.4	39.2	11.8	22.4	0.2

Source: Savage (2006, p. 164)

may also be interested in rock and jazz, as well as, to some extent, in heavy metal. But modern and contemporary serious music stands far apart on the map of musical preferences. Negative correlations with other genres are higher than in the case of classical music.

5 The Characteristics of the Audience of Contemporary Art Music

A more satisfactory way to study the audience of contemporary music is to perform a monographic survey devoted to one or to a set of specialized musical institutions. In the early 1980s, I surveyed the audience of Ensemble InterContemporain, a leading organisation in the distribution of modern and contemporary music founded by Pierre Boulez (Menger 1986). Another sociologist, Dorin (2013) surveyed it again 25 years later. Although the designs of the surveys were somewhat different, some of the results can be compared and display striking similarities in several important respects. After reporting some basic findings on key variables, I will mainly focus on a paradox brought to light by the first survey, and confirmed by the more recent one.

The empirical analysis of cultural practices and tastes approaches the consumption of art music through a series of inequalities: Among major cultural practices, attending classical concerts or opera performances concerns only a small minority of individuals, whose social status, level of general education and musical background (in terms of extensive learning and performing practice) is abnormally high. The characteristics of the audience of modern and contemporary art music combine the characteristics of the publics that appreciate all forms of contemporary art, with certain other traits that are more specific to the taste for classical and modern-classical music. This is where the three sources that feed the audience of modernity come from. As detailed in Table 6, a very large proportion of the public shares the socio-economic characteristics of the attendance of classical music concerts and opera houses: Members of professional, managerial and technical occupations are overwhelmingly overrepresented among the audience at EIC, with the added nuance that those who are acquainted with modernity have more often learnt and practiced music than the average listeners of classical music—two thirds of the members of the audience at EIC in 1983 and 57% in 2008 reported a strong musical instruction and high level of past or still active musical practice. As a second distinctive characteristic, the taste for contemporary music, like that for other contemporary art expressions and manifestations of the cultural avant-garde, is an insider tale: People from artistic, intellectual and academic occupations—musicians, composers and future music professionals, creators and professionals of other artistic spheres, as well as academics, researchers and teachers—count for more than one third of the audience. Finally, less commonly the frequentation of modernity is associated with preferences that are typically more eclectic in instances where, on the one hand, symbolic affinities for innovation are entwined with the values of progress, and on the other hand, the identification of competing aesthetics is entwined with the struggle of generations. Here preferences tend towards jazz and more sophisticated forms of popular music, and is opposed to the traditional taste for more classical music.

Table 6 Socioprofessional structure of EIC attendance in 1983 and 2008 (%)

	EIC audience 1983	French population 1983	EIC audience 2008	French population 2008
Farmers	0.0	6.3	0.0	2.0
Craftspeople, merchants, entrepreneurs	2.2	7.8	3.3	6.0
Artists, music, art, medi and publishing professionals	16.0	0.2	9.7	0.8
Teachers and professionals in secondary and higher education and research	27.3	1.6	25.9	3.0
Other higher managerial and professional occupations	30.2	6.8	52.7	12.3
Intermediate occupations	21.6	17.6	2.5	24.9
Clerical and domestic workers	2.3	26.9	5.4	28.4
Skilled and unskilled workers	0.1	32.9	0.5	22.6
Total	100	100	100	100

Percentages in population refer to people aged 15 and more

Source: Menger (1983a, b) and Dorin (2013) *Surveys of the public of EIC concerts* (subscribers and non-subscribers)

6 The Situation of the Listener: Resistance, Conditioning or Development?

The sociology of cultural consumption, as theorized by Bourdieu (1979, 1993), considers public resistance to artistic innovation to be mainly the product of the gap between the modes of perception required by new artworks, and the socially dominant forms of decoding for already established artworks. Put in another theoretical frame, the gulf represents the costs and delays innovations incur when challenging music performing, programming and listening conventions, before getting absorbed (Becker 1982). The periods of systematic and cumulative break between creators and the past only maintain, or worse, amplify the gap. This explanation is relativistic in that it imputes the totality of the delay in accepting novelty to the greater inertia of codes of perception, that is, the inertia of the social mechanisms of formation and distribution of cultural competencies.

From the previous analysis, we can deduce, as does Adorno (1975), a rigorous hierarchy of states and behaviour in listening and consumption. The pinnacle is a sort of high-unattainable ideal, occupied by certain rare professional musicians able to adequately perceive the content of contemporary composition. In this hierarchy, a small segment of the public acquires listening capacities through familiarity but without acquiring the necessary knowledge. The vast majority of listeners approach the modernity of their time and are forced to listen with ears that are insufficient, as most of their interest stems from an often superficial consumption of the information and symbols associated with the value of novelty, progress, modernity or contemporaneity. Moreover, their progress towards competence is not guaranteed because variety of experience takes precedence over thorough

understanding. But in spite of the slowness of its realisation, the socio-political ideal remains cultural democratisation, the conversion of the greatest number to the frequentation of art music, under the direction and control of professionals of creation and mediation.

The 'ecological' interpretation of resistance and conversion to musical innovation contrasts with the previous analysis. The most general and immediate cause often put forward for the failure of new works is based on a simple observation: The immediate acoustic environment is almost exclusively tonal, in both its elaborate forms (such as in classical music) and in its more basic forms (popular and ambient music, film and television scores, etc.). If this environment can condition the public, it is because individuals appear to be shaped and even paralysed by their habits. Logically the modification of this acoustic landscape would be enough to free these listeners from their stubborn and pernicious habits. In its radical form, this 'ecological' hypothesis would lead to abolishing the distinction between specialised creators and experts, on the one hand, and passive lay audiences, on the other. The latter would be hardly different from the former if we accept that they all share the capacity for creativity, which can be applied to doing as well as to listening, and which destroys the barriers between these two states, as long as it can be deployed outside cultural conditioning (for an extensive discussion of both views, see Menger 1983a).

A slow climbing to reach the knowledge that only specialists ever fully possess? Or the virtues of spontaneous perception enabling a freer approach to art because one is less encumbered by culture? Are these opposing figures of the ideal listener both pure utopias? Are they as dissimilar as the currents of creation that bet either on the systematic overcoming of the past—which requires the listener to have a rational accumulation of experience and knowledge and the progress of acculturation—or, on the contrary, on de-conditioning and the *tabula rasa*, as in electro-acoustic music? Or do they represent different segments of the actual audiences of contemporary music? Again, the study conducted in the early 1980s and replicated somewhat differently in the late 2000s will provide some answers.

From data gathered in 1983 on frequency and seniority in attendance, it appears that the audience of EIC concerts was made out of three different layers: One third of newcomers, around 40% of listeners with previous experience in contemporary music listening, and 30% of the regular public. Instead of just building on cross-sectional data of the social characteristics of the public, we have to turn to the dynamics of careers in musical consumption. Among newcomers, young people (especially students) and members of intermediate professions are slightly over-represented. Yet the newcomers' participation is volatile, and youth correlates positively with attendance intensity and seniority only for artists and to a lesser extent, for intellectual professions. Such a correlation helps delineate intermediary demand as contrasted with final, lay demand and it also gives clues about the underlying self-selection and self-reinforcement process at stake. Music is one of the best identified addictive cultural goods. Barriers of entry are high, but rewards are addictive for those who get hooked. It is no wonder that with the increase of seniority and frequency in musical participation the rate of artistic and intellectual

Table 7 Musical background (training, practice, concert participation) of EIC concertgoers (% of listeners in each segment)

	Newcomers at EIC	Listeners with some previous experience with EIC concerts	Regular listeners at EIC	Overall audience
Size of each segment	34.7	38.2	27.1	100.0
% out of 100 in each column				
No musical education	49.6	36.2	25.5	38.1
More than 6 years musical training	21.4	34.7	50.0	34.1
No practice of an instrument	42.3	31.0	18.6	31.7
Previous or current piano practice	23.0	40.0	50.0	36.8
Participation in 10 or more concerts during the last 12 months	34.4	39.7	63.0	44.4
No participation in any contemporary music concert during the last 12 months	75.2	60.4	36.4	59.1

Percentages to be read as follows: out of 100 newcomers, 49.6% have no musical education

Source: Menger (1983a, b), *Survey of the public of EIC concerts* (subscribers and non-subscribers)

professions rises. Table 7 details the explanatory factors of participation in EIC concerts that relate to previous musical experience.

Once listeners start attending contemporary music concerts, how can the organization keep them involved and induce loyalty? A high rate of subscription is the safest way cultural organizations have found to get cash in advance and to secure a significant share of their box office income as far as they can induce loyalty among their customers. It also gives them powerful means to influence their public's behavior and choices, by building series that combine inputs in order to meet their various goals (e.g. supporting new music and commissioning new works, building an audience, educating it, cooperating with sister ensembles).

When asked about the two main reasons (out of five) for subscribing to EIC concert series, subscribers of the core segment of the audience—that of professional, technical and managerial workers making up three quarters of the audience—rank the proposed items as reported in Table 8.

The rank order of the asserted reasons suggests that lay listeners, more than musicians, artists and art world professionals, predominantly play safe and hedge their bets. Novelty, especially when termed research, looks almost as appealing as discovery of new works by renowned contemporary composers. The so-called 'young composers' category is the familiar label for uncertain quality at its utmost. No wonder it ranks lower, with the exception for art professionals. The lowest rank given to 'the high level performance' motive may be interpreted as an indication of the reputation of the EIC whose standards of performance are renowned and self-evidently viewed as of the finest quality.

Table 8 Subscription motives of EIC concertgoers (% of listeners in each segment)

	Artists and art world professionals	Secondary school teachers	Higher education and research personnel	Public service executives	Engineers and senior technical personnel	Overall audience
Listen to new or unfamiliar works of renowned contemporary composers	46.8	59.8	48.9	46.5	0.6	50.7
Get information about recent musical research and attend their presentation	54.4	44.5	46.7	43.1	53.9	46.9
Get a better understanding of the classics of the twentieth century	32.9	45.2	48.9	44.8	48.3	46.8
Listen to works of young composers	51.9	35.8	36.7	46.5	0.3	38.4
Attend high level performances of twentieth century repertoire	25.3	17.5	18.9	0.2	14.6	18.6

Listeners had to choose a maximum of two reasons for subscribing and choosing concert series among the five proposed

Source: Menger (1983a, b), *Survey of the public of EIC concerts* (subscribers only)

7 New Music, Uncertainty and Potential for Dissatisfaction

Let us have another view of the ranking of subscription motives by assuming that the different kinds of music supplied by EIC can be ranked according to their potential for dissatisfaction. To get an idea of this potential, I asked people to report 'how easy or difficult do you feel it to discriminate among the various styles of contemporary music' (Table 9). Answers provide a rough index of aesthetic intelligibility as well as of the kind of ascetic benevolence required to a journey with contemporary music.

The results are stunning. Even within an audience of a high average social status and general education as well as strong musical education and consumption, about three quarters of the listeners express discomfort when it comes to find their way into the forest of modernity. This perplexity level decreases with seniority in attendance and only falls significantly for music professionals under 35 who take full advantage and satisfaction of playing the game of quality evaluation and stylistic categorization they are familiar with.

The difficulty to judge and discriminate has of course different meanings depending on a listener's background and expectations. What are the qualities that the different segments of the audience look for in the music? Roughly, lay

Table 9 Judgmental perplexity of EIC concertgoers

	Newcomers at EIC	Listeners with some previous experience with EIC concerts	Regular listeners at EIC	Overall
Size of each segment	34.7	38.2	27.1	100.0
Feel that the various styles of contemporary music are difficult or very difficult to discriminate	75.3	81.0	57.0	72.0

Percentages to be read as follows: out of 100 newcomers, 75.3 feel difficulties
 Source: Menger (1983a, b), *Survey of the public of EIC concerts* (subscribers and non-subscribers)

music lovers with longstanding familiarity with classical music above all wish that the freedom of invention didn't come at the cost of 'readability' or 'audibility' of the pieces, that is the clarity of their construction and perceptibility. Audience members whose preferences also go to jazz and/or pop, insist on the qualities of 'creativity', 'spontaneity', 'humor', and 'non-conformism' instead. As for the most competent listeners, those most familiar with modernity, they mention architectural complexity as the true reservoir of authentic and desirable innovation.

Furthermore, the organization itself has to balance its goals in order to avoid both the trap of excessive support of freshly composed music whose value is highly uncertain and to resist the opposite temptation of giving the lion's share of its programs to big names. Yet, how can it address the paradox of a large majority of a highly cultivated people admitting their perplexity when faced with the Babelian diversity of musical languages?

How do people react when experiencing perplexity? There are two ways to investigate this issue. First, one can study loyalty versus disaffection, on the basis of the behavior of subscribers who extend their investment or drop out. Table 10 documents the subscription renewal rate, controlling for the numbers of years of participation.

Attrition increases with age, other things being equal, with a critical turning point—a subscription renewed at least for 3 years is a clear signal of a sustained involvement. Half of the new subscribers are under 30, but this younger half represents only 1% of the listeners with a subscription seniority of 3 years and more.

The second evidence at hand comes from the survey of non-subscribers. Newcomers are on average younger and less familiar with new music and aesthetic research. For them, the "trial and error" consumption method applies, as is the case for all experience goods whose value and potential for gratification are unknown before consuming them. Actually, youth can be associated with the relative diversification of recruitment and its later centrifugation dynamics, as well as with the commitment to novelty (as is the case of young music professionals). Indeed, subscription as a pattern of consumption is avoided by artists, as well as art and media professionals, who quite often are invited and/or preserve their freedom of choice, without the constraints imposed by a subscription.

Table 10 Turnover rate among subscribers at EIC concerts

Number of years of subscription	Numbers of subscribers	Subscription renewal rate for 1982–1983 (%)
1 year	351	16.0
2 years	234	19.0
3 years	131	41.0
4 or 5 years	99	68.0
6 years and more	69	85.5

Source: Menger (1983a, b), *Survey of the public of EIC concerts* (subscribers and non-subscribers)

8 Exit, Voice or Loyalty?

Given that new music has a high potential for dissatisfaction (approximated by the high level of perplexity expressed), it is easy to understand the ‘exit’ option,³ which simply means dropping out more or less rapidly, or attending from time to time, as discussed previously.

The ‘voice’ option has largely disappeared: Very rarely do audiences protest and make noise today. Salient examples of past misplaced scandals are numerous and striking enough to de-legitimize those who may hope to be able to influence composers and bend their creative work. The history of the reception of new music in the twentieth century is marked by successes and scandals as spectacular as they are ephemeral. It was also marked by a passion for modernity which attained an unusual intensity in certain periods such as the end of the 1960s in Europe, for reasons that were inextricably aesthetic, social and political, at a time of social contesting against the capitalist system, student revolts, counter-culture utopias, and aesthetic wars between the Ancients and the Moderns which favoured the typical alliances between the artistic avant-garde, social movements and generational struggles (Menger 1983a). Does the fact that scandals have become more rare, as Adorno had noted already in the 1960s, mean that innovation is better tolerated, more rapidly accepted, or rather that it is simply neutralised because it is essentially situated in a separate sphere of evaluation? New music faces the same paradox as the other arts because of its subversive audacity, often directed against institutions. But nowadays, it is also widely subsidised by the state and distributed by public institutions, after having first been defended by independent organisations essentially supported by private sponsors such as *Domaine Musical* founded in 1953 by Pierre Boulez in Paris or the Austrian ensemble *Die Reihe* founded by Friedrich Cehra.

The ‘loyalty’ option is the only one that needs additional explanation to solve the paradox of an interest in modernity largely lacking direct support based on the ability to judge. How do listeners react when faced with new pieces that are, by definition, unequally interesting and have a strong ‘potential for disappointment’ because the historical filter has not yet selected the best? Faced with this modernity

³On exit, voice and loyalty options, see Hirschman (1970).

that is difficult to understand, do they react with a support that is durable or temporary and followed by disaffection? The public would thus be composed of a continually renewed flux of listeners, first attracted by novelty and then discontented, to the point where the audiences of these new pieces only result from rapid movements of attraction and repulsion. Surveys enable us to provide precise answers to these questions based on the reconstitution of consumption trajectories: Novice members, occasional ones who give up and committed ones.

Novice audiences are younger but less musically cultured than stable audiences: Many of them never learnt music and do not play an instrument. They are slightly more likely to be from the middle class than committed audience members. One can wonder whether the combination of these factors makes young listeners less exposed to classical musical culture, and more sensitive to the breaks in artistic innovation?

The recruitment of novices relies on two well-known cultural democratization mechanisms: The middle classes are slightly over-represented and average age of new entrants is much lower; this is especially due to the share of students among the group of novices. Better receptivity of young listeners to novelty and cultural innovation should not be confused with the myth of cultural virginity as the key factor enabling listeners to embrace avant-garde art music just because of their lack of musical instruction. Indeed, the data point to a self-selection process: Intensity of individual participation in contemporary music concerts positively correlates with higher educational and occupational status. To be more specific, the share of teachers, researchers, and of music, art and media professionals, increases with sustained attendance: Within that core segment, among three quarters are under 40 years of age. Youth can therefore be correlated both with higher diversity in the social composition of the audience, and greater social homogeneity as soon as consumption of contemporary music is seen through the lens of sustained participation and cumulative investment, referring then to the core segment of artistic and academic devotees.

Just as irregular audiences react with disaffection or sporadic attendance to the disorientation they feel when faced with new pieces, the more stable audience is made up of laypeople (in addition to professional musicians and artists) that are willing to demonstrate their loyalty even when facing long-lasting bewilderment. This is because they see themselves, and not the composers, as responsible for the breakdown in aesthetic communication and they confer enough value to the pieces to wager that the benefits of prolonged frequentation are able to bridge the gap between their current perception and the satisfaction of a perception improved through long-term investment. These listeners more readily identify new musical production with the search for new solutions to complex problems.

This principle is used by creators and cultural mediators to persuade the public that the paradox of lay consumption—an interest in modernity largely lacking direct support based on the ability to judge—is merely a necessary compromise dictated by the exploratory nature of aesthetic invention. Fundamentally, frequenting new pieces means also accepting to share the risks; the risk taken by the composer in search of successful originality must correspond to the risk of the listener, uncertain of the value of what will be heard. This pact requires the listener

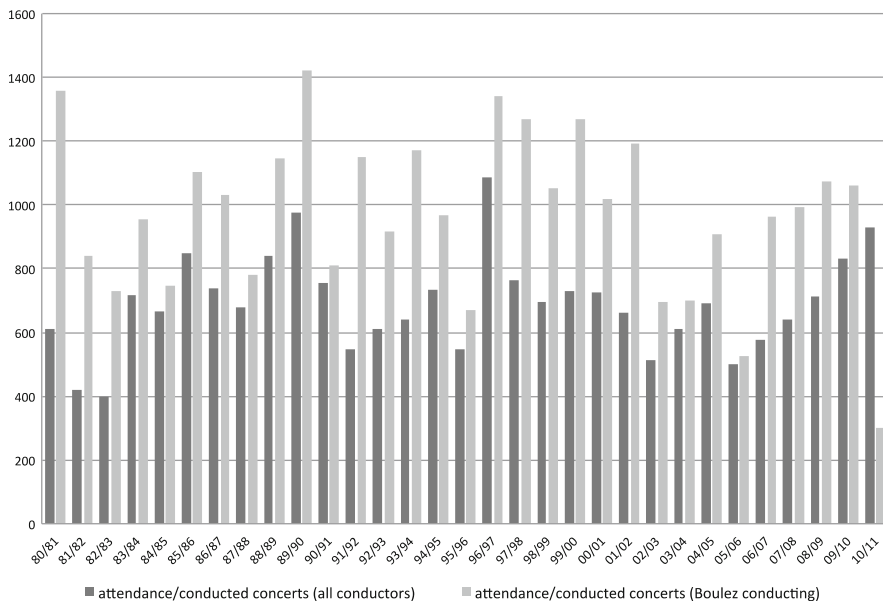


Fig. 1 Typology of programs and attendances (Source: Dorin 2013)

to suspend their judgment and possible immediate dissatisfaction, to endorse full responsibility for it instead of incriminating composers, and to gamble on a possible future satisfaction, that is a return on a committed participation (see Hirschman 1982, on the mechanism of self-ascription applying the psychoanalytic therapy situation). This wager would have little chance of being concluded if the public was not recruited primarily among artists and professionals in cultural spheres, teachers, researchers, engineers and students, and wasn't highly familiar with cultural and musical practices. Nor would it be efficient if the symbolic membership of an artistic cause (that of modernity) were not among the motives for satisfaction to be had from the listening to pieces of uncertain quality. Similarly, it would not work if institutions that obtained the largest audiences, beyond the professional circle, did not use a series of more or less didactic tools to keep the listener progressing, as well as some simple principles to efficiently keep people interested in novelty of uncertain value—such as mixed programs combining the performance of new or very recent compositions as well as modern classics and already established contemporary works, and the recourse to leading authorities such as Boulez, who acts as a guarantor in his double role of composer and conductor.

Some evidence supports this conclusion that can be found in the two following graphs drawn from Dorin's (2013) recent survey. With an audience getting older and in part better experienced (listeners under 35 represent 18% of the audience in 2008, as opposed to the 43.5% in the 1983 survey), the core content of the attractive 'safe modernity' has shifted from the masterpieces of the early modernity to those of second half of the twentieth century (Fig. 1). And Boulez's role as a guarantor

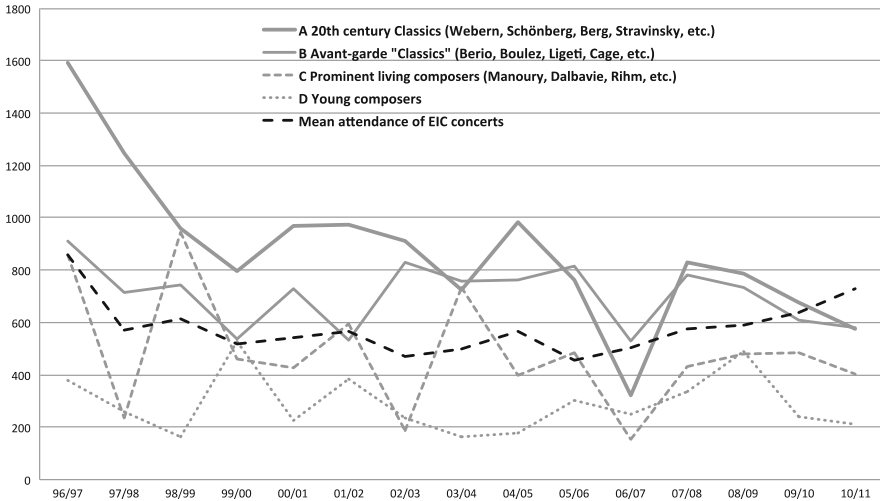


Fig. 2 Compared attendances at conducted concerts (Source: Dorin 2013)

certainly peaked in the 1980s and 1990s, during the first decades of the Ensemble’s career, then receding somewhat. This may suggest Boulez’s charisma became a routine, to speak like Max Weber, with diminishing returns of Boulez’s leadership to the organization. It certainly is an effect of his lesser involvement too, when Boulez turned 80 in 2005. Figure 2 compares attendance levels of concerts conducted by Boulez versus others.

In reality, the taste for new music is reinforced among all those who have a thorough knowledge of music or, failing that, can transfer onto it the symbolic values of intellectual invention and research to which they have been made sensitive through their education or professional activities. This is why those people who are durably interested in new music are above all found in intellectual and artistic professions, as well as in information, audio-visual and performance positions, and that their level of musical acculturation increases with the regularity of attendance. One result of these studies remains essential however: Committed audience members are more cultivated but also younger than occasional audience members. Their youth can thus be associated with the relative diversification of recruitment among the more uncertain and more versatile modes of consumption, as well as with the social homogenisation of the committed audience.

9 The Narrow Audience of Creation: An Eternal Law?

The uncertainty of immediate aesthetic evaluations and the risk taking associated with listening to new pieces must not be confused with the argument which, in order to motivate the suspension or the prudence of critical judgment on contemporary

production, invokes the failure of new works or composers in general, drawn from historical observation of artistic life. To say that the public's misunderstanding of innovators is nothing new is self-evident, but to say that it governs the history of music is a deceitful over-interpretation. If the scenario were eternally the same, if the discord were recurrent and thus eternally temporary, history would teach us nothing but its own repetition. Yet contexts change: Composers who were victims and then beneficiaries of much delayed consecrations do not have the same place in the musical sphere decades apart. The profile, the size and the meaning of the gap between supply and demand of music cannot be analysed only according to the formal scheme of the rule of a structural gap, no more than the preferences and reactions of the public can be easily compared from one period to another. If it were necessary to mention a decisive principle of variation in the behaviour of composers as well as audiences, it would be the idea that the space of choice, for both these groups, is under constant modification. This would confer on the aesthetic decisions of the former and the evaluations of the latter, properties and meanings that are fundamentally changing. In other words, the past, source of sacralisation of the contemporary creator, has not always been invariably governed by the consciousness of time that prevails today.

The existence of this space of choice is a reminder, for example, that before the musical revolutions of the twentieth century, a continuum had long existed between the different styles and spheres of musical production and consumption. It was thus frequent for a 'serious' composer to write in the light or functional genres and that among composers of the same period, or even in the production of a given composer, there co-existed several creative attitudes. The musical creation of the second part of the twentieth century was much more profoundly segmented; the attitude of systematic breaks and experimentation became the dominant norm in producing and evaluating the originality and excellence of compositions (Meyer 1967). It rapidly led creators seeking consecration to take position in the same segment of production, which was a new situation historically. That this segmentation was less radical in the last decade of the twentieth century than in the four decades that preceded it is sufficient to remind us that history is not a linear succession of breaks. It should also remind us that that the competition of different aesthetics may lead to returns to tonality, to formal minimalism, to stylistic syncretism, to the eclectic combination of compositional languages—before other radicalisms attempt to break down these paths of invention and their ambitions for more immediate seduction.

References

- Accominotti, F. (2018). *Market chains: Careers and creativity in the market for modern art*. Princeton: Princeton University Press (forthcoming).
- Adorno, T. W. (1975). *Einleitung in die Musiksoziologie*. Frankfurt-am-Main: Suhrkamp.
- Becker, H. S. (1982). *Art worlds*. Berkeley: University of California Press.

- Bourdieu, P. (1979). *La distinction. Critique sociale du jugement*. Paris: Editions de Minuit.
- Bourdieu, P. (1993). *The field of cultural production (chapter 8)*. New York: Columbia University Press.
- Bystryn, M. (1978). Art galleries as gatekeepers: The case of the abstract expressionists. *Social Research*, 45(2), 390–408.
- Dahlhaus, C. (1980). *Die Musik des 19. Jahrhunderts*. Wiesbaden: Athenaion.
- Dorin, S. (2013). *L'amour de la musique contemporaine: Sociologie du goût musical savant*. Strasbourg: Mémoire d'habilitation à diriger des recherches.
- Goehr, L. (1992). *The imaginary museum of musical works*. Oxford: Oxford University Press.
- Hirschman, A. O. (1970). *Exit, voice, and loyalty: Responses to decline in firms, organizations, and states*. Cambridge, MA: Harvard University Press.
- Hirschman, A. O. (1982). *Shifting involvements: Private interest and public action*. Princeton: Princeton University Press.
- Menger, P. M. (1983a). *Le Paradoxe du musicien*. Paris: Flammarion.
- Menger, P. M. (1983b). De la division du travail musical. *Sociologie du Travail*, 4, 475–488.
- Menger, P. M. (1986). L'oreille spéculative. Consommation et perception de la musique contemporaine. *Revue Française de Sociologie*, 27(3), 445–479.
- Meyer, L. B. (1967). *Music, the arts and ideas*. Chicago: The University of Chicago Press.
- Peterson, R., & Kern, R. (1996). Changing highbrow taste: From snob to omnivore. *American Sociological Review*, 61(5), 900–907.
- Savage, M. (2006). The musical field. *Cultural Trends*, 15(2–3), 159–174.
- Weber, W. (2008). *The great transformation of musical taste: Concert programming from Haydn to Brahms*. Cambridge: Cambridge University Press.

Pierre-Michel Menger studied philosophy and sociology at the Ecole Normale Supérieure in Paris and earned his Ph.D. at the Ecole des Hautes Etudes en Sciences Sociales in 1980. He has been researcher at the Centre National de la Recherche Scientifique (Paris) before joining the Collège de France, where he is Professor since 2013, holding the Chair of Sociology of Creative Work. He is also professor (directeur d'études) at the Ecole des Hautes Etudes en Sciences Sociales since 1994. His research focuses on work, employment and occupations, and the sociology of art and culture. He is the author or co-author of 15 books, and has published numerous articles in journals such as *Revue française de Sociologie*, *Sociologie du travail*, *L'Année Sociologique*, *Annales*, *Revue Economique*, *Revue française d'économie*, *Annual Review of Sociology*, *Poetics*, *Sociologisk Forskning*. He was editor of the *Revue française de Sociologie* and has been a member of the editorial board of the *Revue Economique*, *Poetics*, and *Twentieth-Century Music* a.o.

Looking Into the Profile of Music Audiences

Victor Fernandez-Blanco, Maria J. Perez-Villadoniga,
and Juan Prieto-Rodriguez

Music is the melody whose text is the world.
(Arthur Schopenhauer)

Abstract The main aims of this chapter are to identify different groups of music consumers and to analyse the relation between the observed diversity of musical consumption and the socio-economic characteristics of its audiences. This information is essential for producers and cultural practitioners as well as for public agencies whose purpose is encouraging cultural consumption and promoting certain types of music. Using cluster analysis based on the 2011 Survey on Spanish Habits and Cultural Practices (SHCP-2011), we identify 12 distinct classes of music listeners and obtain a detailed classification of music consumers. As expected, education and age are the main determinants of consumption. Hence, education and childhood exposure to music could prove to be important instruments for improving music demand especially if they are focused on personal enjoyment and satisfaction rather than on the more formal aspects of music.

Keywords Music demand • Consumers' profile • Cluster analysis

1 Introduction

The main aim of this chapter is to analyze two different but connected issues. The first is concerned with the relationship between observed diversity of musical consumption and the socio-economic characteristics of audiences. Obviously, this question is closely linked with the concept and definition of cultural omnivores. Second, we wish to identify groups of music consumers and use variables, mainly

V. Fernandez-Blanco (✉) • M.J. Perez-Villadoniga • J. Prieto-Rodriguez
Department of Economics, Universidad de Oviedo, Oviedo, Spain
e-mail: vferman@uniovi.es; mjpvilla@uniovi.es; juanprieto@uniovi.es

age and education, to define their members. In cultural industries, as in any other industry, identifying the profile of potential consumers is essential for the decision-making of producers and cultural practitioners. This information may also be important for public agencies in the sense that they may be interested in encouraging the cultural consumption of particular groups of citizens or, alternatively, promoting certain types of cultural goods. The intervention of public authorities in the provision of cultural goods is justified on the grounds they often possess public-good characteristics and their consumption may generate positive externalities. Also, cultural goods are often considered as merit goods, i.e. goods with an intrinsic value to society as a whole for which individual consumers possess either incorrect or incomplete information about their advantages. This in itself offers another rationale for public support.

Within the cultural sector, and starting with the work of Baumol and Bowen (1966), there is great concern among economists about the characteristics of performing arts audiences. Moreover, among performing arts there is an increasing interest in the analysis of music consumption as a special case of a cultural good that introduces numerous collateral effects.

Acknowledging the importance of music, both for individuals and society as a whole, dates back to early civilizations. Ancient Greeks and Chinese recognized both the harmful and beneficial effects of music.¹ For instance, in *The Republic*, Plato argued that proper education in music helps individuals to build a noble personality and he claimed that “musical training is a more potent instrument than any other, because rhythm and harmony find their way into the inward places of the soul.” He also observed that “musical innovation is full of danger to the State, for when modes of music change, the laws of the State always change with them.” He was thus aware of the effect that music had on society and warned about the necessity of ruling out certain types of music because of their potentially harmful effects.

Research in many disciplines has sought to prove the beneficial effects of music on various aspects of an individual’s life. Neuroscience has found that music may benefit both mental and physical health.² In a review of research papers regarding the neurochemistry of music, Chanda and Levitin (2013) conclude that although the evidence is still very weak, music can improve the immune system and reduce levels of stress. Similarly, several studies in psychology have pointed to the possibility that listening to music has a positive effect on other cognitive abilities, known as the Mozart effect (Rauscher et al. 1993). Although much subsequent research has failed to find a specific link between music listening and cognitive performance, Schellenberg (2012) claims that listening to music can change listeners’ feelings, which in turn may affect their cognitive performance. Sociologists have argued that participation in the arts, including music, helps to build social

¹See, for instance, Wang (2004) for a comparison between ancient Chinese and Greek understanding of the power of music.

²See, for instance, Nozaradan (2017).

capital, which can then serve as a tool for combating social exclusion and promoting community cohesion. As Putnam et al. (1993) suggest, cultural events can bring together diverse social groups, and even improve the efficiency of institutions.

Hence, music seems to have beneficial effects in many domains, converting it into a distinctive cultural good which probably deserves greater attention when defining educational and cultural policies. Following this strand of literature, the present chapter focuses on music consumption in Spain. In particular, we investigate the characteristics of audiences associated with different types of musical choice in order to extract policy recommendations that will serve to foster individuals' appreciation of music consumption.

The chapter is organised as follows. First, we briefly discuss the cultivation of music tastes. Second, we summarize the main empirical findings regarding music audiences in Spain. The available data and main results are presented in the next two sections. Our conclusions are provided in the final section.

2 The Cultivation of Taste

Prior to any analysis of how to influence the consumption of music, it is fundamental to understand the behaviour of potential listeners. Beyond the simple inert process that may explain current and future consumption as a consequence of past consumption, as proposed by Pollak (1970), two main theories have been put forward to explain how tastes for music (and arts in general) are formed. First, the rational addiction model (Stigler and Becker 1977; Becker and Murphy 1988) assumes that all individuals have similar preferences and that differences in constraints explain differences in observed behaviour. Under this approach, the taste for music is generated by a so-called music-specific capital, with each previous musical experience raising this specific capital. Second, the learning by consuming approach (Lévy-Garboua and Montmarquette 1996) establishes that underlying tastes are given but are unknown to the individual. The consumer then discovers his/her taste through a sequential process of repeated experiences that incorporates unexpected positive or negative increment in taste.

Both models yield the following common key points, which are essential to our discussion: (i) current consumption of music depends on past consumption and (ii) taste for music is developed through repeated exposure and consumption throughout an individual's life.

However, appropriate cultural policies can be quite different depending on the taste formation process. If tastes depend on music-specific capital and education is the major force available to enhance human capital, then musical education should play a central role in cultural policy. In this context it would certainly make sense for governments to subsidize and promote musical education. If tastes can be improved by exposure to music and consumption, cultural policy may prove more effective if it is directed towards subsidizing musical production and consumption via prices.

In any case, whatever the underlying process of taste formation, it is likely that as exposure to music increases, individuals become fonder of music and the positive effects discussed in the previous section will be disseminated throughout society.

3 Characteristics of Music Audiences

In this section we provide a brief summary of the main empirical findings regarding music audiences, emphasizing the most important stylized factors linked to music consumption.

The analysis of music audiences has traditionally made a clear distinction between two types of consumers: individuals who consume mainly ‘highbrow’ musical genres, such as opera and classical music, and those who listen to ‘low-brow’ genres, like popular or rock music (Bourdieu 1984). Along these lines, many attempts have been made to identify the characteristics of both types of audiences in several countries, and we can identify several common results. ‘Highbrow’ consumers are usually associated with higher education and occupational status, while lowbrows typically exhibit lower educational and occupational status.³ Also, the classical music audience basically comprises middle-aged individuals (Seaman 2005, 2006), while younger people are more inclined towards popular music.⁴

Interestingly, while females are more likely to consume classical music than males,⁵ having family responsibilities has a negative effect on attendance at concerts of any type of music (Favaro and Frateschi 2007; Montoro-Pons and Cuadrado-Garcia 2011). Active participation in music-related activities increases the probability of listening to music,⁶ but attending a music school does not contribute towards popular music consumption (Favaro and Frateschi 2007). Geographical and other social differences have also been found, with music consumption more common in more developed regions (Fisher and Preece 2003; Favaro and Frateschi 2007) and in urban areas (Gray 2003; Lewis and Seaman 2004; Favaro and Frateschi 2007). Finally, while ethnical minorities have a lower probability of consuming classical music (Gray 2003; Lewis and Seaman 2004), gays, lesbian and bisexual people have a higher probability of attending classical music events (Lewis and Seaman 2004).

³Baumol and Bowen (1966), Throsby and Withers (1979), Abbé-Decarroux and Grin (1992), Towse (1994), O’Hagan (1996), Fisher and Preece (2003), Gray (2003), Favaro and Frateschi (2007), Montoro-Pons and Cuadrado-Garcia (2011).

⁴Baumol and Bowen (1966), Abbé-Decarroux and Grin (1992), Favaro and Frateschi (2007), Montoro-Pons and Cuadrado-Garcia (2011).

⁵Kurabayashi and Ito (1992), van Eijck (2001), Fisher and Preece (2003), Gray (2003), Favaro and Frateschi (2007).

⁶Abbé-Decarroux and Grin (1992), van Eijck (2001), Gray (2003), Favaro and Frateschi (2007), Montoro-Pons and Cuadrado-Garcia (2011).

In contrast with this traditional view, subsequent research (Peterson and Simkus 1992; Peterson and Kern 1996) found that in the USA this dichotomy was fading, as highbrow consumers were becoming increasingly omnivorous over time, appreciating a wider range of musical genres. This change in music consumption patterns has been found in other countries such as Canada (Fisher and Preece 2003), the Netherlands (van Eijck 2001) or Italy (Favaro and Frateschi 2007). Although the studies differ substantially in terms of methodology and variables considered, a common result is that this class of consumers with a taste for diverse types of music tends to be relatively young and highly educated.

In the case of Spain, there has been little research regarding music audiences. To the best of our knowledge, Prieto-Rodriguez and Fernandez-Blanco (2000) were the first to analyse the differences in the consumption of classical and popular music. To do so they use data from the 1991 Survey on Structure, Conscience and Biography of Class (ECBC-91), where individuals were asked how often they listened to classical and popular music, without distinguishing between different music genres or alternative ways of listening to music. After controlling for socio-economic and demographic characteristics, the authors find that classical and popular music fans do not belong to completely independent groups. In particular, there is a positive and significant correlation between the consumption of both types of music. They interpret this result as evidence of a “common background between both groups that can be associated with the presence of an ‘innate’ taste for music” (p. 159). With regard to the effects of other socio-economic variables, results do not differ substantially from the evidence found in most countries. This being the case we strongly believe that most of the results for Spain presented in this chapter could be generalized.

4 The Dataset

To carry out our empirical analysis, we use data from the 2011 Survey on Habits and Cultural Practices (SHCP-2011) conducted by the Spanish Ministry of Culture. The survey, collected in four waves between March 2010 and February 2011, focuses on cultural consumption and provides information on 16,000 individuals older than 15 years and living in Spain. Apart from socio-economic characteristics, the data covers information on individuals’ interest in and frequency and intensity of consumption of cultural commodities, including music. Interestingly, it pays attention to different modes of acquisition of certain cultural products that are subject to intellectual property rights.

We exclude observations with missing values in any of the variables of interest. This leaves us with a final sample of 14,486 individuals, 48% of whom are males, with an average age of 44 years, and around 10 years of formal schooling. Descriptive statistics are shown in Table 1.

To analyse how some observed socio-economic characteristics (mainly age, education and sex) are linked with the diversity of music consumption and how

Table 1 Descriptive statistics

	Mean (%)	Standard deviation
Male	47.99	0.50
Age	44.22	19.10
Education	10.02	3.90
Music genres	3.11	2.67
<i>Music genre consumed</i>		
Songwriters	28.64	0.45
Melodic music	32.11	0.47
Flamenco	20.04	0.40
New flamenco	12.72	0.33
Other Spanish folk music	12.72	0.33
Spanish pop/rock	50.61	0.50
Latin pop/rock	30.21	0.46
Foreign pop/rock	33.34	0.47
Blues, soul	7.90	0.27
Jazz	6.53	0.25
World folk music, ethnic	4.39	0.20
Reggae	6.24	0.24
Rap, hip hop	7.18	0.26
Electronic, techno	7.48	0.26
Hard rock, metal, punk	4.86	0.22
Dance, house	9.38	0.29
Classical music	14.79	0.36
Lyrical music	3.42	0.18
Opera	4.11	0.20
Zarzuela	3.69	0.19
Other music genres	11.03	0.31

they can help us to identify different groups of consumers, we focus on one specific question of the survey regarding the type of music individuals had listened to in the previous quarter. The list of possible answers covers over 20 music genres from opera to flamenco, as shown in Table 1. Individuals in the sample declare that they listen, on average, to over three different music genres. Some popular music styles, as the term seems to indicate, are crowd-pleasing such as pop and rock (the most frequently consumed types of music), especially Spanish pop rock, as over 50% of the individuals declared having listened to it. Songwriter and melodic music are also quite popular, consumed by 32% and 28.6% of the sample respectively. However, among popular genres, we also observe some niche styles consumed by a very restricted audience. This is the case of ethnic music or hard rock both consumed by less than 5% of the sample. A less marked distinction can be found among classical music genres. The proportion of individuals who consume classical music is nearly 15%, while only roughly 4% state that they listen to lyrical music including opera and zarzuela.

5 Results

We now present the main results of the empirical analysis. First, using non-parametric techniques, we examine the relationship between the diversity of music consumed and age and education.⁷ This allows us to represent all the observed combinations of music consumption with age or education as a smooth curve, as shown in Fig. 1. We use the Nadaraya-Watson nonparametric smoother (Nadaraya 1964; Watson 1964) with the Epanechnikov kernel (Epanechnikov 1969) applied to the number of music genres and separately for age and years of schooling. We apply this analysis to the entire sample, including those who do not consume music although we are aware that non-consumers are not randomly distributed by age and education. In fact, less than 3% of teenagers do not listen to music at all, but this proportion is much larger (33%) for people over 75 years old.

As expected, younger people tend to listen to a larger number of genres. We observe a maximum at around 25 years of age and a steady decrease up to 50 years with a rapid decline from there on. This implies that older people have, on average, a very narrow range of music preferences and consumption, if any. As we discuss later, many older people do not listen to music at all: of those that do, some concentrate on classical music, others on popular music, but hardly any have a preference for highbrow and lowbrow genres simultaneously.

With regard to education, the greater the numbers of years of schooling, the wider the number of musical choices. However, these differences are only significant when we compare people with primary and less than primary education to those with secondary or higher-level education. Despite the similar number of musical genres consumed by people with secondary or higher education, a qualitative difference between them is observed in that the proportion of university graduates who listen to classical music is twice as large as those with secondary education. We performed this analysis separately for males and females and find no significant differences: the patterns for age and education do not differ by gender.

We now focus on the qualitative differences in the patterns of music consumption. To do so, we use cluster analysis to classify consumers according to their musical choices using information about the genres people listen to. Clustering consists of assigning observations to groups (or clusters) in such a way that the observations within each group are similar with respect to the variables of interest, and the groups differ from one another. We cluster individuals only with respect to the genres they listen to, so that observations within a group share similar musical tastes but may differ in terms of other characteristics. However, we expect some similarities in terms of educational attainment, age and, probably, sex, within groups of similar consumption patterns, even if these variables are not used to classify people. The cluster analysis yields 12 distinct groups, ranging from

⁷We have focused on these two variables because, as we have seen in Sect. 3, they are frequently-found determinants of music consumption all around the world. We have also used sex but this variable was not significant.

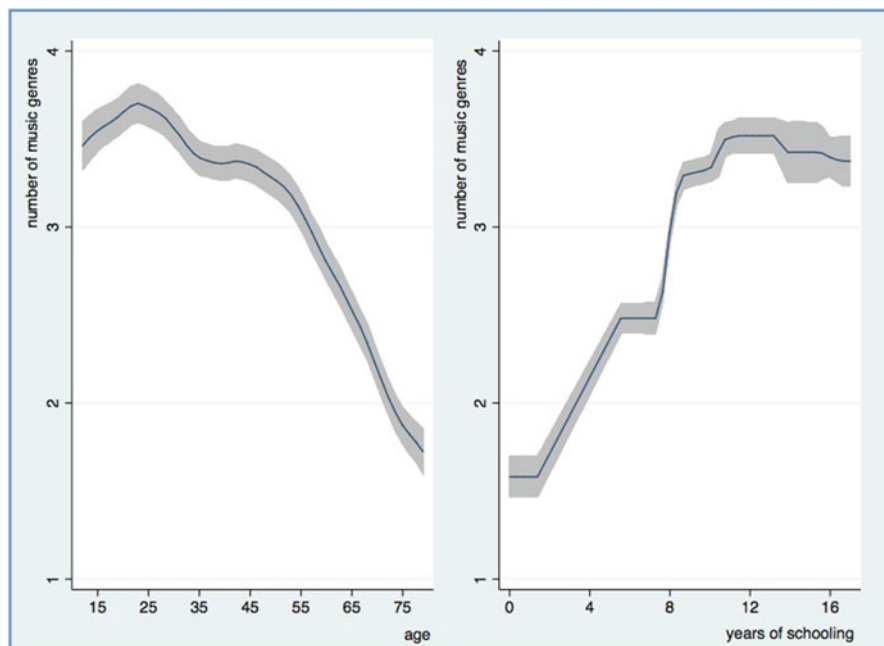


Fig. 1 Number of music genres consumed by age and education. Note: The *shaded* regions represent the 95% confidence intervals

omnivores to those who hardly listen to any music, as shown in Table 2. Although not very strong, the correlation between the size of the groups and the variety of genres they listen to is negative: Smaller groups are associated with consumption of a larger diversity of styles.

Once the clusters are defined, we analyse the differences in the average age, education and gender among groups. In some cases, we also incorporate self-declared interest in music since this variable is a good proxy of musical preferences (see, for instance, Fernandez-Blanco et al. 2009).⁸

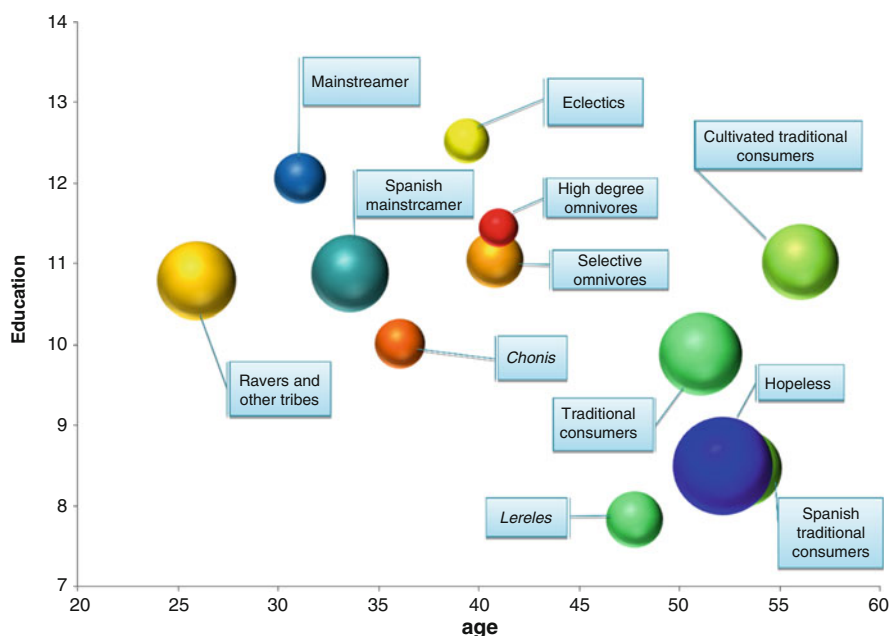
For ease of interpretation, we have plotted the clusters in Fig. 2 with age and education in the axis. The size of each sphere represents the sample size of the cluster.

One issue that should be taken into account is the importance of Spanish-specific genres in this classification. For almost all genres of singing, from lyrical to popular music, we observe that language has an important impact on music consumption

⁸It should be noted that the socio-economic differences are the result of the analysis and are not used to identify the groups, as would have been the case if they were included in order to define clusters.

Table 2 Results of the cluster analysis

Cluster	Music genres	Male (%)	Age	Education (years)	Size
High degree omnivores	11.87	50.92	40.95	11.45	381
<i>Chonis</i>	6.05	44.60	36.05	9.88	639
Selective omnivores	5.21	38.88	40.76	11.02	841
Ravers and other tribes	4.68	63.17	25.88	10.79	1613
Eclectics	4.06	55.64	39.36	12.52	532
Cultivated traditional consumers	3.53	44.65	56.00	11.05	1532
Spanish traditional consumers	3.44	45.32	53.16	8.47	1538
Traditional consumers	2.13	39.01	51.02	10.02	1784
<i>Lereles</i>	2.08	50.85	47.71	7.84	826
Spanish mainstreamer	1.82	47.82	33.55	10.88	1562
Mainstreamer	1.69	54.44	31.05	12.07	676
Hopeless	0.94	47.62	52.13	8.50	2562

**Fig. 2** Music consumption clusters

and on the definition of music clusters. In fact, consumption of *Zarzuela*⁹ and Spanish and South American popular genres (including *flamenco*, *tango*, *bolero*, *corrido*, *salsa*. . .) are fundamental determinants of at least four clusters.

⁹Spanish lyrical-dramatic genre that has its origin in the Baroque.

To present the main characteristics of each cluster, we use the role of classical music as a guiding thread. We identify four clusters with a declared above-average consumption of classical music and opera. Of these, only one cluster is defined as mainly consuming classical music with other genres playing a very minor role, if any. Therefore, the distinction between highbrow and lowbrow profiles may be somewhat outdated as the importance of omnivores as classical music consumers is increasing in line with the findings in other countries.¹⁰

Among the omnivore groups, *high degree omnivores* consume almost all genres. It is the smallest group representing only 2.63% of the sample. Individuals in this cluster are middle-aged and tend to be relatively highly educated. On average, they declare consumption of almost 12 different types of music. They are important consumers of classical music (62% on average) and opera (30%) but are also more likely to listen to pop-rock music (around 90%) or selective genres within popular music such as blues (81%) or jazz (80%).

The second group, *selective omnivores*, is composed mainly of females (61% of the cluster), with relatively high education and an average age of 41 years. They are high level consumers of songwriter (87%), melodic (75%) and Spanish and Latin pop rock music (90%). The proportion of individuals who declare consumption of classical music is well above the average but stands at only 24%. However, very few are consumers of minority popular genres: flamenco (4%), electronic (3.3%), blues (3%) or jazz (1.6%).

Individuals in the third cluster, *eclectics*, form a small group (3.7% of the sample). Their average age is 39 years and they have the highest educational level as well as the highest self-declared interest in music. They are characterized by high levels of consumption of blues (76%), jazz (51%) and pop and rock (60%). They do not like flamenco, electronic music or metal rock. Their consumption of classical music is average, but they do not listen to opera or lyrical music.

Fourth, the *cultivated traditional consumers* cluster, is characterised by very high levels of consumption of classical music (85.3%), opera (25.4%) and zarzuela (23.6%). It is one of the largest clusters, with more than 1500 observations (over 10% of the sample). Individuals in this group have a high self-declared interest in classical music, are highly educated and are middle-aged and old. Older individuals in this cluster are characterized by higher interest in opera, while younger ones also listen to songwriters, pop and melodic music.

The next clusters are characterized by a low consumption of classical music and, in some cases, by a very low interest in any kind of music. *Spanish mainstreamers*, one of the largest clusters (11.1%), is composed of relatively young individuals with average educational level. They only listen to mainstream music, with a very high prevalence of Spanish (88%) and Latin (58%) pop-rock. *Mainstreamers* represent 4.7% of the sample and are among the youngest and most educated individuals. However, in spite of this, they do not consume classical music at all.

¹⁰Peterson and Simkus (1992), Fisher and Preece (2003), van Eijck (2001), and Favaro and Frateschi (2007).

They only listen to foreign (99.7%) and Spanish (63%) pop-rock, without any observable consumption of Latin pop-rock. We call these two groups *mainstreamers* because they have no preference for any genre with the exception of pop-rock. However, the difference in the average educational attainment between both groups seems to be associated with a truly remarkable divergence in the role played by language in their musical tastes.¹¹ Despite all other cohort similarities, *mainstreamers* do not listen to Latin music and almost all enjoy foreign pop-rock; *Spanish mainstreamers* consume Latin pop-rock but much less foreign pop-rock.

The next group, *ravers and other tribes*, includes mainly young males and is the most homogeneous cluster in terms of age, with a mean of 25.8 years. They have relatively low educational levels, although many are still at school. They are interested in some niches. One can identify subgroups by music genres such as reggae, metal, electronic, house, rap or hip hop.

The *traditional consumers group* is the second largest (12.3%). More than 60% of this group are females who are in their late 40s/early 50s and have below average education. They listen mainly to melodic music (75%), songwriter (55%), some Spanish pop-rock (41%) and report a very low consumption of other genres. *Spanish traditional consumers* also represent a large part of the sample (10.6%). They are middle-aged and old with very low education (slightly over 8 years of schooling). Individuals in this group consume melodic (53%), songwriter (50%) and flamenco (44%). However, the most distinctive pattern is their large consumption of folk music (65%). They do not listen to blues, jazz or lyrical music.

The following two clusters, *lereles* and *chonis*, have some common features, namely very low average schooling and high appreciation for flamenco. The main difference between them is their average age and their consumption of pop-rock. Individuals in the older group, *lereles*,¹² represent 5.7% of the sample. They are in their late 1940s and, although they are not the oldest group, they have the lowest average level of education of all the clusters: 80% have only primary or less than primary education. They declare a low interest in music, especially classical music. Their consumption of music is very high for flamenco (86%) and very low for everything else except Spanish pop-rock, for which they have a lower than average consumption (36%). No one in this cluster declares having listened to classical music. The younger of these two groups, named *chonis*,¹³ is also relatively small (4.6% of the sample). Members of this group are young adults and have very low levels of education, especially if they are compared with their cohorts. In contrast to the *lereles*, they listen to a larger variety of genres, including some classical music; but they have strong preferences for traditional Spanish popular music such as

¹¹Snowball et al. (2010) also discusses the effects of home language on cultural consumption.

¹²*Lerele* is a Spanish colloquialism to denote certain groups of individuals, who have low education levels and consume Spanish folk music and flamenco.

¹³*Choni* is a colloquialism used in Spain to refer to young girls (*cani* is the word for males) with low education and very specific music preferences.

flamenco (81%), new flamenco (65%) and pop and rock (90%). Only 4.2% consume jazz and 3.2% electronic music, while 8.6% listen to classical music though they consume very little lyrical music.

Finally, the *hopeless* cluster is characterised by almost no music consumption. It is the largest cluster identified, with 2562 observations that represent 17.7% of the sample. Individuals in this group are, on average, 52 years old, with very low education.

6 Conclusions

In this chapter, we have analysed the characteristics of music audiences in Spain. We strongly believe that the characterization of consumers (and non-consumers) of cultural goods and activities is not only interesting from an academic point of view but also from an economic policy perspective. It is desirable that policymakers and cultural practitioners be well informed and design cultural policies that are both effective and efficient: effective in the sense of meeting certain targets, such as ensuring equity in access to culture and efficient in that they are allocating scarce public resources that could be assigned to alternative and desirable uses such as education and health.

Using data from the 2011 Survey on Spanish Habits and Cultural Practices (SHCP-2011), we decompose the sample into 12 clusters and obtain a detailed classification of consumers based on the types of music they listen to. Each group is characterized in terms of gender, age and education in order to understand the socio-economic profiles associated to music tastes.

While groups differ widely in terms of their musical choices and personal characteristics, we observe that individuals do not just consume either classical or popular music since most of them are, to different extents, omnivores: One third of the sample declares listening to more than four different types of music, although these genres frequently consist of popular music.

Education continues to be the main instrument for increasing diversity of music tastes. First, it has a large impact on classical and lyrical music appreciation, thereby increasing their consumption. Second, education is highly correlated with self-declared interest in music which is, in turn, the key to diversity. Therefore, improvements in education and childhood exposure to music could help to encourage musical interests and, consequently, contribute to the diversity of consumption, especially of classical and lyrical music. We consider that education and childhood exposure to music would be more effective if they were focused on personal enjoyment and satisfaction rather than on the more formal aspects of music.

Finally, there exist some little-consumed genres by groups of people whose demand is mainly for Spanish music. As linguistic aspects of music seem to have a relevant impact on music demand, any improvement in foreign language abilities could lead to an increase in the variety of music consumption.

Acknowledgments This chapter has benefited from the support of the Government of Spain (Spanish project #ECO2011-27896).

References

- Abbé-Decarroux, F., & Grin, F. (1992). Risk, risk aversion and the demand for performing arts. In R. Towse & A. Khakee (Eds.), *Cultural economics* (pp. 121–140). Berlin: Springer.
- Baumol, W. J., & Bowen, W. G. (1966). *Performing arts, the economic dilemma: A study of problems common to theater, opera, music, and dance*. New York: Twentieth Century Fund.
- Becker, G. S., & Murphy, K. M. (1988). A theory of rational addiction. *Journal of Political Economy*, 96(4), 675–700.
- Bourdieu, P. (1984). *Distinction: A social critique of the judgment of taste*. Cambridge, MA: Harvard University Press.
- Chanda, M. L., & Levitin, D. J. (2013). The neurochemistry of music. *Trends in Cognitive Sciences*, 17(4), 179–193.
- Epanechnikov, V. A. (1969). Nonparametric estimation of a multivariate probability density. *Theory of Probability and Its Applications*, 14, 153–158.
- Favaro, D., & Frateschi, C. (2007). A discrete choice model of consumption of cultural goods: The case of music. *Journal of Cultural Economics*, 31(3), 205–234.
- Fernandez-Blanco, V., Orea, L., & Prieto-Rodriguez, J. (2009). Analyzing consumers heterogeneity and self-reported tastes: An approach consistent with the consumer's decision making process. *Journal of Economic Psychology*, 30(4), 622–633.
- Fisher, T. C. G., & Preece, S. B. (2003). Evolution, extinction, or status quo? Canadian performing arts audiences in the 1990's. *Poetics*, 31(2), 69–86.
- Gray, C. M. (2003). Participation. In R. Towse (Ed.), *A handbook of cultural economics* (pp. 356–365). Cheltenham: Edward Elgar.
- Kurabayashi, Y., & Ito, T. (1992). Socio-economic characteristics of audiences for western classical music in Japan: A statistical analysis. In R. Towse & A. Khakee (Eds.), *Cultural economics* (pp. 275–287). Berlin: Springer.
- Lévy-Garboua, L., & Montmarquette, C. (1996). A microeconomic study of theater demand. *Journal of Cultural Economics*, 20(1), 25–50.
- Lewis, G. B., & Seaman, B. A. (2004). Sexual orientation and demand for the arts. *Social Science Quarterly*, 85(3), 523–538.
- Montoro-Pons, J., & Cuadrado-Garcia, M. (2011). Live and pre-recorded popular music consumption. *Journal of Cultural Economics*, 35(1), 19–48.
- Nadaraya, E. (1964). On estimating regression. *Theory of Probability and Its Applications*, 9, 141–142.
- Nozaradan, S. (2017). Musical rhythm embedded in the brain: Bridging music, neuroscience, and empirical aesthetics. In V. M. Ateca-Amestoy, V. Ginsburgh, I. Mazza, J. O'Hagan, & J. -Prieto-Rodriguez (Eds.), *Enhancing participation in the arts in the EU*. Cham: Springer.
- O'Hagan, J. W. (1996). Access to and participation in the arts: The case of those with low incomes/ educational attainment. *Journal of Cultural Economics*, 20(4), 269–282.
- Peterson, R. A., & Kern, R. M. (1996). Changing highbrow taste: From snob to omnivore. *American Sociological Review*, 61(5), 900–907.
- Peterson, R. A., & Simkus, A. (1992). How musical tastes mark occupational status groups. In M. Lamont & M. Fournier (Eds.), *Cultivating differences: Symbolic boundaries and the making of inequality* (pp. 152–186). Chicago, IL: University of Chicago Press.
- Pollak, R. A. (1970). Habit formation and dynamic demand functions. *Journal of Political Economy*, 78(4), 745–763.
- Prieto-Rodriguez, J., & Fernandez-Blanco, V. (2000). Are popular and classical music listeners the same people? *Journal of Cultural Economics*, 24(2), 147–164.

- Putnam, R. D., Leonardi, R., & Nanetti, R. Y. (1993). *Making democracy work: Civic traditions in modern Italy*. Princeton, NJ: Princeton University Press.
- Rauscher, F. H., Shaw, G. L., & Ky, C. N. (1993). Music and spatial task performance. *Nature*, 365 (6447), 611–611.
- Schellenberg, E. G. (2012). Cognitive performance after music listening: A review of the Mozart effect. In R. A. R. MacDonald, G. Kreutz, & L. Mitchell (Eds.), *Music, health and wellbeing* (pp. 324–338). Oxford: Oxford University Press.
- Seaman, B. A. (2005). *Attendance and public participation in the performing arts: A review of the empirical literature* (Working Paper 05–03). Nonprofit Studies Program, Georgia State University.
- Seaman, B. A. (2006). Empirical studies of demand for the performing arts. In V. A. Ginsburg & D. Throsby (Eds.), *Handbook on the economics of art and culture* (Vol. 1, pp. 415–472). Amsterdam: Elsevier.
- Snowball, J., Jamal, M., & Willis, K. G. (2010). Cultural consumption patterns in South Africa: An investigation of the theory of cultural omnivores. *Social Indicators Research*, 97(3), 467–483.
- Stigler, G. J., & Becker, G. S. (1977). De gustibus non est disputandum. *American Economic Review*, 67(2), 76–90.
- Throsby, C. D., & Withers, G. A. (1979). *The economics of performing arts*. London: Edward Arnold Publishers.
- Towse, R. (1994). Achieving public policy objectives in the arts and heritage. In A. Peacock & I. Rizzo (Eds.), *Cultural economics and cultural policies* (pp. 143–165). Dordrecht: Kluwer Academic Publishers.
- van Eijck, K. (2001). Social differentiation in musical taste patterns. *Social Forces*, 79(3), 1163–1185.
- Wang, Y. (2004). The ethical power of music: Ancient Greek and Chinese thoughts. *Journal of Aesthetic Education*, 38(1), 89–104.
- Watson, G. S. (1964). Smooth regression analysis. *Sankhya: The Indian Journal of Statistics, Series A*, 26, 359–372.

Victor Fernandez-Blanco has a Ph.D. in Economics from the Faculty of Economics of the University of Oviedo (Spain), and he is Assistant Professor in the Department of Economics in the same university. His research interests are cultural economics, history of economic thought and industrial organization. He has published in the *Journal of Cultural Economics*, *Journal of Media Economics*, *Journal of Economic Psychology*, *Empirical Economics*, *International Journal of Production Economics* and *European Journal of Operational Research*. He is member of the Editorial Board of the *Journal of Cultural Economics*.

Maria J. Perez-Villadoniga is Assistant Professor in the Department of Economics at the University of Oviedo in Spain. She holds a Ph.D. in Economics from the University of Oviedo. Her main research interests are labour economics, gender economics, economics of education; and cultural economics. Her research has been published in the *Journal of Economic Behavior and Organization*, *Journal of Economic Theory*, *Manchester School* and *International Journal of Manpower*.

Juan Prieto-Rodriguez is Full Professor of Economics in the University of Oviedo. His fields of specialization are cultural, public and labor economics. His main interests in cultural economics are cultural participation and cultural industries. He is the current Executive Secretary-Treasurer of ACEI. He has published more than 60 articles in applied and theoretical economics in international journals such as *Economics Letters*, *European Journal of Operational Research*, *Industrial and Labor Relations Review*, *International Journal of Forecasting*, *Journal of Economic Psychology*, *Journal of Cultural Economics* and *Kyklos*. He was the coordinator of PUCK.

The Evolution of Theatre Attendance in Italy: Patrons and Companies

Concetta Castiglione and Davide Infante

Abstract This paper examines the Italian theatre market from both the demand and supply side. The descriptive analysis shows that the Italian theatre market is, mainly, localized in the Northern and Central Italian regions for both patrons and companies, confirming a cultural divide between the Southern and the rest of the Italian regions also in the theatrical sector. Like many other European countries, the performing arts in Italy are subsidized by public funds through the so-called *Fondo Unico per lo Spettacolo* (FUS), thereby influencing theatre performance and attendance. As expected, the distribution of the FUS follows the localization of the theatrical companies. The empirical analysis is conducted using 34-year panel data (1980–2013) for the 20 Italian regions. By applying the seemingly unrelated regression (SUR) estimation technique, we identify the factors influencing theatre demand and the number of performances on stage. The estimated results confirm price and consumer income as the main determinants of the number of tickets sold together with the territorial area. In contrast, the number of performances is influenced by income, lagged demand, theatrical employment, and other contextual factors linked to territorial areas and public subsidies.

Keywords Theatre demand • Theatre supply • Theatre production • Panel data • SUR • Italy

1 Introduction

Theatre, together with classical music, cinema and museum are often identified as part and parcel of Italian cultural identity. However, in order to be able to form part of the cultural identity of a country, such cultural goods must be popular and consumed on an ongoing manner. Henceforth, the importance of studying the

C. Castiglione (✉)
University of Bologna, Bologna, Italy
e-mail: concetta.castiglione@unibo.it

D. Infante
University of Calabria, Campus di Arcavacata di Rende, Cosenza, Italy
e-mail: davide.infante@unical.it

theatre is twofold, permitting the identification of the role of the factors that both sustain cultural participation and cultural identity. In this paper we concentrate on the determinants of theatre attendance and theatre supply, since theatre, in its different facets, is recognised worldwide as one of Italy's most predominant cultural aspects.

The consumption of theatre and other cultural goods has been investigated in numerous studies applying different econometric techniques and, often, via a single period based model using standard economic variables. In order to estimate aggregate demand for theatre, researchers model the relationship between price and income elasticities in the presence of other cultural economics goods. Zieba (2009), for example, provides estimates of price and income elasticities of demand for German public theatre, introducing in the classical demand function for theatre a full-income variable in addition to ticket price and consumer income. In a study of individual-level demand for the U.S., Ateca-Amestoy (2008) shows the greater significance of cultural variables as opposed to economic ones in explaining different levels of attendance and, additionally, finds that economic variables work as deterrents to participation, whereas variables measuring different aspects of cultural capital explain both access and intensity of participation. One of the few attempts to study the demand for performing arts in Italy was compiled by Bonato et al. (1990), estimating a demand function for the period 1964–1985. Their results show that an increase in both real income and in the performances offered produces a significant increase in attendance.

Indeed, to the best of our knowledge, to date we have not found any studies focusing either on the supply side or both on demand and supply for theatre, either for Italy or for that matter other countries. This study is an attempt to respond to the aforementioned gap in the literature by analysing the Italian theatre market simultaneously from both the demand and supply side.

The empirical analysis is based on a panel of 20 Italian regions over the period 1980–2013. Reliable panel data was constructed using two different sources: firstly, the Italian Society of Authors and Publishers (Società Italiana degli Autori ed Editori, SIAE) and secondly, the National Institute of Statistics (Istituto Nazionale di Statistica, ISTAT). The SIAE data allow us to study a theatre demand (attendances) and supply (performances) model, whilst the data for the main control variables was taken from various publications elaborated by ISTAT.

Our estimated results, using the Seemingly Unrelated Regression (SUR) methodology, show that the demand side for theatre is influenced by price, income and other contextual factors. The number of performances is strongly related to income, previous demand, the employment in the sector and other contextual factors related to the region of localization of the theatrical activities and to public subsidies.

The rest of the paper is organised as follows. Section 2 presents some stylized facts on the Italian theatre market. Section 3 examines the literature review. Section 4 describes the econometric model and Sect. 5 presents the data employed. Section 6 describes the results, while Sect. 7 summarises the conclusions of the paper.

2 The Italian Theatre Market: Patrons and Companies

Amongst the players of the Italian theatre system, Sciarelli (2004) distinguishes three categories: theatre dedicated to production and distribution, theatre companies and operating theatres. The so-called repertory theatre company is characterized by a fixed ‘venue’, where the production and distribution of performances takes place. Usually, the venue is also available to host other events and plays. Falling into this category are the Permanent Theatres (Teatri stabili), the Theatres of Tradition (Teatri di tradizione) and the Opera Houses. The permanent theatre is a form of public theatrical organization that can also be divided into three categories: public initiative, private initiative and innovative theatre. The distinction between public and private is found in the role of administrative and economic support for companies available from the local authorities where the theatre is located. Innovative theatres are considered to be those that operate in the fields of production and promotion of experimental plays and theatre for children and young people. The objective of the Theatres of Tradition¹ is to produce and distribute the classical repertoire of the Italian theatre, preserving in this way its originality. Most of these theatres are located in the North of Italy and in Naples. The Italian Opera Houses, which in 1996 were converted into private foundations, are the theatres which offer operas, ballets, concerts etc. According to Sciarelli and Tortorella (2004), the performances that most attract theatregoers are the musical comedies (*commedie musicali*) and the recitals, usually performed by the most popular cinema and television entertainers.

As far as the infrastructure is concerned, taking into consideration those theatres where it is possible to perform arts events, we find that they are not particularly numerous and are unevenly distributed across Italian regions. According to Sciarelli (2004), in 2001 more than half (50.9%) of the 1988 active Italian theatres were located in the Northern regions, with 23.3% in the Central regions, and the remaining 25.8% in the Southern regions. The same territorial distribution applies for the 559 theatres that were inactive. Figure 1 shows the number of operating and non-operating theatres per millions of inhabitants by territorial area for the year 2001. The graph here shows that the number of operating and non-operating theatres is highest in the North-Eastern area of the country followed by the Central and North-Western areas. Compared with the former, the Southern regions have a much lower number of theatres. Clearly, the endowment and distribution of theatrical infrastructures constrains the opportunity for growth and diversification on the supply side.

Regarding the demand side, Fig. 2 displays the number of tickets sold per capita for the four main Italian territorial areas (North-West, North-East, Centre and South) for the period 1980–2013. This shows that, despite the annual variation, for all areas the average number of tickets sold increased during the period

¹The Italian Minister of Culture, after consulting the Advisory Committee for the Music Industry, may recognize the qualification of Theatre of Tradition to some theatres.

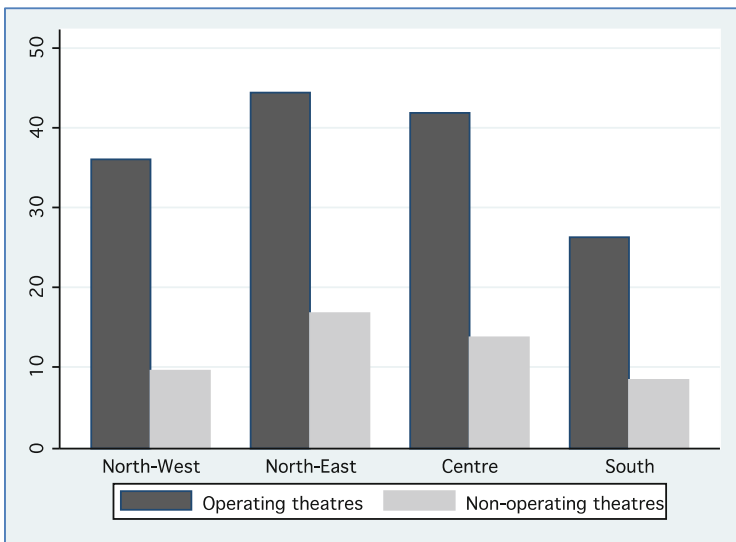


Fig. 1 Operating and non-operating theatres by territorial area per million of inhabitants, year 2001. Source: Own elaboration based on Sciarelli (2004) data

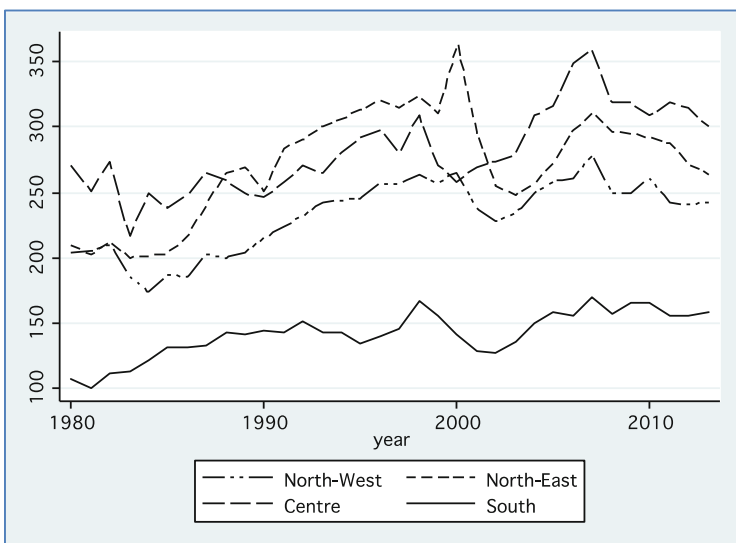


Fig. 2 Tickets sold per capita aggregated by territorial area (1980–2013). Source: Own elaboration based on SIAE and ISTAT data

1980–2013. However, whilst three areas registered similar starting and ending points for the average number of tickets sold, for the Southern regions average tickets sold, although increasing, is well below the average of the other three areas, thus indicating a clear territorial divide even in the case of theatre attendance.

In Italy, as in many other European countries, the performing arts are publicly subsidised. Italian subsidisation of the “entertainment sector” is ensured by a Parliamentary Law (n.163), approved on the 30 April 1985, that established the Fund for the Performing Arts (*Fondo Unico per lo Spettacolo-FUS*). The intention of the government is to insure stability and continuity for all theatre activities via the FUS. However, the crises of Italian public finance and the consequent reduction of subsidies have made the use of public resources a central theme, especially in the management of Opera Houses. In this context, an expenditure review and the need to reduce misappropriation in spending became a priority objective when requiring funds for new quality projects. Therefore, it seems necessary to introduce the concepts of productivity and efficiency in theatre management.

The FUS (at 1985 constant values) has decreased continuously from an initial allocation of 357,480,000€ at its start in 1985 to a recent all-time low of 157,010,000€ in 2013, representing an overall decrease of 56% since the fund was created (Fig. 3).

In 2013, the FUS allocation was divided into varying proportions between the different performing arts and cinema activities. Given the centuries-old Italian tradition of “bel canto”, the Opera Foundations received 47% of the 2013 FUS budget, followed by cinema (18.59%), music (14.10%), dance (2.6%) and circus (1.4%). Theatre and drama activities received 16.04% of the total annual allocation.

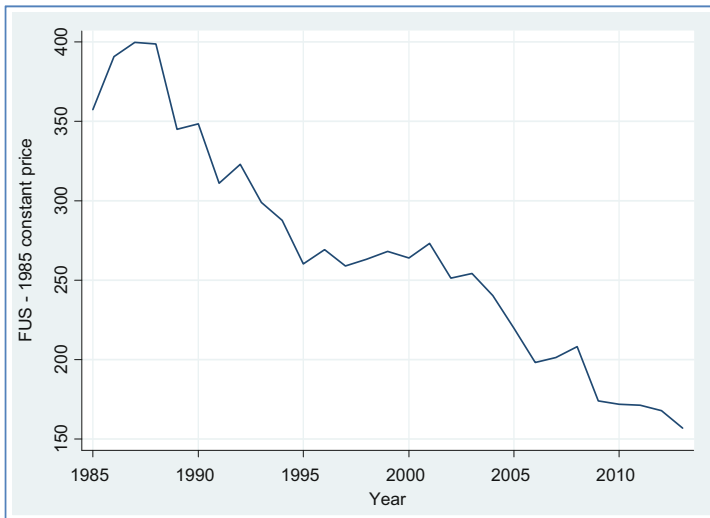


Fig. 3 FUS annual allocation, 1985–2013, constant price 1985. Source: Own elaboration based on MiBACT (2013) data

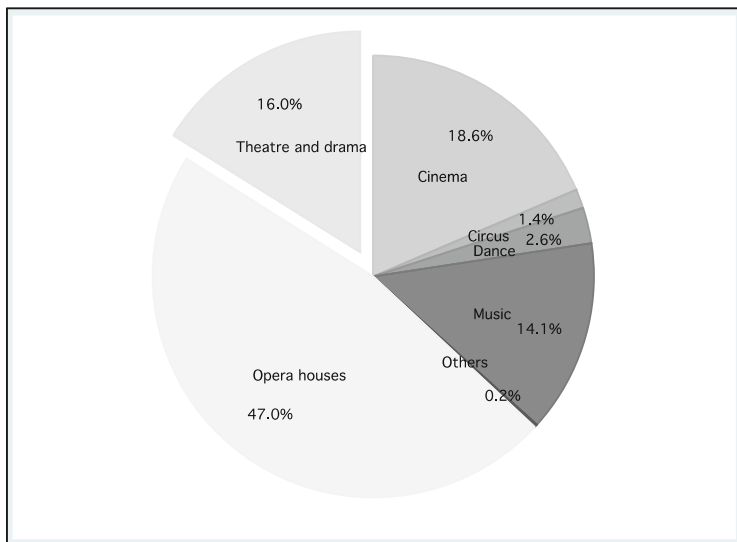


Fig. 4 FUS allocation by activities, 2013. Source: Own elaboration based on MiBACT (2013) data

The FUS contributions to theatres and companies are allocated according to quantitative (mainly production and running costs) and qualitative (mainly multiannual activity, artistic direction, innovation) criteria. To receive a contribution from the FUS, an Italian performing arts company must present a final report on the work performed, independent of box office revenues and spectator numbers (Fig. 4).

3 Literature Review

In Italy, despite the existence of a rapidly growing body of literature in the field of cultural economics (Fuortes 2002; Sisto and Zanola 2010; Cellini and Cuccia 2013), the study of the demand for cultural goods is relatively underdeveloped (Favaro and Frateschi 2007; Castiglione and Infante 2016). To the best of our knowledge, there are no papers that analyze the Italian theatre market from both the demand and supply side. Only a few studies in the field of cultural economics have been conducted using data for other countries, and all of them have been applied to cinema activities (Cameron 1986; Dewenter and Westermann 2005).

One of the most consistent findings in the literature on arts participation has been the fact that traditional socioeconomic variables, such as income, education and employment, are highly correlated with participation in the arts. This means that those in higher socioeconomic groups are more likely to be exposed to the arts in their schools or social networks. Cultural and arts classes at school persistently serve to increase later cultural participation (Kraaykamp 2003). Nagel et al. (2010)

assert that such courses have a minor, albeit significant effect compared with the influence of family and educational levels. Income is another important factor, yet the empirical literature indicates that education plays a far greater determining role (O'Hagan 1996; Borgonovi 2004; Seaman 2006).² In fact, socioeconomic status may have a positive initial impact on the consumption of the arts.

With respect to other determinants, the empirical literature on which factors lead individuals to participate in the arts has demonstrated that adult attendance is influenced by several other variables: past exposure, the price of substitute or complementary goods, the tourist flows and the characteristics of the territory central area, etc. (Seaman 2006; Ateca-Amestoy 2008; Borowiecki and Castiglione 2014; Castiglione and Infante 2016).

4 Theoretical Framework: Theatre Demand and Supply

The demand for theatre is usually measured by theatre attendance (tickets sold); while, in this paper, the supply side is approximated by the number of performances. Both of them are deflated by population size in order to obtain theatre admission and theatre supply per capita. Assuming that the relationship is estimated in constant-elasticity form, we hence specify the empirical model as follows, with lower-case letters denoting the logarithms of the underlying variables:

$$\begin{aligned} \text{Demand : } att_{it} &= \alpha_0 + \alpha_1 pth_{it} + \alpha_2 pcin_{it} + \alpha_3 inc_{it} + \alpha_4 edu_{it} + \alpha_5 tur_{it} + \alpha_6 Area_i \\ &+ u_{it} \end{aligned} \quad (1)$$

$$\begin{aligned} \text{Supply : } perf_{it} &= \beta_0 + \beta_1 inc_{it} + \beta_2 att_{it-1} + \beta_3 empl_{it} + \beta_4 Area_i + \beta_5 Lazio_i \\ &+ \beta_6 D1985_t + v_{it}. \end{aligned} \quad (2)$$

In Eq. (1) the demand function for theatre in region i at time t , att_{it} , measured as the number of admissions per capita, is defined as a function of the price, pth_{it} ; the price of the substitute or complementary good, $pcin_{it}$; per capita regional income, inc_{it} ; the number of persons with higher education on the labour force, edu_{it} ; the mean permanence of domestic tourists in the region, tur_{it} ; and a dummy variable indicating if the region is located in the Centre or North of Italy, $Area_i$. Finally, u_{it} is the stochastic disturbance representing measurement errors, a multitude of individually-unimportant omitted variables, and purely random influences.

²See also O'Hagan's (2017).

Notice that this is a standard demand function whose main determinants are prices and income, with the rest acting as independent control variables. While a negative relationship between theatre demand and ticket price is expected (given that according to demand theory as the price for a good increases the demand for the same good should decrease), in this case the magnitude of own price elasticity is the element of importance. A high elasticity indicates that theatre managers charge prices as revenue maximizing companies, whilst a low own price elasticity indicates that managers are not maximizing revenue and rely more on public subsidies. On the other hand, the sign of the coefficient for cinema reveals whether it should be considered a substitute (positive sign) or complementary (negative sign) good. Borgonovi (2004) asserts that cinema is a complementary good for theatre, consistent with the omnivore theory on arts attendance (Peterson et al. 1995; Chan and Goldthorpe 2007). According to demand theory, the positive relationship between income and attendance implies that theatre is not an inferior good. Even though a positive relationship between income and theatre attendance is expected, it is important to investigate the income elasticity to check if theatre can be considered a normal or a luxury good. If the income elasticity is positive and greater than one, theatre would be classified as a luxury good, while if the elasticity is positive but less than one, it would be a normal good. Economic theory, also, predicts that education is one of the main determinants of theatre attendance. Since education is likely to proxy for cultural capital, it is expected that the sign of the variable *edu* will be positive: the higher the level of educational achievement, the higher the likelihood of an individual attending performing arts activities. Following Borowiecki and Castiglione (2014), a positive relationship between the mean permanence of Italian tourists and theatre attendance is expected. Finally, given that the most important theatres are located in the Northern and Central regions of Italy, a positive impact on theatre demand is also expected for operations in these territorial areas (as compared with the Southern regions of the country).

In Eq. (2) theatre supply, $perf_{it}$, measured as the total number of performances in region i at time t , is defined as a function of the income, inc_{it} ; the attendance at time $t - 1$, att_{it-1} ; the number of the employees working in the theatrical sector, $empl_{it}$; and three dummy variables indicating the Italian territorial area, $Area_i$, the *Lazio* _{i} region and the year of the introduction of the FUS, $D1985_i$. This last variable is equal to 1 if the year is equal or greater than 1985 and 0 otherwise. Finally, similar to u_{it} in the former demand function, v_{it} is the stochastic disturbance in the supply function representing measurement errors, a multitude of individually-unimportant omitted variables, and purely random influences.

This equation cannot be considered a supply function but an approximation of the production function where theatres are a fixed factor in the short run. The expected sign for all these variables is positive. As regional income per capita increases, it is reasonable to expect that theatre supply will increase as well, because richer areas are likely to allocate more money to leisure time activities. The same applies to theatre attendance in a previous period. If theatre attendance was high in the past, this positively influences current supply. The number of theatrical

employees is expected to exert a positive influence on theatre performances. A positive relationship is, also expected between the dummy variable for the territorial area and the theatre supply. Since the *Lazio* region absorbs almost 50% of the annual public subsidies of the FUS, the variable is equal to 1 for the Lazio region and 0 otherwise. The expected sign is also positive in this case. Finally, a dummy variable, *DI985*, is introduced to control for the years that accounted for the FUS distribution. As mentioned previously, the *Fondo Unico per lo Spettacolo* was introduced in 1985 to help the performing arts sector and the cinema to partially cover the increasing difference between costs and revenue. We expect the introduction of the FUS to have a positive impact on the theatre supply.

5 Data

The data used in this analysis covers the 20 Italian regions over the period 1980–2013. The data comes from two sources: the Società Italiana degli Autori ed Editori (Italian Authors and Publishers Association, SIAE) and the Istituto Nazionale di Statistica (National Institute of Statistics, ISTAT).

The SIAE data are taken from the *Annuario dello spettacolo* 1980–2013 (The yearbook of entertainment activities), which reports the number of performances, number of tickets sold, box office revenues, public expenditures and turnover per geographical area and region. We made use of the data contained in this survey related to theatre admission, number of theatre performances and theatre and cinema ticket prices.

The regional value added per capita is taken from *Il reddito disponibile delle famiglie nelle regioni italiane* (The disposable income of families in the Italian regions—ISTAT 2013b). The mean permanence of Italian tourists is taken from the ISTAT survey on the capacity of tourist accommodation establishments (*Capacità e Movimento degli esercizi ricettivi*). The number of employees of the theatrical sector is taken from the 1971–2011 Censuses carried out by ISTAT. Finally, regional-level data on population, labour force and education are obtained from the Annual survey on the labour force (*La rilevazione annuale sulle forze di lavoro*, ISTAT). All monetary variables are deflated to the 2010 price level index (ISTAT 2013a).

The definitions of the variables and data sources are presented in Table 1, while Table 2 provides the sample summary statistics of the variables used. The average ticket price in Italy over the period 1980–2013 is 32.5€, compared with a cinema price of 6.0€. However, the standard deviation of the theatre ticket price is larger compared with the cinema price, meaning that a superstar theatre or actor would probably demand a premium price. The average mean permanence of Italian tourists is nearly five nights, whilst the average number of theatre performances is 3520. Finally, the average number of theatre employees is 1775.

Table 1 Data information

Variable	Definition	Source
Dependent variables		
Att	Theatre demand (attendance): per capita number of theatre tickets sold per year	SIAE-ISTAT
Perf	Theatre supply: number of theatre performances per capita	SIAE-ISTAT
Independent variables		
pTh	Theatre ticket price: ratio between total theatre revenue and theatre tickets sold	SIAE
pcin	Cinema ticket price: ratio between cinema total revenue and cinema tickets sold	SIAE
inc	Value added per capita	ISTAT
edu	Ratio of individuals with a maximum of compulsory school education on the labour force	ISTAT
tur	Mean duration of stay of Italian tourists	ISTAT
empl	Number of theatre employees	ISTAT
Area	Dummy variable for territorial area north and centre of Italy	ISTAT
Lazio	Dummy variable for Lazio region	ISTAT
D1985	Dummy variable for the year of the introduction of FUS	SIAE

Table 2 Sample summary statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Att	680	0.202	0.095	0.003	0.922
Perf	680	3520.512	3830.396	21.000	18332.000
pTh	680	32.531	32.689	5.450	534.222
pcin	680	5.934	1.321	2.086	19.610
inc	680	60230.550	59150.910	2346.999	313296.500
edu	600	110.366	117.612	1.000	784.000
tur	680	4.848	2.448	0.337	39.612
empl	680	1775.518	2132.183	5.000	12004.600
Area	680	0.600	0.490	0	1
Lazio	680	0.050	0.218	0	1
D1985	680	0.853	0.354	0	1

6 Results and Discussion

In order to simultaneously estimate Eqs. (1) and (2), a Seemingly Unrelated Regression (SUR) procedure is applied, treating the theatre price as endogenous. The first step of our analysis is to test for stationarity in our data. We apply a variety of tests, and results show that the null hypothesis of unit root can be rejected at the 1% significance level. Therefore, we conclude that our series is stationary for all the variables involved in the analysis and we proceed to estimate Eqs. (1) and (2) using a logarithmic scale.

The results are summarised in Table 3. The second and third columns of the table report the estimated coefficients of the model presented in Eqs. (1) and (2), for

Table 3 Seemingly unrelated regression results for the demand-supply theatre market

	Model 1		Model 2		Model 3	
	qDemand	qSupply	qDemand	qSupply	qDemand	qSupply
pth	-0.106*** (0.0334)		-0.651*** (0.0309)		-0.663*** (0.0344)	-0.0271 (0.0326)
pcin	-0.289*** (0.107)		-0.0757 (0.0678)		-0.0757 (0.0678)	
inc	0.355*** (0.113)	0.507*** (0.0647)	0.454*** (0.203)	0.965*** (0.200)	0.455*** (0.203)	0.964*** (0.200)
edu			-0.0680 (0.0113)		-0.0683 (0.0599)	
tur	0.0861*** (0.0363)		-0.00496 (0.0254)		-0.00496 (0.0254)	
att(t - 1)		0.423*** (0.0290)		0.0674** (0.0264)		0.0679** (0.0264)
empl		0.0824*** (0.00901)		0.0760*** (0.0228)		0.0750*** (0.0228)
Area	0.597*** (0.0582)	-0.0265 (0.0398)				
Lazio		0.568*** (0.0468)				
D1985		0.133*** (0.0398)				
cons	-0.517 (0.564)	-4.897*** (0.300)	2.933*** (0.932)	-3.602*** (0.848)	2.988*** (0.934)	-3.489*** (0.858)
Years dummy			Yes	Yes	Yes	Yes
Regions dummy			Yes	Yes	Yes	Yes
Obs	640	640	640	640	640	640
R-sq	0.593	0.777	0.905	0.919	0.905	0.919
chi2	930.16	2168.19	6188.46	7426.37	6110.10	7435.70
p-value	0.000	0.000	0.000	0.000	0.000	0.000

Note: The dependent variables are the per capita theatre attendance and the number of performances per capita. ***, ** indicate estimates that are significantly different from zero at the 99% and 95% confidence levels, respectively

both the demand and supply functions. The fourth and fifth columns show the estimated coefficients of Model 2 when a set of dummy variables for the years and for the regions are added. Finally, the last two columns (Model 3) present the results when the price is also added to the supply function.

As expected, in the demand equation (column 2), the correlation coefficient between ticket price and theatre attendance is found to be negative and statistically significant, with an elasticity of -0.106 . Therefore, the demand is highly inelastic, meaning that an increase in the ticket price will imply a lower admission rate but with a relative small drop. The coefficient for the price of an alternative cultural good (in our case the cinema), is negative and statistically significant, meaning that a 1% increase in the price of cinema decreases theatre attendance by 0.289. This supports the hypothesis that cinema and theatre can be considered as complementary goods. As expected, the coefficient associated with per capita income is positive and significant at the 1% level, with an elasticity of 0.355, meaning that as income increases theatre attendance increases as well. The coefficient associated with the education of the labour force shows that as education increases the consumption of theatre increases by 1% with theatre attendance increasing by 0.134. The last two results associated with theatre attendance confirm the main findings of the economic literature on cultural goods, which indicate that income and education are two important determinants [see Seaman (2006) for a review of the empirical literature]. The coefficient associated with the mean permanence of Italian tourists in the region has a positive impact on theatre attendance, this confirming the findings of Borowiecki and Castiglione (2014) relating to the impact of Italian tourists on theatre attendance. Finally, the dummy variable representing the territorial areas for, Northern and Central Italy, clearly demonstrates that compared to the South of the country, demand is higher in the former regions.

The estimated coefficients of the equation for the number of performances (column 3 of the same table) confirm that income per capita is a strong determinant of theatre supply. Its coefficient is positive and statistically significant at the 1% level, meaning that theatre supply responds positively and increases by 0.507 as regional income per capita increases by 1%. Theatre supply is largely influenced by past attendance, confirming that theatre companies behave in a rational way since, to plan the current number of performances, they take into strong consideration the past demand for theatre. In fact, as the number for past attendance increases by 1%, theatre performances rise by 0.423. As expected, with an increase in the number of employees in the theatrical sector, supply increases by 0.0824 as well. The estimated coefficient related to the dummy *Area* in the case of theatre supply is not statistically significant, denoting that the territorial area is not influencing supply use if its per capita income is controlled. However, if we consider just the *Lazio* region we found a significant positive regional effect. But it should be borne in mind that *Lazio* includes the capital city of Rome where many artists, companies and public

subsidies are located.³ The importance of public subsidies is also confirmed by the estimated result related to the *D1985* dummy variable. In fact, the parameter is positive and highly significant with a coefficient of 0.133.

The following two columns of Table 3 present the results when fixed effects for years and regions are introduced into the model. We observe that on the demand side the results are slightly different. The coefficient linked with theatre price is always negative and statistically significant at the 1% level, however with a higher coefficient (-0.651), whilst the income coefficient remains stable (0.454). However, the strong difference is that the ticket price for cinema, the level of education and the number of tourists no longer prove statistically significant. On the supply side, whilst the coefficients remain stable in terms of sign and significance, the magnitude is slightly different. The income parameter is higher and equal to 0.965, the coefficient of previous attendance is 0.0674 and the coefficient of employment is 0.076.

When we introduce the theatre ticket price into the supply function (Model 3) all the coefficients remain similar to those presented in Model 2, even though the results indicate that theatre price does not influence the number of theatre performances per capita.

7 Conclusion

This paper analyses the Italian theatre market, both from a demand and supply perspective. In particular, the paper has two aims: the first is to provide some stylized facts on the Italian theatre market, and the second is to estimate an empirical model of theatre demand and supply. As far as the first aim is concerned, we conclude that the Italian theatre market is mainly localized in the Northern and Central Italian regions, both for patrons and companies. In addition, we have a market that is highly subsidized. The companies receive public funds through the FUS, whilst the patrons receive indirect subsidies through prices that do not reflect economic criteria.

In terms of the econometric analysis, with respect to the previous literature which mainly focuses on the demand side, this work innovates by introducing a simultaneous analysis of theatre demand and supply. The latter analysis is performed upon annual panel data for the 20 Italian regions over the years 1980–2013, constructed from data provided by the SIAE and ISTAT.

The estimated results, obtained using the seemingly unrelated regression methodology, on the one side confirming price and income as important determinants of the demand for theatre together with the territorial area. On the supply side, the number of performances is strongly influenced by income and previous attendance, theatrical employment, and other contextual factors linked to the

³As a robustness check, we have also estimated the model without the dummy *Area* and the results are not statistically different. Those results are available upon request from the authors.

territory and to public subsidies. The ticket price does not appear to play a significant role in the supply of performances, indicating that the number of performances is not supplied by companies on an economic basis and that other structural and contextual factors play a more important role.

Whilst, on the one hand, this analysis confirms previous findings on demand, on the other hand, it is also innovative for two main reasons. Firstly, because Italian theatre attendance is often left in the shade compared to other countries. Secondly, and most importantly, because our findings are obtained taking theatre demand and supply into account simultaneously.

There are some important policy implications that can be derived from our analysis. First, the area effect is more important on the demand side of the market, since we have not found any significant regional effect in the supply equation with the exception of the Lazio region. However, the area effect also influences the theatre market indirectly through income. In fact, the Italian dualism between Northern and Southern regions is well known with the poorest regions located in the South of the country. Policy makers should contrast the territorial (and income) effects through policies and subsidies focused on increasing attendance in the Southern regions.

Second, demand is inelastic. This may have very relevant managerial implications because theatre tickets can be increased with a low impact on attendance. Managers may try to get more out of private funding and use public subsidies in order to introduce incentives in regions with lower rates of attendance. Finally, since our model proves that the theatre market is driven by the demand side (the lagged demand is a very important factor explaining the supply side), an intelligent use of public funds to stimulate demand could have short and long run effects on the whole market.

References

- Ateca-Amestoy, V. M. (2008). Determining heterogeneous behaviour for theatre attendance. *Journal of Cultural Economics*, 32(2), 127–151.
- Bonato, L., Gagliardi, F., & Gorelli, S. (1990). The demand for live performing arts in Italy. *Journal of Cultural Economics*, 14(2), 41–52.
- Borgonovi, F. (2004). Performing arts: An economic approach. *Applied Economics*, 36(17), 1871–1885.
- Borowiecki, K. J., & Castiglione, C. (2014). Cultural participation and tourism flows: An empirical investigation of Italian provinces. *Tourism Economics*, 20(2), 241–262.
- Cameron, S. (1986). The supply and demand for cinema tickets: Some U.K. evidence. *Journal of Cultural Economics*, 10(1), 38–62.
- Castiglione, C., & Infante, D. (2016). Rational addiction and cultural goods: The case of the Italian theatregoer. *Journal of Cultural Economics*, 40(2), 163–190.
- Cellini, R., & Cuccia, T. (2013). Museum and monument attendance and tourism flow: A time series analysis approach. *Applied Economics*, 45(24), 3473–3482.
- Chan, T. W., & Goldthorpe, J. H. (2007). Social stratification and cultural consumption: The visual arts in England. *Poetics*, 35(2/3), 168–190.

- Dewenter, R., & Westermann, M. (2005). Cinema demand in Germany. *Journal of Cultural Economics*, 29(3), 213–231.
- Favaro, D., & Frateschi, C. (2007). A discrete choice model of consumption of cultural goods: The case of music. *Journal of Cultural Economics*, 31(3), 205–234.
- Fuortes, C. (2002). La domanda e i consumi culturali. *Economia della cultura*, XII(2), 153–156.
- Istituto Nazionale di Statistica. (2013a). *Il Valore della moneta in Italia*. Rome: ISTAT.
- Istituto Nazionale di Statistica. (2013b). *Il reddito disponibile delle famiglie nelle regioni italiane*. Rome: ISTAT.
- Istituto Nazionale di Statistica. (various years). *Capacità e Movimento degli esercizi ricettivi*. Rome: ISTAT.
- Istituto Nazionale di Statistica. (various years). *Indagine sulle forze lavoro*. Media, Rome: ISTAT.
- Kraaykamp, G. (2003). Literary socialization and reading preferences: Effects of parents, the library, and the school. *Poetics*, 31(3–4), 235–257.
- Ministero per i Beni e le Attività Culturali. (2013). *Relazione Fondo Unico per lo Spettacolo*. Rome: MiBACT.
- Nagel, I., Damen, M. L., & Haanstra, F. (2010). The arts course CKV1 and cultural participation in the Netherlands. *Poetics*, 38(4), 365–385.
- O'Hagan, J. W. (1996). Access to and participation in the arts: The case of those with low incomes/educational attainment. *Journal of Cultural Economics*, 20(4), 260–282.
- O'Hagan, J. (2017). Attendance at/participation in the arts by educational level: Evidence and issues. In V. M. Ateca-Amestoy, V. Ginsburgh, I. Mazza, J. O'Hagan, & J. Prieto-Rodriguez (Eds.), *Enhancing participation in the arts in the EU*. Heidelberg: Springer.
- Peterson, R. A., Sherkat, D. E., Balfe, J. H., & Meyersohn, R. (1995). *Age and arts participation with a focus on the baby boom cohort*. Washington, DC: National Endowment for the Arts.
- Sciarelli, F. (2004). Analisi del settore teatrale e suoi fondamenti interpretative. In F. Sciarelli & W. Tortorella (Eds.), *Il pubblico del teatro in Italia*. Naples: Electa.
- Sciarelli, F., & Tortorella, W. (2004). *Il pubblico del teatro in Italia*. Naples: Electa.
- Seaman, B. (2006). Empirical studies of demand for the performing arts. In V. Ginsburgh & D. Throsby (Eds.), *Handbook of the economics of art and culture* (Vol. 1, pp. 416–472). Amsterdam: Elsevier.
- Sisto, A., & Zanola, R. (2010). Cinema attendance in Europe. *Applied Economics Letters*, 17(5), 515–517.
- Società Italiana degli Autori ed Editori. (various years). *Annuario dello spettacolo*. Rome: SIAE.
- Zieba, M. (2009). Full-income and price elasticities of demand for German public theatre. *Journal of Cultural Economics*, 33(2), 85–108.

Concetta Castiglione is a postdoctoral Research Fellow in the Department of Statistical Science at University of Bologna, Italy. She obtained a Master of Science in Economics and a Ph.D. in Economics from the Trinity College Dublin, Ireland, and a doctoral degree in Applied Economics from the University of Calabria, Italy. Her research interests are in the area of cultural participation, theatre attendance, productivity and efficiency analysis, ICT, consumer' demand and environment. Her list publications include papers in edited books and in international journals.

Davide Infante graduated at the University of Rome La Sapienza. Currently he is Associate Professor of Political Economy at University of Calabria (Italy) and qualified as Full Professor of Economic Policy. He was previously Associate Professor of Economic Policy at the University of Palermo. His research interests include topics in theoretical and applied economics, such as cultural participation and market analysis, firm productivity and technical progress, transition economies, institutions and environment. He has published several articles and books.

Raiders of the Lost Ark: A European Market for European Movies?

Víctor Fernandez-Blanco and Fernanda Gutiérrez-Navratil

Abstract The aim of this chapter is to analyze cinema consumption and commercial flows in Europe and contribute to the debate regarding the existence, health and perspectives of a European Film Market. On the one hand, looking at attendance, national and foreign market shares and Top Films, we have identified a general decrease in terms of admissions and some evidence of a common taste among European countries clearly linked to Hollywood products. Hence, the European cinema industry must face these common tastes as a weakness rather than strength. On the other hand, in terms of commercial flows, we have carried out a cluster analysis to identify those films that display similar performances in foreign markets. Movies filmed in English, with a higher budget and distributed by a Hollywood major have a higher probability of achieving better commercial results overseas. Beyond this Hollywood dominance, the European Film Industry needs to consolidate national and EU policies encouraged by a European vision in order to take advantage of economies of scale in the financing and distribution of films as well as building up European conscientiousness and tastes among cinemagoers.

Keywords Cinema • Cluster analysis • European film market • European film industry • Tastes

1 Introduction

The opportunity, and even the necessity, of building and strengthening a European audio-visual and film community and market is a traditional, and also ongoing, European policy goal. The MEDIA sub-programme, inserted in the Creative Europe Program (2014–2020), explicitly declares the aims of promoting the

V. Fernandez-Blanco (✉)
Departamento de Economía, Universidad de Oviedo, Oviedo, Spain
e-mail: vferman@uniovi.es

F. Gutiérrez-Navratil
Departamento de Economía, Universidad Pública de Navarra, Pamplona, Spain
e-mail: luifergu2002@hotmail.com

distribution and the access to markets of works beyond national and European borders, and facilitating international co-production.¹ And these objectives have been, more or less, the same since the MEDIA Program started in 1991.

Using these proposals as a starting point, this chapter ponders the existence, health and perspectives of the European Film Market.² We characterize this market using two vectors: consumption (sharing tastes) and commercial flows (sharing markets).³ In summary, our aim is to offer a snapshot of the situation in recent years rather than to identify consolidated trends. We wish to present some intuitive ideas regarding the current situation as food for thought in the European debate. Based on this approach, the chapter is structured as follows. Section 2 on sharing tastes offers some naïve evidence about similarity and/or convergence of tastes among some European countries. To do this, our tools are the consumers' preferences revealed by market data in each country. By looking at attendance, national and foreign market shares and the Top Films, we obtain a preliminary test for the presence of an underlying common taste amongst most Europeans. However, we do not pretend to establish causality between this common taste and market power, marketing forces or simply the fact that European citizens have grown with and have learnt the same film language in the form of "Hollywood storytelling".⁴ Section 3 on sharing markets focuses on the commercial flows of European films, with special attention to their performance in the European markets.⁵ We carry out a cluster analysis to identify those films with similar performance in foreign markets. We evaluate the weight of foreign revenues on the total revenues of these films and the relevance of European markets on foreign revenues in order to discover if there are some qualitative features characterizing the latter films with respect to their better performance in foreign markets. We do not offer any specific guidelines for the export of films, but instead some evidence regarding the real presence of a European window for European films. Section 4 concludes by a list of insights that could be a starting point for a deeper and more detailed debate about the European Film Industry.

¹See http://eacea.ec.europa.eu/creative-europe/actions/media_en (Retrieved 10/08/2014).

²We focused on cinemas and not on other audiovisual windows.

³Co-production would be another vector which contributes to build the idea of a community inside the European Film Industry. However, since the aims of this book are oriented to participation of public, we will pay less attention to this possibility.

⁴For this controversy, see, for instance, Waterman and Jayakar (2000), Scott (2002).

⁵Overseas revenues are an important piece of the economic health of the film industry. In USA more than 50% of theatrical revenues or rentals come from foreign markets (Vogel 2011).

2 Sharing Tastes

Attendance data represent the most immediate way to gain awareness as to the relevance of cinema in any country and the strength of its market as well as to discover the interconnectivity between different national cinema industries. To facilitate comparisons, we have selected attendance because it is a physical variable that avoids the effects provoked by price differences on revenues. The data used come from *Focus 2014* (European Audiovisual Market 2014).

In 2013, admissions in the 28 European Union Member States (EU 28) reached 907 million people. Five countries (France, Germany, Italy, Spain and United Kingdom, henceforth denominated the Big Five Markets) concentrate 674 million (74.3% of total admissions). These five countries are now, and have been for the last years, the main players in the European film market and hence, we will pay special attention to them. The main figures are shown in Table 1.

For a relative measure of the importance of the European markets, we use admissions per capita in 2013 (Fig. 1). Ireland is the country with the highest level of admissions per capita (3.20 times a year) and Romania is the lowest (0.45). On average, EU 28 admissions per capita are equal to 1.79, and nine countries (Ireland, France, United Kingdom, Denmark, Luxembourg, Estonia, Belgium, Netherlands and Austria) have figures above this average. Among the Big Five Markets, Italy is just average and Spain and Germany are below this number, although relatively close to it (1.67 and 1.61, respectively).

During the period 2009–2013, there is a general decrease in admissions.⁶ On average, the decrease was 7.6% in the EU 28 and attendance increased in eight countries only (Romania, Bulgaria, Estonia, Latvia, Lithuania, Finland, Croatia and Netherlands). With the exception of the Netherlands and Finland, we are talking about countries located in Eastern Europe and recently incorporated to the EU (post 2004).⁷ The Big Five Markets suffered a reduction in admissions during this period but while Italy, France and United Kingdom share similar rates (from –2.3 to –4.6%), Germany are much larger (–11.3%). Meanwhile Spain presents a different situation; its rate (–28.9%) is the highest, in absolute terms with the exception of Cyprus. Also its path is quite different, with a continuous decrease from 2009 onwards (see Fig. 2). Germany and United Kingdom have a similar profile. Admissions increased in France until 2011 but experienced a serious decrease over the last 2 years and Italy seems to follow its own path: In the central years of the period, admissions decreased but, during the last year, grew to practically recover their initial values.⁸

⁶This trend is also observed in terms of attendance per capita: The EU 28 average moves from 1.96 in 2009 to 1.79 in 2013.

⁷Their small figures in 2009 allow us to understand the extent of their large rates of growth.

⁸Coming years will reveal if this growth is sustained or is the effect of a big hit, “*Sole a catinelle*”.

Table 1 Admissions in the European Union 2009–2013 (in million people)

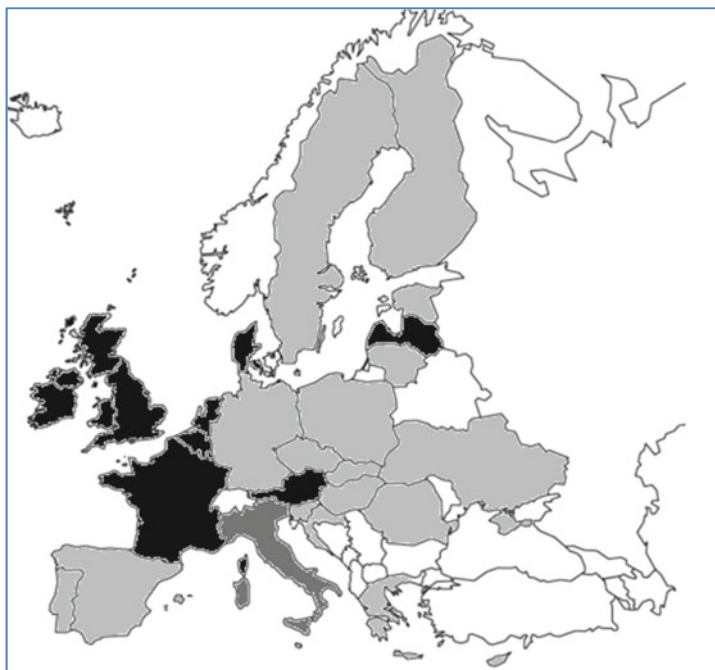
Country	2009	2010	2011	2012	2013	2013/09 (%)	Admissions per capita in 2013
Austria	18.1	16.5	15.8	16.4	15.2	-16.0	1.80
Belgium ^a	21.3	22.3	22.8	21.9	20.9	-1.8	1.87
Bulgaria	3.2	4	4.7	4.1	4.8	50.0	0.66
Croatia	3.5	3.4	3.6	4.1	4	14.3	0.94
Cyprus	0.9	0.9	0.9	0.8	0.6	-33.3	0.69
Czech Republic	12.5	13.5	10.8	11.2	11.1	-11.2	1.06
Denmark	14.1	13	12.4	13.6	13.6	-3.5	2.43
Estonia	1.8	2.1	2.5	2.6	2.6	44.4	1.97
Finland	6.8	7.6	7.1	8.4	7.8	14.7	1.44
France	201.4	207	217.1	203.6	193.6	-3.9	2.95
Germany	146.3	126.6	129.6	135.1	129.7	-11.3	1.61
Greece	12.3	11.7	10.8	10.1	9.2	-25.2	0.83
Hungary ^a	10.6	11	9.8	9.5	10.1	-4.7	1.02
Ireland	17.7	16.5	16.3	15.4	14.7	-16.9	3.20
Italy ^a	109.2	120.6	112.1	100.1	106.7	-2.3	1.79
Latvia	1.9	2.1	2.1	2.3	2.4	26.3	1.19
Lithuania	2.8	2.5	3	3	3.3	17.9	1.11
Luxembourg	1.3	1.2	1.3	1.3	1.2	-7.7	2.22
Malta ^a	0.9	0.9	0.8	0.7	0.7	-22.2	1.67
Netherlands	27.3	28.2	30.4	30.6	30.8	12.8	1.84
Poland	39.2	37.5	38.7	38.5	36.3	-7.4	0.94
Portugal	15.7	16.6	15.7	13.8	12.5	-20.4	1.19
Romania	5.3	6.5	7.2	8.3	9	69.8	0.45
Slovakia	4.1	3.9	3.6	3.4	3.7	-9.8	0.68
Slovenia	2.7	2.9	2.9	2.7	2.3	-14.8	1.12
Spain	110	101.6	98.3	93.6	78.2	-28.9	1.67
Sweden	17.5	15.8	16.5	17.9	16.6	-5.1	1.74
United Kingdom	173.5	169.2	171.6	172.5	165.5	-4.6	2.59
EU 28-Total ^a	982	965	968	946	907	-7.6	1.79

Source: European Audiovisual Observatory (2014) and Eurostat

^aEstimated

For the EU 28 as a whole we observe that, after a slight recuperation in 2011, admissions fall dramatically over the last 2 years (Fig. 2, secondary axis). In fact, admissions in the EU 28 as a whole decreased by 4.1% between 2012 and 2013.

To summarise, we can conclude that movies seen on the big screen in Europe are facing a problematic present and an even less promising future. This contrasts with the situation in the US that seems to be stabilizing after a notorious reduction during



In , countries above the EU 28 average; in , countries below the EU 28 average; in , countries on the average.

Fig. 1 Admissions per capita EU 28 in 2013. Source: European Audiovisual Observatory (2014) and Eurostat

the period 2010–2011, and also with China that is rapidly becoming the second worldwide market in terms of box office sales.⁹

The previous figures and comments give us a snapshot of the film market, and its recent evolution in Europe. We can complete this image with some comments about revealed tastes in different European countries.

Looking again at the information provided by European Audiovisual Observatory in 2014, we collected the Top Ten films by admissions in the EU in 2013. We also checked their presence among the top films by admissions in a sample of 20 European countries.¹⁰

⁹According to the European Audiovisual Observatory (2014), in 2013 admission in the US decreased by 1.3% and the rate corresponding to 2009–2013 is –5.4%. The Chinese corresponding figures are 30.2% and 30.6%, respectively (with an average annual growth rate of 30.3%).

¹⁰This sample uses information provided by the European Audiovisual Observatory (2014). It comprises the following countries: France, Germany, Italy, Spain, United Kingdom, Poland, the Netherlands, Austria, Switzerland, Portugal, Sweden, Denmark, Norway, Finland, Czech Republic, Hungary, Slovakia, Greece, Romania and Bulgaria.

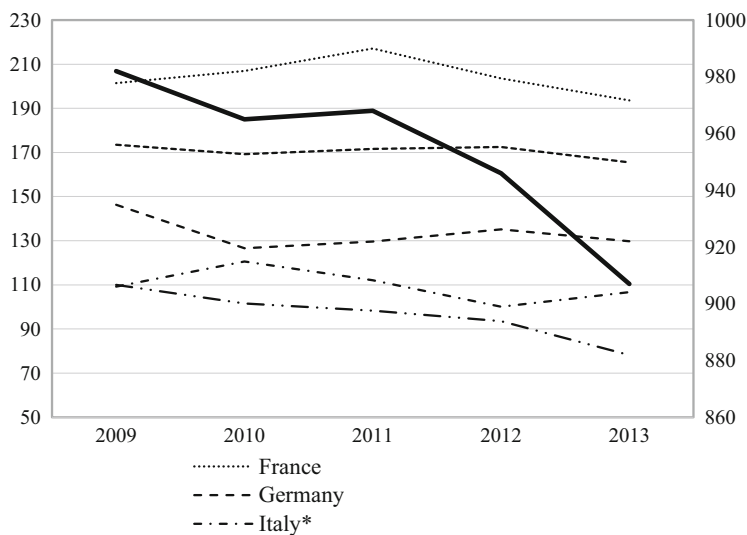


Fig. 2 Admissions in the Big Five Markets and the EU 28 2009–2013 (in millions). Source: European Audiovisual Observatory (2014). (Asterisk) Estimated

According to the data displayed in Table 2, note that the Top Ten films in the EU are American Hollywood films. In order to discover a European film we must reach rank number 21, *Sole a catinelle*, an Italian film the success of which was based almost entirely on the national audience. We conclude that European tastes, are overall, captives of Hollywood products.

But, what happens if one looks at the Top Ten movies in each European country?¹¹ On average, only 1.8 are European films while 8.2 are US films. A domestic film leads the ranking in seven countries, and this is so only in Germany and Italy in the context of the Big Five Markets.¹²

These ten US leading films are present in many European countries. *Monsters University* is the poorest example: it is present in only 6 of the 20 potential countries. In contrast, *Despicable Me 2* and *The Hobbit: The Desolation of Smaug* are present in 19 countries. All these movies are linked to Hollywood studios and it is easy to confirm the strength of the market for family films: Four films are clearly oriented to this market segment. However, as we will see below, European productions do not especially cater for this segment.

Seven of these ten US films can be considered as sequels. This is a challenge for the European film industry. If it wants to compete against the US in European markets in terms of gross revenues or cumulative admissions, production should be

¹¹We selected the Top Ten movies because in several countries, the European Audiovisual Observatory (2014) only gives us information about top ten films.

¹²The other countries are Denmark, Norway, Finland, Czech Republic and Portugal, in this case with a French movie. See details on Table 6, in the Appendix.

Table 2 Top ten films in the European Union

Title	Country of origin	Distributor	MPAA rating	Genre	Top ten in European Countries ^a
Despicable Me 2	US	Universal	PG	Animation	19
The Hobbit: The Desolation of Smaug	US/NZ inc ^b	Warner Bros	PG-13	Adventure/Fantasy	19
Iron Man 3	US/CN	Buena Vista	PG-13	Action	15
Frozen	US	Buena Vista	PG	Animation	14
The Hunger Games: Catching Fire	US	Lionsgate	PG-13	Adventure	13
Django Unchained	US	Weinstein	R	Western	7
Furious 6	US/ES	Universal	PG-13	Action	12
The Croods	US	Fox	PG	Animation	7
Monsters University	US	Buena Vista	G	Animation	6
The Hangover Part III	US	Warner Bros	R	Comedy	11

Source: European Audiovisual Observatory (2014)

^aSample of 20 European countries

^b“inc” means a film produced in New Zealand with US incoming investment

orientated towards products based on the recycling, renewal or reuse of previous and successful movies. There also exists a market segment that seems to be less important or rewarding to the US industry: more artistic or cultural, in particular ‘auteur’ films. The question is whether this segment is sufficient to guarantee the future health and sustainability of the European industry. And if so, under which circumstances (e.g. public support)?

The analysis of the Top Ten list, gives us a first clue on the dominance of US films in Europe. This impression is reinforced if one looks at market shares by country. The traditional domination of Hollywood in Europe started with the First World War (Gomery and Pafort-Overduin 2011) and did not change during twenty-first century, as is clear from admission shares shown in Table 3.

In all countries, the US market share is over 50%, except in Portugal.¹³ Hungary presents an extreme situation (92%), but the strength of the US in big markets like Spain (69.6%), Germany (60.2%) or the United Kingdom (60.1%, without language barriers) is also worth noting. On the other hand, France (33.8%) and Italy (31%), have much larger national rates. Figure 3 reinforces this idea by showing that, from 2009 to 2013, the US market share is always above 60%.

¹³The Portuguese case is anecdotal. In 2013 the box office was led by a French film, *La cage dorée*. This film tells the story of a couple of Portuguese immigrants in Paris and conquered more than 6% of total cinema attendance in Portugal.

Table 3 National and US market shares in the EU

Country	Year	National share	US share
Austria ^a	2011	1.8	76.5
Belgium ^a	2010	9.7	74.2
Czech Republic ^a	2011	28.5	63.8
Croatia	2011	3.3	77.8
Denmark	2011	27	56
Estonia	2013	6.1	78.3
Finland	2011	17	64
France	2013	33.8	54.2
Germany ^a	2011	21.7	60.2
Greece	2009	12.6	80.7
Hungary	2012	1.2	92
Italy	2013	31	53.2
Latvia	2013	4	77.3
Lithuania	2013	16.5	69.3
Luxembourg	2008	1.1	69.4
Malta ^a	2011	0.9	85.9
Netherlands ^a	2011	22.3	62.4
Poland ^a	2011	31.3	50.4
Portugal	2013	5.7	47.4
Romania	2011	12.5	59.4
Slovakia ^a	2011	4.8	75.2
Slovenia	2011	4.2	81.4
Spain ^b	2013	14	69.6
Sweden	2011	19.8	64.7
United Kingdom ^a	2011	36.2	60.1
EU 28-Total ^a	2013	27.3	69.1

Source: cineuropa.org; European Audiovisual Observatory (2014)

^aUNESCO Institute for Statistics (data.uis.unesco.org)

^bInstituto de la Cinematografía y de las Artes Audiovisuales (mecd.gob.es)

To summarise, there exist similarities, if not a uniformity, in European tastes. If we consider this fact as proof of the existence of a common substrate among European countries, the European cinema industry may potentially possess a remarkable advantage for the purpose of creating a common European market for films. But this conclusion seems to be very optimistic when we take into account that European countries are really sharing a common taste for American films. In other words, the common substrate is really the popular Hollywood storytelling. From this point of view, the European cinema industry must necessarily face these common tastes more as a weakness rather than a strength.

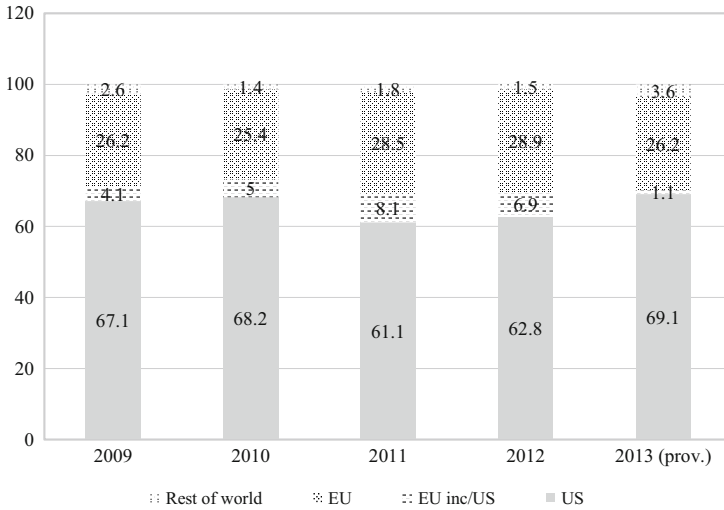


Fig. 3 Market share in EU, by nationality 2009–2013 (in admissions). Note: EU inc/US refers to films produced in Europe with US incoming investment. Source: European Audiovisual Observatory (2014) and LUMIERE

3 Sharing Markets

Common tastes can act as a relevant indicator for the existence of a European cinema space. But some other indicators will be necessary to calibrate how this feeling is permeating citizens and how the seed of a true European film market is growing.

Strengthening production, circulation, quality and competitiveness of European audiovisual works are the big aims that nourish and are the rationale for some of the European Programs supporting and promoting the European film industry. These goals are explicitly considered in the MEDIA Programme of the European Commission that was born to back the European film and audiovisual industries. It supports the development, promotion and distribution of European films within Europe as well as training and networking activities. The EUROIMAGES Program, fostered by the Council of Europe, acts as complement to the MEDIA Programme. Finally, linked to both previous programs and other European institutions, Europa Cinemas is a network of over 1000 cinemas in 588 cities and 60 countries, providing support to cinemas that commit to the screening of European films.

Although there are several European databases covering different fields in the audiovisual sector, it is actually quite difficult to find quantitative information

regarding international data for European films.¹⁴ Combining information coming from the European Audiovisual Observatory, the Europa Cinemas Network and boxofficemojo.com, we were able to construct a database containing 34 top attendance films for the years 2012 and 2013.¹⁵ However, in this group there are two films, *Les Misérables* and *Skyfall*, which are special cases. The first one reached 30% of worldwide box office revenues of our sample in 2012 and the second one, 35% in 2013. The presence of these films could potentially distort the results of our sample so we decided to remove them and, finally worked with a 32 films sample. The average film of this sample raised \$83 million: 23% come from the country in which it was produced and 27% from other European markets.

We carried out a cluster analysis on the basis of box office revenue of each movie in its country of origin, the Big Five Markets,¹⁶ other European countries, the US and the Rest of the World. We do that to identify groups of films that reported a similar performance, and find if there are some observed features that characterize them. The analysis results in two different groups, one that comprises “Regional Hits” and another that includes “Worldwide Hits” (see Appendix Table 7 for the list of movies in each cluster). Figure 4 compares the box office revenue collected by movies in their country of origin (on the vertical axis) to the revenue collected in other markets (horizontal axis), identifying in each case which cluster they belong to. Worldwide Hits collect on average five times more revenue than movies in the first group and lead box office in all the markets we considered. Table 4 describes some quantitative features for each cluster and for our sample of 32 movies, including those removed from the cluster analysis.¹⁷

The Regional Hits cluster represents almost two thirds of the sample. It groups films that, compared with the other cluster, have relatively low levels of box office revenues (\$22 million on average) and which typically collect most of their revenue in their country of origin (36.7%, on average) and in the Big Five Markets (19.2%). Their revenues in the US account for only 14%. Figure 4 shows that they are located in the bottom left hand corner in all the graphs.

The Worldwide Hits cluster counts for one third of the sample. It contains films with large box office revenues in all markets (\$115 million, on average). Although their revenues in the country of origin and in the Big Five Markets are important,

¹⁴Among these databases, LUMIERE (on annual film admissions for films released in Europe), KORDA (on public funding programs for the audiovisual sector in Europe) and MERLIN (on legal information) are useful to consult, although we found serious deficiencies for some local markets.

¹⁵In the Box Office Mojo database, United Kingdom incorporates Ireland and Malta; and France incorporates Algeria, Monaco, Morocco and Tunisia. We have added some qualitative information about genre, nationality, language, distributor, etc. from other sources, especially imdb.com, the-numbers.com and rottentomatoes.com

¹⁶Excluding the country of origin when it is one of the Big Five Markets.

¹⁷The K-means clustering option that we use here is very sensitive to outliers. It results in outliers forming clusters with small numbers of observations. It is thus advisable to remove them from the data. *Intouchable*, *Taken 2*, and *Resident Evil: Retribution* were therefore removed from the cluster analysis.

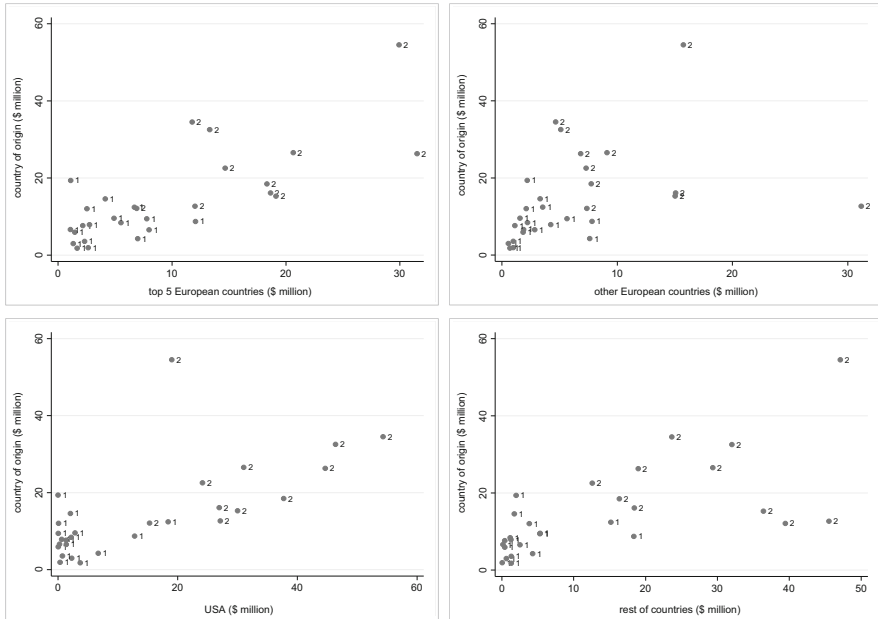


Fig. 4 Box office revenues on different markets by cluster. Note: 1 identifies movies that belong to the “Regional Hits” cluster and 2 movies to the “Worldwide Hits” cluster

they also collect a high share in the US (28.1%) and the Rest of World (25.2%). Their revenues in other European countries only represent 9.9% of the total. In Fig. 4, all of them are located in the upper right hand side in all the graphs.

Additionally, within each cluster we can identify some important differences in the movie features that could explain their performance and provide some insights into the possible keys to success. Table 5 describes the qualitative movie features for each cluster. They lead to the following comments.

- (a) *Country of origin.* Most films in our sample were produced in the Big Five Markets. The UK contributes 11 films while France contributes ten; Germany, Italy and Spain contribute two films each. Only two films come from other countries, Denmark and Sweden, and belong to the Regional Hits cluster, which is mainly composed of French movies (50%). More than two thirds of the movies in the Worldwide Hits cluster were produced in the UK, which is also leading overseas box office: It collects 68.2% and is followed by France (11.2%) and Germany (9.4%).
- (b) *Language.* Language and distributors seem to be the other two key features which explain European movies export performance. English clearly dominates with 16 films. All Worldwide Hits were shot in English and earn a significant

Table 4 Quantitative movie features by cluster and for the entire sample

	Clusters		Entire sample			
	Regional hits	Worldwide hits				
Number of films	18	11	32			
Variables	Mean	Mean	Mean	Stand. dev.	Min	Max
Box office (million dollars) ^a						
Country of origin	8.0	24.7	19.2	29.1	1.75	166.1
Big five markets	4.2	17.9	14.5	22.9	1.08	122.7
Other European markets	2.8	11.4	7.8	10.2	0.57	51.2
USA	3.1	32.4	18.9	27.6	0.01	139.9
Rest of world	3.6	29.1	22.1	33.3	0.04	155.6
Total (million dollars)	21.7	115.5	82.5	123.1	3.45	635.5
Box office						
Country of origin	36.8%	21.4%	23.3%	23.6%	50.7%	26.1%
Big five markets	19.4%	15.5%	17.6%	18.6%	31.4%	19.3%
Other European markets	12.9%	9.9%	9.5%	8.3%	16.4%	8.1%
USA	14.3%	28.1%	22.9%	22.4%	0.3%	22.0%
Rest of world	16.6%	25.1%	26.7%	27.1%	1.2%	24.5%
Budget (million dollars) ^{b, c}	10.3	31.7	26.2	25.1	3.80	102.0
Rotten tomatoes critics ^d	75.3	78.1	73.2	20.3	21.0	98.0
Rotten tomatoes audience ^d	67.0	73.5	69.1	18.0	27.0	93.0

Sources: European Audiovisual Observatory (2013, 2014)

^aboxofficemojo.com

^bwww.imdb.com

^cThere are 12 missing values on this variable in the “Regional Hits” cluster and one missing value in the “Worldwide Hits” cluster. Then, the average of budget in the former cluster should be interpreted with caution

^drottentomatoes.com

share of box office in the US. French is the main language of the Regional Hits group with nine movies, while five were shot in English.¹⁸

- (c) *Distributors*. Hollywood majors do not sweep the board. In Europe, they only distributed ten of our 29 films. Seven of these are Worldwide Hits (63.6% of the group), but they account only for 16.7% of the Regional Hits cluster. In the US, nine of the top ten European movies were distributed by a major or a mini-major.¹⁹ European distributors do not have access to the US market, and no film

¹⁸The other four films were filmed in Danish, German, Italian and Spanish.

¹⁹According to Variety Slangage Dictionary, a mini-major is a big production company that is supposedly smaller than the majors although it competes with them.

Table 5 Qualitative movie features by cluster

Variables	Clusters	
	Regional hits	Worldwide hits
	Mean	Mean
Certified fresh tomatoes ^a	61.1%	63.6%
Main country of origin		
Denmark	5.6%	–
United Kingdom	16.6%	72.7%
France	50.0%	9.1%
Germany	5.6%	9.1%
Italy	11.0%	–
Spain	5.6%	9.1%
Sweden	5.6%	–
Co-production	55.6%	81.8%
Number of co-producers	0.72	1.45
Main language ^b		
Danish	5.6%	–
English	27.6%	100.0%
French	50.0%	–
German	5.6%	–
Italian	5.6%	–
Spanish	5.6%	–
Genre ^c		
Action	5.6%	–
Comedy	5.6%	27.3%
Documentary	5.6%	–
Drama	77.6%	45.5%
Romantic comedy	5.6%	18.1%
Thriller/suspense	0.0%	9.1%
Source ^c		
Based on fiction book/short story	16.7%	45.4%
Based on game	–	–
Based on play	5.6%	–
Based on real life events	11.1%	27.3%
Original screenplay	66.6%	27.3%
Ratings ^b		
PG	–	9.1%
PG-13	22.2%	54.5%
NC-17	5.6%	–
Not rated or restricted	72.2%	36.4%
Major distributor in Europe ^d	16.7%	63.6%
Number of films	18	11

Sources: European Audiovisual Observatory (2013, 2014).

^arottentomatoes.com^bwww.imdb.com^cthe-numbers.com^dboxofficemojo.com

in our clusters was distributed in the US by a European company. To summarise, in terms of box office, Hollywood majors clearly emerge and European and independent distributors are far from exerting any influence in Europe.

- (d) *Budget*. Budgets (see [IMDB](#)) seem to be one of the most important characteristic to explain performance. There is a significant difference between both clusters. Regional Hits have relatively low budgets (\$10 million) while the average budget of Worldwide Hits is three times larger (\$32 million).
- (e) *Co-productions*. The hypothesis that being a co-production improves commercial success seems plausible: 19 films in our sample are co-productions. Nine of these earned above average worldwide revenues and represented 81.8% of Worldwide Hits. They were filmed in English as the main language and were produced in the UK or co-produced with the US, which only reinforces Hollywood's dominance. Co-productions raised \$1204 million (72.5% of total box office); but, if we concentrate our attention on the European co-productions subset, they raise only \$474 million (28.6%). These European co-productions realized 60% of their revenues in European markets (26.7% in their own countries). The number of co-producer countries is also relevant for market performance. Worldwide Hits have 1.45 co-producers on average, while Regional Hits (with 55.6% of co-productions) have 0.72 co-producers. France is the country that is most involved in co-productions: It is present in 11 of the 19 co-productions.
- (f) *Genre*.²⁰ Genre does not seem to be very useful to distinguish clusters. Drama is present in 19 of 29 movies. Next comes Comedy (four movies), Romantic (three), and Action, Documentary and Thriller have one. The dominance of drama is stronger among Regional Hits, with 14 films that account for 77.8% of this group. In the Worldwide Hits cluster, 45.5% are dramas and 27.3% are comedies. It seems that, because comedies are more idiosyncratic, dramas constitute a better option to conquer foreign markets.
- (g) *Source*. Fifteen films in our sample are based on an original screenplay. Most of them are Regional Hits (66.7%). Only three Worldwide Hits are original screenplays, another three are based on real life events and the majority (45.5%) are based on fiction (fiction books or short stories). This fact seem to indicate that success, especially in foreign markets, is more likely when a film incorporates an alternative source of information, coming from literary works or real life events.
- (h) *Reviews*. [Rottentomatoes.com](#) includes critics' and users' reviews. According to this rating, a film is advised if the percentage of positive professional or users' reviews is larger than 60%. Eighteen movies have achieved at least 75% positive professional reviews (the "Certified Fresh Logo") and seven of them are Worldwide Hits. Although films in this group have been ranked marginally

²⁰We have used [The-numbers.com](#) because it gives us only one genre, meanwhile [IMDB.com](#) offers different genre possibilities, but they are alphabetically classified. We have not used [boxofficemojo.com](#) because it classifies many films as "foreign", and this is not really a genre.

higher (78.1 by critics and 73.5 by users), in general terms, all the films in our sample have been well considered by both critics and users (73.2% and 69.1%, respectively).

- (i) *Moral rating*. Each country has its own rules to classify a film from a moral point of view. To unify this, we used the MPAA moral rating. According to MPAA, European films do not care (enough) about the children's market, at least in the period under analysis: Only one of our 29 selected films was considered appropriate. Seventeen films were not rated or restricted. There is, however, a pattern that distinguishes movies in both clusters: 54.5% of Worldwide Hits, in which the US appears as significant co-producer, are aimed at audiences of 13 years or older. This indicates that teenagers are one of the targets for commercial success. In contrast, 77.8% of Regional Hits are not fit for teenagers. The family market is not a strategic goal of European movies, at least for the export market. In some sense, Europe again places its future in the hands of Hollywood.

4 Concluding Remarks

Throughout this chapter we reflected on the current situation of the European film industry, which is under the scrutiny of several European institutions.

The strong and consolidated presence of US movies in European markets and tastes hinders the access to European audiovisual products. Tradition and policies in some countries like Italy and France mean nevertheless that there exist opportunities for Europe.

The flourishing of new audiovisual products and windows, acting as substitutes for movies, intensify the decreasing trend of attendance to the big screen. But this does not mean that the European film industry should give up the European market. Nowadays, box office income is a minor and decreasing percentage of total revenues, but it is also true that release and performance on the big screen crucially affect the success of a film in any other ancillary market. It is therefore essential to consolidate national and EU policies to take advantage of economies of scale in financing and distributing films and to build a taste for European products among cinemagoers.

Co-production can be a strategic option that goes in the right direction though it is not sufficiently explored. New distribution channels and institutions are needed since the probability for a European film to prove successful depends on its distribution by a Hollywood company. Signing commitments among local European distributors, or even creating a trans-European distribution institution, would prove useful to take advantage of the benefits of sharing information and economies of scale.

To strengthen the European film industry, it may prove necessary to pursue some Hollywood strategies, such as producing special effects blockbusters, sequels or other recycling options of a previous success. Nevertheless, other films, and not

only artistic ones, are possible, especially if they take advantage of common European culture and interests. We should however be aware that there exist cultural distances between European countries, and language is perhaps the most important, although not the only one. This point may be very sensitive, but it is important to (re)open discussing a *lingua franca* and English is the best option. National film industries should manage the trade-off between idiosyncratic products, such as local comedies that perform very well in local markets, and other films that should be more suitable to attract moviegoers overseas. Finally, Europe cannot continue forgetting its younger audience because, if it does, it will be losing the future.

Acknowledgments This chapter has also benefited from the support of the Government of Spain (Spanish project #ECO2011-27896). Gutierrez-Navratil acknowledges the Postdoctoral grant by the Basque Country Government (POSDOC-2015).

Table 7 Films included in each cluster

Regional hits	Worldwide hits
Amour	About Time
Anna Karenina	Cloud Atlas
Hannah Arendt	Lo imposible
I Give it a Year	Philomena
Jagten	Rush
Jeune & jolie	The Artist
L'Écume des jours	The Best Exotic Marigold Hotel
La grande bellezza	The Iron Lady
La Vénus à la fourrure	The Pirates! Band of Misfits
La migliore offerta	The Woman in Black
La vie d'Adèle	Tinker Tailor Soldier Spy
Le passé	
Les infidèles	
Los amantes pasajeros	
Quartet	
Renoir	
De rouille et d'os	
Searching for Sugar Man	

References

- European Audiovisual Observatory. (2013). *Focus 2013. World film market trends*.
- European Audiovisual Observatory. (2014). *Focus 2014. World film market trends*.
- Gomery, D., & Pafort-Overduin, C. (2011). *Movie history: A survey* (2nd ed.). Oxon: Routledge.
- Scott, A. J. (2002). A new map of hollywood: The production and distribution of American motion pictures. *Regional Studies*, 36(9), 957–975.
- Vogel, H. (2011). *Entertainment industry economics. A guide for financial analysis* (8th ed.). New York: Cambridge University Press.
- Waterman, D., & Jayakar, K. P. (2000). The competitive balance of the Italian and American film industries. *European Journal of Communication*, 15(4), 501–528.

Electronic Resources

- <http://boxofficemojo.com/>
- <http://data.uis.unesco.org/>
- http://eacea.ec.europa.eu/creative-europe/actions/media_en
- <http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/>
- <http://lumiere.obs.coe.int/web/search/>
- <http://www.cineuropa.org/>
- <http://www.imdb.com/>
- <http://www.mecd.gob.es/cultura-mecd/areas-cultura/cine.html>
- <http://www.mpaa.org/>
- <http://www.rottentomatoes.com/>
- <http://www.the-numbers.com/>
- <http://variety.com/static-pages/slanguage-dictionary/>

Víctor Fernández-Blanco has a Ph.D. in Economics from the Faculty of Economics of the University of Oviedo (Spain), and he is Assistant Professor in the Department of Economics in the same university. His research interests are cultural economics, history of economic thought and industrial organization. He has published in the *Journal of Cultural Economics*, *Journal of Media Economics*, *Journal of Economic Psychology*, *Empirical Economics*, *International Journal of Production Economics* and *European Journal of Operational Research*. He is member of the Editorial Board of the *Journal of Cultural Economics*.

Fernanda Gutiérrez-Navratil is an Assistant Professor in the Department of Economics at the Public University of Navarre (Spain). She was Post-Doctoral Researcher in the Department of Foundations of Economic Analysis II at the University of the Basque Country (UPV/EHU) (Spain), and Visiting Scholar at the Johns Hopkins—Carey Business School (USA). Her research interests are in cultural economics, industrial organization, antitrust issues and policies. She has published in international journals such as *Journal of Cultural Economics*, *Economic Inquiry* and *Review of Public Economics*. She received the 2012 Fundación Autor's Research Award, and was one of the finalists of the 2014 ENCATC Cultural Policy and Cultural Management Research Award. She was a visiting lecturer for the post graduate programme (Masters) in Economics of Culture and Cultural Management from the University of Valladolid.

A Geographical Approach to ‘Smart’ Location of Museums

Patricia Suárez and Matías Mayor

Abstract This chapter provides an overview of the different approaches used to determine the location and size of cultural facilities that benefit local residents. Recent research demonstrates the importance of the causal relationship between the existence of cultural facilities and location choices of home seekers in urban areas. We focus on the determinants of the spatial location of cultural institutions and on how a fixed allocation of cultural facilities may affect the economic behaviour of individuals. We believe that the need exists for an in-depth analysis of the ways in which geographic environments and the characteristics of government institutions influence consumers and producers of cultural facilities. To increase our understanding of cultural evolution, these elements should be studied from interrelated perspectives.

Keywords Cultural institutions • Economic geography • Spatial location

1 Introduction

This chapter briefly describes the traditional determinants for assessing the location of cultural institutions. It also reflects on the fact that location, which is fixed in space, affects or conditions the economic impact over time of such institutions. A place-based perspective from the field of cultural economics is introduced in which location is not analysed independently, but rather as an interaction among all participating entities.

According to traditional location theory, scale and agglomeration advantages are largely responsible for spatial economic concentration. This idea contributes to

P. Suárez (✉)

Department of Economics, University of Oviedo, Oviedo, Spain
e-mail: suarezcpatricia@uniovi.es

M. Mayor

Department of Applied Economics, University of Oviedo, Oviedo, Spain

Governance and Economics Research Network (GEN), Vigo, Spain

Rimini Centre for Economic Analysis (RCEA), Rimini, Italy

e-mail: mmayorf@uniovi.es

explain the location patterns of economic activity within the so-called new economic geography framework (see, e.g., Fujita and Thisse 2002). This complex field has had consequences in several areas, such as the location patterns of museums and of cultural amenities in general. One may thus conclude that cultural institutions are an urban phenomenon that closely follows population concentration, which implies that increasing cultural services in large urban areas could lead to higher cultural participation. Participation studies on the common characteristics of cultural audiences have indeed found that attendance is primarily an urban phenomenon (Ateca-Amestoy and Prieto-Rodriguez 2013). Thisse and Wildasin (1992) carefully describe the relationship between the location of public facilities and the urban spatial structure. A priori, one can reasonably expect that a city will be more attractive for tourists and residents if there are cultural amenities in the inner city and in surrounding areas. Power (2002) asserts that the Swedish cultural industries are strongly attracted by urban areas and even have a stronger propensity to agglomerate. As Kloosterman (2008) notes cultural industries are becoming one of the mainstays of urban economies. He also reflects on the existence of cultural synergies through knowledge spillovers as a consequence of the geographical concentration of innovative economic activities.

Spatial equity in accessing public facilities should be an objective for policymakers. The literature traditionally approaches this topic using average travel distance and distance to the nearest facilities as accessibility indicators. In this context, the spatial equity of cultural services justifies the location of certain museums, in particular ethnographic museums, outside metropolitan urban areas. As Joassart-Marcelli (2010, p. 1176) suggests, spatial inequities in the distribution of public amenities “are rooted in deeper political and economic forces that lead to uneven urban development”. The leisure landscape and the number of opportunities available for visiting major museums, currently display more inequity since the economic crisis has increased the frictional effect of distance.

In the analysis of culture infrastructure location, this thinking becomes more complicated and ambitious because the spatial allocation of cultural amenities requires a careful analysis of the needs and preferences of residents according to age, educational attainments, and other factors. Political interest and heritage or cultural endowments are essential for the development of a cultural project as well. Van Duijn and Rouwendal (2013) who investigate the role of cultural heritage in the location choice of households, concludes that the success of a city depends not only on job opportunities and transport facilities but also on cultural heritage.

An overview of the conventional approach to location analysis is presented below in Sect. 2. Section 3 describes new analytical perspectives that emphasise the importance of geography viewed through the prism of spatial economic analysis. This debate seeks to be useful in analysing cultural evolution in a constantly changing world. Last, reflections are offered on the need to define a clear cultural network that guides the allocation of public funds and fosters citizen understanding of the offerings of cultural facilities.

2 The Determinants of Location for Cultural Institutions

During the past three decades, geographical and economic research on firm location decisions and industrial location within the context of models of agglomeration has proliferated. However, there are few studies on how policymakers or private sponsors determine the location of cultural amenities. The reason is simple: Typically, museums are constructed in a specific location, and they remain in that location for a long period of time (Thisse and Wildasin 1992). The importance of this characteristic (fixed location) is demonstrated by the failure of several so-called superstar museums. Thisse and Wildasin (1992, p. 109) emphasise that “public (cultural) services have a spatial dimension, and when they do, their location becomes a policy question that also deserves careful attention”. This phenomenon results from two fundamental factors: (a) location affects the development of a museum’s progress and (b) museum location affects the location decisions of individuals (regarding housing and career) and businesses (regarding production). This explanation is consistent with the model proposed by Thisse and Wildasin (1992), in which different effects on firm locations are conditioned by public facility location (among other factors). That is, agglomeration occurs, which is a dispersed spatial structure centred on a primary location that offers amenities or a clustering result at another location.

The key factors considered before starting a project should include proximity to potential visitors, the transportation network, a dedicated building, private sponsors, endowments from public and private foundations and a wish to revitalise the image of a region. We now examine several of these factors in some detail.

Proximity to Potential Visitors

The primary factor related to the demand aspect of the market that justifies the location of large museums, is the potential number of visitors. This fact is also noted by Frey (1998, p. 113): “superstar museums are a ‘must’ for tourists”, which means that the demand for visits to such museums is inelastic once tourists reach New York, Paris or Madrid.

The number of tourists that a city can attract is important for the location of a museum. Important spillovers through the local economy occur because visitors buy products and services that are not directly related to the museums, such as food and hotel rooms. Patuelli et al. (2013) investigated the importance of a country’s cultural endowment and heritage as a determinant of tourism demand while considering potential spatial substitution/complementary effects between regions. They found that the addition of one World Heritage Site to a region’s cultural endowment implies a 4% increase in tourism inflows.

With respect to opportunities for consuming cultural services and entertainment via the Internet, the frame of reference has shifted in recent years. In a significant sample of museums, consumers could use current technologies to access digital content online and on location (Howell and Chilcott 2013). On the one hand, visitors can compare different museums virtually, much in the same way that they can compare cities. On the other hand, museums can use digital technologies

to reach new audiences and promote participation. Counter-intuitively, this capability requires a high level of competence between cooperating locations, which results in a concentration of large museums in a few select cities.

A Well-Structured Transportation Network

Infrastructure improvements result in improved accessibility to locations. With respect to infrastructure networks, internal accessibility has been an important issue for national governments to creating close-knit links between neighbourhoods. Improvements in international infrastructure networks have also become a goal to create a competitive market that connects the major urban regions. For example, the upgrading of a highway or an airport improves a network and thus has important effects on travel demand (Bruinsma and Rietveld 1998).

The Possibility to Construct or Restore an Emblematic Building

According to Frey (1998, p. 115), one characteristic of superstar museums is that they display a type of architecture that “makes the building itself a world famous artistic feature”. This premise holds for modern buildings such as the future Islamic cultural centre represented by Frank Gehry’s Guggenheim Museum in Abu Dhabi and for existing Guggenheim Museums. For instance, between 2008 and 2014, the nineteenth century building that houses the National Archaeological Museum in Madrid was remodelled and the permanent exhibition redesigned.

Public and/or Private Sponsors

The cultural industry is unique in that it lives between the public and private spheres. Among the 1500 regional Spanish museums registered in the museum locator, 140 belong to the General State Administration, 84 are affiliated with the Ministry of Education, Culture and Sports and 56 are affiliated with other ministerial departments, autonomous organisations and royal academies. Public administrators and private institutions manage the other museums. In Spain, approximately 45% of these museums involve public management at the local level. Thus, to create incentives for the private funding of culture, the importance of public investment in culture and other areas should be promoted.

Revitalising Local Traditions and the Image of the Region

Plaza et al. (2013) emphasise the importance of culture-led city brands as local economic engines and the role of cultural events, such as fairs, festivals and popular celebrations, as a means to link people and places. These activities revitalise local traditions and have a positive impact on the living standards and image of a city or region. It would be interesting to look at the performance of ethnographic museums established in Spain during the last decades with the aim of revitalising local traditions. Local administrations may wish to rethink the value of keeping these small museums open. Part of the funding used in the Spanish effort was provided by the European Union. However, with the economic crisis, the sustainability of these museums has become questionable.

Merton (1948, p. 193) delves into the Thomas theorem: “If men define situations as real, they are real in their consequences”. Today, this idea is known as Merton’s self-fulfilling prophecy and is relevant for cultural institutions in several ways.

From a heterodox viewpoint, it is difficult to incorporate this idea into a model, but it is nevertheless worth considering. Once an investment is made, and though it may be *ex ante* questionable, it is easy to justify it *ex post*: The new situation evokes a new behaviour that makes the original 'wrong' allocation rewarding and capable of generating positive effects. As Merton (1948, p. 195) noted, "the prophet may cite the actual course of events as proof that he was right from the beginning".

3 New Approaches in Cultural Economic Geography

In the previous section, we analysed several factors that traditionally influence the location decision of museums and other cultural institutions. However, once a location is determined, new perspectives inevitably arise and must be addressed. In this section we list several distinct approaches for analysing location and the operations that follow. These incorporate the role of spatial relationships and distances in generating demand, forming international networks and creating local linkages in the areas of influence of the cultural facility.

De Graaff et al. (2009) review several studies on the appropriate funding of museums and found that the spatial allocation of a museum's demand base can be highly variable. They observe that this aspect is typically omitted in the literature, although the area is an increasingly popular field of study. Two aspects should be considered during the decision-making stage: The museum's spatial position, which includes interdependences with other museums and even other activities, such as sporting, and the formation of social networks (Thisse and Wildasin 1992), and how the museum's demand base is spatially configured.

It is impossible to consider museums as isolated entities. They constitute a spatial network in which one museum's demand base can be affected by other museums located in the same area or by museums with a similar subject. These are considered to be 'neighbours' in spatial economics terminology or complementary in economic terminology. This network can be formal and institutionally supported with the objective of guaranteeing a determined level of demand among all similar entities. Minor and less accessible museums generally benefit from this type of network. For example, the Prado Museum loans its artworks to public museums in peripheral provinces, while ethnographic and industrial museums in small municipalities, such as those along the Navia River in Asturias, benefit from a network at a lower cost that compensates the difficulty of access.

Additionally, an individual's decision to visit a certain museum is not always a consequence of a direct decision but rather one that derives from previous interest. For instance, the Guggenheim Museum Bilbao (GMB) could be the main priority for a group of tourists who in addition would visit other attractions in the region. The same museum may only represent a secondary priority for those who visit the city to watch an important football game, or to attend a conference.

The literature includes studies on the need to analyse the relationship between distinct cultural organisations in general (Boter et al. 2005) and among museums in

particular. Boter et al. (2005) examine the willingness to pay for cultural goods by analysing a group of activities (complements or substitutes) instead of analysing a single institution or organisation. Travel time, with distance as an indicator of the value that individuals place on these assets, is used. Such research considers so-called spatial heterogeneity. Proximity to cultural services is one of the most important predictors of an individual's willingness to use services.

When designing different cultural assets, a microeconomic perspective would emphasise distance and accessibility as factors that determine success. Houston and Ong (2013, p. 728) note "the paucity of research examining the spatial context and reach of museums within metropolitan areas in the United States". They identify two factors that affect the variation in the participation: geographic distances, obviously, but also sociocultural distances which should play an important role in policy making: improving the access of lower income communities and poor neighbourhoods.

Van Duijn and Rouwendal (2013) review recent studies that analyse both theoretically and empirically the influence of other variables in residential decisions. They find evidence for the attraction effect of local services and amenities on higher educated and more productive workers and design a location choice model that explicitly creates the spatial dependence between municipalities.

The question of whether cultural goods are public should be analysed. So-called superstar museums have institutional and financial support that is crucial to their development. It is, therefore, interesting to use a regional and urban perspective to ascertain which factors determine location and whether museums have received strong public and institutional support. Several studies have addressed this topic.

Belletini and Kempf (2013) construct a theoretical model in order to determine the location and size of public goods providers by distinguishing two types of goods: Nimby (Not In My Backyard) and Imby (In My Backyard) goods respectively, characterised by a positive or negative relationship between distance and individual benefits. They thus introduce in their location choice model a relationship between the provision of the public good and the distance, which results in two classical effects: congestion (for Nimby goods) or agglomeration (Imby goods). Cultural goods would be classified as Imby goods: The marginal benefit an individual experiences from more cultural offerings increases as distance is reduced. Belletini and Kempf (2013) also introduce lobbying activities: Households lobbies could affect the location and provision of cultural offerings as well as the price of housing and the location of businesses.

Plaza and Haarich (2013) also consider lobbying activities in their paper on the success of the Guggenheim Museum Bilbao (GMB), analysing "the regional embeddedness of the GMB and its effects on the global networking of Bilbao" (p. 2). They show how Bilbao has benefited from increased accessibility to global networks thanks to the GMB. Stronger links have developed between the museum and local economic, social and political structures. The authors describe the GMB's origin, emphasising the role of the Guggenheim Foundation and that of the local and national political elite, who served as a potent lobby that promoted and was able to obtain public funding for the project.

4 Conclusions

It would seem that museum location is irreversible and that financial problems are posing an additional difficulty. Impact studies on the cultural sector should begin to incorporate a broader set of socioeconomic and geographic measures. In this regard, the evaluation of the impact of museums and the distribution of public funding at the national and regional level, as well as informational transparency of decisions should be the government's priority.

Public cultural institutions should use a decentralised framework, to clarify the available future funds required to keep the museums open and attractive.

This paper demonstrates the need to analyse location and its effects on the operation of cultural institutions and the economic behaviour of individuals. The character of cosmopolitan cities is determined by the variety of their cultural offerings. Such offerings can attract tourists and make the city a better place to live and work. They affect the price of housing and the location of other industries (i.e., economies of agglomeration). Social and geographic distances, Nimby or Imby effects and lobbying are also essential in explaining the demand for cultural assets.

When a 'smart' cultural institution is established, it is necessary to distinguish between the connections it will make 'backwards' and 'forwards'. Regarding the backward connections, the demand for jobs could be considered a factor that justifies substantial public investment. As for forward connections, the public contribution of a 'smart' cultural institution is a fundamental factor in countries or regions in which private entities are not interested in collaborating or undertaking a project. This statement does not mean that cultural infrastructure should be paid for at any price. The consequences of a rash decision that does not consider the direct and indirect effects generated by spatial interdependences can result in inadequate, speculative financing and generate an unstable cultural infrastructure.

References

- Ateca-Amestoy, V., & Prieto-Rodriguez, J. (2013). Forecasting accuracy of behavioural models for participation in the arts. *European Journal of Operational Research*, 229(1), 124–131.
- Belletini, G., & Kempf, H. (2013). Why not in your backyard? On the location and size of a public facility. *Regional Science and Urban Economics*, 43(1), 22–30.
- Boter, J., Rouwendal, J., & Wedel, M. (2005). Employing travel time to compare the value of competing cultural organizations. *Journal of Cultural Economics*, 29, 19–33.
- Bruinsma, F., & Rietveld, P. (1998). The accessibility of European cities: Theoretical framework and comparison of approaches. *Environment and Planning A*, 30(3), 499–521.
- De Graaff, T., Boter, J., & Rouwendal, J. (2009). On spatial differences in the attractiveness of Dutch museums. *Environment and Planning A*, 41(11), 2778–2797.
- Frey, B. S. (1998). Superstar museums: An economic analysis. *Journal of Cultural Economics*, 22, 113–125.
- Fujita, M., & Thisse, J. F. (2002). *The economics of agglomeration*. Cambridge: Cambridge University Press.

- Houston, D., & Ong, P. (2013). Arts accessibility to major museums and cultural/ethnic institutions in Los Angeles: Can school tours overcome neighborhood disparities? *Environment and Planning A*, 45(3), 728–748.
- Howell, R., & Chilcott, M. (2013). A sense of place: Re-purposing and impacting historical research evidence through digital heritage and interpretation practice. *International Journal of Intangible Heritage*, 8, 165–177.
- Joassart-Marcelli, P. (2010). Leveling the playing field? Urban disparities in funding for local parks and recreation in the Los Angeles region. *Environment and Planning A*, 42(5), 1174–1192.
- Kloosterman, R. C. (2008). Walls and bridges: Knowledge spillover between “superdutch” architectural firms. *Journal of Economic Geography*, 8(4), 545–563.
- Merton, R. K. (1948). The self-fulfilling prophecy. *The Antioch Review*, 8(2), 193–210.
- Patuelli, R., Mussoni, M., & Candela, G. (2013). The effect of world heritage sites on domestic tourism: A spatial interaction model for Italy. *Journal of Geographical Systems*, 15, 369–402.
- Plaza, B., González-Casimiro, P., Moral-Zuazo, P., & Courtney, W. (2013). *Culture-Led city brands as economic engines: Theory and empirics*. ACEI working paper series AWP-05-2013, Association for Cultural Economics International.
- Plaza, B., & Haarich, S. N. (2013). The Guggenheim museum Bilbao: Between regional embeddedness and global networking. *European Planning Studies*, 23(8), 1456–1475.
- Power, D. (2002). Cultural industries in Sweden: An assessment of their place in the Swedish economy. *Economic Geography*, 78(2), 103–127.
- Thisse, J. F., & Wildasin, D. E. (1992). Public facility location and urban spatial structure. *Journal of Public Economics*, 48, 83–118.
- Van Duijn, M., & Rouwendal, J. (2013). Cultural heritage and the location choice of Dutch households in a residential sorting model. *Journal of Economic Geography*, 13, 473–500.

Patricia Suárez is an Assistant Professor of Economics at Oviedo University (Spain). She was a former economist at the Inter-American Development Bank (Washington, DC). She was also a visiting scholar at the Institute for Economic Research (Switzerland) in 2010 and earned her Ph.D. from the University of Oviedo in 2011. She has published in numerous journals, including *Papers in Regional Science*, *Transportation Research Part A*. She has been interested in the field of labour economics and spatial economy, on topics such as accessibility and evaluation of public policies. She has participated in projects funded by international and national authorities such as the OECD or the Spanish Ministry of Employment. Her current research deals with developments in counterfactual methods applied to the impact evaluation of policy interventions, with a focus on employment and social policies.

Matías Mayor is Associate Professor in the Department of Applied Economics of the University of Oviedo (Spain). He was a visiting research at the Institute for Economic Research (Switzerland) in 2010. His research interest included the role of space and spatial interactions in different economic issues. His research also includes the effect of the geography in tax interaction models, the impact of the infrastructure investments on regional productivity cross regional borders. Methodologically, he is interested in spatial econometrics models and their applications in different applications. He has published his research in different peer-reviewed journals, including *Empirical Economics*, *Papers in Regional Science*, *Regional Studies* and *Transportation Research A*.

New Lines of Action for Participatives Museums

Imma Fondevila Guinart

Abstract This chapter looks at the objectives that museums want to reach in terms of public, not only quantitative increases but also qualitative improvements, and suggest methods that could be used to achieve them (mediation, accessibility, new technologies). Spain is taken as an example, but this should apply to any museum.

Keywords Museums • ITC's • Mediation • Cultural participation

1 Introduction

The origins of museums can be found in private collections, which are the expression of the human whim to possess and enjoy artistic treasures, and, on many occasions, to use their ownership as an ostensible sign of power.

Museums began to incorporate the objectives of preserving, studying and disseminating the collections of works in the Contemporary Period. However, in the early twentieth century Malraux and Proud denounced museums as cemeteries where works of art are laid to rest and which awaken no interest in the lower classes.

From the mid-twentieth century onwards, and under the promotion of institutions such as the International Council of Museums (ICOM), museology has become a tool to reflect and theorise upon the function of museums. It establishes in a definitive way the role of museums as social and educational institutions. Museums are beginning to develop the necessary structures to respond to this definition, by incorporating departments dedicated to the public, whether under the semantic umbrellas of Education, Communication, Activities or Public Affairs and by implementing marketing techniques aimed at learning about their public in order to offer proposals which will connect them with the museum.

In order to achieve the foregoing educational and social objectives, the era of the democratisation of museums begins! Essential tasks include: identifying the different types of public; designing activities for each segment; implementing customer and information services; creating entrance fee systems which encourage participation by

I. Fondevila Guinart (✉)
MagmaCultura, Barcelona, Spain
e-mail: ifondevila@mamacultura.com

everyone; offering promotions, free admissions and open days; or involving civil and corporate society through the creation of friends' associations or through sponsors and collaborators.

Obviously, the increase in visitors becomes a principal objective of museums, and the first tools to be incorporated are studies of the public, which should enable museums to identify and categorise the different types of public and to extrapolate conclusions about their tastes, habits and behaviours.

The changes taking place at present are designed not only to produce an increase in quantitative terms (in absolute numbers), but also in qualitative terms, opening up the range of visitor types, as well as reflecting on the role the public has to play.

In general, museums do not receive participation from certain social classes. Citizens view museums as elitist institutions, aimed at cultured people, and therefore visiting a museum is perceived as a cultural practice, whether voluntary or involuntary (In the latter case we refer to the example of school groups who visit museums because the teacher prescribes it. Consequently, this school-based public often terms the visit to a museum as 'a drag').

With the aim of reaching the less cultured public—the lower classes, young people, the public with special needs (for example, the disabled or people at risk of social exclusion)—in short, the widest possible range of citizens, cultural managers in museum departments or external professionals, must develop imaginative strategies in order to fulfil their task of attracting visitors. They can incorporate new formats and unconventional discourses, use technology to create a more personal and lively experience, and implement participative processes. Examples of all these strategies can now be found in some museums, but they still have a very limited impact, in some cases because the budget does not facilitate the process or, all too often, because the museum does not view it as a priority, contending with the more conservative force of many figures from the old school of museology.

2 An Outline of Reality

It is not the purpose of this article to perform an exhaustive analysis of the situation of Spanish museums in terms of public policies. Using our experience of over 20 years managing public services for museums and cultural institutions and providing our expertise to collaborate in the design of dissemination strategies, we would like to supply some data from some important museums with which we collaborate.

The majority of the museums we work with are gathering data to differentiate between the types of public and to generate discourses and activities which are adapted to them and which satisfy their needs. The range of activities, materials, services and facilities which these museums make available to the public are undoubtedly essential tools to reach new audiences and to inspire loyalty in the existing ones.

It is worth highlighting the strategy to attract visitors launched by the MNAC (National Museum of Catalan Art). On the one hand, the strategy is designed around the differentiation between the public profiles and, on the other hand, the museum has developed a concept in which it markets itself amongst other aspects as a space which the public can enjoy, in which they may share a group experience, or even learn.

The MNAC is a museum with a significant presence in the cultural panorama of Barcelona. In 2013 it received 806,052 visitors, 47% of whom were from Catalonia, 4% from the rest of Spain, and 49% from abroad. Year after year the MNAC incorporates new proposals to consolidate visits from its regular public and to reach a new target audience. It offers visits, itineraries, group visits, virtual tours, accessible visits, etc. Parallel to this, it organises diverse activities including educational activities, school programmes, conferences for professionals, Swing Saturdays, cinema and painting programmes, and guided visits. Similarly, these incorporate reduced entrance fees and offers, and the museum participates with other organisations to create promotions for combined entrance tickets and packs, for example, Artickets or the Bcn Card.

We have collaborated with the Diputació de Barcelona for 3 years, integrally managing customer service at Palau Güell. After a long restoration period, the building was opened to the public in 2011, receiving a total of 151,355 visitors that year and 254,609 in 2012. Among the services offered are guided visits in Catalan and in English, visits with the accompaniment of live organ music, and free audio-guides. Palau Güell now plans to expand the range of services for families and school groups. In particular, Palau Güell has made a clear commitment to accessibility, founded on the principle of design for everybody, and offering high-quality, wide-ranging customer service. This specialised customer service includes: Sign language video-guides in Catalan and Spanish; audio-guides with audio-descriptions for the visually impaired in Catalan and Spanish; subtitled audio-guides in Catalan, Spanish, English, French, Italian, German and Portuguese for the hard of hearing who do not use sign language; a group guidance system (which provides better reception for the hard of hearing); a partially adapted tour for people with reduced mobility; wheelchairs; a sound amplification system; brail maps; text magnifying glasses; and reserved parking for the disabled.

However, museums have the ability to generate links and discourses with the public via other means, such as their exhibition programming. In this sense, the intense exhibition activity at the Prado Museum has undoubtedly been a fundamental factor in attracting a national and international audiences. The close collaboration between the Prado and other museums or institutional collections has enabled them to bring artistic works to Madrid which previously had not often be seen in our country, thereby generating great anticipation amongst the public. Examples include: Van Dyck's *Young Van Dyck*; Titian's *Saint John the Baptist*; or *Captive Beauty, Fra Angelico to Fortuny*.

These types of exhibition policies, together with the activities (conferences, workshops, film seasons, etc.) deriving from the exhibition programmes, have converted the Prado Museum into an important point of interest. In 2013 it reached

the landmark of three million visitors for the first time. In conjunction with these actions the museum has taken other measures, expanding its opening hours and days as well as creating initiatives to improve customer service and to reach more segments of the population.

Entrance fee policies also influence the number of visitors. In the case of the Picasso Museum Foundation in Barcelona, this measure is evidenced in the partial or completely free entrance on the first Sunday of every month. This type of initiative is mainly targeted at the local public, aiming to incentivise visits from them during the current economic crisis.

There are museum spaces that are a point of interest for the public due to the works they house or the heritage of the space itself. This is the case for the Picasso Museum Foundation in Barcelona, which is one of the top four most visited sites in the city of Barcelona. According to data provided by the museum, the motives for visits are related to the thematic content and the works by Picasso. Thus, 97% of survey respondents go to visit the collection and 13% go to visit temporary exhibitions. Other motives given include: Personal curiosity or interest in the artist, in the building and in the museum in general; to accompany somebody else; or to attend an activity (conference, workshop, cyclical programme, etc.).

Globally the museum has mainly a foreign public, most of whom (52.8%) are resident in a EU country. However, the country with the highest number of visitors is the United States, followed by France, Italy, Great Britain, Germany and Canada. It should be noted that this study only covers individuals and does not include guided visits, educational visits or attendance at the museum's activities, which are largely local.

A rich, innovative and diverse cultural activity creates a strong impact, both in terms of the public and in cultural and artistic systems. Despite the current economic crisis, this has been the strategy of the MNCARS (Reina Sofia National Art Centre Museum) in recent years. This panorama of activities is the result of a new internal way of working at the museum, involving the coordination of the collection, exhibitions and public activity areas. In 2012 the museum received 2.6 million visitors, and 44,000 people attended their cultural activities (not including educational and mediation activities). At the Reina Sofia education is central. This has led to the innovation of and experimentation with new formats such as the mediation salon, implemented by a specialist team whose mission is to activate and enhance the exhibited contents and to establish permanent communication channels between the work and the public. With regard to children and school visits, the museum offers thematic workshops. For instance, they reach out to adolescents through different activities, including experimental or debate workshops on processes or states such as identity tailored to interest this age group.

According to data provided by the museum, the public has expressed great satisfaction with the programmes developed by the Departments for Education and Mediation and for Public Policies, specifically through mediation services. This offers visits with themed commentaries on the collections, which 4400 people have attended.

Along these lines of programmed cultural activities, CaixaForum Barcelona constantly offers exhibitions, concerts, cinema screenings, debates, staged art shows, literature and philosophy cyclical programmes, multimedia art, and family programmes. This wide-ranging offer makes CaixaForum one of the most dynamic, active and lively cultural spaces in the city. Given the diversity of activities offered by CaixaForum Barcelona, the public is also heterogeneous and varies according to the programming. However, notable among the different audiences are the school and family public, also motivated by the centre's strong pedagogical vocation: 11% of the total visits were schools and 33% were young people. In terms of provenance, 63% came from the province of Barcelona, 27% from the rest of Catalonia, and only 10% are from the rest of Spain or abroad. CaixaForum, one of the financial organisations of "La Caixa" Banking, also has centres in Madrid, Saragossa, Palma de Mallorca, Girona, Tarragona and Lleida.

3 Mediation

The types of visitors of a museum can be very diverse depending on the ability of museums to adapt to social needs and demands. In order to attract new audiences, the Prado Museum, the Reina Sofia Museum and the MNAC all organise private visits for groups, companies and organisations that want to offer their clients special and preferential visits. This type of initiative offers flexible routes and aims to provide a sense of exclusivity to the experience of these visitors.

The educational services are fundamental pillars for museums to generate an impact on the public and the community through mediation. A significant experience in this sense is that implemented by the MNAC via its community programmes such as the Educart program, and the one dedicated to teachers and students. The latter is a resource which allows visits to be planned according to content or itineraries and offers to teachers a wide range of activities adapted to different age ranges and educational cycles.

Along the same lines, the Picasso Museum in Barcelona works from a program for specific types of public managed by two different departments: Activities and Educational Services. Both create an annual programme of activities to coincide with the school year (autumn to summer). The proposals also take all types of visitors into account. Hence we can find various activities for adults, the elderly, children, families, and professionals from different sectors. The Educational Services Department creates annual programs, which are disseminated around Catalonia. It has also opened up the possibility of guided visits for the international public.

Other examples of the revitalization are the developments at Palau Güell in Barcelona or the Reina Sofia Museum in Madrid. Both organisations work with cultural mediators, trained staff who use digital technology to generate new lines of communication between the public and art and heritage. It is a new strategy of personalised relationships with the public, which help to contextualise, learn and enjoy the contents of the museum in an innovative way.

When we speak of mediation, we must do so in a broad and two-way sense. We must understand that the museum should also experience new forms of involvement within a social context and in terms of the work related to diversity. With this in mind and in collaboration with a specialist entity, in 2011 MagmaCultura incorporated people at risk of social exclusion into its team at Palau Güell, thereby generating new encounters between heritage and community, and converting the heritage site into a space with a social function.

4 Accessibility and Participation

The public is the subject of interest for the museum in that it consists of recipients of the institution's messages and therefore of the specific view of the management and the curators of the museum. The public, therefore, becomes the basis to justify the existence of the museum. The cultural legacy of humanity has meaning insofar as it is interpreted by people and becomes a factor in personal and collective improvement and growth. This philosophy is the basis behind the efforts to make museums more accessible and the term, so often used of late, 'democratisation,' which means to make the general public visit museums. However, the qualitative leap occurs, not only when we manage to open doors to society or when we make museums accessible to all, but also when members of society become participants in and even jointly responsible for the museum's discourses.

Accessibility is not just a question of catering for the disabled; it is the guarantee of participation. Accessibility is a right for all citizens and, therefore, an obligation for museums towards all sectors of the public. Museums must make knowledge accessible to all the individuals who enter their spaces, and they must do so through the museum's planning and through programming and cultural mediation.

In any case, it is about (a) facilitating cognitive and emotional learning, (b) the pleasure of an aesthetic and contemplative experience, (c) the participation in the processes of reflection and interpretation of the exhibited contents, and (d) the expression of their own opinion and creativity.

Museum planning must inevitably get used to new technologies (and this is slowly happening already). These resources, apart from their visual and playful values, improve the processes of reading and interpreting collections and exhibitions, enabling each user to have a tailored experience within the museum.

Cultural mediation is the other great commitment being made by museums. It begins with the design and programming of varied and attractive exhibitions and cultural and educational activities. The mediator's professional tasks must include all kinds of skills: being proactive with communication strategies, with scientific rigour, with education and empathy, etc. The final stage is to obtain feedback from the public.

Technology, like museum planning, is a very suitable medium for channelling the mediation actions by the museum, as it facilitates customization and, in particular,

participation and relationships between the museum and audiences. It also permits the registration of information related to the development of each user's experience.

5 Technology and Museums

In terms of technology and its role within museums, we can identify two very distinct areas: (a) mediation tools to reach the public and, (b) data gathering tools for the museum to analyse. In this section we provide detailed examples of both these areas.

Over the past few years one of the most widely used tools to incorporate new customers was the Internet, 2.0 websites, and social networks. In this sense, the work done by the Reina Sofia Museum is worth highlighting, as it has become one of the museums with the most engagement from its followers on the various social networks. Joining global campaigns such as #museumweek or #askacurator, it has taken the opportunity to promote its contents, to increase its visibility and to offer a more human image of the museum to the world.

As mentioned previously, technology, education and accessibility are now closer than ever. CaixaForum Barcelona has a space on its website dedicated to virtual visits, three-dimensional tours which enable Internet users to access the exhibition space. Such resources are mediation tools that contribute to the dissemination of knowledge publics which, for different reasons, cannot physically visit the exhibition to enjoy part of the experience.

Mediation in museums and heritage sites converts both of them into catalysts for change. Mediation has to encompass the totality of resources through which museums seek to improve the communication and interaction with the public.

Likewise, thanks to the current ticketing systems, museums are beginning to have the means by which to learn about and interact with their visitors. These tools are efficient and economical, at least for large facilities, but the purpose, methodology and philosophy behind them must be clearly defined. Well-designed and carefully applied technologies should allow for more than a simple tally of visitors. They should be able to gather information on the background of visitors, and enable museums to create distribution lists, to gather opinions, to explore trends, etc.

Therefore, if the philosophy and methodology is well defined, technology becomes the best ally for cultural managers to develop extensive cultural policies which can further democratise culture.

At MagmaCultura we believe that now is a good time to incorporate the knowledge we have acquired over the years into our daily practices, identifying the needs of the institutions, but also of their users and the professionals who mediate between the two, in other words the information gatherers and mediators. To this end we have been developing some technological tools to facilitate internal management tasks, improve the communication and management processes, and enrich the tasks of interpretation and communication with the public. These tools will form an integrated client management platform.

6 Conclusions

To conclude this analysis of and reflection on the new lines of action by museums regarding their public, we believe that one of the key factors is the role to be played by the public. In summary, it is about the decisive step towards achieving the common goal of all museums in their role as social and educational agents: the promotion of active participation by society.

Drawing on our experience, we can state that the most active and dynamic institutions, which are capable of adapting to the needs and demands of the public, are not only able to improve the public's experience, but also to develop the drive force to transform the vision and mission of museums in relation to society.

Imma Fondevila Guinart holds both a Postgraduate Degree on Heritage Revitalisation from the European Centre for Heritage and the University of Barcelona. She also holds a Bachelor Degree in Geography and History and a Degree in Education from University of Barcelona. She is founding partner of MagmaCultura, a Spanish cultural management private firm, where is Head Project Manager. She deals with museology projects, strategic plans and the development of programs and products in the fields of culture, cultural tourism and education.

Public Private Partnership for the Enhancement of Cultural Heritage: The Case of the Benedictine Monastery of Catania

Francesco Mannino and Anna Mignosa

Abstract Cultural heritage governance is undergoing a change related to the roles of the public and private sector and the assessment of heritage as an instrument to achieve broader aims, in terms of social, cultural and economic development as the Council of Europe stated in its 2005 *Framework Convention on the Value of Cultural Heritage for Society*. These changes have also characterised the Italian institutional framework where the law introduced a series of norms allowing different degrees of involvement of the private sector in the management of heritage sites and museums and/or of the ‘ancillary’ services necessary to favour their fruition (ticket sales, bookshop, cafeteria). The changes in the law facilitated the introduction of Public Private Partnership (PPP) in the heritage sphere, and examples of these are becoming more common. This paper considers one of these cases, where a private organisation, specifically a non-profit association—Officine Culturali—cooperates with a public institution—the University of Catania—to realise the activities necessary to enhance a heritage site which hosts one of the university’s departments and is included in UNESCO’s World Heritage List. The association stands out for its focus on participation that is clearly set in its mission. Looking at the activities run by Officine Culturali, two aspects deserve a closer analysis: product differentiation and the use of heritage enhancement as tools to obtain far-ranging social effects. The analysis illustrates the institutional arrangements that made possible the involvement of a private association in the enhancement of a publicly owned heritage site through the creation of a partnership between the association and the university of Catania. The chapter will focus on the activities of Officine Culturali considering, specifically, their focus on social inclusion and their capacity to attain it.

F. Mannino
Officine Culturali, Catania, Italy
e-mail: fmannino@unict.it

A. Mignosa (✉)
Officine Culturali, Catania, Italy

Erasmus University Rotterdam, Rotterdam, Netherlands

Department of Economics and Business, University of Catania, Catania, Italy
e-mail: a.mignosa@unict.it

Keywords Cultural Heritage • Public private partnership • Heritage enhancement • Social inclusion • Multiproduct cultural organisations

1 Introduction

Culture, and cultural, heritage governance is undergoing a process of *désétatisation* (Klamer et al. 2006) that evidences a change in the role of the public sector, and the definition of a new, more active, role for the private sector. Another interesting shift occurring relates to the perception of heritage policies. They are seen as tools to achieve other aims such as social, cultural and economic development (Council of Europe 2005). The European Commission's Communication 'Towards an integrated approach to cultural heritage for Europe' (2014) endorses this way of conceiving heritage and its role for society. The Commission looks for new approaches that can, in all respects, make heritage part of the local community by granting sites a second life and meaning connected to contemporary needs (European Commission 2014, p. 5).

These changes have also characterised the Italian institutional framework, where the law introduced several options allowing different degrees of involvement of the private sector in the management of heritage sites and museums, and/or of 'ancillary' services (ticket sales, bookshop, cafeteria). The changes in the law made possible to establish Public Private Partnership (PPP) arrangements in the heritage sphere, and examples of these are becoming more frequent. This paper considers one of these cases, where a private organisation, specifically a non-profit association—Officine Culturali—cooperates with a public institution—the University of Catania—to realise the activities necessary to enhance a heritage site which hosts one of the university's departments and is included in UNESCO's World Heritage List. The association stands out for its focus on participation, as clearly set in its mission: "Entertain, educate, thrill to bring heritage to life making it a place of labour and professionalization. Using research and communication we create new concepts at the service of society and its development".¹

Looking at the activities run by Officine Culturali, two aspects deserve a closer analysis: Product differentiation and the use of heritage as tools to obtain far-ranging social effects. In its activities, has the association adopted the 'new' approach to cultural heritage mentioned by the European Commission? The analysis will focus on this last question. More specifically, Section 2 will illustrate the institutional arrangements that made possible the involvement of a private association in the enhancement of a publicly owned heritage. Section 3 discusses the activities of Officine Culturali considering their focus on social inclusion. Section 4 will draw some conclusions.

¹See <http://www.officineculturali.net/mission-en.htm>

2 Public-Private Partnership (PPP) in the Cultural Sector

Heritage management and the activities necessary to guarantee its preservation and enjoyment face rising costs because of the ever-increasing amount of heritage created by the passing of time and the inclusion of new heritage categories. This issue is particularly important in those countries where public intervention has suffered from budget cuts, and public institutions often lack the resources to guarantee heritage preservation, management and enhancement. In line with this situation, or, perhaps, more as a consequence of it, a process of decentralisation and *désétatisation* (Klamer et al. 2013) has been taking place in most European countries. The role of central governments in the implementation of heritage policies has been diminishing, leaving the gaps to be filled by lower levels of government and the private (profit and non-profit) sector, which is invited to play an increasingly active role not only in the financing of culture but, also, in the direct management of cultural institutions. This has led to new forms of public-private partnership (PPP) to define new roles and activities for the two actors involved, in an attempt to obtain the best performance from both.

According to the National Council for PPPs (2017), “a Public-Private Partnership is a contractual agreement between a public agency (federal, state or local) and a private sector entity. Through this agreement, the skills and assets of each sector (public and private) are shared in delivering a service or facility for the use of the general public. In addition to the sharing of resources, each party shares in the risks and rewards potential in the delivery of the service and/or facility”.² PPP has frequently been used for infrastructure or industrial projects in developed countries and to privatize large service companies (Dubini et al. 2012), but PPP in the cultural sector is still relatively new and not very widespread.

Nevertheless, PPP could also prove useful for the cultural sector. According to UNESCO (2013) “the cultural sector offers a great and unexplored potential for partnerships. Partnerships in the area of culture can bridge the funding gap of public entities, provide interesting investment opportunities for the private sector, but require environmentally and socially sound approaches that respect and benefit local communities”.³ In theory, PPP should bring together the best of both worlds: Each partner would contribute with its competencies and expertise. The public sector would have a fundamental regulatory role while providing administrative support and facilitating investments. The private sector could provide financial and human resources as well as the expertise and competencies that the public sector may be lacking.

²The National Council for Public-Private Partnerships is a non-profit, non-partisan organization founded in 1985. Its activities aim at enhancing the partnership process. See www.ncppp.org

³In fact, several existing examples of private intervention (e.g. National Trust in UK, FAI and Officine Culturali in Italy, the ‘friends’ of museums associations) show how private organisations and individuals (e.g. volunteers) might decide to contribute to the preservation of cultural heritage and the diffusion of knowledge and awareness about it.

Generally, the contracting out of enhancement activities has been the most common form of PPP. However, new forms of partnership are appearing, they are conducive to the creation of new organisational structures, which bring together public and private interests. Bramwell and Lane (2000) define PPPs as a pooling of knowledge, expertise, capital and other resources from various stakeholders.⁴ In principle, this cooperation could lead to long-term sustainable projects. The partnership would aim at the realisation of rehabilitation and valorisation projects capable of generating social, cultural and economic effects. The results of three different cases analysed in Italy (Dubini et al. 2012) seem to confirm this conclusion. The coordination of public and private actors, the acknowledgment of mutual competences, the sharing of responsibilities are considered as the justification of the projects not only for heritage preservation but also, and especially, for the involvement of communities.

In Italy, there is an endless and often controversial debate about PPP for culture (and heritage) and its pros and cons. In the literature there is consensus about the need for a division of tasks between the private and the public sector (Sciullo 2006). The former should have authority on all the activities necessary to guarantee the preservation and protection of heritage, whereas the private sector should receive the responsibility for enhancement activities. Some (Dubini et al. 2012) see an incipient threat with respect to private sector involvement and the attention paid to enhancement activities, as they are seen as potentially diverting attention from the preservation of heritage, thereby putting at risk its identity and meaning.

Since the end of the 1990s, however, several laws have extended the range of organisations that are able to play an active role in heritage management in Italy. Similarly, the notion of management has been broadened to include the diffusion of knowledge and education, preservation, and services to visitors. Normally, preservation activities remain under the responsibility of public-sector players whereas enhancement activities are assigned to private profit and non-profit organisations. However, the actual involvement of the private sector remains very limited especially when compared to other countries (Klamer et al. 2006), and tends to focus on the most important and known monuments (*The Arts Newspaper* 2012).⁵ One of the main reasons for the ‘poor success’ of these laws is the lack of clear procedures together with some resistance from public organisations. Nevertheless, cases do exist where public private partnership has led to interesting results not only in terms of the enhancement of heritage but also for its preservation.⁶

⁴They refer to tourism but their statement can be applied to any sector.

⁵On occasions, there is a tendency towards an overestimation of the ‘real’ interest of the private sector in investing in heritage sites, especially the less important or least known ones.

⁶See Dubini et al. (2012) for the illustration of several cases related to the preservation of heritage. An often quoted example is the Herculaneum Conservation Project made possible thanks to the collaboration between Packard Humanities Institute and the *Soprintendenza Speciale per i Beni Archeologici di Napoli e Pompei* (the authority responsible for archaeological heritage of Naples and Pompeii) with the support of the British School in Rome.

As already mentioned, the attention of this paper will focus on a case of PPP where a private association has become responsible for the realisation of the activities necessary to enhance a heritage site.⁷ The university felt the need to open up the ex-monastery, where its department of humanities is located, to the local community and tourists and, especially, to diffuse knowledge about it. For this reason it signed an agreement with the cultural association—Officine Culturali, which has subsequently been taking care of all the activities necessary to reach these aims. The result has been the opening of the site to the local community as well as to Italian and foreign visitors; almost 150,000 people have been visiting the monastery and/or taking part in one of the events organised there since the beginning of this collaboration.⁸

The idea of the university was to involve a private association in the running of the activities necessary to diffuse knowledge about the site because of the lack, within the university itself, of the financial and human resources necessary for carrying them out. In fact, the university had instructed some students to lead guided tours of the site, but could not offer the organisational setting and autonomy to establish a standard service to enhance the site using the skills transmitted to these students. For this reason these young people, together with a lecturer and a Ph.D. student of the department, decided to create a cultural association that could cooperate with the university. In 2010, the Faculty of Humanities and the association signed an agreement; the latter took responsibility to run all the activities necessary to guarantee the best possible enhancement of the site.⁹ The association does not get paid to realise these activities but, on the contrary, gives to the university a percentage of the donations it receives from the visitors to the monastery. It also pays a rent for the space where it has the information point and the bookshop. This agreement is in line with the rules set by the law on culture and

⁷Because of the nature of one of the subjects involved, the case allows some reflections on the third mission of the university which, according to the Green Paper commissioned by the European Commission, “exists to serve and engage with society through education, research and related activities” (A.A.V.V. 2012, p. 11). European universities have traditionally focused on two missions: teaching and research. However, another mission, i.e. the third mission, is being recuperated in order to consider the potential impact universities can have on society. This is attainable giving access to museums, concerts, lectures, voluntary work and consultancy activities both by staff and students. The realisation of this wider set of activities requires the involvement of a broader group of people and the design of new structures and mechanisms to perform them. To overcome the possible limitations set by the legal framework, it is possible to develop third mission activities by cooperating with external institutions. In fact, collaboration between universities and society at large (local authorities, enterprises, non-profit institutions and the community) is fundamental.

⁸The number excludes those visitors who, after asking information in the info-point, visited the monastery on their own. See Sect. 3.

⁹Due to changes in the organisation of the University of Catania, the whole process started with the faculty of humanities, and the first agreement was signed with it in 2010. Then, the transformation of the faculties in departments and the contemporary process of centralisation led to a change in the partnership, as the university took the place of the faculty ratifying the previous agreement in 2012.

cultural heritage (Decree no. 42 of 22–01–2004).¹⁰ The result of this agreement has been the opening to all visitors (local, national and foreigners) of those parts of the monastery that are normally closed for safety reasons.¹¹

The aim of *Officine Culturali* is to open the monastery while making its history and structure understandable to everyone. The association has organised a daily service, inspired by international museum standards, to guarantee the best possible fruition of the site through guided tours, the distribution of free maps, a website with constantly updated information about the activities organised,¹² a virtual tour of the site, a bookshop where it is possible to find books and guides as well as objects related to the place.¹³ In parallel with the daily activities, *Officine Culturali* runs educational activities, mainly for primary and secondary schools, to boost the diffusion of knowledge, thus raising the awareness of young generations about the importance of their own past.¹⁴ The association also organises concerts, theatre performances and other events always with the aim of diffusing knowledge about the site and raising awareness about its importance, while at the same time converting the ex-monastery into a place of encounter and integration for the community. The members of the association normally run most of these activities, although for the realisation of concerts, theatre performances, some educational activities, etc. the association also collaborates with other professionals.

All the activities are run by the association, but need the permission from the university. In this example of PPP, the outcome is, thus, the result of frequent negotiations though more coordination between the two partners as well as a clearer definition of the tasks and responsibilities, would improve the current situation.

3 The Activities of *Officine Culturali*: Cultural Participation and Social Inclusion

So far the analysis has focused on the institutional arrangements underpinning the basis of *Officine Culturali* undertaking. Attention will now shift to the activities that the association realises highlighting several aspects: From audience development to social inclusion,¹⁵ from product differentiation to the valorisation of intangible

¹⁰The so-called Code of Cultural Goods and Landscape—Codice dei beni culturali e del paesaggio. However, the new law on tenders (Legislative decree no. 50/2016) might introduce changes to the possible agreements between public and private bodies.

¹¹The monastery is open to everybody and can be visited freely. *Officine Culturali* organises guided tours that tell the story of the building and of the town.

¹²www.monasterodeibenedettini.it

¹³See Sect. 3.

¹⁴From a cultural economics point of view this is the best strategy to ensure future demand (Seaman 2006; Towse 2010, Guccio and Mignosa 2014).

¹⁵As noted above (sect. 2) PPP can be a useful tool to realize this objective.

heritage. The association is a non-profit organisation. Its statute underlines its non-profit nature, and indicates (in article 3) the activities that Officine Culturali aims to perform for the attainment of its objectives.

As mentioned, the association organises a wide and varied range of activities to realise its purpose. Without any doubt the guided tours are the core of the association's activities. Since the beginning of its collaboration with the university, Officine Culturali has opened the Monastery (7 days per week, 9 hours per day) allowing individuals, groups, families, students, researchers, etc. to discover the monastery, its history, and the history of the town through guided tours or special tours and activities aimed at younger visitors. The association promotes the concept of *edutainment*: the mix of education and entertainment capable of providing new channels for improving an individual's knowledge, which serves to reach those audience segments normally uninterested in cultural and scientific activities. In the realisation of these activities the association is constantly innovating. In exploring the concept of *playful learning* (Resnick 2004), it tries to actively involve visitors instead of only educating or entertaining them.

The association has also organised several events in line with the activities of other sites and museums in Europe (European Museum nights, European Heritage days, etc.). It often uses cultural heritage as a mean to reach other areas of scope: stimulate environmental sensibility (*M'illumino di meno*); diffuse scientific knowledge (*MonaStelle*); raise funds for good causes (*Pagine di Pietra*); raise awareness among the local community about the importance of the heritage of their town through the use of social media (exhibition '#I like Catania'), and use theatre performances to tell the story of places and people. In partnership with other cultural associations or professionals, Officine Culturali also organises concerts, theatre performances, exhibitions, and events with the idea of attracting new audiences but also of using cultural heritage to enhance music and theatre and vice-versa. The success of these initiatives in raising interest in the heritage site seems in line with Guccio et al. (2017) who underline the importance of cultural participation on the attractiveness of heritage destinations.

The activities of Officine Culturali are firmly grounded on research and education (lifelong learning). All the activities, including the core ones, are the result of a constant update of the knowledge of the people running them. The association organises special educational activities dedicated to school students or to university and Art academy students who are offered the chance to apply the knowledge acquired in classroom about heritage, tourism, or cultural management, also learning about possible job opportunities that may derive from the enhancement of heritage.

Several of these projects target schools where the drop-out rate is very high. The idea is to use heritage as a tool to raise awareness among these children about the importance of their identity, building upon their cultural capital. The same kind of activities is being offered to juvenile delinquents who might find new opportunities in society by becoming professionals in cultural heritage valorisation. Children from a primary school with high drop-out rates prepared a tourist guide of the town. Another project, *Archeoscienza*, involved two different high schools. In parallel with the educational part, the focus of the project was on making students responsible for

the elaboration of the texts to be used to in an archaeological museum that is being set up by Officine Culturali in collaboration with the department of Humanities of the University of Catania. Students, thus, became co-creators of the museum and were directly responsible for its capacity to interact with its audiences. Another workshop for the students of the department of humanities (*Perdersi per orientarsi*) involved them in the preparation of the new signage and way-finding system within the monastery. Within a national project aiming at making high school students learn about job options, the association is working with a high school on a project aiming at transforming into a museum a World War II bomb shelter, which is in a seventeenth century monastery turned into a high school.¹⁶ Students are directly responsible for the definition of the activities necessary to tell visitors about the war and the experience of the people who used the shelter. Another project, *Vietato non toccare*, involves art school students in the creation of 3D models to touch and audio-guides for visually impaired people. In this case students work with a blind person who made them experience and understand the needs of visually impaired people. Once again, with these projects, the association stimulated young people to take an active role in defining the content of the information to be shared with the wider public, in order to make a cultural space welcoming and understandable. All these projects are examples of attempts by Officine Culturali to interpret heritage as a tool to achieve other aims, i.e. making young people aware of the importance of their culture, thereby encouraging them to become directly responsible for it through processes involving the development of new audiences and the stimulation of social inclusion. With this type of intervention the association tries also to fight the low participation rate in culture that characterises the town (see also chapter “Participation in the Arts and Social Inclusion in Disadvantaged Neighbourhoods”).

The research undertaken by the association also focuses on its own activities. Officine Culturali constantly monitors its own performance, the appreciation of its visitors and audiences. The aim is to detect criticalities in order to eliminate them and improve the performance. Research activities are often run in collaboration with the university, high schools, and/or public and private institutions. For instance, in the summer of 2012, together with the university and the municipality, the association coordinated a survey to detect the satisfaction of visitors to the main cultural attractions of the town. Officine Culturali felt the need to better understand not only its own demand, but also the general demand for culture in the town. Hence, it organised a group of internees of the university to detect the appreciation of the visitors with regard to the main cultural attractions. This shows clearly that the association does not operate in a cocoon but in an environment where the cooperation with other cultural organisations as well as with public institutions is fundamental to improve the attractiveness of the whole area in a win-win strategy relatively uncommon in the region.

The association has also focused on the use of new technologies to stimulate and diffuse knowledge about heritage. In collaboration with a professional, the association

¹⁶The project the association is working on is called “Rifugio Antiaereo del Liceo Scientifico Boggio Lera” and is taking place within the national project ‘Alternanza Scuola lavoro’.

has developed a virtual tour of the monastery that allows off-site visits.¹⁷ Working with the same professional, the collaboration was extended to the diocese of Catania, where the association realised the reproduction in Gigapixels of a painting representing the eruption of 1669, which destroyed part of the town.¹⁸ Both projects were meant to reach more people, intriguing them about the history of the town and one of its most important monuments. More recently, in cooperation with a private foundation (MICRON), the association is running a project to create an app to visit the monastery, and learn about it through games and quizzes. The particularity of the project is that school students aged 10–14 are realizing the drawings and the texts after having explored the monastery. The project will last 3 years, another feature is that, under the supervision of the association members and of the teachers, students involved since the 1st year will become the tutors of those involved the 2nd year who, in turn will become the tutors of those involved the 3rd year. In this case, next to the technological aspect of the project, what is important is the direct involvement of young students in a project of co-creation of contents destined to the visitors of the sites.¹⁹ Of course, the use of new technologies has several advantages: It can reach people who are physically distant; it is a very appealing tool especially for younger audiences; and it ensures heritage preservation (Niggemann et al. 2011). However, the adoption of new devices and technologies has high costs, often unaffordable for the association and can thus represent missed opportunities.

Another, apparently, different strand of action of *Officine Culturali* relates to merchandising. A shop exists where it is possible to buy books, objects and craftworks.²⁰ The merchandising activity aims at the diversification of income sources for the association. Being a private, non-profit organisation and not benefiting from public financing, the association needs to constantly monitor its expenditures but also its income to guarantee sustainability. However, the way of dealing with the commercial side of its activity is also inspired by the mission of the association, i.e. culture and cultural heritage enhancement. In fact, the craft objects selected relate to the history of the monastery, the town, and the region and can be considered as an expression of the intangible heritage of the area, because the association selects the works of young local craftspeople. Thus, the association adopts a full notion of cultural heritage considering its tangible as well as intangible components. These activities have spillovers on the community at large as they provide a source of income for young crafts people/entrepreneurs in the region (Towse 2014).²¹

The social aspect of the activities run in the monastery also relates to the members of the association. They are mostly women with a degree in humanities

¹⁷See http://www.monasterodeibenedettini.it/virtual_tour/

¹⁸See http://www.antoninodelpopolo.it/affresco/affresco_01.html

¹⁹The students said they felt they 'have a mission'.

²⁰It is the first museum bookshop opened in town. In April 2015 the Association participated to and won a public tender so it opened a bookshop also in the civic museum.

²¹The restaurants and cafes in the neighbourhood also suggest having external, indirect effects in the form of increased income derived from the presence of the visitors to the monastery.

living in the South of Italy, a group the EU Commission would classify as ‘disadvantaged’, and would be the target of education or entrepreneurship EU programs. The members of the association are indeed carrying out the types of activities that the EU puts in place to overcome unemployment: They have a (part time) job, they have training on the job (lifelong learning), and they are acquiring entrepreneurial skills by performing these activities. The association is certainly achieving its social objective, that is “the possibility that the valorisation of culture leads to the creation of jobs and the professionalization of young people”.²²

This is a very brief summary of some of the activities run by the association since the signing of the agreement with the University of Catania. The two institutions seem to be applying a new approach to cultural heritage enhancement, which, following the European Commission (see Sect. 1), is giving a ‘second life’ to the site using it for educational activities and, thus, attracting younger generations.²³ According to the Commission, heritage sites can “become public spaces that produce both social and environmental capital (. . .) centres of knowledge, focal points of creativity and culture, places of community interaction and social integration; in short they generate innovation and contribute to smart, sustainable and inclusive growth, in line with the objectives of the EU 2020 strategy” (European Commission 2014, p. 5). The analysis of the above-mentioned activities supports the idea that the association is trying to work in this direction by involving all possible stakeholders (public: university, municipality, juvenile court, primary and secondary schools, etc.; and private: other associations, foundations, banks, companies, professionals, local community, etc.). The association also appears to be putting into practice the guidelines set by the commission as it is certainly favouring the “modernisation of the heritage sector, raising awareness and engaging new audiences”; (. . .) catching “the opportunities offered by digitisation; to reach out to new audiences and engage young people in particular”, identifying the skills needed and improving “the training of heritage professionals”, and “developing more participative interpretation and governance models that are better suited to contemporary Europe, through greater involvement of the private sector and civil society” (European Commission 2014, pp. 5–6).

4 Concluding Remarks

The case illustrated here shows how the cooperation and sharing of responsibilities between the public and private sector can lead to successful arrangements, where private partners can play a stimulating role without being profit-oriented. In fact,

²²See: <http://www.officinoculturali.net/mission-en.htm>

²³The use of the ex-monastery in the university’s ambit actually corresponds to its third life given that during the period from 1861 until it was donated to the university, the monastery had been used for non-secular purposes.

the non-profit nature of some private organisations can frequently give priority to cultural and social values/objectives, while bearing in mind the importance of a fair and sustainable use of resources. So far, the results obtained from the collaboration between *Officine Culturali* and the University support the opinion that an innovative approach to heritage enhancement can really transform it into a source of well-being, not only for the community of the area where it is located but also for society at large. Of course, for this to happen good governance is fundamental.

One essential aspect relates to sustainability. *Officine Culturali* is a private organisation whose members are not employees of the university. The financial resources are completely self-generated through the contributions paid by visitors to participate in the educational activities, to attend one of the events, or to buy an item in the bookshop of the association. On the one hand, this makes flexibility possible, since the use of funds is not predetermined as normally occurs with public funds. On the other hand, this, sometimes, limits potential activities because of the lack of resources or because they need to be used for the daily functioning of the association. To reduce these possible limitations, the association has become a multiproduct cultural organisation that supplies a wide range of ‘products’ from the typical one—the guided tour—to those aiming at using heritage to attain cultural, social, and economic development. The creation of employment for its members, their constant on-the-job professionalization, the involvement of university and school students in its activities are all initiatives that prove that heritage is a “resource for sustainable development and quality of life in a constantly evolving society” (Council of Europe 2005, p. 2) and *Officine Culturali* has adopted this perspective in its way of working.

The relationship with the university has been and still is fundamental for the realisation of these activities. Of course it is difficult to assess the success of the initiative. As is so often the case with activities related to cultural heritage, it is not always easy to identify the right performance indicators (Fernández-Blanco et al. 2013). Are 150,000 visitors enough? Is it more important to look at the number of educational activities organised? Or is it better to consider the number of events organised? Possibly the right answer is a combination of all three. For the association one of the indicators of success is the possibility to employ some of its members to run these activities. In a period characterised by higher levels of unemployment especially in the south of Italy, this can be seen as an important achievement.²⁴

The positive assessment of this experience must, however, acknowledge that the project has not reached its full sustainability. The diversification of sources of income would not be enough without the amount of voluntary jobs provided by the members of the association. However, given the social and cultural importance of the activities realised supporting and/or substituting the public sector, a stronger

²⁴It is true that these are part-time contracts and the part of volunteer activity by the members is relevant but, still, they can be considered as positive results confirming the idea that culture can be used to create jobs.

support from the latter could be fundamental for the sustainability of the experience. As mentioned at the beginning, it is impossible to think about direct support through the provision of funds. In fact, the recent evolution of the public sector towards the New Public Governance (NPG) in all the fields of public intervention (Osborne et al. 2012) confirms a shift in the way of operating of governments, which tend to involve the private sector (profit and non-profit) in the provision of public goods. Within this trend, new forms of indirect support—from tax incentives to simpler forms of PPP—would result beneficial, raising the chances of survival and sustainability of the project. Thus, an increasing degree of collaboration, trust, and flexibility is necessary for the long run sustainability of the project, as this governance-related experiment also seems to answer to the European Commission's (2014, p. 13) quest for “new models for multi-stakeholder governance” in relation to cultural heritage.

References

- A. A. V. V. (2012). *Fostering and measuring 'third mission' in higher education*. In Green Paper funded by the European Commission under the Lifelong Learning scheme.
- Bramwell, B., & Lane, B. (2000). *Tourism collaboration and partnerships – Politics, practice and sustainability*. Sydney: Channel View Publications.
- Council of Europe. (2005). *Framework convention on the value of Cultural Heritage for Society*. Faro 27.10.2005, Council of Europe Treaty Series – No. 199. Accessed July 28, 2016, from <http://www.coe.int/it/web/conventions/full-list/-/conventions/rms/0900001680083746>
- Dubini, P., Leone, L., & Forti, L. (2012). Role distribution in public–private partnerships – The case of heritage management in Italy. *International Studies of Management & Organisations*, 42(2), 57–75.
- European Commission. (2014). *Employment policy beyond the crisis – Social Europe guide* (Vol. 8). Accessed July 28, 2016, from <http://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=7721&type=2&furtherPubs=yes>
- Fernández-Blanco, V., Herrero, L. C., & Prieto-Rodríguez, J. (2013). Performance of cultural heritage institutions. In I. Rizzo & A. Mignosa (Eds.), *A handbook on the economics of cultural heritage* (pp. 470–488). Cheltenham: Edward Elgar.
- Guccio, C., & Mignosa, A. (2014). An empirical investigation of the impact of redistribution on leisure consumption in OECD countries. *International Journal of Public Policy*, 10(6), 296–314.
- Guccio, C., Lisi, D., Martorana, M., & Mignosa, A. (2017). On the role of cultural participation in tourism destination performance: An assessment using robust conditional efficiency approach. *Journal of Cultural Economics*, 41(2), 129–154.
- Klamer, A., Petrova, L., & Mignosa, A. (2006). *Financing the arts and culture in the European Union*. Brussels: European Parliament. Accessed July 28, 2016, from www.culturalpolicies.net/web/files/134/en/Financing_the_Arts_and_Culture_in_the_EU.pdf
- Klamer, A., Mignosa, A., & Petrova, L. (2013). Cultural heritage policies: A comparative perspective. In I. Rizzo & A. Mignosa (Eds.), *A handbook on the economics of cultural heritage* (pp. 370–386). Cheltenham: Edward Elgar.
- National Council for Public-Private Partnerships. (2017). *7 keys to success*. Accessed April 22, 2017, from <http://www.ncppp.org/ppp-basics/7-keys/>

- Niggemann, E., De Decker, J., & Lévy, M. (2011). *The new renaissance* (Report of the 'Comité des sages' – Reflection group on bringing Europe's cultural heritage online). Brussels: European Commission.
- Osborne, S. P., Radnor, Z., & Nasi, G. (2012). A new theory for public service management? Toward a (public) service-dominant approach. *American Review of Public Administration*, 43 (2), 135–158.
- Resnick, M. (2004). *Edutainment? No thanks. I prefer playful learning*. Lifelong Kindergarten Group – Massachusetts Institute of Technology Media Lab. Accessed July 28, 2016, from <https://llk.media.mit.edu/papers/edutainment.pdf>
- Sciullo, G. (2006). Valorizzazione, gestione e fondazioni nel settore dei beni culturali: una svolta dopo il d.lg. 156/2006? *Aedon*, 2. Accessed April 22, 2017, from <http://www.aedon.mulino.it/archivio/2006/2/sciullo2.htm>
- Seaman, B. A. (2006). Empirical studies of demand for the arts. In V. A. Ginsburgh & D. Throsby (Eds.), *Handbook of the economics of art and culture* (pp. 415–472). Amsterdam: Elsevier.
- The Arts Newspaper. (2012). *Colosseum sponsorship deal at last hurdle*. Accessed March 12, 2014, from <http://www.theartsnewspaper.com/articles/Colosseum%20sponsorship%20deal%20at%20last%20hurdle/26310>
- Towse, R. (2010). *A textbook of cultural economics*. Cambridge: Cambridge University Press.
- Towse, R. (2014). *Advanced introduction to cultural economics*. Cheltenham: Edward Elgar.
- UNESCO. (2013). *Public private partnership in the culture sector. Background note*. Accessed April 22, 2017, from <http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CLT/images/PublicPrivatePartnershipENG.pdf>

Francesco Mannino holds a Ph.D. in Urban History from the University of Catania. He is co-founder, president and project manager of the cultural association Officine Culturali the association that is responsible for the enhancement of the Benedictine Monastery, world heritage site that hosts the dept. of Humanities of the University of Catania and that has become a space of socio-cultural exchange of experiences. Francesco has brought to the association the knowledge acquired in the masters in history and analysis of the territory (University of Catania) and Cultural heritage management (organised by Sole 24ORE).

Anna Mignosa is a researcher at the University of Catania, and visiting lecturer at Erasmus University, Rotterdam. She holds a Ph.D. from Erasmus University. Her field of research is cultural economics, specifically cultural heritage and cultural policies focusing on new models of public governance and the organisation of cultural institutions. Member of the Board of the Association of Cultural Economics International (2010–2016) and Canon Foundation fellow, Anna is among the founders of Officine Culturali—association enhancing culture and cultural heritage, and of CREATE—Dutch foundation that runs education and research projects in cultural economics.

The Multi-product Nature of the Firm in the Arts Sector: The Case of ‘Centro Zo’

Roberto Cellini, Marco Ferdinando Martorana, and Felicita Platania

Abstract This chapter studies the relevance of the multi-product nature of a firm whose core-business rests in the performing arts sector. A specific case study is presented concerning ‘Centro Zo’, which was born in Catania (Italy) about 15 years ago, to supply performing arts. Now it is a multi-product firm, offering different goods and services. The multi-product choice is investigated from the firm’s perspective, and from the consumers’ standpoint. Data, collected in 2013, are used to investigate how consumers evaluate the different products, and their propensity to joint consumption. We show that the interest for different goods changes across different groups of consumers attending live performances at Centro Zo. However, the multi-product choice allows the firm to sustain its core business, and—we suggest—makes it more independent from the local policy-makers.

Keywords Arts • Multi-product firm • Policy-makers • Product diversification

1 Introduction

Several firms, whose core-business is in the sector of the arts, are in fact multi-product firms. Some firms supply different artistic goods and services, that are complements or substitutes. Others supply also different goods or services, which are not artistic. Nearly all artistic firms and associations can be judged as multiproduct firms.

In this chapter, we focus on the study of ‘Centro Zo’, a 15 year old firm. It operates in Catania and produces art events, but it is also a multi-product firm, which offers different services, covering both artistic and non-artistic goods: It produces and provides spaces and stages for different live performances (music, theatre, . . .); it produces multimedia and video-design products; it organises

R. Cellini (✉) • M.F. Martorana
Department of Economics and Business, University of Catania, Catania, Italy
e-mail: cellini@unict.it; marco.martorana@unict.it

F. Platania
Centro Zo, Catania, Italy
e-mail: felicitap@tiscali.it

educational laboratories in different artistic fields; it provides common spaces and resources for creative work; it sells food on the spot and for catering services.

Economic theory provides a wide set of reasons why firms may find it convenient to be multi-product. Positive externalities in production of different items and economies of scope are the main reasons; along this line of motivation, higher firm productivity raises the profitability of all produced items. The factors entailing reduction of cost and leading to vertical integration represent a second set of reasons; risk sharing across markets characterised by different sensitivity to the business cycle, and the possibility of stabilizing cash flows and liquidity are further reasons. The body of theoretical and empirical studies on this topic is very large. Strangely enough, however, no studies specifically analyse, as far we know, artistic firms, i.e. firms whose core business is in the art sector.¹

The multi-product consumption of artistic items is largely studied from the consumer side; as a matter of fact, a large body of evidence has been collected concerning the variety of artistic consumption of individuals, and the ‘omnivore’ nature of cultural consumers (starting with the seminal contribution of Peterson and Kern 1996). However, the implications of this type of art consumers for firms and their strategies are worth developing. Furthermore, we point out that several artistic firms are not only multi-product in the art sector, but they operate in sectors quite far from those. We underline that artistic firms present relevant specificities, and may have further reasons to be multi-product.

First, in several countries, cultural demand is heavily determined by the public sector, and by local policy-makers. Becoming multi-product makes the artistic firm more independent from the local policy, and from the long-run and short-run (i.e., political cycle) patterns of public spending.

Second, the multi-product choice can be a way to defeat the so-called Baumol disease, that is, the tendency in the arts sector to have costs that structurally increase more rapidly than labour productivity (Baumol and Bowen 1965, 1966).

Third, the existence of different income sources may permit experimentation in specific fields, taking the risk of limited market success. Hence, the multi-product nature of the firm supports experimentation, and hence innovation and firm’s growth and development (see also Cellini and Cuccia 2003; De Marchi and Van Miegroet 2006).

This specific set of reasons has to be added to the general reasons usually advocated to explain the relevance of multi-product firms in industrial sectors: productivity increases and economies of scope (see, e.g., Bernard et al. 2010), strategic decision of making market pre-emption (Dobson and Waterson 1996; Manes and Waterson 2001), or possible (individual and macroeconomic) advantages in trade (Minniti and Turino 2013).

¹An exception could be Alexander (1994), which analyses the multi-product nature of some firms in the music recording industry; the focus of that case-study, however, is on the recording and distributing firms, rather than on the creation of artistic products.

In this chapter, we take into consideration ‘Centro Zo’ as a case-study. First, we consider the multi-product nature from the firm’s perspective. We analyse how the different products, and the balance between artistic and non-artistic production has changed over the firm’s life. Second, we analyse evidence deriving from a survey conducted between March and September 2013: We interviewed attendees at live performances at the Centro Zo to understand how important multi-product supply is for consumers. We believe that the interpretation of some evidence may provide useful implications for both the firm and cultural policy-makers.

The structure of the chapter is as follows. Section 2 presents Centro Zo; in particular, the analysis of its balance over the years, indicates how the multi-product nature has changed over time. Section 3 presents the consumer survey, and investigates the results that can be derived. Based on the evidence from Sects. 2 and 3, a set of implications for the artistic firm and for cultural policy are elaborated in Sect. 4. Section 5 concludes.

2 The Case of ‘Centro Zo’

Centro Zo was founded in Catania by a cooperative formed in 1997 by a group of young art promoters. Following a 4-year planning stage, during which agreements were reached with Catania Town Council and with public subjects, Centro Zo started its activity in 2000. The centre presents itself (www.zoculture.it) as a ‘factory’ planning and producing cultural events, in network with similar international organizations, aiming at promoting the diffusion of contemporary artistic and cultural expressions. It is a space born to receive multidisciplinary events with different characteristics, which tries to test new ways of presenting events. It is located in an ex sulphur refinery, dating back to more than a century. The buildings, owned by the City Council, have been completely renewed and modernized to house exhibitions and live performances.

Exhibitions and performances organized by the centre include production of performing arts (music concerts, theatre, kid-theatre, dance, DJ sessions), audiovisual exhibitions (video screenings), courses and workshops (writing and architecture workshops, dance-floor). Beside these cultural activities, the centre has developed different services, which can be classified into four groups: (i) visual-design services, including the creation and realization of promotional campaigns; (ii) services for audio-visual production; (iii) meetings patronised by cultural, social or political associations, and services for conferences; (iv) food supply: There is a coffee-shop and a restaurant for food consumption on the spot, and food catering.

Table 1 provides a picture of the economic resources of the centre over the years of its life, while Table 2 provides details concerning the cultural activities. From these tables, it is clear that the support from public funds was essential at the beginning and in the first year of activity, but was nil or negligible over the subsequent years. Revenues from ticket sale increased over the first years, but have been thereafter decreasing, in absolute terms (while they remained stable in

Table 1 Economic resources (in Euros)

	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011
Public funds	75,000	0	0	3000	6000	8000	0	0	0	0
Tickets from performances	20,000	120,000	150,000	160,000	120,000	100,000	110,000	90,000	85,000	70,000
Other cultural activities	75,000	30,000	0	60,000	0	0	0	0	0	0
Multimedia services	5000	15,000	12,000	10,000	8000	5000	0	0	0	0
Services for meetings	5000	40,000	45,000	48,000	50,000	48,000	45,000	40,000	20,000	18,000
Coffee-shop/restaurant (on the spot)	25,000	230,000	260,000	275,000	230,000	200,000	200,000	180,000	160,000	150,000
Catering	0	20,000	25,000	30,000	33,000	30,000	30,000	25,000	20,000	15,000
Total	205,000	455,000	492,000	586,000	447,000	391,000	385,000	335,000	285,000	253,000

Source: Data provided by Centro Zo

Table 2 Types, number of performances and respective attenders at Centro Zo

	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011
Music: Events	44	29	20	23	16	14	18	17	33	17
Attenders	8000	7200	4400	4700	4000	3200	3600	4000	5500	2800
Performing arts: Events	29	22	12	18	12	12	12	12	16	16
Attenders	4000	3000	2400	1800	2000	2200	2000	1900	2000	1300
Audiovision: Events	7	8	9	8	20	24	21	14	25	
Attenders	1000	1200	1200	900	2500	2900	2500	1500	2700	
Writing sessions: Events	10	9	7	2	5	0	0	0	10	9
Attenders	2000	1800	1400	300	800				700	1300
Architecture: Events	0	4	2	3	3	4	0	0	0	0
Attenders		700	400	500	500	700				
DJ sessions: Events	15	29	16	12	14	12	19	30	35	20
Attenders	12,000	20,000	15,000	10,000	11,000	10,000	13,000	17,000	20,000	13,000

Source: Data provided by Centro Zo

relative terms). On the contrary, revenues from food sale have been steadily increasing in relative terms, and now represent about 60% of the total.

Taking into account that the years after 2007 were characterized by a deep economic crisis in Italy, it is evident from the data in Table 1 that revenues from consumption of cultural goods have been significantly decreasing, and non-cultural products have played the role of partly stabilizing total revenues. This is consistent with the widely documented fact that cultural consumption is more elastic to income than other goods (like food), and the multiproduct nature of Centro Zo might help resisting and surviving in years of economic crisis by widening the set of supplied activities including more profitable (even non-artistic) ones. More in general, the multi-product nature of firms whose core-mission is in the arts may help stabilizing revenues, and being more resilient to adverse economic shocks, which typically hit the cultural sector severely.

Moreover, as already mentioned, Centro Zo supplies a wide range of cultural activities: Table 2 provides details about the entries ‘tickets from performances’, and ‘other cultural activities’ in Table 1.

Table 2 clearly shows that the relative weight of DJ-sessions has been increasing over the years under observation, both in terms of number of events and attenders, especially with respect to live concerts. Such a feature can be interpreted by considering that the performing-arts sector suffers from the ineluctable increase of unit costs as a result of the ‘productivity lag’ (Baumol and Bowen 1965, 1966). As a result, cultural firms could be led to define the proper multi-product strategy by focusing on those activities which are characterised by relatively lower unit costs (such as DJ-session) in order to weaken the consequences of the Baumol cost disease.

3 A Survey of Centro Zo’s Attendance

A questionnaire was submitted, through person-to-person interviews, to about 200 attenders at different events at Centro Zo, before or after the event, over the period March–July 2013. The number of complete and reliable interviews considered for the present analysis is equal to 174. The questionnaire is mainly intended to assess: (a) the propensity of individuals to attend different kinds of artistic events, and the way in which the choice is made²; (b) the judgment about the non-cultural products offered by Centro Zo, for the purpose of assessing the importance of the availability of non-artistic products with respect to cultural ones.

Some facts emerge which may help to understand the profile of art consumers and provide useful insights to the management of the centre and of other similar

²Borgonovi (2004) is an example of investigation on performing arts attendance, which has inspired the present analysis. In that article, one can find also a short discussion concerning the theoretical issues related to each of the explanatory factors considered.

Table 3 Characteristics of the sample

Gender (%)	Male: 41 Female: 59
Age (%)	<18: 1.7 8–24: 19.3 25–35: 42.0 36–49: 31.0 50–65: 11.5 >65: 3.5
Job (%)	Student: 14.5 Employee: 34.3 Self-employee: 15.1 Professional/managers: 19.8 Home/unemployed: 16.3 Job in a cultural sector (self-assessment): 36
Residence (%)	City-centre: 24.7 City-area_no_centre: 40.2 Province: 17.3 Out-of-province: 17.8
Education (%)	Primary/secondary school: 39.0 Artistic secondary school: 9 Graduated: 36.8 Post-grad: 15.5
Interviewed at (%):	Theatre: 22.4 Kid-theatre: 15.6 Music: 44.8 Workshops and meetings: 17.2

cultural firms.³ Table 3 provides some descriptive statistics about the sample of 174 interviewed people, and the different types of performances respondents were attending when interviewed.

Note that over 60% of the sample has at least a master degree, and 15% of the sample a secondary education in an artistic field. In other words, and understandably, the sample is not representative of the whole population, but it is over-educated, and the education in artistic fields is over-represented. A share of 36% of the respondents in the sample defines themselves as ‘worker in a cultural sector’. These rough data confirm that education and professional position heavily affect the choice of consuming artistic items. This is not surprising and confirms Zo’s perception and understanding of its audience.

The distribution of the demographic characteristics slightly varies across the sub-groups attending different activities or shows at the Centro Zo. For instance, over 60% of the people aged 25–35 attend workshops, while less than 40% attend music concerts and kid-theatre. ‘Employed’ is the modal answer to the question

³In what follows, we report the results that are more relevant from Centro Zo’s perspective. See Cellini et al. (2014) for a more comprehensive view of the statistical evidence and estimates from the data of this sample.

concerning the job, but self-employed and managers are prevalent among the interviewed people who were attending music concerts; the percentage of people with a degree is slightly lower in the sub-group of people attending theatre. The number of people arriving from outside the province of Catania is higher in the sub-group of theatre attenders. Roughly speaking, people attending music concerts appear to be the most ‘metropolitan’ and ‘educated’; whereas people attending theatre appear to be the less educated and coming from peripheral areas. Such data provide useful insights to Zo on the attractiveness of specific kinds of events and allow for adjusting their mix of supply accordingly.

Stated Evaluations from the Sample

People were asked:

- The reasons for which they are attending the specific performance/show/activity
- How many performances/shows they have attended (or plan to attend) in the present season at Centro Zo, and whether the attended performances are of the same (or of a different) kind
- How many performances/shows they have attended (or plan to attend) in the present season at different places
- Whether they attended performances of the same kind over the past years, and how many
- Whether they attended performances of different kinds over the past years, and how many

The above listed questions aim at evaluating the nature (univore/omnivore in arts consumption) of the person interviewed, the frequency of cultural attendance, and his/her possible ‘addiction’ to specific kind of performance, or even to the Centro Zo.

In general, people choose to attend a show/performance either for their interest in the specific show, or type of show, or because known artists were involved. Interestingly from a managerial perspective, few of them attended because of an interest derived from a different show/performance at Centro Zo. A question arises as to whether this happens because of a lack of communication on the different events supplied or as a natural consequence of the multi-product strategy, involving a too heterogeneous mix of events.

Several insights arise from the analysis of the answers concerning the frequency and the kinds of show/performance attended (Table 4). Such analysis allows

Table 4 Distribution of answers concerning frequency of attendance and type of shows attended

	Only at Centro Zo (%)	Also in other places (%)	Total (%)
Only this	18.3	//	18.3
A few (1, 2, or 3) of the same kind	2.3	2.3	4.6
Several (>3) of the same kind	2.9	3.4	6.3
A few (1, 2, or 3) of different kind	4.0	28.2	32.8
Several (>3) of different kinds	1.1	37.4	38.6
Total	28.7	71.3	100

distinguishing attenders along the axes *univore/omnivore* and *sporadic/multi-attendance*: a relevant perspective for evaluating the attractiveness of Centro Zo and, in turn, of similar multi-product cultural firms.

In general, there is a share of 'univore'-single attenders (where 'single' has to be interpreted in a strict sense!), who did not attend any other performance/show elsewhere. Also, there are persons who attended artistic performances uniquely at Centro Zo, with different frequency. They can be seen as 'particularly tied' (addicted?) to Centro Zo—and perhaps interested in the activity of the centre rather than in artistic experience. While attracting single-attendance represents a hard challenge for artistic firms, in the absence of more specific data, the presence of a share of habitués seems interesting. It could be linked to the cultural profile of the centre and its involvement in social inclusion programs, and/or be the result of its multi-product strategy, which allows to meet costumers' interests in several types of events.

Apart from this group, attenders are almost equally split in 'univore or omnivore sporadic' cultural consumers, and 'omnivore-multi-attendance' consumers. Not surprisingly, the latter are generally used to attend different theatres (and few attend performances only at Centro Zo).

An important piece of information concerns the number of people accompanying a spectator to the show. Only few of the interviewees declared that they were alone: Several were in a couple, or in a group of three or more persons. This confirms a well-known fact: Cultural consumption, especially of performing arts, is a social act, performed in group rather than individually.

The above data show that there is room for calibrating the design of mix of events to supply, in view of the specific characteristics of attenders. Specifically, art firms like Centro Zo should take in account that a share of attendants are not specifically interested in cultural events but may be attracted by social events. Zo's multi-product strategy involved the introduction of social activities to this purpose, and this choice helped to improve Zo's attractiveness and to resist to the adverse economic phase. To analyse the importance of the multi-product supply, the questionnaires included also some specific questions.

First, people were asked whether they did consume food during their attendance. From the answers, it emerges that the supply of food production is important, especially for non-occasional attendants.

Second, people were asked to rate (with a score from 0 to 5) different activities, such as: the present show; the overall supply of shows; the training activities (workshops); the recreational activities; food and cafeteria. Of course, not all interviewees provided the evaluation of each activity. Table 5 presents the results, and indicates the percentage of respondents, the average score, the percentage of people rating the activity with the highest score.

A different question concerns the quality of specific services: Efficiency of ticket selling; quality of the service at the restaurant and cafeteria, welcoming to the venue; welcoming to the theatre of the centre. Table 6 illustrates the results. It is interesting to notice that the lowest average score, though satisfactory, is associated to food and cafeteria, in both Tables 5 and 6.

Table 5 Evaluation of different activities of Centro Zo

	Percentage of respondents	Average grade	Percentage of respondents who gave the highest score
This show	63.2	4.54	64.5
The overall supply of shows	62.6	4.02	32.1
The training activities	38.5	3.73	28.4
The recreational activities	40.2	3.68	27.1
Food and cafeteria	51.1	3.57	25.8

Table 6 Evaluation of the services related to Centro Zo's activities

	Percentage of respondents	Average grade	Percentage of respondents who gave the highest score
Ticket selling	80.5	4.19	49.3
Restaurant/cafeateria	55.2	3.69	32.3
Welcoming to the venue	84.5	3.99	46.3
Welcoming to the theatre	75.9	4.07	50.0

Table 7 Evaluation of possible new products/services at Centro Zo

	Percentage of respondents	Average grade	Percentage of respondents who gave the highest rate
Improvement of restaurant/cafeateria	70.7	3.64	31.7
Introduction of ecological furniture	67.8	3.78	45.7
Additional shows of the same type	79.3	4.28	52.2
Introduction of cinema	75.8	4.11	38.6
Introduction of ballet	71.8	3.62	31.2
Introduction of art shows	75.8	3.99	42.4
Introduction of classical and jazz music concerts	75.8	4.28	53.0
Introduction of electronic music performances	75.8	3.71	42.4

Finally, Table 7 collects the answers concerning the importance of new/additional possible products and services at Centro Zo. Clearly, the analysis of these answers can be useful also for the development of future programmes and investment at the centre. It is worth reporting that the exact question delivered to the

interviewees was: ‘Please, give a score from 0 (very low) to 5 (very high) to the importance that, in your opinion, have the following aspects under consideration by Centro Zo’. The list in Table 7 includes the improvement of already provided services (such as restaurant and cafeteria), or the introduction of additional shows (of the same type as the show attended, at the time of the interview), as well as the introduction of activities that are currently not supplied (such as performances of classical music, ballet, electronic music, cinema).

In all cases, the distribution of the grades changes slightly across the different subgroups of respondents. However, it is interesting to note that the improvement of restaurant and cafeteria is believed to be important especially for those who participate to meetings (this subgroup of interviewees shows the highest percentage of respondents giving a score of 4 and 5), while those who attend concerts constitute the subgroup where the importance of this aspect appears to be the lowest (this subgroup of interviewees shows the highest percentage of respondents with a score of 0, 1 and 2). Participants to meetings and concerts have in common the fact that ecology is important.

The improvement of the same type of show, as the one attended at the time of the interview, is particularly important for the subgroup of interviewees at the theatre for kids—in fact the parents of the kids attending the play. This group is also the one which rates the importance of the introduction of cinema. Perhaps, these answers can be explained, considering that the social activities for kids are rather limited in Catania, and the Centro Zo is seen as a centre where these needs could be met.

4 Implications for Firm Business and Cultural Policy

The case of Centro Zo offers several relevant insights. The results of the interviews should help the centre to evaluate the weak points of its strategy, strengthen its attractiveness, and balance the need for product diversification and the cultural identity of the firm. Although the analysis is specifically related to Centro Zo’s experience, some general implications and policy suggestions can be drawn, which offer insights to other firms sharing similar missions and artistic profiles.

We can state that the diversification of products by cultural firms is, in several circumstances, a necessary strategy to survive, and a good opportunity to be able to develop cultural activities associated with negative economic returns. However, this strategy is not particularly appreciated by the firms themselves, and it is perceived as a ‘sad necessity’ by people attending cultural performances.

It should be important, for cultural firms, to find areas for product diversification, for which their usual consumers display a positive feeling. Under this perspective, it is important to mention that in very recent times, Centro Zo tried to get involved in actions of ‘social inclusion’, in a wide sense.

More specifically, the centre takes part in two projects developed by the Italian Ministry of Culture: The first programme involves the Arabian and Islamic communities in Catania as well as art school students. The project includes several

activities devoted to the artistic enhancement of the Arabian calligraphy and culture. The second programme aims at enhancing the development of green and alternative energy and involves the organisation of training courses for young inmates. Both actions have been developed by Centro Zo in response to public calls. These specific actions, and the choices of Centro Zo in general, cannot have a specific impact in terms of improvement of social cohesion on the area around the centre: a former industrial area, without residential houses, and with a commercial vocation.

The large body of evidence collected in the present research project supports the idea that culture could be a way to overcome separation and enhance social inclusion. However, such a result is far from being a natural outcome of cultural activities: Sometimes, cultural consumption may easily lead to separation rather than integration.

Policy programmes supporting social inclusion (at the European, national, and even regional levels) could represent interesting ways to diversify production for cultural firms. In other words, social inclusion is a field where cultural firms may play an important role, as well as a field where such firms may find interesting opportunities for product diversification and financing.

A policy goal such as social inclusion is likely to be closer to the preferences of usual consumers and providers of cultural products. Presumably, an involvement of a cultural firm in activity of social inclusion may appear, to its usual consumers, more acceptable than the involvement in actions of pure commercial nature.

However, in order to be able to participate to such programmes of public financing for activities aiming at social goals, such as social inclusion, firms have to be endowed with a stable administrative structure, or be part of an organised network of firms.

Artistic firms are generally too small to be influential partners in such projects. Artistic firms, compared to firms in other industries, generally display a limited propensity to join a network. What we argue here is that the participation to public policy actions can represent a way to diversify production, but it is a hard challenge for artistic firms, if they are unable to overcome the un-organised firm structure, and a generally limited propensity to cooperation.

However, some experiences in this direction exist in Catania, and more generally in Sicily: *Latitudini*, for instance, is a distributional network that includes about 40 theatres and theatrical casts, and aims at promoting theatrical activities in Sicily. Other cultural such networks exist: *Circuito Musicale Siciliano*, consist of 15 cultural associations that work on music production and live concerts, and *Stati Generali della Cultura*, is a project developed by several cultural networks in order to negotiate collectively with the Sicilian Government. These are examples of attempts to build networks in cultural fields.

We suggest that a local policy-maker could play an important role if he is able to promote cooperation or network among local artistic firms, given that this aggregation process can hardly develop endogenously. In other words, the recent approach towards cooperation among cultural firms does not exclude a role for the public sector, and local governments in particular, if cultural networks may

indeed drive artistic firms out of the crisis. We suggest that, in a scenario characterized by a further reduction of public funds for cultural activities, local policy-makers should promote cooperation among artistic firms, making them more independent from the long run patterns of public spending.

5 Concluding Remarks

This chapter is devoted to the analysis of the multi-product choice by some artistic firms, with Centro Zo as a case study.

We noted that several firms, whose core-business is in the arts field, are multi-product firms. They provide not only different cultural products and complementary goods for cultural products, but also goods of different nature. We have argued that the multi-product choice is particularly relevant for cultural firms. Apart from the theoretical reasons that support the multi-product choice in other industries (generally linked to the existence of economies of scale and scope, and to the risk diversification across markets), artistic firms can base their artistic freedom on the provision of other goods. We have shown that the importance of multi-product choice has been increasing over the last years in the case study of Centro Zo. More importantly, we have analysed how the consumers of art evaluate non-artistic products supplied by an artistic firm.

Consumers appear to be aware of the necessity for artistic firms to be multi-product; especially frequent and omnivore art consumers display such an awareness, even if they are also more severe in evaluating the quality of non-artistic services.

The case study of Centro Zo shows that the multi-product option is often a necessary but not sufficient choice, to survive and develop during an economic crisis; it is also viewed as a sad necessity by both firms and customers. For these reasons artistic firms recently moved to social inclusion programmes which are generally appreciated by attendants and public opinion and represent an interesting opportunity of product diversification and financing. Moreover, Zo's experience illustrates the importance of cooperation among artistic firms, and the advantages from joining networks, which allow firms to take advantage of scale economies in the production and distribution of cultural products, give the chance to collectively bargain with local governments and provide the opportunity to participate to public financing programmes. We also suggest that local policy makers should promote cooperation among firms because networks can make firms more independent from the long-run pattern of public spending.

Acknowledgments We are indebted to all the participants in the project, from whom we have received continuous and important insights. We would like to thank also Alan Collins, Antonello E. Scorcu and Roberto Zanola for discussions on related issues. The usual disclaimer applies.

References

- Alexander, P. J. U. (1994). Entry barriers, release behavior, and multi-product firms in the music recording industry. *Review of Industrial Organization*, 9, 85–98.
- Baumol, W. J., & Bowen, W. G. (1965). On the performing arts: The anatomy of their problems. *American Economic Review Papers and Proceedings*, 55, 495–502.
- Baumol, W. J., & Bowen, W. G. (1966). *Performing arts – The economic dilemma*. Cambridge: Twentieth Century Fund.
- Bernard, A. B., Redding, S. J., & Schott, P. K. (2010). Multiple-product firms and product switching. *American Economic Review*, 100(1), 70–97.
- Borgonovi, F. (2004). Performing arts attendance: An economic approach. *Applied Economics*, 36, 1871–1885.
- Cellini, R., & Cuccia, T. (2003). Incomplete information and experimentation in the arts: A game theory approach. *Economia Politica*, 20, 21–37.
- Cellini, R., Martorana, M. F., & Platania, F. (2014). *The multi-product nature of the firm in the arts sector: A case study on 'Centro Zo'* (MPRA Paper 60677). University Library of Munich, Germany. Retrieved September 15, 2016 from: <https://mpra.ub.uni-muenchen.de/60677/>
- De Marchi, N., & Van Miegroet, H. J. (2006). The history of art markets. In V. A. Ginsburgh & D. Throsby (Eds.), *Handbook of the economics of art and culture* (pp. 69–122). Amsterdam: North Holland.
- Dobson, P. W., & Waterson, M. (1996). Product range and inter-firm competition. *Journal of Economics and Management Strategy*, 5, 317–341.
- Manez, J. A., & Waterson, M. (2001). *Multiproduct firms and product differentiation: A survey* (Warwick Economic Research paper No. 594).
- Minniti, A., & Turino, F. (2013). Multi-product firms and business cycle dynamics. *European Economic Review*, 57, 75–97.
- Peterson, R. A., & Kern, R. (1996). Changing highbrow taste: From snob to omnivore. *American Sociological Review*, 61, 900–907.

Roberto Cellini is Full Professor of Economics at the University of Catania, Italy, where he teaches Microeconomics and Applied econometrics. The main fields of research are the theoretical and econometric problems of economic growth, with applications to countries and regions; and game theory, from a theoretical perspective, and as applied to industrial organization, and cultural and tourism economics.

Marco Ferdinando Martorana is Research Fellow at the Department of Economics and Business of the University of Catania. He received the Laurea in Economics and Business from the University of Catania, where he also completed the Doctorate program in Public Economics, and the Master of Science in Applied Economics and Data Analysis from the University of Essex. His research areas of interest include cultural economics, public economics, econometrics and political economy. His recent works focus on the evaluation of public sector efficiency in the fields of education and cultural heritage.

Felicita Platania is a cultural manager. She was co-founder of Zo Centre for Contemporary Culture, ambitious cultural project and somewhat utopian in his hometown, Catania (www.zoculture.it). She was teacher in Cultural Marketing to the Academy of Fine Arts for several years. She has also designed and implemented cultural “site-specific” projects both in urban contexts and in naturalistic contexts, developing over time a real passion for the unusual places in which to imagine art and culture.

Part III
Cultural Travellers

Evaluating the Efficiency of Cultural Travel Destinations: A DEA Approach

Luis César Herrero-Prieto

Abstract Recently the notion and measurement of destination competitiveness have received increasing attention in the economics literature on tourism. Bearing in mind that tourism is currently one of the main ways to encourage cultural participation, this study therefore seeks first, to ascertain whether or not regions with more abundant cultural resources attract greater flows of cultural tourism, and second, to evaluate efforts in managing cultural resources to attract cultural tourism. In this chapter we perform an economic efficiency analysis based on a production frontier approach using a dataset of 17 Spanish regions between 2004 and 2012. We use a non-parametric method (DEA) to measure regional competitiveness in terms of its technical efficiency. We also attempt to analyse the evolution of regional efficiency employing the Malmquist Index and its decomposition in variations due to technological change and efficiency change.

Keywords Cultural tourism • Cultural participation • Efficiency of cultural destinations • Data envelopment analysis • Malmquist index

1 Introduction

Cultural participation is related to the individual and societal enjoyment provided by the creation and recreation of cultural experiences. Cultural tourism is one of the main ways of both encouraging and analysing cultural participation. Morrone (2006) suggests to classify cultural practices according to three dimensions: going out, home-based participation, and identity building. Cultural tourism, as individual behaviour and social conduct, is thus clearly connected with the former dimension, although it may also respond to the latter. Based on these premises, the basic hypothesis underlying this research is, to a certain extent, very evidently the link between cultural tourism flows and cultural resources available in regions. Our main intention is to measure how efficient regions might seek managing cultural resources

L.C. Herrero-Prieto (✉)
University of Valladolid, Valladolid, Spain
e-mail: herrero@emp.uva.es

to attract the highest possible number of cultural tourists. The paper applies performance analysis to tourist destinations, an issue that came to the fore in recent years.

The link between cultural resources and their specific tourism demand has been approached from a number of different perspectives. On the demand side, efforts have been made to specify the idiosyncratic nature of cultural tourists (Kim et al. 2007), their particular motivations (Guzmán et al. 2006), or the impact of tourism on cultural consumption (Borowiecki and Castiglione 2014). On the supply side, many papers explore participation in various tourist experiences (Richards and Wilson 2006) or estimate the value allocated to certain cultural events (Herrero et al. 2012). Some papers have tried to measure the contribution of cultural tourism to economic growth (Murillo Viu et al. 2008) or to estimate the economic impact of certain events (Devesa et al. 2012). Our work explores an issue that has thus far received less attention, namely evaluating the efficiency of cultural tourism destinations, taking the regions as territorial units and cultural tourism as a tourist flows to study.

We make the following assumptions. First, we consider cultural tourism as the movement of people from their usual place of residence to other destinations for the purpose of gathering information and enjoying new experiences with which to satisfy their cultural needs. Cultural tourism is thus able to embrace a wide array of activities ranging from visiting museums, monuments, archaeological sites and so on, to attending performing and musical arts festivals and shows, or offering guided tours of historical cities and cultural sites, as well as attending celebrations and events which are representative of cultural heritage. Cultural participation in this regard cannot merely be confined to attending events and visiting cultural attractions, but can go further and involve more active and experimental participation (O'Hagan and Castiglione 2010). However, the problem is that data concerning the main reasons for trips and the cultural affinity involved are based on the individuals' own declarations. This poses certain difficulties since data should be based on specific large-scale surveys as opposed to a recording opinions of those visiting tourist sites. Indeed, declaring the goal of the trip leads to eliminate other tourists who, while consuming culture, state the fundamental purpose of their trip as being other than cultural. Those who merge their cultural visits with other leisure activities (omnivores) are also important (Barbieri and Mahoney 2010).

The second hypothesis is that we are able to conceive of a regional production function that takes account of cultural (material and human) resources as inputs, and cultural tourism as output. We therefore consider the region as a firm and assume that cultural resources in this region constitute the inputs of a virtual production process, the output of which is a cultural tourism flow (Cracolici et al. 2008). Finally, we think that regions are capable of managing and accumulating cultural resources for tourists (and domestic inhabitants). Though it may be true that managing many cultural resources and institutions has a strictly cultural goal, such as conservation, restoration, encouraging creativity, and promoting cultural participation, it is no less true that many people also seek to enhance the image of the urban area without caring about culture (Herrero 2011).

The empirical application in this research addresses all Spanish regions. Spain is indeed offering an exceptional case, due both to the importance of its cultural

resources and the scope of related cultural tourism, as well as to its highly decentralised political system which endows regions with enormous power to intervene, particularly with respect to managing and promoting cultural resources.

We thus conducted an economic efficiency analysis based on a production frontier approach using a dataset of 17 Spanish regions between 2004 and 2012. We use non-parametric methods, such as data envelopment analysis (DEA) to measure regional competitiveness in terms of its technical efficiency, and Malmquist Indices to analyse the evolution of regional efficiency. The paper is organised in four sections. After this introduction, a brief literature review is provided in Sect. 2. In the third section, the empirical application (methodological approach, data and main results) is presented. Section 4 concludes.

2 Performance of Tourist Destinations: The State of the Art

Most efficiency studies use non-parametric techniques, particularly DEA and its derivatives. Museums as well as orchestras and theatres have been the subject of such analyses (see Fernández-Blanco et al. 2013 for a survey), but it is only recently that conditional efficiency models have been applied to evaluating cultural institutions such as libraries (De Witte and Geys 2011) or historical heritage restoration agencies (Finocchiaro Castro et al. 2011).

By contrast, there is an abundant and an increasing number of efficiency studies in the specific field of tourism and hospitality sectors, such as travel agencies, restaurants, tour operators, although the largest field of applications is hotels and hotel chains (See Fuentes 2011, for a survey). Wang et al. (2006) and Shang et al. (2010) also use conditional efficiency models in two stages, complementing the DEA approach by a Tobit regression to analyse the efficiency of international tourist hotels in Taiwan.

We are interested in territorial competitiveness (Crouch and Ritchie 1999) and examine how touristic destinations use the inputs at their disposal in an efficient manner in order to attract a maximal number of tourist while remaining competitive. This is often modelled in terms of a production function in which the number (or share) of tourists in a region is the output, while accommodation capacity, accessibility, employment in the sector, cultural resources, natural resources, beaches, and so on are the inputs. This is close to the model used by Cracolici et al. (2008) for Italian regions.¹

Some studies adopt a two-stage approach which consists of an extremely simple regional production function (obtained by the DEA method) relating the number of nights in hotels to accommodation capacity and tourist arrivals. In the second stage, efficiency scores are regressed on environmental variables, such as cultural and

¹See also Pulina et al. (2010) who use revenues from tourism and labour costs to evaluate Italian regions.

natural resources, safety, accessibility, and so on (Barros et al. 2011; for France and Cuccia et al. 2016 focus on whether UNESCO nominations determine tourist flows to Italian regions).

3 Empirical Application

3.1 Methodology

Our contribution differs from those of others, because we expressly consider ‘restricted’ cultural flows, that is, those tourists who declare culture as being the main reason for travelling. The inputs consist of cultural capital (festivals, museums, heritage, including archaeological sites) and labour. We use a non-parametric tool (DEA). The advantage of this method is that it does not require specifying explicitly the behaviour model of decision units (that is, the production function). DEA basically constructs the production frontier using the ‘best’ units, before quantifying how efficient the other observation are in relation to their distance from the frontier.

Efficiency assessment using DEA may be performed applying models that are either input or output oriented. We chose an output-oriented model, namely maximising outputs given the inputs. The optimal frontier will consist of those observations (regions) that can achieve the largest output (number of tourists) with a given level of inputs. We chose this approach as we felt that cultural resources are mainly a regional inherited endowment that could be managed to achieve the greatest possible flow of cultural tourism. It is also the most frequent approach in other studies of similar nature (Cracolici et al. 2008; Barros et al. 2011; Cuccia et al. 2016).

Efficiency analysis can be run under two technological assumptions: (a) units work under constant scale performance (CRS model), or under variable scale performance (VRS model). In the CRS model, one obtains an overall technical efficiency indicator, in which inefficient situations, or ones that are at some distance from the frontier, result from inadequate productive management, or from being of inappropriate size. The VRS model removes the component resulting from an inadequate production scale, and addresses what is actually pure technical efficiency (PTE) linked to the optimisation of resources. However, we will mainly work with the CRS model since it offers a measure of the overall efficiency of each unit, and our concern is not to investigate scale inefficiencies, but regional differences in efficiency and their evolution over time. Finally, Malmquist indices will be used to study the dynamic aspects.

Table 1 Variables and descriptive statistics (by region and year)

Variables	Definition	Mean	Sum	Std. Dev.	Variance	Min.	Max.	Range
Festivals	No. of festivals	124	10,551	109	11,992	21	409	388
Museums	No. of museums	87	7429	59	3521	8	206	198
Heritage sites	No. of protected heritage sites	798	67,864	835	697,679	103	2890	2787
Cultural employment	Cultural employment in 1000s	30	2545	36	1364	4	139	135
Cultural tourism	National cultural tourism in 1000s	500	42,540	382	145,815	61	1795	1733

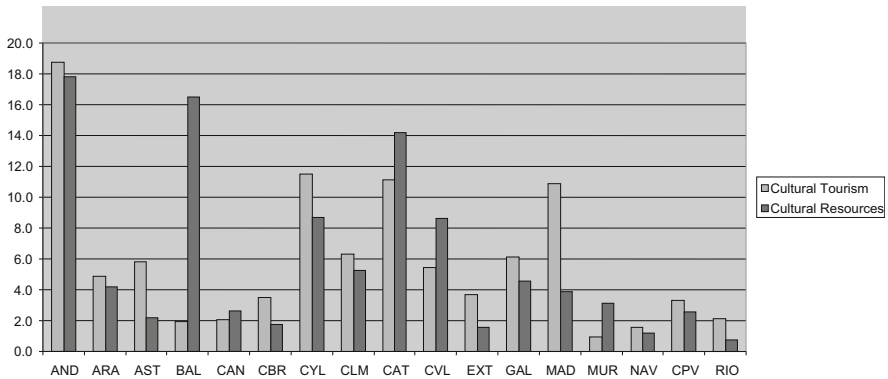


Fig. 1 Regional distribution of cultural tourism and resources in Spain 2012

3.2 Data

The database consists of five variables (four inputs and one output, the number of Spanish tourists who declared that culture was the main reason for their trip) covering all 17 autonomous Spanish regions, for even-numbered years between 2004 and 2012.² Details can be found in Table 1.

Figure 1 and Table 2 show that Andalusia, Castile and Leon, Catalonia and Madrid attract the largest numbers of tourists. These four regions account for more than half of all domestic cultural tourism in Spain. Cultural tourism has the largest share of total tourism in Madrid, La Rioja and Extremadura, Asturias and the Basque Country. The regions with most cultural assets are the Mediterranean arc and Castile and Leon. Madrid and the Basque Country stand out in terms of the number of festivals and museums with respect to their surface.

²The source for inputs are CULTURABase. The number of tourists comes from FAMILITUR. A survey led by the Institute of Tourist Studies. Data are available for even years only.

Table 2 Cultural resources and tourism in Spain (2012)

Regions	Cultural tourism			Cultural resources			
	Cultural trips	Leisure trips (%)	Total trips (%)	Festivals	Museums	Heritage	Total (%)
Andalusia	1507.9	10.4	18.7	268	186	2777	17.8
Aragon	391.5	11.1	4.9	53	61	640	4.2
Asturias	466.1	12.5	5.8	52	50	291	2.2
Balearic Islands	156.9	16.4	1.9	48	56	2890	16.5
Canary Islands	166.7	9.2	2.1	53	56	367	2.6
Cantabria	281.7	5.6	3.5	43	12	257	1.7
Castile and Leon	924.9	13.2	11.5	156	199	1219	8.7
Castile-La Mancha	505.8	12.9	6.3	89	154	711	5.3
Catalonia	893.7	10.7	11.1	337	115	2117	14.2
Valencian community	438.6	6.2	5.4	214	205	1142	8.6
Extremadura	296.5	4	3.7	49	51	185	1.6
Galicia	491.5	18.6	6.1	106	80	640	4.6
Madrid	874.9	12.8	10.9	288	124	286	3.8
Murcia	74.0	26.5	0.9	43	76	451	3.1
Navarre	126.7	4.1	1.6	36	13	164	1.2
Basque country	265.6	10.9	3.3	122	67	277	2.6
La Rioja	172.3	22.4	2.1	21	14	106	0.8
Country	8049.6	15.7	100.0	1984	1529	14,626	100

Table 3 Regional efficiency scores, CRS pool model

	2004	2006	2008	2010	2012	Mean
Andalusia	45.24	64.84	55.09	46.16	69.09	56.08
Aragon	60.67	88.27	82.5	70.53	82.41	76.88
Asturias	65.22	100	100	89.68	100	90.98
Balearic Islands	28.45	44.02	77.21	45.83	36.47	46.40
Canary Islands	58.13	46.6	93.3	77.05	35.09	62.03
Cantabria	100	100	100	100	100	100.00
Castile and Leon	64.03	76.44	53.51	50.81	85.42	66.04
Castile-La Mancha	80.1	57.8	57.84	45.77	72.09	62.72
Catalonia	27.96	43.46	32.19	30.16	38.9	34.53
Valencian community	42.86	36.42	40.24	39.53	23.75	36.56
Extremadura	100	98.3	96.53	97.73	100	98.51
Galicia	50.39	81.62	68.42	65.44	54.99	64.17
Madrid	100	100	100	100	100	100.00
Murcia	22.79	34.82	31.57	13.52	19.2	24.38
Navarre	56.92	47.96	37.26	64.78	59.52	53.29
Basque country	33.88	36.65	30.25	58.26	51.76	42.16
La Rioja	66.84	51.28	71.77	75.03	100	72.98
Average efficiency	59.0	65.2	66.3	63.0	66.4	64.0
No. of eff. regions	3	3	2	2	5	2

3.3 Results

The DEA analysis with CRS technologies is conducted separately for each year. Table 3 shows the main results. Mean efficiency over the whole period is equal to 64%. This

roughly means that, when all sources of inefficiency are included, Spanish regions could improve their output by an average of 36% given their current input levels. The mean level of efficiency increases slightly over the years: The efficient frontier contains three regions in 2004 and five in 2012. The least efficient regions are those located in the Mediterranean arc, from Catalonia down to Andalusia. These are regions in which beach tourism predominates. Surprisingly, despite monopolising much of the domestic cultural tourism and cultural resources, they do not prove as efficient as expected. The same is true for the remaining Cantabrian regions (Galicia, the Basque Country, and Navarre). Though cultural tourism accounts for a major part of the tourist sector, they achieve relatively little and are below national average levels of efficiency. The other inland regions (Aragon, Castile y Leon, and Castile La Mancha) have intermediate positions, with efficiency levels close to the national average.

Figure 2 illustrates the efficiency levels in Spanish regions in 2012, with Asturias, Cantabria, La Rioja, Extremadura and Madrid on the efficient frontier.

Figure 3 displays the evolution of the efficiency ranges between 2004 and 2012. Figure 4 presents the same results sorted by efficiency levels, where three groups of regions stand out: *optimal regions*, which attain the highest level of efficiency, either at the beginning or the end of the period; *improving regions*, whose efficiency has improved over time, some more noticeably (Castile and Leon, Aragon, and Andalusia) than others (Galicia, Basque Country and Navarre); and finally *less*

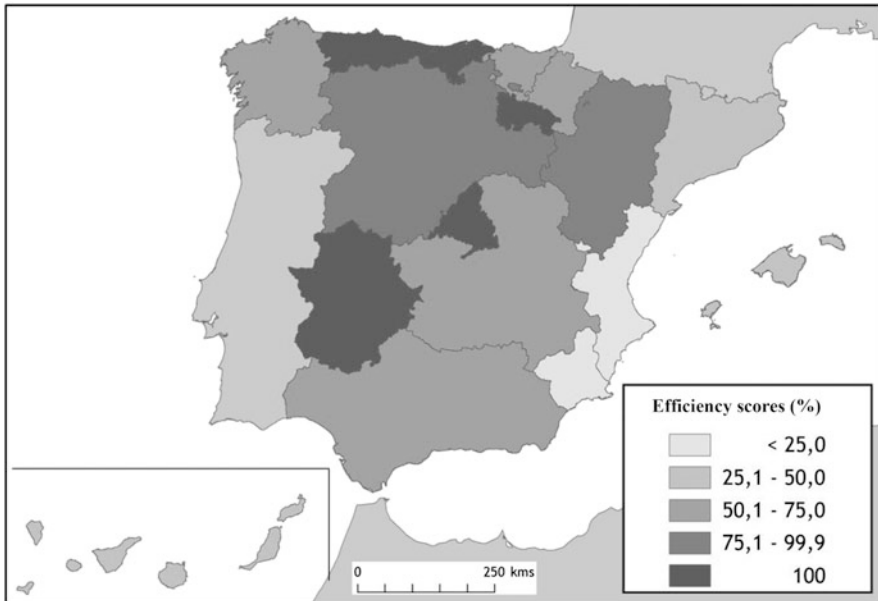


Fig. 2 Cultural destinations performance in Spain under CRS model (2012)

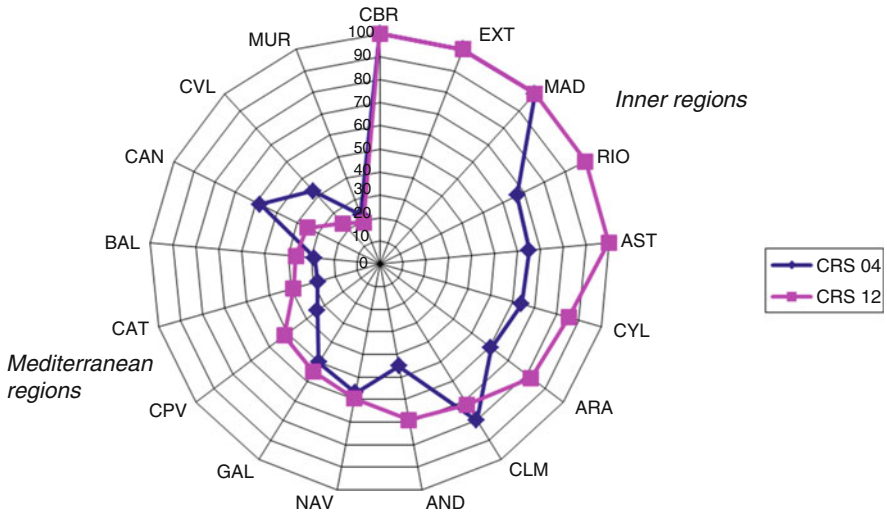


Fig. 3 Evolution of efficiency scores. CRS model

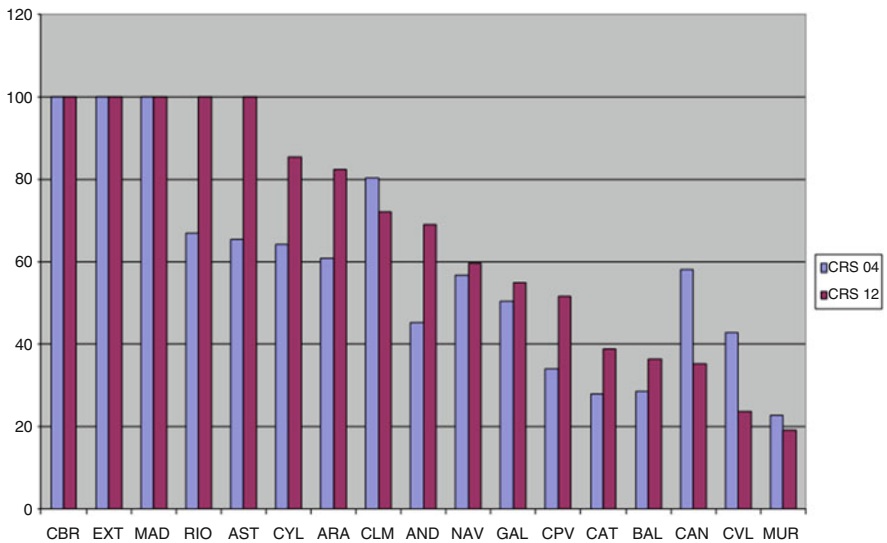


Fig. 4 Evolution of efficiency scores. CRS model

efficient regions, which display a low and stable level of efficiency (mainly the regions in the Mediterranean arc).

DEA analysis also allows computing both the inputs and outputs that would put regions on the efficiency frontier. This is shown in Table 4 for the year 2012 (the negative sign reflects the distance needed to reach the efficient frontier). These

Table 4 Possible improvements in achievements on inputs and outputs in non-optimal regions (%)

Regions	Festivals	Museums	Heritage sites	Cultural employment	Cultural tourism
Andalusia	0	0	-47.6	0	44.7
Aragon	0	-16.46	-53.7	-8.1	21.3
Balearic Islands	0	-17.58	-90.7	-21.8	174.2
Canary Islands	0	-9	-19.2	-40.8	185.0
Castile and Leon	0	-69.49	-24.3	0	17.1
Castile-La Mancha	0	-62.08	-27.8	0	38.7
Catalonia	0	0	-7.2	-59.5	157.0
Valencian community	0	-2.75	0	-9.5	321.0
Galicia	0	0	-13.7	-5.4	81.8
Murcia	0	-45.6	-46.6	-22.9	420.9
Navarre	-18.4	0	0	-42.4	68.0
Basque country	-22.4	0	0	0	93.2

results should be taken merely as references of the direction in which improvements might be considered. They show that the main sources of inefficiency are connected with an excessive number of museums and the need for a greater effort in attracting specific cultural tourism in some regions. The number of festivals in the Basque regions is too large; there are too many museums in the two Castile regions, and Murcia; too many heritage inscriptions in the Balearic Islands; and too many people employed in the cultural industry in the Canary Islands, Catalonia, and Navarra. The Mediterranean regions need to attract significant flows of cultural tourism.

Malmquist indices prove useful to gauge the evolution of efficiency over time. They allow decomposing productivity into changes that result from technical progress (displacements from the efficiency frontier) or shifts in productive management efficiency (variations in the distance from the unit to the frontier). No significant changes are observed over the period considered.

Table 5 illustrates the values of Malmquist indices for each region (and their mean). Mean productivity increases by a mere 6% between 2004 and 2012, though this trend is not due to technical progress (which has even worsened), but rather to specific improvements (+15%) in resource management. The sharpest increases in internal efficiency are recorded in Asturias and Aragon, which places them at the top of the ranking in 2012. Major improvements can also be noted in other less efficient regions such as Andalusia, the Basque Country, and Catalonia. The difficulty of regions in absorbing technological change may be explained by the particular nature of cultural heritage, which can hardly benefit from technical improvements as well as other sectors such as publishing, the audio-visual sector, communication, etc.

Improved internal efficiency may well be due to the slight drop in cultural resources in certain regions, particularly museums and festivals, as a result of the financial crisis. This is precisely what happened in those regions that have gained in efficiency, while the number of cultural attractions continued to grow in other regions.

Table 5 Malmquist indices 2004–2012

Regions	TFPG	TC	EC
Andalusia	1.24	0.81	1.53
Aragon	1.17	0.86	1.36
Asturias	1.24	0.81	1.53
Balearic Islands	1.13	0.88	1.28
Canary Islands	0.78	1.29	0.6
Cantabria	1.00	1.00	1.00
Castile and Leon	1.16	0.87	1.33
Castile-La Mancha	0.95	1.05	0.9
Catalonia	1.18	0.85	1.39
Valencian community	0.74	1.34	0.55
Extremadura	1.00	1.00	1.00
Galicia	1.04	0.96	1.09
Madrid	1.00	1.00	1.00
Murcia	0.92	1.09	0.84
Navarre	1.02	0.98	1.05
Basque country	1.24	0.81	1.53
La Rioja	1.22	0.82	1.5
Mean	1.06	0.97	1.15

TFPG Growth in total productivity of the factors, *TC* Technical change, *EC* Efficiency change

4 Conclusions

The efficiency of cultural destinations can be inferred using the relation between available cultural resources and cultural tourism, which is one of the main expressions of cultural participation in Spain. We carried out a DEA analysis to obtain regional efficiency scores between 2004 and 2012 and find that the most efficient regions are inland regions and the central part of the north coast. The least efficient regions are located on the Mediterranean arc, from Catalonia down to Andalusia, as well as the Cantabrian regions. It appears that the regions with the largest number of attractions and the largest number of cultural tourists are not those which achieve the highest levels of efficiency. In some regions efficiency levels improve (Andalusia, Basque Country, and Catalonia). Others have experienced a substantial decline (Canary Islands, Valencia Community, and Murcia). These changes are a consequence of improvements in the regional management of cultural resources and the drop in some regions of the number of festivals and museums resulting from the economic crisis. In other regions these numbers have continued to grow while the number of cultural tourists was falling. These results can be considered as an important guide for regional authorities and policy-makers.

References

- Barbieri, C., & Mahoney, E. (2010). Cultural tourism behaviour and preferences among the live performing arts audience: An application of the univorous-omnivorous framework. *International Journal of Tourism Research*, 12(5), 481–496.
- Barros, C. P., Botti, L., Peypoch, N., Robinot, E., Solonandrasana, B., & Assaf, A. (2011). Performance of French destinations: Tourism attraction perspectives. *Tourism Management*, 32, 141–146.
- Borowiecki, K. J., & Castiglione, C. (2014). Cultural participation and tourism flows: An empirical investigation of Italian provinces. *Tourism Economics*, 20(2), 241–262.
- Cracolici, M. F., Nijkamp, P., & Rietveld, P. (2008). Assessment of tourism competitiveness by analysing destination efficiency. *Tourism Economics*, 14, 325–342.
- Crouch, G. I., & Ritchie, J. R. (1999). Tourism competitiveness and societal prosperity. *Journal of Business Research*, 44(3), 137–152.
- Cuccia, T., Guccio, C., & Rizzo, I. (2016). The effects of UNESCO World Heritage List inscription on tourism destinations performance in Italian regions. *Economic Modelling*, 53, 494–508.
- De Witte, K., & Geys, B. (2011). Evaluating efficient public good provision: Theory and evidence from a generalised conditional efficiency model for public libraries. *Journal of Urban Economics*, 69(3), 319–327.
- Devesa, M., Báez, A., Figueroa, V., & Herrero, L. C. (2012). Repercusiones económicas y sociales de los festivales culturales. El caso el Festival Internacional de Cine de Valdivia. *EURE – Revista Latinoamericana de Estudios Urbano-Regionales*, 38, 95–115.
- Fernández-Blanco, V., Herrero, L. C., & Prieto-Rodríguez, J. (2013). Performance of cultural heritage institutions. In I. Rizzo & A. Mignosa (Eds.), *Handbook on economics of cultural heritage* (pp. 470–478). Cheltenham: Edward Elgar.
- Finocchiaro Castro, M., Guccio, C., & Rizzo, I. (2011). Public intervention on heritage conservation and determinants of heritage authorities' performance: A semi-parametric analysis. *International Tax and Public Finance*, 18(1), 1–16.
- Fuentes, R. (2011). Efficiency of travel agencies: A case study of Alicante, Spain. *Tourism Management*, 32(1), 75–87.
- Guzmán, A. B., Leones, J. D., Tapia, K. K., Wonga, W. G., & Castro, B. V. (2006). Segmenting motivation. *Annals of Tourism Research*, 33(3), 863–867.
- Herrero, L. C. (2011). La contribución de la cultura y las artes al desarrollo económico regional. *Investigaciones Regionales*, 19, 177–202.
- Herrero, L. C., Sanz, J. A., Bedate, A., & Del Barrio, M. J. (2012). Who pays more for a cultural festival, tourists or locals? A certainty analysis of a contingent valuation application. *International Journal of Tourism Research*, 14(5), 495–512.
- Kim, H., Cheng, C., & O'Leary, J. T. (2007). Understanding participation patterns and trend in tourism cultural attractions. *Tourism Management*, 28(5), 1366–1371.
- Morrone, A. (2006). *Guideline for measuring cultural participation*. Montreal: UNESCO Institute of Statistics.
- Murillo Viu, J., Romani Fernández, J., & Surinach Caralt, J. (2008). The impact of heritage on an urban economy: The case of Granada and the Alhambra. *Tourism Economics*, 14(2), 361–376.
- O'Hagan, J., & Castiglione, C. (2010). European statistics on cultural attendance and participation and their international comparability. In *ESA Research Network Sociology of Culture Midterm Conference: "Culture and the Making of Worlds"*, October 2010. Retrieved July 18, 2016 from <http://ssrn.com/abstract=1692083>
- Pulina, M., Detotto, C., & Paba, A. (2010). An investigation into the relationship between size and efficiency of the Italian hospitality sector: A window DEA approach. *European Journal of Operational Research*, 204(3), 613–620.
- Richards, G., & Wilson, J. (2006). Attractiveness of cultural activities in European cities: A latent class approach. *Tourism Management*, 27(6), 1408–1413.

- Shang, J. K., Wang, F. C., & Hung, W. T. (2010). A stochastic DEA study of hotel efficiency. *Applied Economics*, *42*, 2505–2518.
- Wang, F. C., Hung, W. T., & Shang, J. K. (2006). Measuring the cost efficiency of international tourist hotels in Taiwan. *Tourism Economics*, *121*, 65–85.

Luis César Herrero-Prieto is Associate Professor in Applied Economics at the University of Valladolid (Spain). He has been visitor to the Catholic University of Leuven (Belgium), the Mediterranean Agronomic Institute in Montpellier (France), the Austral de Chile University and the Trinity College Dublin (Ireland). He has also been coordinator of the Tordesillas Network of Interuniversity Cooperation between European universities and Latin-American universities. He is currently director of the Research Group in Cultural Economics and of the University Master's Degree in Cultural Economics and Management at the University of Valladolid. His research interests focus on the economic valuation of cultural heritage, efficiency analysis of cultural institutions and cultural capital indicators. He has published in the *Journal of Cultural Economics*, *Journal of Cultural Heritage*, *International Journal of Cultural Policy*, *European Urban and Regional Studies*, *Journal of Applied Economics* and *Tourism Economics*.

An Empirical Investigation of Cultural Travellers' Preferences and Behaviours in a Destination with Mixed Environmental Features

Calogero Guccio, Sara Levi Sacerdotti, and Ilde Rizzo

Abstract It is widely recognized that cultural tourism is a relevant economic phenomenon, but so far the determinants of cultural tourists' choices have not been explored by the economic literature in depth. The expanding notion of cultural tourism as participation to cultural experience makes difficult the characterization of this phenomenon. This paper aims at investigating cultural tourists' profiles: Once these profiles are defined, we can also try to estimate what factors affect the choice of 'strongly motivated' cultural tourists, using econometric analysis. The analysis is carried out using a unique database: data and information on the preferences and the behaviour of visitors in the area surrounding the *Orta* Lake in Italy are obtained via global positioning system (GPS) technology, which monitors the spatial-temporal flows generated by tourists, and these are combined with a questionnaire. Unlike other empirical studies carried out in destinations with only a strong cultural characterization, the mixed features of the *Orta* Lake (an assortment of culture, nature and sport/recreation attractions) allow carrying out an analysis with a wider scope for understanding cultural tourists' behaviour and the connections between various types of cultural attractions.

Keywords Cultural tourism • Heritage • Environment • Global positioning system • ANOVA • Multivariate analysis

C. Guccio (✉) • I. Rizzo

Department of Economics and Business, University of Catania, Catania, Italy
e-mail: guccio@unict.it; rizzor@unict.it

S. Levi Sacerdotti

Higher Institute on Innovation Territorial Systems (SiTI), Torino, Italy
e-mail: levi@siti.polito.it

1 Introduction

It is commonly agreed that tourism is one of the world's major industries, providing a relevant contribution to economic growth, balance of payments and employment. Tourism is a wide-reaching term, which includes different typologies of visitors and as such, various definitions have been provided in official documents as well as in the literature. This paper focuses on cultural tourism (CT) which, although increasingly recognized as a relevant economic phenomenon, is still a rather elusive concept. The aim is to investigate mainly from the empirical point of view, cultural tourists' choices. The analysis of these choices may be useful for a better understanding of some of the drivers of cultural demand in the light of enhancing cultural participation.

The analysis will be carried out using a unique database, consisting of data and information on the preferences and behaviour of the visitors in the area surrounding the *Orta* Lake in Italy. A peculiar feature of such a database is that it combines the data obtained from surveys as well as via GPS technology, which monitors the spatial-temporal flows generated by tourists.

The paper is organized as follows: Sect. 2 offers a brief review of the literature on CT, focusing attention on the demand side and on the major determinants of this type of tourism. Section 3 presents the main features of the case study. In Sect. 4 the empirical analysis is carried out and the main results are presented. Few concluding remarks are offered in Sect. 5.

2 Cultural Tourism: An Elusive Concept

2.1 *The Economic Relevance*

The economic relevance of the tourism sector has increased significantly in the last 50 years. According to UNWTO (2013) despite occasional shocks,¹ international tourist arrivals have increased continuously over time—from 25 million in 1950, to 278 million in 1980, 528 million in 1995, and 1035 million in 2012, growing by 4% in the last year.² Travel for holidays, recreation and leisure represented just over half (52% or 536 million arrivals) of all international tourist arrivals.³ The increase

¹The tourism market has been impacted sporadically by the financial crisis affecting the world economy in 2008 and in 2009: International tourism has exhibited more volatility than its domestic counterpart and likewise business tourism more than leisure tourism (OECD 2010).

²Europe accounts for 52% of international arrivals; this high share is likely to depend on the proximity of the European countries, which stimulates intra-European cross-border travels, recorded as international.

³About 14% of international tourists reported travelling for business and professional purposes and another 27% travelled for various purposes, such as visiting friends and relatives, religious reasons and pilgrimages, health treatment, etc. The purpose of visit for the remaining 7% of arrivals was not specified.

in international tourist arrivals is mirrored by the increase of international tourism receipts that grew by 4% in real terms in 2012, reaching 837 billion euros worldwide.

The economic dimension of tourism is widely recognized: According to the OECD (2012), in 2010 tourism contributed directly, an average 4.2% to GDP and accounted for 5.4% of employment in OECD member states (4.4 and 5.7% for EU members) with high variability across countries. Indeed, tourism can be considered somewhat unique because of the diverse nature of goods and services consumed by tourists, with linkages to virtually every industry in the economy. Different methodologies are used to measure its economic impact and various estimates are provided.⁴

Though, the importance of culture and tourism as drivers of attractiveness and competitiveness is widely stressed (OECD 2009), international statistics do not distinguish between 'leisure' and culturally motivated tourists. For any measure to be reliable we would need a sound and widely shared definition of CT, which, so far, is still lacking.

2.2 Definition Issues

As stated by Bonet (2013, p. 387), "...it is actually very difficult to define what cultural tourism is about. There are almost as many definitions as there are tourists visiting cultural places."

Just to give a few examples, according to ICOMOS (2002), CT cannot be distinguished from any other touristic experience: CT "...should not be regarded as a definable niche within the broad range of tourism activities, but encompasses all experiences absorbed by the visitor to a place that is beyond their own living environment".⁵

Scholars widely agree that CT constitutes the consumption of culture by tourists but what 'culture' actually means in relation to tourism is not very clear. Such a relationship has evolved from a much narrower one, mainly based on the 'sites and monuments' approach, to a broader view of culture including cultural events, architecture and design, creative activities and intangible heritage (Richards 2003).⁶ This enlargement is also recognized by OECD (2009), suggesting that tourists increasingly look for a 'cultural experience' based on the lifestyles, the

⁴Gasparino et al. (2008) provide a survey of the literature on the economic impact of tourism, identifying the main categories of impacts and the methodologies available to assess them.

⁵Similar problems arise with the 'wide definition' of CT adopted by the World Tourism Organisation (WTO) including all movements of persons, aimed at satisfying the human need for diversity, tending to raise the cultural level of the individual and giving rise to new knowledge, experience and encounters.

⁶There is an interesting parallelism with the enlargement of the concept of culture which has occurred in recent years and constitutes the field of cultural economics, moving from a narrow scope referring only to 'high culture' to include all cultural goods and services (Towse 2003).

habits and the gastronomy of the places they visit. They are additionally increasingly involved in consumption with a symbolic content⁷ albeit reliable data on the dimension or patterns of tourism consumption related to culture are scarce, since relatively few countries or regions collect specific data.

This expanding notion of the cultural consumption of tourists makes the definition of CT increasingly difficult. In the literature various attempts have been made to identify different typologies of cultural tourists. Richards (2003) provides a long list of classifications: Some concentrate on the nature of CT in conceptual terms, some are mainly concerned with the cultural resources involved⁸ whilst others are based on the tourists' motivations and their reasons for travel. Moreover, to overcome the definition problems, other studies identify different types of cultural tourists: most typologies are based on the degree of cultural motivation of tourists, usually ranging from those with a general or superficial interest in culture to those with a very specific and/or strong interest in culture. McKercher (2002) suggests that a better understanding of cultural tourists' typologies can be obtained with a two-dimensional approach based on the motivation for the trip as well as on the level of engagement with the cultural attraction.⁹

In such a context, being aware that the definition of CT is crucial for a better understanding of the economic implications of such a phenomenon, we try to contribute to the literature by investigating different profiles of cultural tourists and the factors affecting their choices. A better understanding of the drivers of cultural choices could shed some light on the elements that affect cultural participation.

3 The Case Study

3.1 *The Territorial and Economic System*

The *Orta* Lake is part of a geographically very large and complex environmental catchment area, called *Cusio*. The lake basin, the moraine hills, the foothills and mountain areas and the Alpine valleys are heterogeneous elements of a system that is perceived as homogeneous both culturally and historically. The *Cusio* appears to the visitors primarily as a natural and very well preserved landscape. These features are combined with tangible and intangible expressions of local traditional culture.

⁷From the supply perspective, a relevant side-effect is that the attractiveness of a region depends on its cultural assets but its capability of being competitive with other destinations depends on its ability to transform the basic inherited factors into created assets with a higher symbolic or sign value.

⁸These definitions are based on the idea that all people visiting cultural attractions can be considered cultural tourists.

⁹Five typologies are obtained ranging from the purposeful cultural tourist (high motivation/deep experience, at one extreme, to the incidental cultural tourist (low motivation/shallow experience).

The economic system of *Orta* Lake has undergone rapid change and is now facing a critical phase: The traditional industrial-manufacturing vocation developed throughout the last century, and the productive specialization, that emerged in the last decades of the twentieth century,¹⁰ have recently experienced a severe crisis because of globalization and productive relocation. Thus, economic activities related to tourism and cultural sector are spreading as a vocational alternative. Nevertheless, a debate exists as to the definition of the type of tourism to be developed, ranging from niche to mass tourism.¹¹

In this context, the governance of the area is a crucial issue; it is highly fragmented, since several institutions have competences regarding cultural and tourism planning.¹² At the same time, with a view to overcoming the fragmentation of local agents and the coordination of their initiatives, two institutions—the Tourist Lake District (regional ATL) and the *Cusius* eco-museum—are playing an increasing role.

3.2 *The Cusio Cultural Heritage System*

Within *Cusio*, the cultural heritage system is becoming increasingly important. It could be described as a choir system made up of a single main heritage, the *Sacro Monte d'Orta*¹³—considered of uttermost interest—as well as a network of diffused minor cultural heritage characterizing the territory.

Several tourist attractions have been identified for the area (culture, recreation, and environment) with which to relate data on time and the position of tourists with the different attractions.

Since this paper is focused on cultural heritage, Fig. 1 reports the location of the 15 cultural heritage attractions used in the analysis to monitor the spatial-temporal tourists flows, described in the next section.

¹⁰This specialization is represented by two 'industrial districts'—one in the field of household objects and the other in the field of plumbing and precision hydraulic systems.

¹¹On the East side of *Orta* Lake there is *Maggiore* Lake, which is the most visited tourist destination of the alpine lakes system of Piedmont. *Maggiore* Lake is significantly bigger than *Orta* Lake, is one of the more structured and mature tourist destinations both in the Piedmont region and in the North-West Italy.

¹²There are two different provincial authorities (Verbano-Cusio-Ossola and Novara), several municipalities, three mountain communities and a union of municipalities.

¹³The *Sacro Monte d'Orta* is part of the system of *Sacri Monti* of Piedmont and Lombardy, which is the typology of a devotional path recognized by the UNESCO World Heritage. For the role of UNESCO World Heritage inscription in enhancing the performance of tourism destinations see Cuccia et al. (2016; 2017).

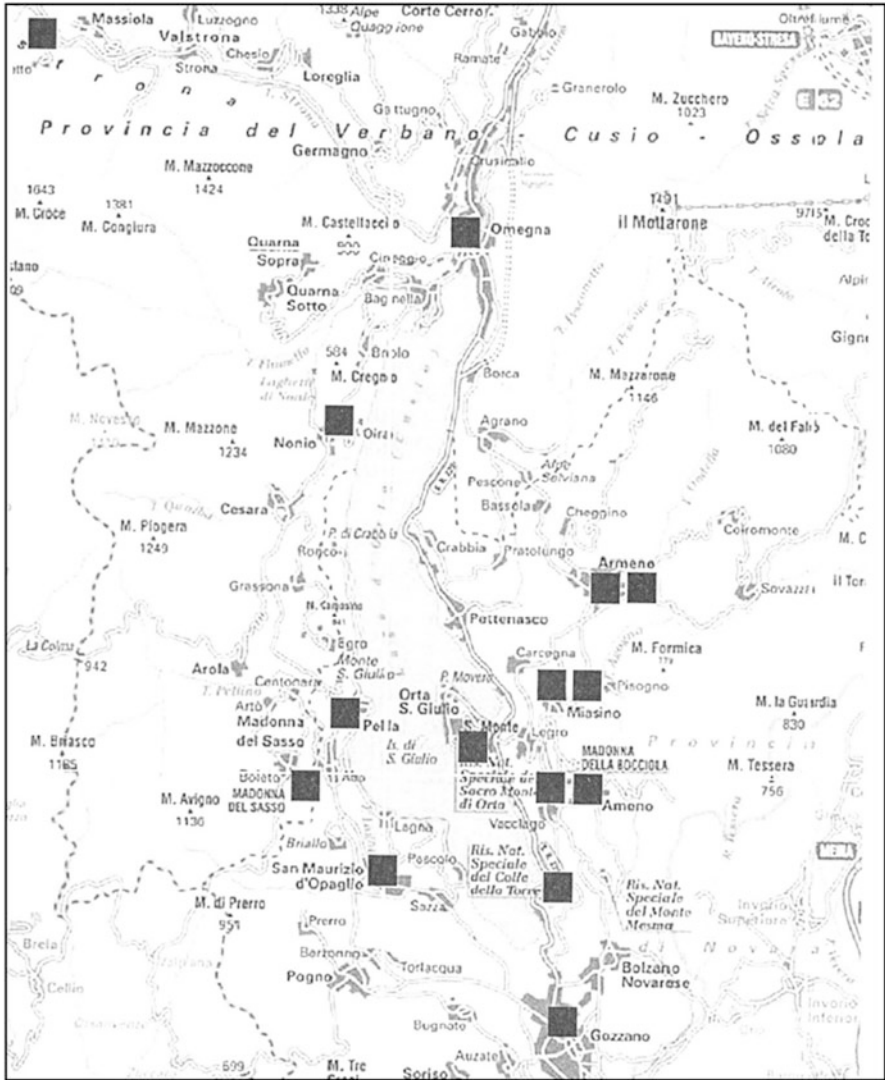


Fig. 1 Map of cultural attractions in the Orta Lake area. Note: the map displays the location of the 15 cultural tourist attractions for the Orta Lake. Source: SiTI-Istituto Superiore sui Sistemi Territoriali per l'Innovazione (SiTI) (2008)

4 The Empirical Analysis

4.1 Data

To better understand the features of CT demand we use the data gathered by a survey carried out in the *Orta* Lake area (Levi Sacerdotti et al. 2011).¹⁴ The survey is based on two different tools: The monitoring of tourist flows using GPS tracking technologies combined with a questionnaire.

The monitoring of tourist flows, held during summer 2008, was aimed at obtaining a deep and detailed understanding of the spatial-temporal behaviours of tourists. It was based on the experimental use of GPS data loggers (tools able to memorize the geographical position adopted by tourists and their speed of movement with a spatial approximation of less than 5.10 m and a range up to 5 s) assigned to some 'tourist-voluntaries' and on the distribution of a questionnaire. The experiment was conducted involving over 170 groups of tourists (for a total of 470 people monitored) and in terms of the survey produced more than 1400 h in total (these being subdivided into individual tourist tracks with an average span of around 9 h). The questionnaire linked to the experiment contained questions designed to investigate the reasons for visiting, the means of transport, the cost of the stay and the issues raised in the territory fruition. See also Shoval and McKercher (2017).

The main results of the survey are linked to the definition of the spatial-temporal density of visits, to the definition of propagation directions of tourist flows in the area and, especially, to the definition and analysis of the behaviour of homogeneous profiles of tourists.

A total of 106 valid surveys (GPS-logger and questionnaires) were obtained and Table 1 describes the variables employed, their meaning and the related descriptive statistics.

4.2 The Questionnaire

Homogeneous cultural tourist profiles have been identified on the basis of the data collected through the questionnaire and their behaviour has been investigated. The questionnaires were administered before tourists left the *Orta* Lake.

Respondents were asked to evaluate the different motivations (Heritage, Environment, Sport on Air, Sport Relax, Food&Wine, Fun)¹⁵ evaluated individually as

¹⁴The analysis of tourist demand has been carried out by SiTI (Higher Institute on Territorial Systems for Innovation) between 2007 and 2008 within the *Project Visitors Management and Hospitality*, commissioned by the Department of Tourism of the Piedmont Region.

¹⁵A set of 15 motivation items was initially generated from a pilot study measuring visitor's motivations and only 7 of the latter were considered to be appropriate for measuring visitors' motivations in relation to the *Orta* Lake.

Table 1 Description of the variables employed in the analysis

Variables	Meanings	Type	Mean	Std. Dev.
<i>Motivations</i>				
Relax	Rating for relax (= 0, 50, 100)	Ordinal	77.46	30.90
Heritage	Rating for heritage (= 0, 50, 100)	Ordinal	48.71	33.27
Food&Wine	Rating for food and wine (= 0, 50, 100)	Ordinal	32.46	33.91
Sport	Rating for sport (= 0, 50, 100)	Ordinal	20.69	30.98
Fun	Rating for fun (= 0, 50, 100)	Ordinal	27.63	31.27
Sport outdoors	Rating for outdoor sport (= 0, 50, 100)	Ordinal	28.57	35.33
Environment	Rating for environment (= 0, 50, 100)	Ordinal	67.92	32.92
<i>Expenditures</i>				
Accommodation	Expenditure for accommodation (euros per person)	Continuous	63.80	54.06
Restaurants	Expenditure for restaurant (euros per person)	Continuous	40.14	39.84
Transport	Expenditure for transport (euros per person)	Continuous	16.04	25.26
Culture	Expenditure for heritage (euros per person)	Continuous	9.19	11.55
Shopping	Expenditure for shopping (euros per person)	Continuous	53.03	62.86
Total exp	Total expenditure (euros per person)	Continuous	182.34	134.66
Plan_ expenditure	Planned expenditure (euros per person)	Continuous	63.94	36.60
<i>Time use—GPS</i>				
Time_Heritage	Percentage of monitored time spent in cultural attractions	Continuous	0.047	0.098
Time_Nature	Percentage of monitored time spent in natural attractions	Continuous	0.102	0.147
Time_Other	Percentage of monitored time spent in other attractions	Continuous	0.483	0.263
TIME_GPS_OB	Total time monitored by GPS	Continuous	5.386	3.674
<i>Other variables</i>				
Guide&Book	Rating choice for guide and books (= 0, 1, 2, 3, 4)	Ordinal	2.38	1.13
Previous_Experience	Rating choice for previous experiences (= 0, 1, 2, 3, 4)	Ordinal	2.35	1.29
Organized	Rating choice for organized travel (= 0, 1, 2, 3, 4)	Ordinal	2.19	1.23
Friends	Rating choice for friends and relatives (= 0, 1, 2, 3, 4)	Ordinal	2.04	1.41
Family	Dummy variable (= 1 if with family)	Bivariate	0.35	0.48
Groups	Dummy variable (= 1 in with organized groups)	Bivariate	0.06	0.23
Couples&Friends	Number of traveller	Integer	1.89	0.31
Foreign visitors	Dummy variable (= 1 if foreigner visitors)	Bivariate	0.27	0.11
Close provinces	Dummy variable (= 1 if visitors from close provinces)	Continuous	0.11	0.32

Source: Our elaboration on data provided by SiTI-Istituto Superiore sui Sistemi Territoriali per l'Innovazione (SiTI) (2008)

follows: very important; important and not important.¹⁶ Thus, the first part of the questionnaire is aimed at indicating the intensity of the tourists' motivation and

¹⁶The questionnaire to elicit the respondents' motivations uses a scale with three grades; it is important to stress that the respondent can assign the maximum evaluation to more than one option.

allows for identifying differently motivated groups. Moreover, on the basis of the data collected through the questionnaire, we try to investigate the behaviour of some sub-samples, divided according to the reasons for the visit (main interest declared for natural, cultural or sport aspects), the visit mode (without car, with a satellite system and with people who have already done tours of the area) and the money spent during the stay.

Unlike other empirical studies carried out in destinations with a very strong cultural characterization,¹⁷ in our case, because of the mixed features of the *Orta* Lake (a combination of culture, nature and sport/recreation attractions), the answers of the surveyed tourists are not likely to be biased in terms of cultural motivations and, therefore, allow an understanding of the possible connections existing amongst the different motivations.

An initial investigation of motivation was performed by normalizing the three evaluations assessed by each tourist for each item (Heritage, Environment, Sport on Air, Sport Relax, Food&Wine, Fun) to 100. Figure 2 describes the strength of the motivations for all the samples and for the different sub-groups of tourists in connection with the motivation for heritage (Heritage very imp., Heritage imp., No heritage).¹⁸

Figure 2 shows that 'very motivated' cultural tourists (Heritage very imp.) seem to have a different profile as compared with other groups: In fact, they are more motivated than the others also as far as the variables relax, environment, food & wine and sport outdoor are concerned. Motivated cultural tourists, (Heritage important) are similar throughout the entire sample, apart from a stronger motivation for environment.¹⁹

To identify what motivates tourists to visit the *Orta* Lake and to characterize the cultural profiles, we now use analysis of variance (ANOVA) and regression analysis.

4.3 Analysis of Variance Results

ANOVA is used to analyse the differences across the different profiles of tourists. Results are summarised in Table 2. The table lists in each column the variables employed in the survey and the results of the GPS monitoring system. Columns 5 and 7 present the ANOVA F-test, respectively, for the group of motivated cultural tourists—those who evaluate heritage as important and very important—and for the more specific group of 'Very strongly' motivated cultural tourists (Heritage very imp.).

Reported results show that 'Very strongly' motivated cultural tourist exhibit a specific profile with respect to non-cultural tourists: i.e. they appear to spend more

¹⁷ Among the studies conducted on sites with strong cultural characterization see Apostolakis and Jaffry (2004, 2007).

¹⁸ The respondent can assign the maximum evaluation to more than one option.

¹⁹ The differences across groups have been shown using multinomial representation of the variables (see Guccio et al. 2011).

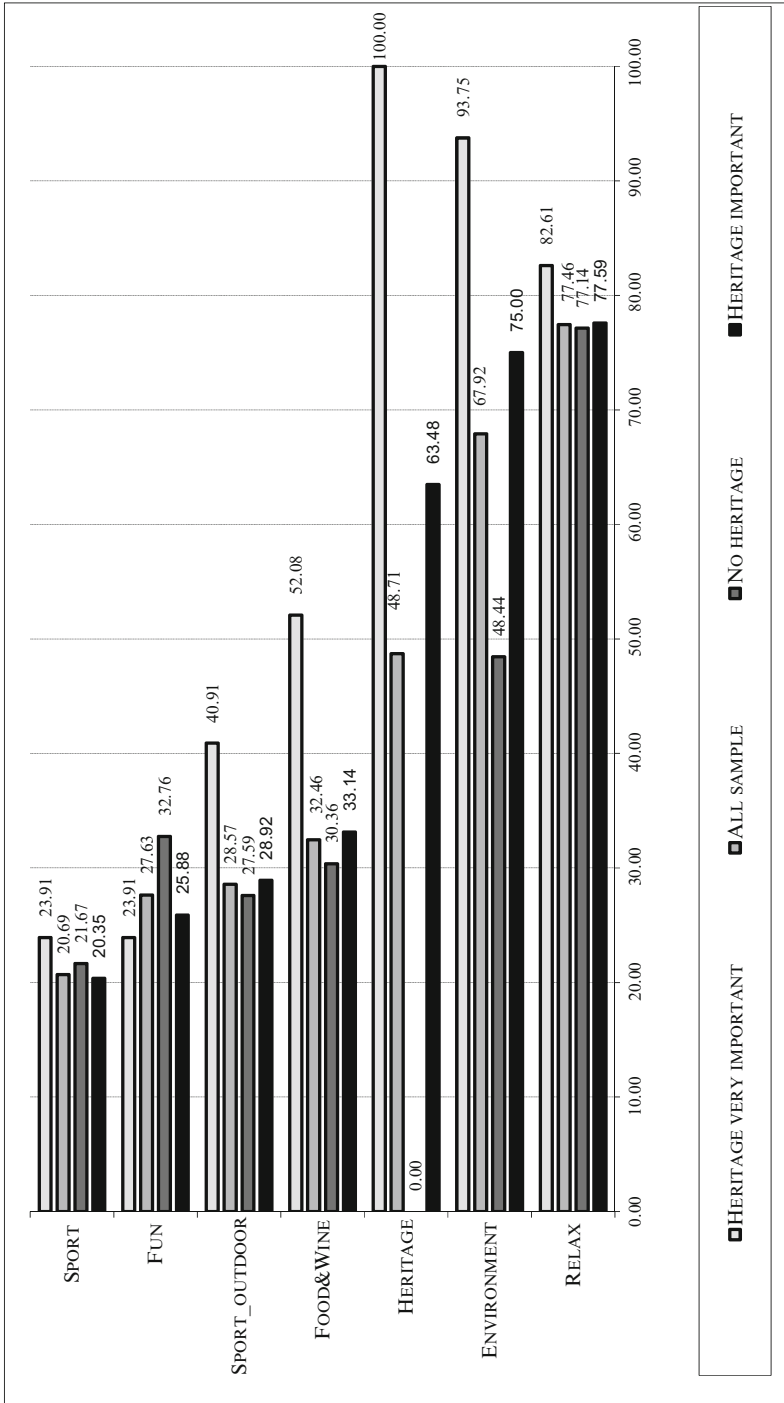


Fig. 2 Strength of motivations for different groups of tourists. Source: Our elaboration on data provided by SiTI-Istituto Superiore sui Sistemi Territoriali per l’Innovazione (SiTI) (2008)

Table 2 ANOVA estimates

(1)	(2)		(3)		(4)		(5)		(6)		(7)	
	All sample		No Heritage		Heritage important and very important		Heritage important and very important		Heritage very important		ANOVA	
Variables	Mean	Std. Dev.	Mean	Mean	Mean	Mean	ANOVA	F-value	Mean	ANOVA	F-value	
<i>Motivations</i>												
Relax	77.46	30.90	77.14	77.59	77.59	77.59	0.01	0.01	82.61	0.01	0.01	0.53
Heritage	48.71	33.27	0.00	63.48	63.48	63.48	218.07***	218.07***	100.00	218.07***	218.07***	190.32***
Food&Wine	32.46	33.91	30.36	33.14	33.14	33.14	0.26	0.26	52.08	0.26	0.26	11.10***
Sport	20.69	30.98	21.67	20.35	20.35	20.35	0.04	0.04	23.91	0.04	0.04	0.31
Fun	27.63	31.27	32.76	25.88	25.88	25.88	0.68	0.68	23.91	0.68	0.68	0.41
Sport outdoor	28.57	35.33	27.59	28.92	28.92	28.92	0.15	0.15	40.91	0.15	0.15	3.41*
Environment	67.92	32.92	48.44	75.00	75.00	75.00	18.30***	18.30***	93.75	18.30***	18.30***	21.68***
<i>Expenditures</i>												
Accommodation	63.80	54.06	63.68	63.85	63.85	63.85	0.01	0.01	83.37	0.01	0.01	3.79*
Restaurant	40.14	39.84	37.64	41.18	41.18	41.18	0.20	0.20	45.33	0.20	0.20	0.48
Transport	16.04	25.26	11.39	17.96	17.96	17.96	1.92	1.92	21.63	1.92	1.92	3.28*
Culture	9.19	11.55	6.94	10.11	10.11	10.11	3.16*	3.16*	13.59	3.16*	3.16*	4.22**
Shopping	53.03	62.86	51.39	53.71	53.71	53.71	0.02	0.02	64.13	0.02	0.02	0.88
Total exp.	182.34	134.66	171.39	186.87	186.87	186.87	0.16	0.16	228.26	0.16	0.16	3.35*
Plan expenditure	63.94	36.60	71.21	60.69	60.69	60.69	1.56	1.56	64.38	1.56	1.56	0.74
<i>Time use—GPS</i>												
Time heritage	0.047	0.098	0.032	0.054	0.054	0.054	3.22**	3.22**	0.052	3.22**	3.22**	0.02
Time nature	0.102	0.147	0.091	0.107	0.107	0.107	0.11	0.11	0.130	0.11	0.11	0.91
Time other	0.483	0.263	0.527	0.462	0.462	0.462	0.04	0.04	0.386	0.04	0.04	2.89*
Time GPS ob.	5.386	3.674	4.841	5.649	5.649	5.649	0.31	0.31	5.059	0.31	0.31	0.48

(continued)

Table 2 (continued)

(1)	(2)		(3)		(4)		(5)		(6)		(7)	
	All sample		No Heritage		Heritage important and very important		ANOVA		Heritage very important		ANOVA	
Variables	Mean	Std. Dev.	Mean	Mean	Mean	Mean	F-value	F-value	Mean	Mean	F-value	F-value
<i>Other variables</i>												
Guide&Book	2.38	1.13	2.13	2.48	2.65	2.03	2.03	2.03	2.65	2.65	1.69	1.69
Previous experience	2.35	1.29	2.58	2.26	2.04	1.44	1.44	1.44	2.04	2.04	3.25*	3.25*
Organized	2.19	1.23	2.17	2.20	2.70	0.02	0.02	0.02	2.70	2.70	4.96**	4.96**
Friends	2.04	1.41	1.93	2.08	2.45	0.22	0.22	0.22	2.45	2.45	2.42*	2.42*
Family	0.35	0.48	0.16	0.44	0.42	10.29***	10.29***	10.29***	0.42	0.42	1.12	1.12
Groups	0.06	0.23	0.07	0.06	0.00	0.09	0.09	0.09	0.00	0.00	–	–
Couples and friends	1.89	0.31	1.92	1.87	1.80	0.35	0.35	0.35	1.80	1.80	0.98	0.98
Foreign visitors	0.27	0.11	0.27	0.28	0.33	0.09	0.09	0.09	0.33	0.33	16.19***	16.19***
Close provinces	0.11	0.32	0.12	0.11	0.21	1.29	1.29	1.29	0.21	0.21	2.82*	2.82*

Source: Our elaboration on data provided by SiTI-Istituto Superiore sui Sistemi Territoriali per l'Innovazione (SiTI) (2008)

*Significant at 10%, **Significant at 5%, ***Significant at 1%

(for accommodation, transports and entrance fees to cultural attractions). However, notwithstanding the claimed 'Very strong' motivation for culture, these tourists do not spend more time than the others at cultural attractions: The differences in the allocation of time for heritage are not significant (though the mean values are higher). These tourists also significantly differ in terms of their nationality as well as in terms of the trip organization, mainly because they are self-organized and travel with friends.

At a first glance, stated preferences (as derived from the questionnaire) and revealed preferences (as monitored by GPS) seem to diverge. However, the scope of the divergence is reduced if we consider motivation in terms of a broader concept of heritage, including also material culture, such as Food&Wine. From this perspective, in the context of the foreign and high expenditure group, the search for overall quality of life seems to be the real motivation, while heritage represents only one element of this 'very strong' motivation, something which 'ought' to be sought but which is not necessarily the most practiced. A tentative interpretation of these results would suggest that this group pursues an overall cultural experience where the different components of a territory—heritage, environment, material cultural—are closely connected. Being a foreigner and a self-organized traveller are interesting features of such a profile.

Strongly motivated cultural tourists (those who evaluate heritage as important and as very important) exhibit a narrower approach. They seem to have more clear-cut cultural behaviours, in terms of the allocation of time: More time is allocated to heritage while no other significant time differences occur, as monitored by GPS. This group, however, does not seem interested in material culture since it does not exhibit significant differences for Food&Wine. The ANOVA results are mainly confirmed using the Mann-Whitney test reported in Table 3.

Table 3 Mann-Whitney tests

(1)	(2)	(3)	(4)	(5)	(6)
Variables	All sample Mean (<i>St. Dev.</i>)	Heritage important and very important Mean (<i>St. Dev.</i>)	Mann- Whitney <i>p value</i>	Heritage very important Mean (<i>St. Dev.</i>)	Mann- Whitney <i>p value</i>
<i>Expenditures</i>					
Accommodation	63.80 (54.06)	63.85 (56.78)	0.6631	83.37 (70.36)	0.0922
Restaurant	40.14 (39.84)	41.18 (44.28)	0.5214	45.33 (44.18)	0.8358
Transport	16.04 (25.26)	17.96 (28.54)	0.6891	21.63 (37.05)	0.1063
Culture	9.19 (11.55)	10.11 (13.22)	0.0589	13.59 (17.40)	0.0740
Shopping	53.03 (62.86)	53.71 (66.92)	0.7937	64.13 (71.41)	0.7083
Total exp.	182.34 (134.66)	186.87 (151.42)	0.9218	228.26 (172.66)	0.0160
Plan experience	63.94 (36.60)	60.69 (41.00)	0.0918	64.38 (47.25)	0.2932
<i>Time use—GPS</i>					
Time heritage	0.05 (0.10)	0.05 (0.09)	0.0564	0.05 (0.09)	0.9168
Time nature	0.10 (0.15)	0.11 (0.16)	0.4479	0.13 (0.19)	0.7896
Time other	0.48 (0.26)	0.46 (0.29)	0.1746	0.39 (0.34)	0.0592
Time GPS ob	5.39 (3.67)	5.65 (3.55)	0.2400	5.06 (3.54)	0.5620

Source: Our elaboration on data provided by SiTI-Istituto Superiore sui Sistemi Territoriali per l'Innovazione (SiTI) (2008)

Table 4 Logit regression estimates

Variables	(1)	(2)	(3)
<i>Motivations</i>			
Relax	-0.085 (0.087)		
Food&Wine	-0.024 (0.077)		
Sport outdoor	0.004 (0.078)		
Fun	0.049 (0.082)		
Environment	0.353*** (0.095)		
<i>Expenditures and time use</i>			
Accommodation		0.092 (0.240)	
Restaurant		0.131 (0.080)	
Transport		0.338* (0.193)	
Culture		0.380* (0.198)	
Shopping		0.326* (0.192)	
Plan expenditure		0.003 (0.008)	
Time heritage		0.176** (0.081)	
Time nature		2.463 (2.432)	
Time other		-0.692 (0.990)	
Time GPS ob.		0.005 (0.091)	
<i>Other variables</i>			
Guide&Book			0.202 (0.264)
Previous experience			-0.274*** (0.084)
Organized			0.320* (0.191)
Friends			0.159 (0.212)
Family			0.318* (0.190)
Groups			0.001 (0.006)
Couples&Friends			0.009 (0.007)
Foreign visitors			0.285 (0.776)
Close provinces			-1.103 (1.137)
Constant	-5.602*** (1.379)	2.391* (1.225)	-0.720 (1.375)
No. of observations	106	94	97
Pseudo R ²	0.1828	0.2126	0.1914
Log likelihood	-47.4674	-19.7767	-59.714

Note: The independent variable is Heritage

Source: Our elaboration on data provided by SiTI-Istituto Superiore sui Sistemi Territoriali per l'Innovazione (SiTI) (2008)

*Significant at 10%; **Significant at 5%; ***Significant at 1%

4.4 Regression Results

The above findings are also confirmed using regression. We estimate what factors affect the choice of motivated cultural tourists and check whether ANOVA results are confirmed. The sample dimension is not very large and, therefore, we estimate, separately, the effects of motivations (1), behaviours (2) and personal characteristics (3), though for this latter category few variables are available.

A logit binomial regression model is used and a dichotomous variable (Heritage = 1 if heritage motivation scores “50” or “100”) is employed. Results are presented in Table 4. They seem to confirm that strongly motivated cultural tourists are interested in environmental uniqueness, spend more (for transport, entrance fees for cultural attractions and shopping), but they do not appear to plan in advance to spend more than other groups. They allocate more time to cultural attractions, travel with other family members, advance planning of the trip and possess a better knowledge of the area. Again, these tourists are not interested in material culture (Food&Wine).

5 Concluding Remarks

We have addressed the ‘elusive’ concept of CT, trying to investigate and to define profiles. The analysis does not offer conclusive results but provides some insights for further investigation.

Our data allow identifying cultural tourists in terms of motivation and engagement in a cultural experience, in line with the mainstream literature; moreover, the data coming from the GPS monitoring of tourists flows offer information on the actual behaviour of tourists. Unlike other empirical studies carried out in destinations with a strong cultural characterization, and given the mixed features of the *Orta Lake* (a combination of culture, nature and sport/recreation attractions), the analysis allows investigating the connections among the different motivations related to the site rather than concentrating only on cultural ones.

Some findings, such as the close connection between cultural heritage and environment motivations may be specific of the case study, because of special features of the *Orta Lake*; however, similar connections do not arise with the other main characteristics of the area, e.g. sport/recreation, suggesting that very motivated cultural tourists are indeed more likely to be interested in overall quality.

Somehow unexpectedly, the relations between different forms of culture—heritage and Food&Wine—are not as close as the literature would suggest for all cultural tourists: For instance, it does not seem to be the case for strongly motivated tourists, who display a narrow heritage-oriented profile.

Instead, the idea that CT is an overall cultural experience is confirmed for ‘very strongly’ motivated tourists. Actually, for this group, a divergence between stated preferences (derived from the questionnaire) and revealed preferences (monitored

by GPS) seems to occur: In fact, notwithstanding the claimed motivation, this group does not dedicate more time than others to cultural attractions.

However, the scope of such a divergence is reduced if we consider that this group pursues an overall cultural experience where the different components of a territory—heritage, environment, material cultural—are closely connected, with heritage being only one element of this ‘very strong’ motivation and not necessarily the most practiced. Though the foregoing results are not conclusive, they would suggest caution when making use of the results of traditional surveys for policy design, since they might imply a risk of overestimating cultural heritage motivations. The above considerations can be also useful for the empirical investigation of the main drivers of cultural participation, to understand its different components and the links among them.

References

- Apostolakis, A., & Jaffry, S. (2004). A choice modelling application for Greek heritage attractions. *Journal of Travel Research*, 43(3), 309–318.
- Apostolakis, A., & Jaffry, S. (2007). The effect of cultural capital on the probability to visit cultural heritage attractions. *International Journal of Tourism Policy*, 1(1), 17–31.
- Bonet, L. (2013). Heritage tourism. In I. Rizzo & A. Mignosa (Eds.), *Handbook on the economics of cultural heritage* (pp. 386–401). Cheltenham: Edward Elgar.
- Cuccia, T., Guccio, C., & Rizzo, I. (2016). The effects of UNESCO World Heritage List inscription on tourism destinations performance in Italian regions. *Economic Modelling*, 53, 494–508.
- Cuccia, T., Guccio, C., & Rizzo, I. (2017). UNESCO sites and performance trend of Italian regional tourism destinations. *Tourism Economics*, 23(2), 316–342.
- Gasparino, U., Bellini, E., Del Corpo, B., & Malizia, W. (2008). *Measuring the impact of tourism upon urban economies: A review of literature* (Feem no. 52). Accessed July 19, 2016, from <http://dx.doi.org/10.2139/ssrn.1158400>
- Guccio, C., Levi Sacerdotti, S., Pollichino, G., & Rizzo, I. (2011). Analysis of cultural tourists’ behaviour through Global Position System (GPS) technology: The case of Orta Lake. In V. Asero, V. R. D’Agata, & V. Tomaselli (Eds.), *Turisti per caso? Il turismo sul territorio: motivazioni e comportamenti di spesa* (pp. 151–156). Acireale-Roma: Bonanno Editore.
- ICOMOS International Committee on Cultural Tourism. (2002). *ICOMOS international cultural tourism charter: Principles and guidelines for managing tourism at places of cultural and heritage significance*. International Council on Monuments and Sites, ICOMOS International Cultural Tourism Committee.
- Levi Sacerdotti, S., Mauro, S., & Gasca, E. (2011). *Visitor management*. Torino: CELID.
- McKercher, B. (2002). Towards a classification of cultural tourists. *International Journal of Tourism Research*, 4, 29–38.
- OECD. (2009). *The impact of culture on tourism*. Paris: OECD.
- OECD. (2010). *Tourism trends and policies*. Paris: OECD.
- OECD. (2012). *Tourism trends and policies*. Paris: OECD.
- Richards, G. (2003). What is cultural tourism? In A. van Maaren (Ed.), *Erfgoed voor Toerisme*. Amsterdam: National Contact Monumenten.
- Shoval, N., & McKercher, B. (2017). Implementation of tracking technologies for temporal and spatial management of cultural destinations: Hong Kong as an example. In V. M. Ateca-Amestoy, V. Ginsburgh, I. Mazza, & J. O’Hagan (Eds.), *Enhancing participation in the arts in the EU*. Heidelberg: Springer

SiTI. (2008). *Il progetto di Visitor Management per lo sviluppo turistico regionale della regione Piemonte: il lago d'Orta*. Torino: SiTI.

Towse, R. (2003). *Handbook on cultural economics*. Cheltenham, UK: Edward Elgar.

UNWTO. (2013). *Tourism highlights 2013*. Accessed July 20, 2016, from <http://www.e-unwto.org/doi/pdf/10.18111/9789284415427>

Calogero Guccio (Ph.D.) is an Associate Professor of Public Economics at the Department of Economics and Business—University of Catania, where he is Director of the M.Sc. in Corporate Finance. His research interests include theoretical and empirical aspects of health economics, cultural heritage, public procurement, and the evaluation of efficiency of private and public subjects. His research has been published on outlets such as, among others, *European Journal of Political Economy*, *Applied Economics*, *International Tax and Public Finance*, *Journal of Cultural Economics*, *Economic Modelling*, and *Journal of Productivity Analysis*.

Sara Levi Sacerdotti is project manager at SiTI (www.siti.polito.it) since 2005, where she is working on local development, in particular, on tourism flows and tourist behaviour. She holds a Major in Political Science and a Master degree in Evaluation and Analysis of Public Policy. Before, she worked in a banking foundation origin Compagnia di San Paolo, in evaluation department focus on arts and culture, and at the socioeconomic institute IRES Piemonte (www.ires.piemonte.it).

Ilde Rizzo Ph.D., is Professor of Public Finance at the University of Catania and former director of the Postgraduate Master on the Economics of Cultural Sector held by the Scuola Superiore of the University of Catania. She received a Degree of Doctor of Science honoris causa from the University of Buckingham, UK. She is President (2016–2018) of the Association for Cultural Economics International. She has published in many fields (cultural economics, efficiency of public expenditure, public procurement, health economics) monographs, edited books and referred articles in professional journals.

Part IV
The Role of New Technologies

Digital Research and Development in the Arts

Hasan Bakhshi

Abstract This chapter notes that the restrictive science and technology focus of conventional understandings of R&D excludes socially valuable forms of R&D in the arts. As a consequence, attempts by the state to support innovation—and R&D policies in particular—have been neglected in the arts and culture. The chapter outlines some steps that have been undertaken in the UK by organisations like the Arts Council England, the Arts and Humanities Research Council and innovation charity, Nesta, to straighten the situation.

Keywords Cultural economics • Innovation funding • R&D in the arts • Digital technologies

1 Introduction

It's sobering to think that despite decades of sustained criticism of purely science and technology-driven understandings of innovation, the vast majority of government innovation funding is still channelled through basic research funding for science, public R&D programmes and R&D subsidies and tax breaks. Education policy is usually viewed by governments as only supporting innovation insofar as it privileges the teaching of Science, Technology, Engineering and Mathematics (STEM) subjects.

The Frascati Manual, the bible for R&D policymakers in the OECD countries, defines Research and Experimental Development as comprising "... creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications." A child of the science and technology lobby, born at a time when manufacturing activities accounted for a much greater share of value added in developed economies than they now do, it is no surprise that the construct of R&D was captured by science and technology. So, for example, quoting almost verbatim from another section of the Frascati Manual, the guidelines for prospective R&D tax credit claimants issued by the tax

H. Bakhshi (✉)
Nesta, London, UK
e-mail: Hasan.Bakhshi@nesta.org.uk

authorities in the UK state that “[y]our company or organisation can only claim for R&D relief if an R&D project seeks to achieve an advance in overall knowledge or capability in a field of science or technology through the resolution of scientific or technological uncertainty... Science does not include work in the arts, humanities and social sciences.”

The Frascati characterisation of R&D as composed of (a) basic, or fundamental, research to acquire knowledge without an application in mind, (b) applied research, where knowledge creation has specific practical aims, and (c) experimental development, which draws on research to produce new products, processes and systems, was probably always a simplification of what actually went on in science and technology research. Even so, the clarity of the definitions has given rise to measurement guidelines and agreed R&D metrics which have enabled economists to explore the relationship between spending on R&D and economic performance at the firm level, and R&D spending and growth at the macroeconomic level. Or, in other words, to estimate the private and social return on investment in R&D. A large body of empirical evidence has been gathered which supports the theory that investments in R&D by individual businesses generate positive spillover effects on the innovation in other firms, constituting a market or systems failure which justifies some form of government support for R&D. In practice, the evolution of the R&D construct has been nowhere near as linear as this, but the implications of these developments should be clear.

2 Innovation in the Arts

Historically, governments have failed to devote innovation funding to the arts. This is seemingly due to a number of factors, in particular, the absence of definitions of innovation as applied to the arts, as well as questions related to its social desirability, lack of understanding of the role played by investment in innovation, lack of metrics and ways of estimating returns to arts innovations. More importantly, from an economic standpoint, the absence of tools to uncover, and address, market or systems failures, renders even less surprising the somewhat reduced participation of governments in R&D as related to areas like the performing arts.

This was the backdrop to the research collaboration with the Royal National Theatre that Bakhshi and Throsby began in 2008, and which is discussed in Bakhshi and Throsby (2010). They had noticed that funders in the UK were increasingly speaking about the importance of innovation in the arts. These two quotes from a report commissioned in 2008 by the UK government on *Supporting Excellence in the Arts* (McMaster 2008) were typical: “Those who fund the arts and those in receipt of funding have a duty to continuously encourage innovation. The boards of cultural organisations, and I include museums and galleries in my understanding of this, are—or should be—the guardians of innovation and risk-taking.”

These recommendations were all well and good. The only problem was that no one knew what innovation in this context meant! This particular report gained little

traction with policymakers as a result. But it did nudge Bakhshi and Throsby into researching and writing their 2010 paper.

Their aim was to take a first step in offering an economic framework for innovation that arts and cultural organisations and funders could use to guide their investment decisions. The approach was to suggest a set of definitions based on their reading of the economics literature on not-for-profit organisations, cultural economics and studies of technology adoption in the cultural sector. They then questioned and refined this framework using in-depth quantitative and qualitative case studies for two of the UK's premier cultural institutions operating in two very different art forms, namely, the Royal National Theatre and the Tate Gallery. These organisations provided them with unprecedented access to their audience data, as well as to their Executive team.

Notwithstanding the fact that these organisations were by no means representative of all arts and cultural organisations, they ended up stressing the following four dimensions of innovation in the arts:

- (a) Innovation in art form development: the development of new work that has at least the potential to influence artistic trends and which may perhaps lead them in new directions altogether.
- (b) Innovation in audience reach: made up of audience broadening (that is, capturing a larger share of the population segment known to be traditional participants but who currently do not attend); audience deepening (which is intensifying current participants' level of involvement, measured, for example, by the number of attendances per individual per year or by the degree of audience engagement with the art form itself), and, audience diversifying (that is, attracting new groups of audiences who would not otherwise attend).
- (c) Innovation in value creation: new ways in which a cultural institution creates value (whether that is mediated in markets, or not, in which case they would need to use techniques from public economics, like contingent valuation, for measurement purposes).
- (d) Innovation in business models: changes in financial models, or in organisational processes which support new ways of creating value.

3 National Theatre Live Theatre Broadcasts or Does Digital Participation Cannibalize Attendance?

The most significant element of the research turned out to be the experimental collaboration with the National Theatre in its pilot National Theatre Live broadcasts to digital cinemas. These broadcasts were structured as a piece of what you might call 'non-scientific and technological experimental development', with the pilot broadcasts co-designed with the researchers so that data could be generated to test their own research questions. The agreement with the National Theatre was that we would publish the research results of the research whatever these turned out to be.

Inspired by the Metropolitan Opera's live broadcasts of its performances to cinemas since 2006, the National had decided in 2007 that it wanted to experiment with its own live broadcasts. Opera had given it a glimpse of the opportunities. The Met's broadcasts had been a global success, reaching audiences in distant regions who otherwise would have had no chance to experience the Met's performances. In 2007, the San Francisco Opera had followed suit.

By the time of the National's first live broadcast, of Sir Nicholas Hytner's production of Ted Hughes' translation of Racine's play *Phedre*, in June 2009, the Royal Opera House in London had also dipped its toes into live screenings. While for theatre, audiovisual recordings of productions had been available for some time in the form of DVDs or TV broadcasts, together with a few experimental live broadcasts of stage productions on TV, no theatre had actually yet embarked upon live High Definition broadcasts to cinemas.

In consequence, the extent of the potential audience appetite for broadcasts remained unclear. Whether they would be more appealing to seasoned theatre-goers or prove more of a draw to less experienced theatre-goers remained to be seen. How well would the broadcasts preserve the excitement and intimacy that are the hallmarks of live theatre? Would the broadcasts prove so successful that they might actually cannibalise theatre attendances? Or, rather, would they devalue the art form in the eyes of theatre professionals and the public, this being a significant risk according to the National Theatre's executives? How much would audiences be willing to *pay* for the experience, and could this in turn be developed into a self-sustaining business model? Likewise, on a more prosaic level, how well would the technology work? Would the HD broadcasts preserve the quality of the live experience for audiences?

All of the aforementioned uncertainties presented barriers to innovation which perhaps might have been insurmountable, had the live screenings not been piloted as a piece of R&D where the objective was precisely to take risks and answer these questions.

In the event, *Phedre* was seen live on 73 digital cinema screens at 70 unique sites in the UK, and was relayed to a 210 further sites in the rest of the world. A total of 14,000 individuals across the UK saw that evening's production (aside from those experiencing it live at the National itself). A further 14,000 people saw it live across Europe or on the same day in North America (allowing for time-zone delays). Including those cinema audiences in other countries viewing the production at a later date, it is estimated that more than 50,000 people saw *Phedre* as it was performed on the 25th June 2009.

The National Theatre Live broadcasts had allowed the theatre to expand its 'virtual capacity'. To put the numbers into context, the audience for *Phedre* over its whole 3-month run at the theatre was doubled through the screening of that single performance.

According to our audience surveys, almost half of the cinema-goers on that night said that the main reason why they had not seen *Phedre* at the theatre itself was because the National Theatre's location was too far away or because they had been unable to get theatre tickets. While the great majority of the theatre audience had been to the National Theatre in the previous 12 months, this was the case for only 41% of audiences who saw *Phedre* at the cinema.

The National Theatre had reached only a relatively small number of ‘theatre novices’ through the broadcast however: less than 10% had not been to the theatre in the previous year, suggesting—in this case at least—that attracting complete newcomers to the theatre was not simply a question of distribution technology.

Perhaps National Theatre Live’s most striking extension in audience reach was a broadening of low-income audiences: one-third of cinema audiences had incomes inferior to £20,000 per year, compared with just over one-fifth in the case of the theatre. The potential of digital technology to help overcome the traditionally observed concentration of theatre audiences amongst relatively affluent consumers seemed clear.

One of the most significant findings was how National Theatre Live appeared to complement, not substitute *for* the theatre in the eyes of the public. Over one-third of cinema audiences said that, having seen the live screening of *Phedre*, it was now more likely that they would attend a live performance at the National Theatre.

However, as is well known, survey findings can give notoriously imperfect and possibly biased indicators of audiences’ future intentions. To address this, Throsby and I worked with the National Theatre on a quasi-field experiment dimension to the broadcast in order to triangulate the survey findings. By including enough participating cinemas within the commuter belt of the National’s South Bank location, and having access to detailed information on the postcodes of theatre bookers for *Phedre* and similar productions as ‘controls’, we were able to test whether districts in the catchment of participating cinemas were over- or under-represented at the National Theatre’s box office as compared with districts with no cinemas.

We found that there was, if anything, a greater number of theatre-goers—on average over 50% more—from the catchment areas of participating cinemas. No apparent evidence existed to support cannibalisation. It appeared that the National Theatre’s live broadcast of *Phedre* on 25th June 2009, as well as expanding the audience via cinema audiences, also succeeded in increasing audiences at the National Theatre itself (Bakhshi and Throsby 2014).

As well as allowing us to establish the degree to which the National Theatre reached less traditional audiences with its work, by making use of our surveys we were able to study whether or not the live broadcast had created a new or unexpected experience for audiences. Were new forms of cultural value being created, different from those generated by theatre in its traditional *modus operandi*?

What we revealed was counter-intuitive. Quite a lot is known about the emotional and aesthetic value that audiences derive from live theatre. It was hardly surprising to find that the proportion of the cinema audience expecting to have an emotional or uplifting experience was significantly smaller than that of the theatre audience. But we were astonished to discover that in terms of the event the actual experience proved much more emotionally engaging and aesthetically pleasing for cinema audiences than theatre audiences. The latter result generated a good deal of debate at the time, which led Bakhshi et al. (2010b) to denominate it by its own name: ‘Beyond Live’.

Taking into consideration all these different aspects of the production's cultural value for audiences, Bakhshi and Throsby (2012) estimated simple econometric models to explore the relationship with consumers' economic valuations, as measured by willingness to pay. The results indicated that the elements of cultural value most clearly associated with consumers' economic valuation of their experiences were the aesthetic or symbolic value indicated by their emotional response, and the social value of the group experience.

Taken at face value, these results suggested that far from devaluing the art form in the eyes of consumers, the National Theatre had through its live broadcasts created a novel cultural experience—'live theatre at your local cinema'—which had its own artistic merits.

Since completing the research, the National Theatre Live screenings have gone from strength to strength. Audiences reached 1.49 million in 2013/2014: a growth of over 200% with a total UK audience of 890,000 (for over 500 cinema screens across the country) and an overseas audience of 597,000. It is now regularly available in 1000 cinemas across the world in more than 35 countries. Since the National Theatre Live launch in 2009, the worldwide audience has now reached 2.7 million. The theatre even runs sell-out 'encore' streaming performances posing a further challenge to our traditional notions as to what is meant by 'live'.

The reaction of the public to the National Theatre's live screenings has been so great that it has been suggested that they may even have inspired audiences to go to other theatres. Certainly in the audience surveys for *Phedre*, significant numbers of people said that they were more likely to attend their local theatre having experienced the live cinema screenings.

Establishing whether or not this has actually been the case was the focus of a separate study conducted using 'big data'. Here, Bakhshi and Whitby (2014) used an aggregated daily box office panel data set comprising 16 million transactions over a number of years from 54 performing arts venues across England to explore whether, *ceteris paribus*, individuals living closer to National Theatre Live screening venues have, over time, become more frequent visitors to their local theatres, compared with those living further away. We found no evidence of cannibalisation for theatre attendance. In fact, if anything, there was tentative evidence of a complementarity between National Theatre Live and in-person attendance at London venues.

The positive reaction to the National Theatre's live screenings has not just been restricted to audiences—it has been shared by the rest of the sector too. Nesta (2013) reports the first findings of a 3-year longitudinal survey which relates how arts and cultural organisations in England are using digital technologies. It shows that live streaming was the fastest area of technology adoption. While still only 15% of organisations were engaging in live streaming of performances, the number had doubled in the previous 12 months alone.

The National Theatre Live research created a head of steam behind the idea for a 'Digital R&D Fund for the Arts' which had first been recommended in Bakhshi et al. (2010a), and further developed in Bakhshi and Throsby (2010).

4 Experimental Approaches with Digital Technologies

Nesta established the Digital R&D Fund for the Arts in partnership with Arts Council England and the Arts and Humanities Research Council (AHRC) to support experimentation with digital technologies in the arts and cultural sector. Between 2012 and 2014, the Fund awarded £7 million to projects that use digital technology to enhance audience reach and/or develop new business models for the arts and cultural sector (two of the four dimensions in Bakhshi and Throsby's (2010) innovation framework).

The R&D projects involved three-way collaborations between arts and cultural organisations, technology companies and researchers. The fund was designed this way to enable the pollination of ideas across disciplines, to encourage the development of new networks, build arts R&D capacity more generally, and ensure that the lessons from the R&D are captured and understood by the participating organisations.

But, in addition to encouraging collaborative R&D, a crucial element of the Fund was to share the insights, data and learning from each project with organisations not participating in the Fund. Too often, the nature of grant-funding in the arts results in secrecy about what works and, more importantly, hiding what does not.

The Digital R&D Fund for the Arts addressed this problem head on, and created a space whereby organisations were actively encouraged to talk about what they had learned, what they would have done differently if they had a chance to undertake their project again, and what impact the experience had had on their work. Nesta has always been determined that through the Fund, organisations should generate knowledge that can be used and built upon by others with a view to maximising the social application of the insights and to minimising the risk that others re-invent the wheel.

The *Digital Culture* survey was an integral part of this knowledge sharing. The survey's longitudinal nature allowed organisations to benchmark their performance against their peers over time, and they could access to an online data portal for this purpose. In addition, by tracking the technology journeys of different organisations, the survey allowed the funders to provide a rigorous account of the additional impact made by the Fund.

The year one survey responses, from 891 arts and cultural organisations spanning different art and culture forms, size and region, suggested that while digital technology was permeating all aspects of arts and cultural organisations' activity, it was most important in relation to their marketing activities: Almost three-quarters of organisations regarded digital technologies as essential to their marketing. This was followed by almost 60% who viewed it as essential for preserving and archiving, and for their operations.

Almost one-half of arts and cultural organisations were creating 'born digital' works native to and created for, the digital space. There were, however, significant differences across art and cultural forms. Those engaged in the exhibition of physical artefacts were far more likely to produce born digital works than those who did time-limited and performance art. For example, 64% of visual arts organisations reported producing born digital artworks compared with 34% in the case of theatres.

Whilst specific technologies will obviously be more relevant to some organisations than others, the research suggests areas for greater experimentation. It was striking how, for example, museums consistently reported much lower levels of activity and impact from digital technology. 37% of them reported a major positive impact from digital technologies on audience numbers, compared with 51% of the total sample. Only 3% of museums reported a major positive impact on their revenues compared with, for example, 31% of performing art venues.

When organisations were ranked by how important they judge digital technology to be in terms of their different activities—creation, marketing, distribution and exhibition, preserving and archiving, operations and business models—the data revealed a high degree of statistical clustering. In other words, those organisations that had embraced digital technologies in, for example, their creative practice, had also tended to do so in their operations and business models.

The top 10%—‘cultural digirati’—were far more likely to say that digital technologies had had a ‘major impact’ on their ability to fulfil their missions effectively, and they were over three times more likely to say that digital technology had had a major impact on their revenues and profitability.

What were these organisations doing differently? They were more than twice as likely as the sector as a whole to have created standalone born digital works and to have adapted or re-staged works to have made them suitable for digital consumption. They were twice as likely to have digital expertise distributed across their organisation and 2.5 times more likely to have used data in the development of new products and services. They were also more than twice as likely to say that digital technology had had a major impact on their strategies, and to place value on external sources of technology-related expertise, advice and ideas, including from their trustees. Crucially, they were significantly more likely to report to experiment with new technologies and more likely to prioritise R&D than other organisations.

While one year’s survey provides only correlations, not evidence of a causal relationship between experimentation and performance—it is equally likely that organisations that see a greater return from digital technology investments will experiment more often—the findings are nonetheless indicative that organisations may need to step up their R&D activity if they want to enjoy the same paybacks as the ‘digerati’.

The Digital R&D Fund in England—similar funds were piloted in Wales and Scotland—supported projects across the country, pushing the boundaries in different art and cultural forms, and exploring the potential of technologies ranging from augmented reality to html5, near field communication to superfast broadband and haptic technologies. The following examples illustrate the research-led nature of the projects and the potential of the propositions being tested.

The first project aimed to turn theatre from a passive spectator experience into something more that happens all around us. It involved one of the world’s leading independent documentary festivals, Sheffield Doc Fest, and the interactive performing arts company, Blast Theory, which teamed up with the telecommunications company, EE, to use high-speed 4G mobile communication technology to turn city streets into creative playgrounds for artists and audiences.

Specifically, using Blast Theory's "I'd Hide You"—an online, immersive game played out on the streets of the city of Sheffield—the project identified the technical and administrative challenges for using everyday places as locations for creative practice, performance and interaction. Over 2000 people from around the world participated in a trial as online players, as well as hundreds of Sheffield citizens in person.

As well as researching the necessary infrastructure to stage such a project, the research explored what the implications of this experience are for 'performance' and how it challenges assumptions usually made about artists and their audiences. The project team developed a roadmap for other arts organisations—to guide them through the process and the key challenges that must be tackled when exploring the potential of high-speed networks in public spaces for interactive artistic experiences.

The starting point for the second example was the insight that scripts for theatre plays represent an untapped cultural resource, which is rarely, if ever, seen by audiences. The theatre company, Unlimited Theatre developed an interactive digital play script app based on their play, *The Noise*. With their technology partner, Storythings, they made the script into an interactive, digital resource for audiences that includes sound, video and other media.

They researched how touch screen technology and gestures can create a new reading experience that audiences value. As well as launching the app, *Make Some More Noise* on Apple's iOS and the Android operating system, the software was made available in an open-source template for other artists to use, creating a new digital product for the distribution and enjoyment of play scripts and hopefully offering new artistic and commercial opportunities for other organisations.

DanceTag was another app, developed by dance company, Pavillion Dance South West, through the Digital R&D Fund. This app was designed to engage people with dance as an art form—particularly those who would not normally classify themselves as 'dancers'.

Users created a 15 second film of themselves dancing, which they tagged to their specific location using the social networking site, Foursquare. The video was then uploaded to the project website where other users could view, rate and comment on the video, as well as challenge the dancer with a video of their own. As an incentive, dancers who turned out to be popular were able to access discounted tickets to performances by professional dance companies in their area.

The project aimed to get people dancing in the South West of England—where Pavillion Dance is based—but the app had the potential to engage people with any art form, and based anywhere in the world. The hope was that other arts organisations would apply the DanceTag model with a competitive, GPS-based gaming app of their own. But the social value of the project would go beyond this, as the research would also produce valuable insights into the cost, timescale, marketing and challenges of producing any arts-based gaming app.

The next project was aimed at using technology to help children with autism, and their families, enjoy the arts to their full potential. *Show and Tell* was an interactive app designed to assist autistic children by creating visualisations and coping

strategies. It allowed children to gain an understanding of an arts event before they attend it, helping their concentration, and enriching their enjoyment.

After downloading the app, a parent was able to customise the content and layout of the app to reflect the needs of a specific child, allowing familiarisation to alleviate the child's anxieties about the performance. After the event, the attendee was able to review photos taken throughout the performance in the form of a digital book, promoting further engagement. The app was designed to be adapted easily by other organisations preparing children for an unknown experience, although it was particularly relevant for autistic children experiencing new art forms.

The next project by Extant, a professional performing arts company of visually impaired people, explored how we can create arts experiences that are equally captivating for blind and sighted people. It did this by developing hand-held digital devices that allowed both blind and sighted people to engage with a performance installation and enjoy the same sensory experience.

The pilot installation was set in total darkness. Audience members were each given a personal navigation device, which changed shape, expands or shifts its centre of mass in their hands in order to guide them through the space.

Extant is looking at other cultural settings to see how they can benefit from the project's insights. In a museum or gallery environment, for example, a personal navigation device like this could present an important new way for visually impaired visitors to engage with an exhibition.

Talking Statues was a project that used actors and mobile technology to put words into the mouths of statues. The public passed a statue, swiped their phone on a nearby tab or scanned a Quick Response code, and moments later their phone rang; it might be Samuel Johnson, Sir Lawrence Oliver or Paul McCartney on the line. By using the public's own phones, the project hoped to create a more personal experience.

The project organisers, Sing London, had also collaborated with Google to include Talking Statues in their new Google Field Trip app—a city guide app for tourists. It had also worked with theatres to commission high profile writers and actors to write and deliver the statues' speeches. Near Field Communication technologies like this were becoming commonplace in other sectors like transport and retail; this project investigated its potential for cultural institutions too.

Audience feedback is critical for arts and cultural organisations, and the quicker it can be collected and processed, the more responsive organisations can be. The Qualia project involved the Cheltenham Festivals of Jazz, Science, Music and Literature. This explored how festivals might capture and analyse feedback from their audiences in real time, and have the power to respond while the latter are still physically present at the festival. This could involve something complex like adjusting the programme or alternatively, simple things such as turning up the air conditioning.

It did this through a combination of mechanisms, including a smartphone app where audiences could record their feedback about events, and which also tracked the areas of the festival that get the busiest. Sensing 'pods' were placed around the event site that enabled audiences to give feedback on events, and added a layer of mood sensing through smile detection.

All this information went into a specially designed web engine, which combined it with other sources such as social media, and made the data useable for the festival organisers. The technology was again developed as an open source system, allowing other organisations to take and adapt this model to their own work.

Thanks to its popular live streaming programme, through which it broadcasts opera and ballet productions all over the world, the Royal Opera House now enjoys global audiences. In order to engage more deeply with these audiences, it developed through the Digital R&D Fund a new mobile app which allowed audiences to engage with its work and access exclusive content, whether they watched the live production at the Opera House in Covent Garden or streamed to screens in Brazil. It was a ‘hybrid’ app because although it looked and acted like an app on a smartphone or tablet, it actually worked as a website. This meant that audiences did not need to download an app to access the new content.

The technical key to making this work was html5—the digital language used by web and app developers that was becoming a standard technical code on the Internet. The hybrid app also used geo-location to give specific information to users, for instance, telling them about upcoming digital screenings of Royal Opera House productions in their area.

The Royal Opera House tested a new business model as part of the project. Users of the app were able to purchase digital programmes for Opera House productions, purchase tickets and make online donations. All of the results of this experiment, what worked and what did not, were published as a valuable information source for other arts organisations looking to develop similar capabilities.

The Imperial War Museums in London and Salford house a huge collection of images and artworks related to the First World War. In the lead-up to the centenary anniversary of the War, this next project posed the following questions: how can crowdsourcing and public curation be used to interpret these artefacts and what might the role of digital technology be within that?

The project worked through Historypin, a user-generated archive of historical material that works both as a website and an app. Users visited the Putting Art on the Map section of the Historypin site to view First World War artworks, where they could pin that image on a map (powered by Google Maps), leave a comment or engage in a discussion with other users.

Users could also curate their own collections of artwork online. They could help the Museums crowdsource solutions to ‘mysteries’ about when and where particular works were painted, and so on.

This way, at the same time as commemorating the First World War in a unique way, the project researched how User Generated Content and social media could be used within the museum sector, and within arts and cultural organisations more generally. It explored how digital technologies could help arts organisations engage with people in an open, online space, curated by a community of users. The R&D’s potential social value lay also in its contribution to arts and heritage education and testing new ways in which personal histories can be combined with social and political histories using digital tools.

5 Conclusion

These projects should illustrate how research design, data and disciplined experimentation can come together to support innovation in cultural institutions. Each project tested proposals with potentially wide-ranging insights for the arts and cultural sector. Over their lifetimes, the various Digital R&D Funds in England, Scotland and Wales supported what is probably the world's largest and most systematic portfolio of R&D projects in arts and cultural organisations. One can hope that these projects will serve to stimulate innovation more widely and provide a rich resource of data and research material for researchers (See www.artscouncil.org.uk/creative-media/digital-rd-fund-arts-2012-15).

All of these projects and the R&D Funds that supported them, however, should be viewed as just small moves in a much bigger game. The ultimate prize is an understanding of innovation that is better grounded in today's economy and society. Organisations working in the arts and culture should aspire to, and be funded to engage in Research and Experimental Development, which aims at innovation in all its forms, redressing the longstanding imbalances that exist in innovation policy. Experimental development will allow the arts to explore new ways of developing art forms, engaging audiences, creating value and generating revenues. The value of this to society should be recognised by arts and research funders and innovation policymakers.

References

- Bakhshi, H., & Throsby, D. (2010). *Culture of innovation: An economic analysis of innovation in arts and cultural organisations*. Nesta Research Report. London: Nesta.
- Bakhshi, H., & Throsby, D. (2012). New technologies in cultural institutions: Theory, evidence and policy implication. *International Journal of Cultural Policy*, 18(2), 205–222.
- Bakhshi, H., & Throsby, D. (2014). Digital complements or substitutes? A quasi-field experiment from the Royal Natural Theatre. *Journal of Cultural Economics*, 38(1), 1–8.
- Bakhshi, H., & Whitby, A. (2014). *Estimating the impact of live simulcast on theatre attendance: An application to London's National Theatre* (Nesta Working Paper No. 14/04).
- Bakhshi, H., Desai, R., & Freeman, A. (2010a). *Not rocket science: A roadmap for arts and cultural R&D*. London: Mission, Models, Money. Accessed September 15, 2016, from https://mpr.ub.uni-muenchen.de/52710/1/MPRA_paper_52710.pdf
- Bakhshi, H., Mateos-Garcia, J., & Throsby, D. (2010b). *Beyond live: Digital innovation in the performing arts*. Nesta Research Briefing. London: Nesta.
- McMaster, B. (2008). *Supporting excellence in the arts—From measurement to judgement*. London: Department of Culture, Media and Sport.
- Nesta. (2013). *Digital culture: How arts and cultural organisations in England use technology*. London: Digital R&D Fund for the Arts, Nesta.

Hasan Bakhshi is Executive Director, Creative Economy and Data Analytics at Nesta. His work on skills in the video games and visual effects industries led to wholesale reforms of the school ICT curriculum in England. In 2013, he co-authored the Manifesto for the Creative Economy which sets out a strategy by which governments can help the creative economy grow. Hasan has a particular interest in data and experimental research methods, including devising the Digital R&D Fund for Arts in partnership with Arts Council England and the Arts and Humanities Research Council. Prior to Nesta, Hasan worked as Executive Director and Senior International Economist at Lehman Brothers, and as Deputy Chief Economist at the Foreign and Commonwealth Office.

Implementation of Tracking Technologies for Temporal and Spatial Management of Cultural Destinations: Hong Kong as an Example

Noam Shoval and Bob McKercher

Abstract The development of tracking technologies such as GPS receivers, mobile phones and recently smartphones is a very dynamic domain, with the potential to capture ubiquitous and real-time spatial human movement and behavior. Until recently, the most common method for gathering information on human time-space patterns was the time-space diary. While time-space diaries have been used to great effect they do have several disadvantages as research tools. In this chapter we will present data collected in Hong Kong in the past years in order to present the abilities of tracking technologies to contribute to our understanding regarding cultural consumption of tourists visiting a destination.

Keywords Tracking technologies • Tourism • Cultural consumption • Hong Kong

1 Introduction

The development of tracking technologies such as GPS receivers, mobile phones and recently smartphones is a very dynamic domain, with the potential to capture ubiquitous and real-time spatial human movement and behavior.

Until recently, the most common method for gathering information on human time-space patterns was the time-space diary. This method provides a systematic record of the way in which individuals occupy their time in space over a limited period, be it a few hours, a day, or a week (Anderson 1971). While time-space diaries have been used to great effect (see, for example, Janelle et al. 1988) they do have several disadvantages as research tools. In particular, time-space diaries

N. Shoval (✉)

Department of Geography, The Hebrew University of Jerusalem, Jerusalem, Israel
e-mail: noamshoval@mscc.huji.ac.il

B. McKercher

School of Hotel and Tourism Management, The Hong Kong Polytechnic University, Hung Hom, Hong Kong
e-mail: bob.mckercher@polyu.edu.hk

require that the subjects are actively involved in the process of data collection by recording, in detail and at length, their activities throughout the entire experiment (Thornton et al. 1997). Since participants often fail to record their actions faithfully, the data obtained are of questionable credibility (Parks and Thrift 1980).

In this chapter we will present data collected in Hong Kong in the past years in order to present the abilities of tracking technologies to contribute to our understanding regarding cultural consumption of tourists visiting a destination.

2 The Introduction of GPS to Tourism Research

Global Positioning System (GPS) devices offer researchers the opportunity of continuous and intensive high-resolution data collection in time (seconds) and space (meters) for long periods of time; this was never possible before in spatial science research. GPS allows the spatial and temporal positioning of tourists to be captured through a network of satellites orbiting in space around the Earth. Each tourist visit involves some form of movement and a series of social interactions with other visitors. Acquiring tourist movements in time and space has the potential in providing arrival and departure times, attractions visited, the sequence of attractions visited, as well as walking speed and orientation. Spatio-temporal characteristics of tourist movements are recorded in GPS devices to capture parameters such as sites visited, time of day (when), duration (how long) and sequence (what order). Changes in these characteristics indicate changes in tourist positioning that in turn reflect exhibited tourist behaviour.

GPS and other tracking technologies are now used in a wide variety of fields aside from tourism, such as environmental health (Phillips et al. 2001; Elgethun et al. 2003); the medical field, in such subjects as Alzheimer's disease (Miskelly 2004, 2005; Shoval et al. 2008), physiology (Terrier and Schutz 2005), and cardiology (Le Faucheur 2008); and as a tool to assist in navigation for visually impaired and blind pedestrians (Golledge et al. 1991, 1998; Maeda 2002). However, to date, most of the research conducted based on material gathered by advanced technologies has been in the field of transportation studies, usually in regard to tracking the spatial paths of motor vehicles (see, for example, Quiroga and Bullock 1998; Wolf et al. 2001; Bohte and Maat 2009).

Emerging technologies have resolved both data collection and analysis problems, and in doing so have potentially revolutionized research into tourist behavior in urban destinations and in open areas. GPS loggers with an accuracy of at least ± 10 m can track a tourist's location as frequently as every second at every point on earth. These instruments have resolved the data collection challenge by providing a level of fineness of detail that was previously unavailable. Geographic Information System (GIS) software can analyze these high-resolution data quickly and efficiently, and importantly provide a range of analytical options including tracking tourist movements, time analysis, space analysis and length of stay (Shoval and Isaacson 2007).

In recent years a growing body of work has demonstrated the efficacy and the limitations of using tracking technologies to explore leisure and tourist activities (for a review see Shoval and Isaacson 2010). Much of the research that implemented tracking technologies, up to this date, tends to be rather descriptive and small scale. Some more sophisticated studies have been conducted, but they have mostly been tightly spatially bound, for example, focusing on small historic cities (Modsching 2008; Shoval 2008; Spek 2008; Tchetchik et al. 2009), confined attractions like theme parks and zoos (Russo et al. 2010; Pettersson and Zillinger 2011; Birenboim et al. 2015), natural parks (Arrowsmith and Chhetri 2003; Harder et al. 2008; Hallo et al. 2012) and small Islands (Xia et al. 2009; Nielsen 2010), and cultural and natural heritage sites (Guccio et al. 2017). Each of these locales has a clearly defined entry and exit point both making the selection of potential participants and the modeling of their movements an easier task. Only few large, complex and multifunctional urban settings like Rome (Calabrese and Ratti 2006) and Hong Kong have also been investigated successfully as well using GPS (McKercher et al. 2012; Shoval et al. 2012).

An Estonian group of researchers (Ahas et al. 2007, 2008) used cellular network information on a national scale to gain insight into the activity of tourists in their country. In their first paper, cellular phone data was used to establish spatial patterns of tourists in different seasons. The second paper focused on the flows of tourist movement as can be observed by the records describing the roaming phones in the cellular phone network's database.

3 The Smartphone Revolution and It Implications for Tourists Research

The implication of the fast and wide introduction of smartphones since about 2007 and onwards has created immense availability of information for their users at any time and any place; this had also implications on the ability of tourists to receive information while touring the destination and change the whole paradigm about tourists' knowledge of destinations (Tussyadiah and Zach 2012). However, until recently due to the high roaming prices for phones crossing international borders, the use of such data by tourists where relatively limited, however recently use of local sim-cards and attractive international roaming programs made smartphones relevant for tourist in destinations. The other implication is for tourism research, as will be discussed below.

Smartphones are highly programmable mobile phone devices, which integrate powerful computing abilities, advanced communication and geo-location technologies, as well as several other useful functionalities which may be practical for researchers. The 'always on always worn' (unlike GPS loggers used in research so far) status of smartphones turns them into accessible media through which surveys can be delivered and self-completed by respondents in their immediate, natural

environment. Other than self-report questionnaires, smartphones can supply researchers with physiological, behavioral and locomotion information which can be *generated* automatically based on built-in and external sensors.

On the other hand, the use of smartphone is fraught with a number of disadvantages. The relatively short battery life of the phones, at the time of writing this chapter, may limit the use of the devices for surveying purposes, however new batteries introduced recently are able to tackle this shortcoming. In addition, smartphones run on several different operation systems; this requires researchers to develop several different applications to meet the specifications of each operation system.

4 Hong Kong as a Destination

The Hong Kong Special Administration Region (HKSAR) of China is one of the world's most popular urban tourism destinations. During 2013, over 25 million overnight arrivals were recorded, representing a yearly growth of 8% (HKTB 2014). In addition, 28.6 million same day visitors arrived. China is Hong Kong's primary source market, generating some 75% of all arrivals. Total tourism expenditure associated with all travel in 2014 was approximately HK\$170 billion (US\$23 billion), with total overnight visitor spending at HK\$105 billion (US\$13.5 billion) (HKTB 2014). In 2009 more than half of all arrivals identify their trip purpose as pleasure (55%), with about 21% visiting for business and 19% visiting friends and relatives (HKTB 2009).

The destination offers a wide array of culinary, shopping, sightseeing and pleasure tourism experiences, but it is not famous for its cultural attractions. Hong Kong is a spatially dispersed destination with a number of discrete tourist nodes located on Hong Kong Island, Kowloon and the New Territories. While the HKSAR is smaller than 1200 km², it consists of Hong Kong Island, Kowloon, the New Territories (which is connected to China) and some 262 outlying islands. This unique setting has resulted in the formation of two distinct downtown cores, one located on Hong Kong Island and the other in the Tsim Sha Tsui (TST) area of Kowloon. The Hong Kong Island cores extends eastward for a number of kilometers along the north shore of the island to include such districts as Wanchai, Admiralty and Causeway Bay, while the Kowloon core extends northward along the Kowloon Peninsula to include such areas as Jordan, Yau Ma Tei and Mong Kok. These built-up areas contain most of the popular shopping, nightclub and restaurant districts. The Kowloon area is also home to most of Hong Kong's museums, street markets and night markets. The famous 'Victoria Peak' lookout area is accessible from Central, Hong Kong Island by funicular railway. The south coast of Hong Kong Island houses the three popular tourist nodes: the Stanley market area, the Ocean Park theme park and the Aberdeen shopping and dining node. The outlying island of Lantau is home to Hong Kong Disneyland, a cable car to the Big Buddha, the world's largest seated bronzed outdoor Buddha and the Hong Kong

International Airport. A number of smaller cultural, heritage and natural attractions are scattered throughout the rest of the New Territories.

The extent of the decentralization of tourist nodes can be gleaned from an examination of the most popular places visited by Vacation Overnight Visitors (a sub category of overnight visitors) in 2008. They include: the Peak Lookout on Hong Kong Island (47%); The Avenue of Stars promenade along the Kowloon waterfront (37%); the open air Ladies Markets (34%) in the Mong Kok area of Kowloon; the two theme parks of Ocean Park (27%), located on the south coast of Hong Kong island and Hong Kong Disneyland (25%) located in Lantau Island in the New Territories; and the open-air Temple Street Market located in the Yau Ma Tei area of Kowloon (20%) (HKTB 2009).

5 Method

5.1 *Study Population and Sampling*

A three-stage method was adopted and is described in detail in previous publications (McKercher et al. 2012; Shoval et al. 2011). Data were gathered between November 2008 and September 2009. The target population was independent tourists staying at a centrally located hotel in Kowloon who were neither departing Hong Kong on the day they were identified for this study, nor were they planning to purchase a full or half day guided tour. Potential participants were approached in the hotel lobby after breakfast by the team of researchers and asked if they wished to participate in the study. Once they agreed to participate, a simple questionnaire was administered identifying their broad travel patterns (total trip duration, travel party size, demographic profile, length of stay and the day(s) of stay in Hong Kong). They were then given an activated GPS logger and asked to return it to the hotel at the end of the day's journey, just before retiring to their room. The logger was programmed to identify their location at 10-s intervals, providing a detailed account of their movements. Due to limitations in battery capacity, movements could only be monitored during 1 day and not over the entire stay. The method was deemed valid based on previous studies using paper diaries that showed no difference in movements or propensity to visit attractions during the middle days of a visit (McKercher and Lau 2008). A brief follow-up questionnaire was administered when the respondent returned the GPS data logger to determine if the actual weather conditions affected activities and satisfaction.

A total of 489 tourists agreed to participate in the study. Of this group, some 363 viable GPS sequences were found to be suitable for full final analysis. The 126 sequences that were not used were eliminated due to technical problems with the devices (i.e. the device was turned off or did not record the locations), or due to severe deficiency of GPS samples (mainly as a result of the 'urban canyon' that exists in Hong Kong, which obstructs the signals sent from the satellites).

5.2 Data Analysis

Data were analyzed using an ESRI's ArcInfo 9.3 GIS (Geographical Information System) commercial software. The utilization of such data in a GIS platform allows us to spatially aggregate the data and to generate useful, informative visualizations.

6 Results

The GPS tracking allow reconstructing the activity of the tourist during the day in very high resolution. The temporal resolution is 10 s and the spatial one is about 7 m. This means that we can understand the sequence of the activity in time of space and as a result analyze the tourist's cultural consumption versus other activities in Hong Kong. For example, we can see that participant number 22 who stayed in the Eaton hotel in Kowloon visited the Temple Street Night Market (during the day) and then went to visit two of the main museums in Kowloon: the Science and the History museums in Kowloon (see Fig. 1). About 25% of the tourists who



Fig. 1 Time-Space activity of a participant in Kowloon. A—Eaton Hotel; B—History Museum; C—Science Museum; D—Temple Street Night Market

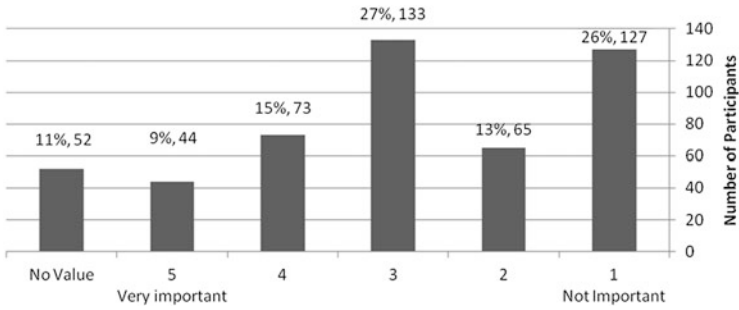


Fig. 2 Perceived importance of visiting Museums, Art Galleries and Exhibitions

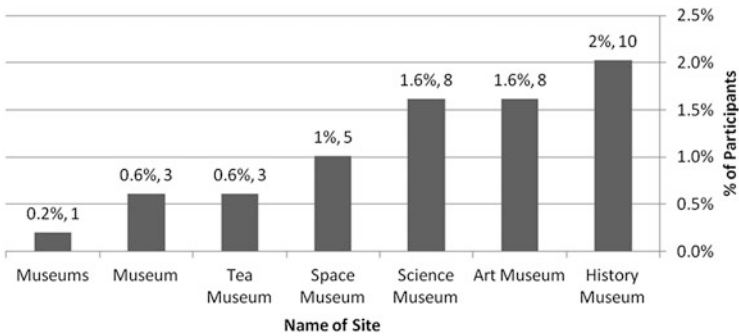


Fig. 3 Specific cultural institutions to be visited

participated in this study thought that visiting a museum, an art gallery or an exhibition during their stay is an important or a very important activity, however the majority did not attach a high value to such visits which is not surprising regarding the characteristics of Hong Kong as a tourist destination which is not a cultural destination per se to say the least (see Fig. 2). When asked more specifically about specific cultural institutions to be visited, only about 6% of the participants named a specific institution to be visited (see Fig. 3).

As revealed by the GPS tracking, only 12 participants actually visited a museum, this is only 39% of the participants who declared their intent to visit a museum and only little over than 2% of all visitors participating in the sample (see Fig. 4). In comparison, over 20% visited the more famous ‘Victoria Peak’, Nathan road shopping street in Kowloon (33%) and other shopping streets in Kowloon such as the ‘Ladies Market’ (17.6%) and the ‘Temple Street Night Market’ (10%).

Site	No. of occurrences	%
The Peak	104	21.1%
Nathan Road	166	33.6%
Temple St Night Market	48	9.7%
Ladies Market	87	17.6%
Po Lin Monastery and Big Tian Tan Buddha	43	8.7%
Total	448	

Site	No. of occurrences	%
HK History Museum	7	1.4%
HK Space Museum	4	0.8%
HK Art Museum	1	0.2%
HK Science Museum	1	0.2%
HK Maritime Museum	0	0.0%
HK Museum of Coastal Defense	0	0.0%
Total	12	

Fig. 4 Actual visits to tourist sites and cultural intuitions in Hong Kong

7 Conclusions on the Hong Kong Experiment

The use of GPS technology to track the activities of tourists enables us to receive high resolution data regarding the tourism consumption pattern in Hong Kong in time and space. It also makes it possible to understand not only which attractions are visited, but also the sequence of visits and as a result to create typologies of tourists according to their time-space activities (Shoval et al. 2015). Another approach that was not presented in this chapter is to analyze the spatial and temporal behavior of the entire body of subjects in aggregate. This analytical approach looks at the subjects' effect on the city or how the city is 'consumed' by tourists as a whole. Its aim is to reveal how the urban environment is shaped by the subjects' time-space activities, but it can also be interpreted from the opposite perspective: How activities are shaped by the morphology of the place and the location of sites. Based upon aggregate, rather than single or clusters of observations, such a spatially focused analysis can be used to identify the most popular sites and neighborhoods in town, and those ignored by visitors; or, alternatively, the routes that are well-tramped and those that remain virtually unused.

This study has provided additional knowledge of the spatial and temporal behavior of visitors to Hong Kong. Such knowledge can and should be exploited to regulate tourist flows throughout the city more adequately. Thanks to this new GPS derived information, visitors to Hong Kong can now be encouraged to visit previously unexplored parts of the city, by, among other things, affording these sorely neglected sites greater publicity. As for the city's more popular attractions,

visitors can now be prompted to visit them at specific times. Such information will also facilitate decisions on the location of new attractions and on where to encourage the installation of private sector tourist services. In all cases, the result will be a reduction of congestion at hitherto over-crowded and over-exploited sites and an overall increase in the city's physical and social carrying capacity. Moreover, what is true for Hong Kong holds true for other cities, all of which would benefit from similar studies with a view to revamping and rationalizing their heritage management performance. Lew and McKercher (2004) have suggested that urban tourist flows clearly have a tendency to spread themselves unevenly, both spatially and temporally. As a consequence, while the more popular sites and access routes in town often suffer from over-crowding and severe congestion, others are largely ignored and severely under-exploited. This state of affairs points to a grossly inefficient use of economic and social resources; and one that is ultimately also unsustainable. There is clearly an urgent need for tourist management schemes designed to maneuver visitors around the city in a more rational way. Such schemes would doubtlessly benefit from GPS based studies, in that, as the Hong Kong case study has shown, GPS devices and lately smartphones are a remarkably efficient means of collecting a mass of accurate, high-resolution data on the spatial and temporal behavior of visitors.

The lessons learnt and conclusions drawn from the Hong Kong experiment clearly reach beyond the town of Hong Kong itself and can be applied in other urban environments. However, this study also has several implications in relation to tourism studies as a whole. As is apparent from the results obtained in Hong Kong, advanced tracking technologies could do much to facilitate -and indeed upgrade-empirical research in the field of tourism studies. In the first place, these technologies can track subjects in time and space over long periods of time, and do so reflexively, thus reducing the burden placed on the subjects to a minimum. In the second place, they provide researchers with an extremely accurate database, and, what is more, one distinguished by an extraordinarily high degree of temporal and spatial resolution.

8 Theoretical and Methodological Reflections

Providing extremely accurate data in time and space, these technologies are opening up new, previously unfeasible, lines of inquiry. In practical terms, the high-resolution data thus obtained could be used, among other things, to monitor and regulate the carrying capacity of tourist sites more rationally, improve the allocation of accommodation services, reduce friction between tourists and local populations, and assist in planning tourism transport infrastructures. All in all, an important point to be clarified is that these technologies do not replace questionnaires, diaries, or interviews, which will remain an important source of information on the activity—and especially the motives underlying the activity—of tourists.

Instead, the new technologies will complement, add to, and enrich the findings of these more traditional research tools.

8.1 Key Questions for Future Research

One open question that still must be investigated empirically is: Do visitors, once they know they are being followed, change their activity, and, if so, how? However, even the more traditional methods for gathering information about the time-space activities of tourists raise concerns as to whether reports are inaccurate (in questionnaires and time budgets) and whether tourists change their patterns of activity due to participation in a study, feeling that they must behave in a certain way.

An additional direction of inquiry is the combination of tracking data with additional digital sources of data. Items that can be added to a tracking kit and carried by the participant can include, for example, sensors that measure excitement and physical effort. Sensors can also be placed throughout a destination to measure, for instance, noise levels, pollution, and other qualities of the environment.

Another question relates to the large amounts of data that are accumulated when using these methods, which will require the development of algorithms to enable automatic scripts to analyze the data in a fast and practical way. It would be beneficial if at some point the software being developed today by different research teams around the globe on an *ad hoc* basis could be standardized so that common measures are developed. More importantly, this could lead to an increase in the number of researchers in the field, because the current challenge of analyzing the data no doubt limits the number of prospective users of these methods.

Advanced tracking technologies have the abilities and potential for implementation in tourism research. However, their use in obtaining the exact locations of participants at any given moment, can cause infringements on privacy rules and adds a geographical dimension to the *surveillance society* (Lyon 2001) and the ability to better track the *digital individual* (Curry 1997). This raises different questions about ethical and moral issues arising when conducting research that involves such technologies. One of the most prominent among these issues is whether, and to what extent, such research projects impinge on their participants' right to privacy. The need to undertake research in a manner that will protect the privacy, dignity, and well-being of its subjects is obviously a concern to anyone engaging in any kind of study. The need to receive the approval of an ethics committee for research that involves humans is clear, accepted, and part of any research design in the social sciences.

The large amounts of accurate data collected using these methods will make possible the development of new theories regarding the spatial activity of tourists, new understandings of tourists and their influence on destinations, and more accurate ways to calculate both physical and social carrying capacity in order to ensure the sustainability of tourism within a destination. These developments were

not possible using the data sources available before the introduction of such technologies.

Further research is necessary in order to develop an understanding of what patterns of spatial activity are beneficial both to the destination and to tourists visiting the destination. Recognizing patterns of spatial activity throughout a destination that are not beneficial, that may lead to damage of delicate attractions (such as historical locations) or infrastructure, and that may cause frustration and displeasure to the tourists can be of great assistance in the smooth and efficient management of tourist destinations. Being able to read into the spatial activity, to understand the different meanings that these patterns of behavior have for tourist destinations, and to project the possible results of various interventions are essential skills and can be developed through research. We have the ability to recognize areas of high and low activity and even to classify destinations into different types of space according to spatial activity, but we do not yet have the knowledge to identify over-usage, when activity levels have reached a point that is no longer beneficial for the destination.

The potential improvements in the implementation of tracking technologies for tourism research and practice mentioned above could enhance the benefits of using those methods for researchers and practitioners alike. The rapid advances in tracking technologies and the growing possibilities in implementing them for use in different areas in general and in the realm of tourism research in particular, leaves no doubt that the future of tracking technologies in tourism will be exciting and dynamic, providing researchers with invaluable insight and information.

References

- Ahas, R., Aasa, A., Mark, Ü., Pae, T., & Kull, A. (2007). Seasonal tourism spaces in Estonia: Case study with mobile positioning data. *Tourism Management*, 28, 898–910.
- Ahas, R., Aasa, A., Roose, A., Mark, Ü., & Silm, S. (2008). Evaluating passive mobile positioning data for tourism surveys: An Estonian case study. *Tourism Management*, 29, 469–486.
- Anderson, J. (1971). Space-time budgets and activity studies in urban geography and planning. *Environment and Planning*, 3, 353–368.
- Arrowsmith, C., & Chhetri, P. (2003). Port Campbell National Park: Patterns of use: A report for the development of visitor typology as input to a generic model of visitor movements and patterns of use. Prepared for Parks Victoria. Melbourne.
- Birenboim, A., Reinau, K. H., Shoval, N., & Harder, H. (2015). High resolution measurement and analysis of visitor experiences in time and space: The case of Aalborg Zoo in Denmark. *The Professional Geographer*, 67(4), 1–10.
- Bohte, W., & Maat, K. (2009). Deriving and validating trip purposes and travel modes for multi-day GPS-based travel surveys: A large-scale application in The Netherlands. *Transportation Research Part C: Emerging Technologies*, 17(3), 285–297.
- Calabrese, F., & Ratti, C. (2006). Real time Rome. *Networks and Communication Studies—NETCOM*, 20, 247–258.

- Curry, M. R. (1997). The digital individual and the private realm. *Annals of the Association of American Geographers*, 87, 681–699.
- Elgethun, K., Fenske, R. A., Yost, M. G., & Palcisko, G. J. (2003). Time-location analysis for exposure assessment studies of children using a novel global positioning system instrument. *Environmental Health Perspectives*, 111, 115–122.
- Golledge, R. G., Klatzky, R. L., Loomis, J. M., Speigle, J., & Tietz, J. (1998). A geographical information system for a GPS based personal guidance system. *International Journal of Geographical Information Science*, 12(7), 727–749.
- Golledge, R. G., Loomis, J. M., Klatzky, R. L., Flury, A., & Yang, X. L. (1991). Designing a personal guidance system to aid navigation without sight: Progress on the GIS component. *International Journal of Geographical Information Systems*, 5, 373–395.
- Guccio, C., Sacerdotti, S. L., & Rizzo, I. (2017). An empirical investigation of cultural travellers preferences and behaviours in a destination with mixed environmental features. In V. M. Ateca-Amestoy, V. Ginsburgh, I. Mazza, J. O'Hagan, & J. Prieto-Rodriguez (Eds.), *Enhancing participation in the arts in the EU*. Heidelberg: Springer.
- Hallo, J. C., Beeco, A., Goetcheus, C., McGee, J., McGehee, N. G., & Norman, W. C. (2012). GPS as a method for assessing spatial and temporal use distributions of nature-based tourists. *Journal of Travel Research*, 20, 1–16.
- Harder, H., Bro, P., Tradisauskas, N., Alexander, T., & Nielsen, S. (2008). Tracking visitors in public parks—Experiences with GPS in Denmark. In J. van Schaick & S. C. van der Spek (Eds.), *Urbanism on track: Application of tracking technologies in urbanism* (pp. 65–77). Amsterdam: IOS Press BV.
- HKTB. (2009). *Visitor profile report 2008*. Hong Kong: Hong Kong Tourism Board.
- HKTB. (2014). *Visitor arrival statistics—Dec 2009*. Hong Kong: Hong Kong Tourism Board.
- Janelle, D. G., Goodchild, M. F., & Klinkenberg, B. (1988). Space-time diaries and travel characteristics for different levels of respondent aggregation. *Environment and Planning A*, 20, 891–906.
- Le Faucheur, A. (2008). Measurement of walking distance and speed in patients with peripheral arterial disease. *Circulation*, 119, 897–904.
- Lew, A. A., & McKercher, B. (2004, August 13–15). *Travel geometry: Macro and micro scales considerations*. Paper presented at the Pre-Congress Meeting of the International Geographic Union's Commission on Tourism, Leisure and Global Change. Loch Lomond, Scotland: Unpublished.
- Lyon, D. (2001). *Surveillance society: Monitoring everyday life*. Buckingham: Open University Press.
- Maeda, Y. (2002, March 18–23). Evaluation of a GPS-based guidance system for visually impaired pedestrians. Paper presented at the *Proceedings of the Technology and Persons with Disabilities Conference*, Los Angeles, CA.
- McKercher, B., & Lau, G. (2008). Movement patterns of tourists within a destination. *Tourism Geographies*, 10(3), 355–374.
- McKercher, B., Shoval, N., Ng, E., & Birenboim, A. (2012). Using GPS data to compare first-time and repeat visitors to Hong Kong. *Tourism Geographies*, 14, 147–161.
- Miskelly, F. (2004). A novel system of electronic tagging in patients with dementia and wandering. *Age and Ageing*, 33, 304–306.
- Miskelly, F. (2005). Electronic tracking of patients with dementia and wandering using mobile phone technology. *Age and Ageing*, 34, 497–499.
- Modsching, M. (2008). Using location-based tracking data to analyze the movements of city tourists. *Information Technology and Tourism*, 10, 31–42.
- Nielsen, N. (2010, February 10–12). *Approaches to GPS-survey of tourist movements within a North Sea Island Destination*. Paper presented at the ENTER 2010 Conference. Lugano, Switzerland.

- Parks, D. N., & Thrift, N. (1980). *Times, spaces and places: A chronogeographic perspective*. Chichester, UK: Wiley.
- Pettersson, R., & Zillinger, M. (2011). Time and space in event behaviour: Tracking visitors by GPS. *Tourism Geographies*, 13, 1–20.
- Phillips, M. L., Hall, T. A., Esmen, N. A., Lynch, R., & Johnson, D. L. (2001). Use of global positioning system technology to track subject's location during environmental exposure sampling. *Journal of Exposure Analysis and Environmental Epidemiology*, 11, 207–215.
- Quiroga, C. A., & Bullock, D. (1998). Travel time studies with global positioning and geographic information systems: An integrated methodology. *Transportation Research C*, 6, 101–127.
- Russo, A. P., Clave, S. A., & Shoval, N. (2010). Advanced visitor tracking analysis in practice: Explorations in the PortAventura theme park and insights for a future research agenda. In U. Gretzel, R. Law, & M. Fuchs (Eds.), *Information and communication technologies in tourism* (pp. 159–170). Vienna: Springer.
- Shoval, N. (2008). Tracking technologies and urban analysis. *Cities*, 25, 21–28.
- Shoval, N., & Isaacson, M. (2007). Tracking tourists in the digital age. *Annals of Tourism Research*, 34, 141–159.
- Shoval, N., & Isaacson, M. (2010). *Tourist mobility and advanced tracking technologies*. London: Routledge.
- Shoval, N., McKercher, B., Birenboim, A., & Ng, E. (2015). The application of a sequence alignment method to the creation of typologies of tourist activity in time and space. *Environment and Planning B: Planning and Design*, 42(1), 76–94.
- Shoval, N., McKercher, B., Ng, E., & Birenboim, A. (2011). Hotel location and tourist activity in cities. *Annals of Tourism Research*, 38, 1594–1612.
- Tchetchik, A., Fleischer, A., & Shoval, N. (2009). Segmentation of visitors to a heritage site using high resolution time-space data. *Journal of Travel Research*, 48, 216–229.
- Terrier, P., & Schutz, Y. (2005). How useful is a satellite positioning system (GPS) to track gait parameters? A review. *Journal of NeuroEngineering and Rehabilitation*, 2, 1–11.
- Thornton, P. R., Williams, A. M., & Shaw, G. (1997). Revisiting time-space diaries: An exploratory case study of tourist behaviour in Cornwall, England. *Environment and Planning A*, 29, 1847–1867.
- Tussyadiah, L. P., & Zach, F. J. (2012). The role of geo-based technology in place experiences. *Annals of Tourism Research*, 39, 780–800.
- Van der Spek, S. C. (2008). Spatial metro: Tracking pedestrians in historic city centres. In J. van Schaick & S. C. van der Spek (Eds.), *Urbanism on track: Application of tracking technologies in urbanism* (pp. 79–102). Amsterdam: IOS Press BV.
- Wolf, J., Guensler, R., & Bachman, W. (2001, January 7–11). *Elimination of the travel diary: Experiment to derive trip purpose from GPS travel data*. Paper presented at the 80th Annual Meeting of the Transportation Research Board, Washington, DC.
- Xia, J., Zeehphongsekul, P., & Arrowsmith, C. (2009). Modelling spatio-temporal movement using Markov chains. *Mathematics and Computers in Simulation*, 79(5), 1544–1553.

Noam Shoval is a Professor at Department of Geography, the Hebrew University of Jerusalem. Prof. Shoval completed his Ph.D. at The Hebrew University (2000) and conducted post-doctoral research at the Department of Geography, King's College, University of London (2000–2001). He was (2007–2008) an Alexander von Humboldt Research Fellow at the Department of Geography of the University of Heidelberg (Germany). He spent an academic year (2014–2015) as a visiting Professor at the Center for Urban and Social Research at the University of Pittsburgh, USA. Prof. Shoval's main research interests are urban geography and planning, urban tourism and the implementation of advanced tracking technologies in various areas of spatial research such as tourism, urban studies and medicine.

Bob McKercher is a Professor of Tourism in the School of Hotel and Tourism Management at The Hong Kong Polytechnic University. He has published over 300 scholarly papers and research reports on a variety of subject areas. Prof McKercher has been awarded the Lifetime Achievement Award of the International Academy of Culture, Tourism and Hospitality Research. He is the President of the International Academic for the Study of Tourism. He has also been honored by being named a Fellow of the International Academic for the Study of Tourism; the Council for Australian University Tourism and Hospitality Education and; the International Academy of Culture, Tourism and Hospitality Research.

Cultural Economics, the Internet and Participation

Christian Handke, Paul Stepan, and Ruth Towse

Abstract Digitization and the Internet have affected the arts, heritage organizations and cultural industries along with other information services. Digital information and communication technologies (ICT) have altered the consumption of and participation in a range of creative goods and services, including the live performing arts, recorded music, film and cultural heritage. This chapter looks at some of the changes that have recently come about due to digitization and at the analysis of them by economists, and invokes key concepts in cultural economics to understand the meaning of these trends.

Keywords Cultural economics • Internet • Copyright • Participation • Long tail • New business models

1 The Range of Impact(s) of the Internet on the Production and Consumption of Cultural Goods and Services

The Internet is a prime example of a multi-purpose technology that lowers production costs for a multitude of different activities and enables the emergence of new products and markets. Like most firms, enterprises in the cultural sector use Internet-based services to run back-office tasks. However, the most fundamental

This chapter is an updated and adapted version of a working-paper first published in 2013 by the same authors. A related version was also published in the *Handbook on the Economics of the Internet* in 2016.

C. Handke (✉)

ESHCC, Erasmus University Rotterdam, Rotterdam, The Netherlands

e-mail: handke@eshcc.eur.nl

P. Stepan

Austrian Society for Cultural Economics and Policy Studies (FOKUS), Vienna, Austria

University for Music and Performing Arts Vienna, Vienna, Austria

e-mail: stepan@fokus.or.at

R. Towse

Bournemouth University—Business School, Bournemouth, UK

e-mail: ruth.towse@gmail.com

impact of digitization on the creative economy is that goods and services that were previously rival and excludable, at least to some extent, have become in effect public goods for Internet users. Many new ways of disseminating creative works via the Internet have been developed. Digital audience development is used to increase the attention and attendance for classical cultural institutions as well as to cater directly for a digital and global market. A vast range of reproducible cultural products is available virtually at no financial costs. Technical restrictions on access have become less important, and the copyright system, the possibility of technical protection methods, and perhaps user ethics are the only barrier to ‘free’ use where up-to-date, digital ICT is available. That said, over the last few years, monetization of digital goods has taken place and markets for them have evolved.

Digitization and the Internet have together had an impact on all types of cultural goods and services; the obvious cases are where services are put into digital form at the point of production by the adoption of digital technology—sound recording, film, books and games being leading examples.¹ The Internet also influences the creation of cultural works—product innovation from the perspective of specialized suppliers of arts and culture. Many video games use the Internet to link consumers and generate shared experiences, for example. The Internet enables not only access to, but also the modification and dissemination of many variations of cultural products, as discussed below. Besides the development of electronic music, digitization has facilitated remixing and sampling as an art form, for instance. Also in the film industry digitization has changed both the production and the demand side of the business and has enabled a broad range of new creative and aesthetic options as well as reducing costs of production and distribution. Product innovation *per se* does not feature prominently in the literature on cultural economics though there has been work on measuring cultural diversity. The related debate on Internet-based retailing and the diversity of supply is discussed later on in this chapter.

Perhaps surprisingly, even live performances of opera, ballet, spoken theatre and orchestral concerts have felt the impact of digitization and Internet, as they are digitally streamed and delivered by satellite in virtually simultaneous time to computers and, for better sound and visual quality, to venues such as cinemas. As a result, audiences are able to access distant events that they could not attend and arts organizations vastly increase their outreach. These services offer a product in-between live performance and a recorded one and generate access for a significantly wider paying audience than the ‘original’ venue could accommodate. As theatres and concert halls typically have limited seating capacity, these developments offer additional sources of ‘box office’ revenues for organizations that have previously had to rely heavily on public subsidy. It remains to be seen whether online dissemination will stimulate interest in these elite art forms. Little has so far been written on these developments and it is too early to generalize about the overall effect (Towse 2013; Bakhshi 2017). The Metropolitan Opera is the oldest of these ventures and has been offering live performances in cinemas throughout the

¹For concise reviews of these industries, see Waelbroeck (2013) on music, Stepan (2013) on film, Farchy et al. (2013) on e-books and Banks and Cunningham (2013) on games.

world since 2006, reaching millions of viewers. It is said that it took several years before it broke even (Bakhshi and Throsby 2010) and hearsay evidence has it that attendances are falling in the home theatre, that is, the transmissions are ‘cannibalizing’ them, but there is no firm data. Other than that, Internet selling of tickets and bookings has also made ‘real’ box offices more efficient for producers and consumers.

These are cases where traditional pricing models work because access is controlled and restricted to paying audiences. Even so, some of these services are provided ‘for-free’, and free delivery occurs often in creative industries. One of the earliest examples is the Gutenberg project, which embraces the idea of providing free access to digital sources of literary works in the public domain. Other examples are the various efforts of libraries and museums to digitize their collections and the European digitalization project *Europeana*. These efforts have been held back by the costs of obtaining permissions from copyright holders on works that are still in copyright as well as by the costs of the process of digitization (Navarrete 2013). Clearing of copyrights is a particular problem with so-called ‘orphan works’ for which there is no traceable rights holder (Homberg et al. 2013). These are the main reasons why digital archives of the cultural heritage in museums, libraries and audio-visual archives, such as those of broadcasting organizations and film institutes, are not yet open to the public. Broadly speaking digitization of the content of large cultural institutions is limited to content produced before the twentieth century. Much of the twentieth century, and even some more recent intangible heritage, is largely inaccessible online.

2 Internet and Distribution in the Creative Industries

The use of the Internet and other aspects of digital ICT not only affect the costs of producing and consuming creative goods and services, they also affect the costs of disseminating and making them available. From the perspective of producers of cultural products, novel e-commercial applications are mainly process innovations that reduce costs of production, in particular regarding distribution and retailing. There is no direct effect on the characteristics of the core product. (Of course, changes in markets due to e-commerce can affect incentives to produce different types of goods and services. This is what we would refer to as an indirect effect).

2.1 Online e-Commerce and Cultural Products

E-commerce comes in several variants in the creative industries. For non-reproducible cultural products such as original paintings or performances, e-commerce is mostly limited to retailing. Examples are the services provided by online trading platforms for live performance tickets, such as Ticketmaster and online auctions for art works (Arora and Vermeylen 2013); they reduce transaction

costs substantially and make markets more efficient (albeit with the risk of the rise of central intermediaries wielding market power (Handke 2015)). In any case, the impact of ICT is less immediate for markets in non-reproducible than for those in reproducible cultural products.

For reproducible cultural products, such as sound recordings, movies or literary texts, a hybrid version is the sale of physical copies via online shops. The initial service provided by Amazon was to sell physical books via the Internet, for example. The more completely 'digital' version of e-commerce is to sell access to streams or downloads via retail outlets online. Sales of e-books and music downloads via Amazon are a case in point. Even better known is the iTunes Store that became the largest e-retailer for music downloads in most major markets after 2004. E-commerce requires a standing ICT infrastructure. On this basis, it can substantially reduce the costs of reproducing, distributing and retailing creative works.

The completely 'digital' version of e-commerce is associated with unbundling and rebundling of former 'analogue' products.² In the market for music downloads, for example, consumers can purchase almost any individual track rather than entire albums. Unbundling has also occurred for news items or academic articles that are made available individually online. At the other end of the spectrum are subscriptions, where users acquire temporary access to a wide variety of works. A typical example are subscriptions to 'pay tv' channels (also discussed below). Another case in point is subscriptions to large catalogues of music recordings that have become increasingly popular. Furthermore, in conjunction with some video games, consumers purchase temporary access to virtual gaming environments, which allow for interactions between consumers. As with other aspects of e-commerce, there is no specific standard model by which creative goods and services are distributed and sold online, and that is also the case with pricing models, which are discussed later on.

2.2 *Retailing and Distribution Costs*

In the traditional system of selling cultural products, much of the reproduction costs and some distribution costs are borne in advance of sales. Suppliers needed to predict demand and the number of copies produced and shipped to retail outlets. This was usually approximated by several runs of reproduction, shipping and re-stocking. By contrast, downloads are available on demand, which reduces the need to predict sales and thus some of the risks of supplying cultural products (Rochelandet 2011; Stepan 2013).

Under competitive pressure, lower risks and costs will usually be associated with lower retail prices. However, as long as traditional marketing remains important,

²See Choi (2012) for a detailed treatment of bundling.

even relatively cheap new ways of distribution and retailing may not reduce total costs as suppliers need to incur the costs associated with each type of distribution.

3 Internet and the Industrial Organization of the Creative Economy

The cultural sector is characterized by extensive product differentiation, albeit with a small minority of hits accounting for the bulk of the market. Over recent years, a number of books and articles have discussed the effect of digitization on concentration in the cultural industries. Roughly speaking, an application of superstar theory (Rosen 1981) predicts greater concentration of sales on a few superstar suppliers whereas the long tail hypothesis predicts some fragmentation (Anderson 2004).

3.1 Superstar Theory

Rosen (1981) argued that disproportionate earnings for superstars occur where small differences in talent have an amplified effect on demand, and where technologies allow superstars to reach a large audience. This theory has been well established and adopted in cultural economics (Adler 1985; Chung and Cox 1994; Cox et al. 1995; Caves 2000).

Besides differences in talent, bandwagon effects may explain concentration of sales on particular creators (Leibenstein 1950; Towse 1997), as consumers follow each other to reduce the risk of purchasing inferior products. There may also be network externalities as consumers value more popular works because the shared experience becomes the subject of desirable social interaction.

According to superstar theory, stars will come to dominate a greater share of the market where digital distribution and retailing enables the most outstanding creators to supply a greater number of consumers. The result would be an even more highly skewed distribution of attention and earnings in favor of a few superstars, and perhaps reduced diversity of creative works supplied (Handke 2010; Towse 2013).

3.2 The Long Tail Hypothesis

By contrast, the long tail hypothesis (Anderson 2004; Brynjolfsson et al. 2003) predicts that niche products will account for an increasing share of sales with the diffusion of digital ICT. Ecommerce reduces the marginal costs of distributing and retailing reproducible cultural products. E-commerce also has the potential to

integrate markets irrespective of geographical distance. It, thus, can become profitable to supply a greater diversity of cultural products. Also, with more abundant pre-purchase information online, consumers may find it easier to search for niche products that suit individual preferences.

There is some empirical evidence consistent with the long tail hypothesis from markets for cultural products such as books, movies and recorded music (Brynjolfsson et al. 2003, 2006; Anderson 2004; Moreau and Peltier 2004; Elberse and Oberholzer-Gee 2007; Benhamou and Peltier 2007). Online retailers tend to offer a much greater number of different titles than traditional retailers, and the share of top hits in total sales tends to be lower online than offline. Some studies suggest that the overall market share of niche products has increased significantly with the diffusion of digital ICT. This point could be exaggerated, however. Despite some fragmentation, sales for cultural products are still highly concentrated. Furthermore, measuring changes in sales concentration is tricky: there is no clear boundary between the long-tail and the top-end of the market. Should one count the top ten titles as the 'hits' or the top one thousand, for example? Different aspects of the distribution may be affected differently, say somewhere mid-range versus the far end of the tail. It also remains to be seen to what extent the long tail consists of back catalogue or of new works, or how works from different types of suppliers are affected.

Superstar (winner-take-all) theory and the long tail are often discussed in the analysis of other markets but a substantial number of examples are drawn from markets for cultural products. As mentioned above, a literature has emerged on the impact of digitization on concentration in the creative economy. However, it must be taken into account that also in a digital environment formats and distribution channels change. Streaming services are on the rise and they are a new way of gatekeeping; even if titles are available in the form of DVDs that can be purchased on the Internet, there are more convenient channels for consumers such as Netflix, Hulu, Amazon Prime etc., which make titles outside these services relatively unattractive. The costs of making films available in the Internet have caused suppliers to alternate the programs offered, which means that a title appearing on a streaming platform does not necessarily stay there for long and also to produce their own content, for which Netflix is a prominent example. As long as copyright law limits the provision of entire catalogues, online services will concentrate on providing films with the highest return on their investment and hence strengthen the 'superstar' effect. At the same time the music industry paints a very different picture, where streaming services are relatively open and the repertoire of Spotify, Google Play Music and others is broad and offers millions of titles. The limitations come into play when consumers are looking for a specific band or orchestra or even a particular version of a recording.

3.3 Market Power

Another interesting aspect is the effect of digitization on competition in the cultural sector. Pivotal parts of many creative industries are organized in narrow oligopolies. A number of studies illustrate that e-commerce is associated with greater competition (Brynjolfsson and Smith 2000; Brynjolfsson et al. 2011). The same factors that drive the long-tail effect could be associated with greater contestability and inter-firm competition. This could adversely affect growth of major incumbent firms relative to fringe suppliers and newcomers. It could also strengthen creators in their relationship with more concentrated intermediary firms, such as record companies and literary publishers.

In order to reduce the contestability of digital markets major content providers have lobbied in the past years to abandon net-neutrality. Net-neutrality is the principle that all content must be treated equally by the Internet service providers (ISP). This means that companies are not allowed to pay an ISP to prioritize their content if bandwidth is scarce in order to slow down competition between online distributors and raise market entrance barriers. In 2015 the European Union released a regulation in order to protect net neutrality since ISP started to abandon the principle. The Regulation (EU) 2015/2120 document states: “The existing regulatory framework aims to promote the ability of end-users to access and distribute information or run applications and services of their choice. However, a significant number of end-users are affected by traffic management practices which block or slow down specific applications or services. Those tendencies require common rules at the Union level to ensure the openness of the Internet and to avoid fragmentation of the internal market resulting from measures adopted by individual Member States.” Whether the regulation is fit to enforce net neutrality or not is still up for debate.

4 Pricing Models for Internet Distribution of Creative Goods and Services

For a long time, economists have suggested new forms of pricing strategies and business models in order to adapt to digital ICT (Shapiro and Varian 1999). By now, technological innovation and e-commerce have affected business models in the cultural and creative industries, particularly in those industries that cater for the end user market and for goods that are in digital form. The public goods characteristics of online distribution often make the traditional price per unit model used for most cultural products unworkable, and new models have developed for Internet access to them. Not all types of transactions in the creative industries are changing, however. In the business-to-business sectors of industrial design and commercial graphic design, for example, there is no apparent trend to new business models. In

the film industry, business-to-business deals with TV broadcasters remain largely unchanged.

4.1 Two- and Multi-sided Markets

A long-standing business model in the creative industries is the two-sided market model, widely employed, for example, by commercial broadcasters. TV or radio stations often make programs available to viewers without direct payment. The broadcasting stations then finance themselves by selling airtime to advertisers and sponsors. The market value of advertising depends on the number of users ('eye balls') of the 'free' service, viewing the program. The essence of the two-sided market is that advertisers and viewers do not transact with each other but interact with the platform or the broadcaster (Armstrong 2006; Rysman 2009). More recently, two-sided or even more complex multi-sided markets have developed for many applications on the Internet such as newspapers, video platforms, search engines, social networks, illegal download platforms, apps for mobile devices and many others (Farchy 2011; Rochelandet 2011).³

Two-sided markets are associated with positive network effects, where the individual utility of a bundle of goods and services increases with the number of other users.⁴ The optimal pricing scheme may then be to supply some services free of charge to attract users on one side, while charging on the other side for access and information on a large user base. The search engine Google illustrates the principle: Google provides its service of a search engine for-free and charges for advertisements, ratings and advertorials (entries that look like regular entries but are, in fact, advertisements). Information gathered on users allows for more targeted advertising and may also become a commodity in its own right. What is more, the search engine improves with use. The search results are based on a ranking influenced by the individual consumer's behavior as well as by mass behavior and therefore every entrance to the search engine influences future results. The more people use a particular search engine, the more accurate the results become: Every entry to the search engine benefits not only the person searching but also other Google users and the company itself, hence the network effect. Social media sites Facebook and Twitter also operate in two-sided or multi-sided markets and exploit the associated network effects. The principle is familiar from older parts of the creative industries, and they are gradually becoming more important throughout the creative economy. Online newspapers, for example, are experimenting with user postings and other

³See Gabszewicz et al. (2015) for a recent survey.

⁴Cultural products tend to be non-rival in consumption—the consumption by one party does not diminish the value of the same work by others. If there are no problems with excessive use (congestion), network effects will usually be positive. There may be exceptions where cultural products are Veblen goods that are appreciated for their scarcity and the potential to demonstrate social status through conspicuous consumption (Towse 1997).

means to foster community building around their core products. Incumbent firms in the traditional creative industries have found it hard to develop sustainable business models based on multi-sided markets, however.

Network effects are traditionally associated with entrenched large incumbents (Liebowitz and Margolis 1998). If the value of a bundle of services per user increases with the number of users, large firms enjoy a productivity advantage over smaller competitors. The point is that smaller competitors cannot exploit network effects to the same extent. Thus business models based on multi-sided markets and network effects may bolster the market leaders in digital distribution with results similar to the superstar and winner-takes-all features already observed in the consumption of cultural products (Handke 2015). The presence of Amazon, Google, Facebook and the rest are testimony to this trend. However, markets remain contestable and some of the global players have been put out of business by relatively small competitors. A good example is that Google took on Yahoo which was the most popular search engine in the 1990s. Although the market leader had network effects going for them, the costs of switching were low since users didn't need different equipment or even an account to try out the new services. Therefore, a huge bulk of the consumers often left market leaders practically overnight if another service proved better and more user friendly. The current global players of the content industry, especially in the music and film industry, strive to remedy the lack of switching costs by lobbying against net neutrality, as mentioned above.

4.2 *Subscription Models*

Subscription models have become more important in some markets for creative works. Some subscription models allow members/subscribers access to a narrow range of club goods. In the cultural sector, this model has long been used for book clubs and for clubs that support arts institutions ('friends of' associations). It has been applied in a digital environment by a couple of music bands such as the German band *Einstürzende Neubauten*, who sold live streams and allowed direct interaction with the band during the creative process. Subscribers further received the CD prior to the public release and packaged as a special edition.

Subscription models that allow access to a much broader catalogue of content are becoming more important in markets for video on demand (VoD) and music streaming, for example. In these markets consumers are effectively renting instead of buying. This means the business model offers access through a license instead of a sale and its acquisition by the licensee replaces the buying and possession of a good. One of the first prominent examples was launched by Nokia under the title 'Nokia comes with music'. In 2007, the company started to sell an optional music subscription service with their mobile phones. Subscribers were able to access and download the catalogues of the major music companies and of some independent labels. The project failed to attract many subscribers, probably because of tight

usage restrictions. The initial idea had been that downloads could be used indefinitely. In practice, downloads were only accessible for the period of the subscription. Other restrictions were that the service could only be used with a Nokia mobile phone, and the music could only be played on the phone and one computer. More recently, enterprises like Google Play Music or Spotify have offered similar music subscription services, some of which are financed through charging music users while some offer restricted versions that are financed through advertising. The importance of these services is growing and makes access to music more convenient and easier than illegal file sharing. While it is generally assumed that these services have reduced illegitimate file sharing of music, it is still debated whether the revenue deriving from the services can sufficiently remunerate the creators (Waelbroeck 2013).

In the film industry, comprehensive subscription models are on the rise.⁵ Online video services such as Hulu, Amazon Prime, Netflix, etc. have developed a business model whereby subscribers have unlimited access to their libraries. This development is fairly recent. A few years ago online subscription models for commercializing a broad range of films were either illegal or located in a legal limbo. Rapid Share, Megaupload (now replaced by Mega) or other such services sell downloading capacities on a so-called 'freemium'-basis. With some restrictions, downloading is free of charge, while users can pay for a 'premium' subscriptions with fewer restrictions. While such enterprises try to limit copyright infringements, the services are widely used to download movies and seem to work more reliably and faster than most free P2P file-sharing networks. Also sites such as movie4k, burning series, and many others offer advertisement-financed access to a wide variety of movies on an illegal basis. These sites often offer a far more comprehensive library than legal sites but come with inconveniences such as pop-up windows offering porn, dubious banking services and online casinos. Some services even offer paid memberships. Copyright holders are not remunerated and rights are infringed in most jurisdictions, even though it is unclear whether the supplier of the downloading capacity is accountable.⁶ That these subscription models attracted paying members suggests that the movie industry proper may have a chance to sell convenient access to movies online under current market conditions.⁷

⁵Pay TV subscriptions for selected—often exclusive—audiovisual content have been marketed for a long time.

⁶See Google and PRS (2012) for an overview of business models for illegal online provision.

⁷See Sherman and Waterman (2016) on the economics of online video entertainment.

5 Supply of 'Professional' and User-Generated Content on Internet

One of the major consequences of Internet usage has been the outpouring of words, sounds and images on websites and on social networking sites. Some of this content is supplied by 'professionals' with the intention of eventual financial reward. Much content is also supplied by 'amateurs' or end-users without pecuniary incentives. Of course, a distinction between amateurs and professionals is difficult to make with any precision but there is some mileage in it. In cultural economics, research on artists' labor markets distinguishes between professional and amateur creators according to several criteria: payment for their work; use, performance or exhibition of their work; or the proportion of working time spent on creating. This research on artists' labor markets provides a useful framework for research on content supply via the Internet.

For professional artists, the Internet has opened up the opportunity to promote their careers and to interact with their audiences or fans more extensively. In some cases, the creation of their work has taken place interactively with potential consumers, which may make success on the market more likely. Casting shows illustrates the promise as well as the apparent limitations of the procedure.

For both established artists and those trying to break into the arts professionally, the Internet has enabled them to advertise their work and to sell it directly to consumers without the participation of some traditional intermediaries, such as a record label, publisher or art gallery. However, no systematic research has yet been done on whether disintermediation is a sustainable model for generating income for creators and performers. Traditionally, intermediary firms provide upfront finance for the creation of works, promotion and distribution. If digital ICT decreases development and marketing costs artists are able to go it alone. However, there are still economies of scale in the professional promotion and distribution of creative works and it proves equally hard to attract attention to an artist or an artwork in the digital world as in the 'real' world. What is more, the evidence on artists' labor markets in general has shown that the success of both works and careers is subject to radical uncertainty. Markets for creative works on the Internet will probably remain volatile and uncertain. Specialist intermediaries may then have a function in taking on market risks, as they can spread their investments over a larger repertoire of works than individual creators can.

Intermediaries also act as certifiers, selecting the artists whose work they deem to be marketable (or culturally significant in the case of non-profit promoters), thus restricting and guiding consumer choice of works and creators. The Internet has undoubtedly increased the output of accessible and diverse material. What proportion of it has a substantial value is not known, however. Again, intermediaries may have an important role to play in helping to generate positive attention for creators, and in providing some orientation to consumers.

Unauthorized use is also thought to undermine pecuniary rewards to creators. The extent of the problem is hard to gauge. Moreover, the transmission mechanism

from pecuniary rewards and the quality and quantity of supply has hardly been assessed empirically (Towse et al. 2008; Atladottír et al. 2013). Rights holders may adapt their business models to unauthorized, digital copying, by selling more excludable complements to digital copies (as discussed above in the context of multi-sided markets). A radical solution is crowd-funding or crowd-financing, where the production of a creative work is subject to the provision of up-front finance from private individuals. It is an open question whether any of this can sustain pecuniary incentives to create in the presence of digital copying. Nevertheless, these tools are used by many creators but often less as a means to finance and more as a way of engaging with their audience or consumers from very early on. It gives creators the possibility to tell their story and raise attention within their community and fan base from the moment the idea was conceived and hence long before the product is realized. The downside to it is that crowdfunding comes with a tremendous workload of social media activities, storytelling, production of short films, etc. which is in many cases hardly compensated through the money raised. Another benefit creators get from crowd funding in music is that aside from money for an album production, young musicians can build up a fan base and presell albums or concert tickets. If their campaign is successful, creators use the number of backers or items sold to leverage more favorable deals with record labels. If a band were successful, for example with a funding call on Pledge Music—one of the earliest platforms for crowd funding music, founded in 2009—the risk for the label to invest in the band would be already lower, tipping the scales in favor of the creators.

Furthermore, there is extensive evidence for non-pecuniary incentives to create. Amateur production of material on the Internet—which brings about user-generated content documents this well. Some of that material may later take on monetary value and be paid for. What is more, user-generated content often impinges on professional output, through mash-ups, collages and other such alteration of original works. This invokes the older question whether parody and other transformative uses of creative works, such as appropriation art, harms the creator of the original (Landes 2000). Fan culture has opened up a new universe of literature, games, films, music, etc. built by amateurs, often with professional skills, in order to debate and promote the professional content. TV series such as *Game of Thrones*, *House of Cards*, *Breaking Bad* and many others have triggered uncountable video blogs commenting on the series and generating attention.

6 Conclusion

Cultural economics is only beginning to directly engage with the Internet and its implications for the cultural sector. When editing the *Handbook on the Digital Creative Economy* (Towse and Handke 2013), the greatest challenge for the editors was to find authors proficient in both the digital field and cultural economics. There is an urgent need for robust insights regarding the impact on the various parts of the

cultural sector of very low marginal costs of reproducing and disseminating works, new forms of user-producer and user-user interaction, customization, personalization and user innovation, media convergence, and the rise of highly concentrated suppliers of general-purpose, Internet-based services, such as search engines, social media sites and online retailers.

Cultural economics has an important contribution to make to understanding the wider implications of the economic changes brought by the Internet for cultural welfare and the welfare of those who create it. There is greater scope for research on the Internet drawing on what we know about the more traditional markets for cultural information goods and services. It is also high time that cultural economists extended their repertoire to deal with technological change and its ambiguous effects.

One of the major changes that has come with digitization is the relationship between the creators and the audience. First, the communication between creators and audience can be analyzed from its early days through social media and crowd funding platforms, which enable the audience to witness the process of creation and comment on it and even to financially back a particular project before completion. Second, business models have changed to offer constant accessibility of large segments of repertoire and accordingly, the way creative goods are used has changed. Third, digitization allows users to build upon existing work and create user generated content. Some of that content constructs a universe of fan culture, adding value to the creative product and increasing attention.

References

- Adler, M. (1985). Stardom and talent. *American Economic Review*, 75(1), 208–212.
- Anderson, C. (2004). The long tail. *Wired Magazine*, 12(10). Accessed October 16, 2016, from <https://www.wired.com/2004/10/tail>
- Armstrong, M. (2006). Competition in two-sided markets. *RAND Journal of Economics*, 37(3), 668–691.
- Arora, P., & Vermeulen, F. (2013). Art markets. In R. Towse & C. Handke (Eds.), *Handbook on the digital creative economy* (pp. 322–329). Cheltenham: Edward Elgar Publishing.
- Atladóttir, K., Kretschmer, M., & Towse, R. (2013). Artists, authors' rights and copyright. In R. Towse & C. Handke (Eds.), *Handbook on the digital creative economy* (pp. 274–283). Cheltenham and Northampton, MA: Edward Elgar Publishing.
- Bakhshi, H. (2017). Digital research and development in the arts. In V. M. Ateca-Amestoy, V. Ginsburgh, I. Mazza, J. O'Hagan, & J. Prieto-Rodríguez (Eds.), *Enhancing participation in the arts in the EU*. Cham: Springer.
- Bakhshi, H., & Throsby, D. (2010). *Culture of innovation: An economic analysis of innovation in arts and cultural organizations*. London: NESTA.
- Banks, J., & Cunningham, S. (2013). Games. In R. Towse & C. Handke (Eds.), *Handbook on the digital creative economy* (pp. 416–428). Cheltenham and Northampton, MA: Edward Elgar Publishing.

- Benhamou, F., & Peltier, S. (2007). How should diversity be measured? An application using the French publishing industry. *Journal of Cultural Economics*, 31(2), 85–107.
- Brynjolfsson, E., & Smith, M. D. (2000). Frictionless commerce? A comparison of Internet and conventional retailers. *Management Science*, 46(4), 563–585.
- Brynjolfsson, E., Hu, Y., & Smith, M. D. (2003). Consumer surplus in the digital economy: Estimating the value of increased product variety at online booksellers. *Management Science*, 49(11), 1580–1596.
- Brynjolfsson, E., Hu, Y., & Smith, M. D. (2006). From niches to riches: Anatomy of the long tail. *Sloan Management Review*, 47(4), 67–71.
- Brynjolfsson, E., Hu, Y., & Simester, D. (2011). Hello Pareto principle, hello long tail: The effect of search costs on the concentration of product sales. *Management Science*, 57(8), 1373–1386.
- Caves, R. E. (2000). *Creative industries: Contracts between art and commerce*. Cambridge, MA: Harvard University Press.
- Choi, J. P. (2012). Bundling information goods. In M. Peitz & J. Waldfogel (Eds.), *The Oxford handbook of the digital economy* (pp. 273–305). Oxford: Oxford University Press.
- Chung, K. H., & Cox, R. A. K. (1994). A stochastic model of superstardom: An application of the Yule distribution. *Review of Economics and Statistics*, 76(4), 771–775.
- Cox, R. A. K., Felton, J. M., & Chung, K. H. (1995). The concentration of commercial success in popular music: An analysis of the distribution of gold records. *Journal of Cultural Economics*, 19(4), 333–340.
- Elberse, A., & Oberholzer-Gee, F. (2007). *Superstars and underdogs: An examination of the long-tail phenomenon in video sales* (Working Paper Series 4). Harvard Business School.
- Farchy, J. (2011). The Internet: Culture for free. In R. Towse (Ed.), *A handbook of cultural economics* (2nd ed., pp. 245–253). Cheltenham and Northampton, MA: Edward Elgar Publishing.
- Farchy, J., Gansmeier, M., & Petrou, J. (2013). E book and book publishing. In R. Towse & C. Handke (Eds.), *Handbook on the digital creative economy* (pp. 353–364). Cheltenham and Northampton, MA: Edward Elgar Publishing.
- Gabszewicz, J. U., Resende, J., & Sonnac, N. (2015). Media as multi-sided platforms. In R. Picard & S. Wildman (Eds.), *International handbook on the economics of media* (pp. 3–35). Cheltenham and Northampton, MA: Edward Elgar Publishing.
- Google and PRS. (2012). *The six business models for copyright infringement – A data driven study of websites considered to be infringing copyright*. Accessed August 25, 2016, from <http://www.prsformusic.com/aboutus/policyandresearch/researchandeconomics/Documents/TheSixBusinessModelsofCopyrightInfringement.pdf>
- Handke, C. (2010). *The economics of copyright and digitisation* (Report for the Strategic Advisory Board for Intellectual Property Policy (SABIP) and the UK Intellectual Property Office). London: SABIP. Available at SSRN and accessed October 16, 2016, from <https://ssrn.com/abstract=2707153>
- Handke, C. (2015). Digitization and competition in copyright industries: One step forward and two steps back? *Homo Oeconomicus*, 32(2), 209–236.
- Handke, C., Stepan, P., & Towse, R. (2016). Cultural economics and the Internet. In J. Bauer & M. Latzer (Eds.), *Handbook on the economics of the Internet* (pp. 146–162). Cheltenham and Northampton, MA: Edward Elgar Publishing.
- Homberg, F., Favale, M., Kretschmer, M., & Mendis, D. (2013). Orphan works. In R. Towse & C. Handke (Eds.), *Handbook on the digital creative economy* (pp. 299–310). Cheltenham and Northampton, MA: Edward Elgar Publishing.
- Landes, W. (2000). Copyright, borrowed images and appropriation art: An economic approach. *George Mason Law Review*, 9(1), 1–24.
- Leibenstein, H. (1950). Bandwagon, snob, and Veblen effects in the theory of consumers' demand. *Quarterly Journal of Economics*, 64(2), 183–207.
- Liebowitz, S. J., & Margolis, S. E. (1998). Network and externalities. In *New Palgrave dictionary of economics and the law* (pp. 671–674). Basingstoke: MacMillan.

- Moreau, F., & Peltier, S. (2004). Cultural diversity in the movie industry: A cross-national study. *Journal of Media Economics*, 17(2), 123–143.
- Navarrete, T. (2013). Museums. In R. Towse & C. Handke (Eds.), *Handbook on the digital creative economy* (pp. 230–343). Cheltenham and Northampton, MA: Edward Elgar Publishing.
- Rochelandet, F. (2011). The Internet: Economics. In R. Towse (Ed.), *A handbook of cultural economics* (2nd ed., pp. 254–260). Cheltenham and Northampton, MA: Edward Elgar Publishing.
- Rosen, S. (1981). The economics of superstars. *American Economic Review*, 71(5), 845–858.
- Rysman, M. (2009). The economics of two-sided markets. *Journal of Economic Perspectives*, 23(3), 125–143.
- Shapiro, C., & Varian, H. R. (1999). *Information rules*. Boston: Harvard Business School Press.
- Sherman, R., & Waterman, D. (2016). The economics of online video entertainment. In M. Latzer & J. Bauer (Eds.), *Handbook of economics of the Internet* (pp. 458–474). Cheltenham and Northampton, MA: Edward Elgar Publishing.
- Stepan, P. (2013). Film. In R. Towse & C. Handke (Eds.), *Handbook on the digital creative economy* (pp. 399–408). Cheltenham and Northampton, MA: Edward Elgar Publishing.
- Towse, R. (1997). The earnings of singers: an economic analysis. In R. Towse (Ed.), *Cultural economics: The arts, the heritage and the media industries* (Vol. II, pp. 218–226). Cheltenham and Lyme, NH: Edward Elgar Publishing.
- Towse, R. (2013). Performing arts. In R. Towse & C. Handke (Eds.), *Handbook on the digital creative economy* (pp. 311–321). Cheltenham: Edward Elgar Publishing.
- Towse, R., & Handke, C. (2013). *Handbook on the digital creative economy*. Cheltenham and Northampton, MA: Edward Elgar Publishing.
- Towse, R., Handke, C., & Stepan, P. (2008). The economics of copyright law: A stocktake of the literature. *Review of Economic Research on Copyright Issues*, 5(1), 1–22.
- Waelbroeck, P. (2013). Digital music. In R. Towse & C. Handke (Eds.), *Handbook on the digital creative economy* (pp. 389–388). Cheltenham and Northampton, MA: Edward Elgar Publishing.

Christian Handke is Assistant Professor of Cultural Economics at Erasmus University Rotterdam. He is academic program coordinator of the Master in Cultural Economics and Entrepreneurship. Since 2012, Dr. Handke also works as Senior Researcher at University of Amsterdam, where he participates in the research project on Copyright in an Age of Access. His Ph.D. dissertation was short-listed for the Boekman Dissertation Prize 2012. His research focuses on cultural economics and the economics of copyright, innovation, technological change and data mining as well as the record industry. Christian has consulted for a variety of public and private organizations, including the European Commission, the German Federal Ministry of Justice, the National Academies of the Sciences (USA), Industry Canada, the UK Intellectual Property Office, and the federal German Expert Commission on Research and Innovation (EFI).

Paul Stepan A trained economist, he started during his studies to focus on cultural economics and founded together, with a group of researchers, the Austrian Society for Cultural Economics and Policy Studies (FOKUS). Currently he acts as chairman of this organization. Since 2003, he teaches cultural economics and economics of copyright on various universities; currently at the University for Music and Performing Arts Vienna and the University of Vienna. Stepan's approach to culture combines practice, research and consulting. Since 1999, he advises various funding bodies ranging from regional to EU-level on funding strategies and mechanism design. Since 2003, Stepan publishes scientific articles as well as essays and newspaper articles on cultural politics and copyright. Since 2009, Stepan was actively involved in cultural project as both manager and consultant.

Ruth Towse is Professor of Economics of Creative Industries at the Centre for Intellectual Property Policy and Management, Bournemouth University and CREATE Fellow in Cultural Economics (University of Glasgow). She specialises in cultural economics and the economics of copyright. She has published widely in both fields in academic journals and books and has also edited several collections of papers and original contributions. Her Textbook of Cultural Economics has been translated into several languages. Ruth has been Joint Editor of the Journal of Cultural Economics, President of the Association for Cultural Economics International (ACEI), and President of the Society for Economic Research in Copyright Issues and serves on the editorial boards of several academic journals. She is a Distinguished Fellow of the ACEI. She has lectured and given seminars, conference papers and presentations to a wide range of organisations in many countries and has been consultant on cultural economics and the economics of copyright to a number of national and international governmental organisations.

Classical Music: New Proposals for New Audiences

Michel Hambersin

Abstract During the last decade the backdrop of classical music has undergone significant changes in most Western countries, where the live concert was historically particularly active. Major features are regularly observed, amongst which a systematic decrease in the level of the cultural background of most people, particularly in the younger generations, a quasi-disappearance in most countries of teaching of arts at school, a radical increase in the average age of concert-goers who are often over 60 years old, a change in the decision process of younger generations for cultural events (preference for funny events, last minute decision making, interest for shorter events and zapping of genres), and a tremendous increase in the supply of entertainment products which compete with artistic proposals. The result of these changes has been to induce cultural institutions to look at other kinds of musical proposals, more adequate to fit with the expectations of new audiences. The purpose of this chapter is threefold: (a) propose a new typology of classical musical consumers more directly linked with their new attitudes and expectations and their consumer behaviour with respect to classical music (Sect. 1); (b) review and classify major changes introduced by some musical institutions (but not all), in order to cope with these behavioural changes (Sect. 2), and (c) try to establish a relationship between proposed musical events and the demands of potential cultural consumers emanating from the various categories of the suggested typology. In doing so, we will base our analysis on the practical experience of Festival Musiq3, a Brussels-based festival whose basic aim is to develop such a policy (Sect. 3).

Keywords Classical music audience • Audience classification • Festival Musiq3 Brussels

M. Hambersin (✉)
Université Libre de Bruxelles, Brussels, Belgium
Royal Academy of Belgium, Brussels, Belgium
e-mail: michel.hambersin@gmail.com

1 Towards a New Typology of the Consumer of Classical Music

Defining a typology of consumers of cultural events has been a persistent trend in the socio-economic analysis of cultural events in general and classical music in particular. Most typologies have been developed with the aim of proposing a social backdrop for cultural consumers that can be used to measure the effect of policies of cultural democratisation (Bourdieu 1984; Chan 2010). Others have been based on more ethical criteria distinguishing between superior arts and simple entertainment (Adorno). Most typologies fail however to produce an adequate differentiation between the behavioural consumption attitudes of various segments of the potential audience. This is especially the case for classical music audiences. The purpose of the typology that we suggest is to define categories of listeners whose consumption expectations and level of knowledge are sufficiently selective to induce adequate changes in the form and size of the supply of new classical music events. In doing so, cultural managers will enjoy a large range of new tools for amending their traditional own proposals to coincide with the expectations of these different types of audiences. Those who listen to classical music can be distributed between four categories according to the size and the form of their behaviour. Listening at home through broadcasted programs (radio, TV) or specific products (as CDs, DVDs. . .) are not taken into consideration, although they could also be used to define the personality of various kinds of audiences (See also Fernández-Blanco et al. 2017).

1.1 *The Musician*

The musician enjoys or has enjoyed some practice (instrumental or singing) of music, although this need not be specifically related to classical music. The essential point is that a musician's practice facilitates the development of an internal knowledge of music in the form of a language. It also helps to develop a strong interest in listening, both at home, or in the concert hall. Depending on the level of knowledge, the musician may also be inclined to personally specialize in listening to a specific kind of music such as ancient or chamber music, choir singing, jazz, opera. Musicians are generally loyal to their traditional musical institutions, and it is sometimes difficult to convince them to attend new proposals or locations.

1.2 *The Cultured Music Lover*

Cultured lovers have experience in attending cultural events. They have enjoyed some classical music experience (at school, individually or through the family) and

listening to music remains one of their favourite occupations, although they do not necessarily appreciate music in terms of a practical experience. They may possess an extensive repertoire, including non-classical music, such as jazz or World Music. Their behaviour towards musical institutions varies with age; older people prove more attached to a few institutions as opposed to the more eclectic younger generation, although both are regular visitors to musical events.

1.3 The Occasional Listener

Occasional listeners do not enjoy any specific cultural education, but can develop an occasional interest (mostly for social events). Their attitude is essentially hedonist: They want fun. Their curiosity increases over time although it bears no link to specific types of music; they listen to all kinds of music, ranging from Bartok to Pink Floyd. They are often last minute consumers, and their choice frequently depends on group decisions. They are intellectually curious and want to know more about the music that is performed, although they prefer more relaxed forms of education. They have a limited experience of musical institutions against which they sometimes develop a certain kind of repulsion (too old fashion, not sufficiently user-friendly) and are frequently influenced by adherence to social groups.

1.4 The Man Without Culture

For that last group, classical music is unknown territory, and so are most cultural events (dance, theatre, art exhibitions). As individuals, they encounter music in the context of their daily environment and only react to media stimuli and a few 'hits'. Their choices are mostly dictated by circumstances or the proposals of friends. They are very reluctant to visit traditional institutions but are sometimes interested in cross boarder proposals. They are occasionally interested in some explanations, insofar as these they are brief, relaxed and not very intellectual. They may suffer strong emotional shocks when confronted with some unknown musical proposal (instinctive love). On a regional basis, they may be attached to some kind of traditional music, such as flamenco, tango, or canzon.

2 An Analysis of Recent Changes in the Supply of Live Classical Music Events

Faced with the dramatic changes observed in their social and cultural backdrop, many musical institutions have begun to modify their traditional supply of musical events. The traditional form of concerts, such as the overture-concerto-symphony program of the symphonic concert is inadequate to cope with the demand of new audiences and in particular, new generations. As a result, managers of musical institutions have had to develop new forms of events (programs, locations, musicians). Communication is a key issue in attracting new people to classical music. New technologies of distribution and communication are also available and are increasingly used (e.g. the Operas from the MET, live broadcasts to movie theatres) (See Bakhshi 2017).

In analysing these new developments, we will classify the various actions under four different approaches: changes in the form of concerts, reassessment of physical traditional locations, diversification in the communications systems, and social experiments.

2.1 *Changing the Form of the Traditional Concert*

Even traditional concertgoers are fed up with the rigidity of most standard concert programs. Some orchestras have developed programs based on film music and classical music used in films (for instance, the success of the “andante con moto” of Schubert’s *Trio op.100 for piano, violin and cello* is definitely linked to its dramatic use by Stanley Kubrick in *Barry Lyndon*) and, even, in advertisements (Shostakovich’s *Waltz* became a true best-seller). New programs can also be adventurous. In Hamburg, conductor Ingo Metzmacher has changed, with a tremendous success, the traditional Viennese music New Year concert into a program entitled *Who is afraid of contemporary music?* in which pieces by Stravinsky or Ravel are mixed with some others by Adams or Gershwin!

The sphere of concert offers should be enlarged and completed to be more educational: presentation of composers, works and performers, informal analysis of the score with the musicians performing.

The use of broadcasting media (radio, TV) should be generalised by harnessing the potential of new technologies (tablets, smartphones). The question today is not: ‘How can we reproduce the twenty-first century equivalent of Leonard Bernstein’s *Young People Concerts?*’, but ‘How should we communicate these kinds of events today?’

The basic aim however remains to amend the concept of the concert. Programs should sometimes be shorter and present more diversity. Length and timing should be reassessed: 1 h concerts for busy people, concerts at another time of the day, such as lunch and after-work concerts, week-end friends and family concerts.

The supply of concerts can also be programmed to satisfy the expectations of specific categories of listeners: young or old people, families, retired or, more effectively, retired people with grandchildren. Presentation can be extended by giving access to public rehearsals, or by organising informal meetings with musicians, before or after the concert.

New links can be developed with other forms of arts (dance, theatre) but also exhibitions when concerts can be used to immerse visitors in the typical ambience of the exhibition: in a certain place at a certain time.

2.2 Reassessing the Use of Traditional Locations

A large percentage of potential classical concert-goers are reluctant to enter into traditional concert halls and opera houses. They consider these places as old fashioned and not integrated in current social life. Hence concert organizers have to organize musical events that are less conservative or more user-friendly. Two types of actions are available which are not exclusive to one another; their combination can, to the contrary, turn out to be very efficient. The first considers new concert venues, whilst the second tries to organize peripheral activities around traditional locations in order to make them more attractive to new audiences.

2.3 Searching for New Locations

The organization of outdoor activities made possible by the progress in electronic technology, is a current trend for non-classical music. Parks, former industrial sites, big open space fields are systematically used for the meetings of mass audiences sometimes in their thousands (pop festivals). Similar proposals, such as the Hollywood Bowl concerts in Los Angeles, are already organized in sunny regions. In the south of France, the International Piano Festival of La Roque d'Anthéron takes place for more than 30 years in the large park of a local castle and can host as much as 2200 visitors. Other concerts are organized in active locations linked to everyday life: near or in work or travel venues (railway stations). An alternative version is to concentrate people in an intimate musical experience by organizing concerts in very small places ("concerts in apartments" during the Flanders Festival).

Prestigious locations can also be selected. This is particularly the case for music festivals that reap benefits from the historical or architectural heritage in order to attract new audiences. It is evident that open-air opera performances in old Roman buildings, such as the Chorégies of Orange in France or The Verona Arena Opera Festival in Italy are an attractive touristic feature for these regions. Private organizers also arrange touring opera performances for which the stage is build in front of a celebrated castle ('Opera au château' in Belgium and France). People attending

these performances are generally not used to visit traditional opera houses during the season.

Festivals can also be organized to generate a large level of simultaneous events, located in big exhibition halls. The purpose is not to propose prestigious concerts *per se*, but a network of performances organized in the same building at the same time and over a short period of time. René Martin, a French concert organizer, specializes in *ad hoc* festivals of this kind based on a common theme (one composer, one city, one country or one period). Initiated in Nantes, where they can mobilize close to 100 concerts over a 4-days period, such 'Folles Journées' are now organized in many other countries (Portugal, Spain, Brazil and even Japan) and can host well over 50,000 people. Music libraries and record shops are part of the show and are generally cashing in record sales.

2.4 *Peripheral Activities Around Traditional Locations*

The general purpose of this type of activity is to generate in or around a traditional concert venue, musical performances not directly linked with standard programming, which prove appealing to other kinds of audiences, in particular younger people. Organizations such as 'Jazz at the Philharmonic', 'World Music at the Opera House' can induce new people to make contact with traditional concerts halls and to discover in a more effortless way their prestigious atmosphere. Organizing chamber music concerts in jazz or pop venues can also prove equally attractive.

Multicultural events can play a major role by mixing music concerts with other types of performances that are more inviting to some audiences. The mixture of modern dance and music is an example of this although the actual appeal to audiences is perhaps less evident than expected. Exhibitions represent a major source of interest. In Brussels, at the Palais des Beaux-Arts, a Spanish music recording from the time of Zurbarán was created by the famous Ancient Music Conductor Paul Van Nevel with his Huelgas Ensemble. It gave concerts during an exhibition of Spanish art. Special concerts around the same theme were produced in the evening once a week.

Another approach is to take advantage of open-spaces generally available in front of big musical institutions for the presentation of non-classical music or alternatively, for performances of invited young and unknown artists. Under the leadership of Serge Dorny who was the organiser of similar events near the Festival Hall on London's South Bank, the Opera of Lyon developed a very interesting scheme. The first step was to convert the entrance of the concert hall (atrium) into an alternative concert venue, which was supposed to attract a new kind of audience. A second step consisted to invite young people from the concerts organized in the atrium to enter the actual concert hall in order to attend pop, jazz, or more traditional music concerts performed in the amphitheatre located in the building's basement. The third step proposed theme opera tickets at cheaper prices. The result of this, together with other initiatives, is that the Opera de Lyon currently enjoys a population of visitors who are less than 40 years old and who represent 39% of its total audience.

2.5 *Diversifying the Communication System*

The use of traditional broadcasting (radio, TV, CD and DVD) is well practiced for a long time and plays a key role in promoting certain types of concert such as the 'Prom's' in London and the 'Queen Elisabeth Competition' in Belgium. The problem is that, though these events are extremely successful, the recourse to these techniques is usually unavailable due to budgetary reasons or because of the pressure exerted by other more marketing oriented programs. For most broadcasting institutions, faced with the goals of achieving higher audience figures, nowadays a program is good if it helps to sell advertising.

Some institutions have consequently decided to develop their own virtual communication through the Internet. The Berliner Philharmoniker developed its own virtual concert hall. People from any place in the world can follow all the concerts of the orchestra live, at the moment of their choice for a fee. The availability of the recording material also enabled the Berliner Philharmoniker to organize the production of its own CDs and DVDs based on these performances. The reverse impact has been to reorganize in a more dynamic way the performance itself: Sir Simon Rattle asked the American producer Peter Sellars to arrange stage performances of the two Bach Passions previously broadcasted by the Concert Hall system or cinema theatres and made available in DVDs.

The worldwide distribution through cinema theatres of the opera performances of the MET is another spectacular success. Audience numbers have seen a dramatic increase registering for examples 900,000 attendees for contemporary pieces and nearly 2.2 million for *La Bohème* or *Tosca*, compared with the 'real' audience, of around 3000 which can be accommodated directly in the MET Opera House.

Some organizers, such as Prince on the pop-music circuit, sells concert tickets jointly with the live recording of the same session.

Some festivals or major houses also organize free of charge broadcasts of their opera performances in public spaces. Some evening representations of the Théâtre de l'Archevêché in Aix-en-Provence can be seen on the Paris beach as well as other open places situated in major Southern French cities. Viewing an opera performance is therefore rapidly being transformed into the participation in a real popular celebration.

2.6 *Developing Social Experiences*

A final class of the population exists whose access to culture is rather limited and for whom specific action within their community has to be arranged. The attraction of people coming from less favoured circles generally occurs through the intermediation of related contacts in recognized networks (associations, schools, communities, or sport clubs).

This also implies an extension of the area of action to peripheral cities in which these people live. The action therefore has to be conducted *in situ* by people familiar with these places and accepted by their inhabitants. The process can be very long and generally includes some fieldwork that involves local people in the design, rehearsal and performance of their own shows. The festival of Aix-en-Provence, for example, organizes a big project in some unfavoured areas of the city on an annual basis. The effect of this action is also to create some centres of activities that survive the festival period and continue to integrate existing interests within the community throughout the year. A local choir is now permanently active in one area inhabited by North Africans. Another type of action is to engage young children in the practise of music by forming orchestras of various levels throughout the whole country under the scheme 'El Sistema' successfully developed by Professor Abreu in Venezuela and which now supervises more than 250,000 young people.

Some social places which are at risk can also be visited by musical groups: hospitals, prisons, schools, stations. An orchestra such as the Orchestre de Lille performs every year in more than 30 small or medium-size locations. People from all over Nord-Picardie (North West of France) are now regular visitors of the 'Nouveau Siècle' Concert Hall of the orchestra in Lille, where each program is presented two or three times to an audience of 2200 people.

Social, economic and corporate groups such as workers' committees are other communication vehicles in big plants and organizations.

3 The Experience of the Music3 Festival

The stage has been reached when one needs to match the various proposals with the personality of the various groups of potential listeners defined in our typology. We undertake this exercise by analysing the experience of the Music3 Festival that proved very successful.

3.1 *Description of the Festival*

The festival is organized in Brussels once a year during the last week-end of June, and is launched by three partners:

- (a) *Festival de Wallonie*, the Belgian French-speaking area's most important classical music festival which is interested in developing an activity in Brussels addressed to a large audience as well as presenting the key features of its summer program;
- (b) *Musiq3*, the cultural channel of the Belgian French-speaking public radio and TV network (RTBF) that wants to offer a popular live supply of music to its listeners broadcasted in real time on the radio and television;

- (c) *Flagey*, one of the largest and more original cultural locations in Brussels that is looking for new forms of cultural events and offers a network of diversified concert locations.

3.2 *Targets*

The aim of the festival is to present a largely diversified supply of concerts and events that can be followed by people originating from all walks of life. In achieving this goal, the Festival is particularly keen to:

- (a) Organize for one location, the Flagey Square (originally one building (Flagey), but now three plus some open space) a diversified supply of musical events mixing genres (symphonic concerts, recitals, chamber music, ancient music) and types of music (classical, jazz, folk and even pop plus a couple of cross-border experiences);
- (b) Provide educational workshops for children and adults such as: How to get connected with an instrument?, How to dance flamenco?, How to sing in a choir?;
- (c) Develop a festive and more relaxed atmosphere;
- (d) Maintain a link live between concerts and radio/TV broadcasts; Musiq3 broadcasts the event throughout the whole day and organises its own events in the Flagey building;
- (e) Illustrate the theme that will be developed by the Festival of Wallonia during all the summer season throughout the region;
- (f) Give young musicians emerging from conservatories the opportunity to practise in some chamber orchestras (standard or baroque) and participate in small recitals.

3.3 *Concept*

The concept includes the following ‘rules’:

- (a) All concerts are organised in or around the Flagey building that is the core place of the Festival;
- (b) All concerts take place over a period of 3 days starting on Friday evening (at 6 p.m.) and finishing on the Sunday night;
- (c) The supply is large: two to four events are organised simultaneously at any moment of time: A family can for instance split itself according to its choice or attend jointly the same event;
- (d) Concerts and workshops cannot exceed 50 min;
- (e) At all times, the program needs to be highly diversified;
- (f) Concerts are performed by a mixed bag of big stars, recognized performers and young musicians;

- (g) Entrance tickets are very cheap: at most 25 € for prestigious concerts (roughly 25% of the Brussels average ticket price), whilst all young musicians' concerts are not paid.

3.4 How to Dispatch Organised Events Between Various Kinds of Audiences

We describe the 2012 festival program as an example. Its theme was 'Spains', which covered both Spanish music in Europe and from the South American continent. The total cost was less than 100,000 €. The cost per attendee of most concerts was 6 € (approximately half the price of a cinema theatre ticket), though a few 'big' concerts were more expensive. Total attendance exceeded 9000 people representing 77% of the potential total capacity, a figure that increased to over 90% in the last 2 years.

3.5 Distribution of Concerts/Events by Genre and Category of Attendees

The distribution of concerts is illustrated in Table 1. They are devoted to a large variety of composers from Spanish speaking areas, both in Europe and South America and to various kinds of popular music (flamenco, tango, salsa), jazz on local tunes and dances. The table shows to which type of listeners the various concerts are devoted.¹

The repertoire is very diversified: orchestral music (12%), recitals and ensembles (17%), ancient music (15.1%), jazz (9.6%), popular music (8.4%), students concerts (9.8%), shows for children (5.5%), workshops for children (15.8%) and adults (4.1%), festive events (2.7%). If we restrict the analysis to concerts: classical concerts represent 75%, jazz 13.4% and popular music 11.6%. Activities other than concerts represent 28% of all organized events.

The Festival is a testimony to the possibility of creating a program for use by a concert organizer which fulfils the expectations of different kinds of audiences and which can be arranged so as to present total mix of differing kinds of music concerts and various other musical activities around a particular theme. Its attendance figures clearly demonstrate that there exists a highly diversified audience, which

¹It is very difficult to determine which category of music these attendees will be inclined to listen to as they do not have any specific background. Their absence of knowledge enables them to be attracted by any kind of music as they react instinctively. The purpose of the Festival promoters is to attract them by a very popular tune and to respond afterwards to any of their subsequent instinctive requests. For these reasons, the 'Yes' recorded in this category is only related to the 'attractive topics'.

Table 1 Distribution of concerts

	Types of listeners			
	The musician	The cultivated lover	The occasional listener	The man with no culture
<i>Friday June 29 (10 events)</i>				
2 symphonic and ensembles (2). Very popular pieces (Ravel's "Bolero", Gershwin), popular composers (Piazzolla), music for small ensemble (de Falla's "El Amor Brujo", Stravinsky's "Histoire du soldat")	Y	Y	Y	Y/N
Recitals (3) Sax quartet, piano duo, cello solo	Y	Y	Y/N	N
Student concert (1)	Y	Y	N	N
Popular: Sepharad music (1)			Y	N
Jazz concerts (2)	N	Y	Y	N
Piazzolla (1)	N	Y	Y	Y
<i>Saturday 30.6 (34 events)</i>		Y	Y	Y
Orchestra and et ensembles (3) Falla's "El Amor Brujo"	Y	Y	Y/N	N
Recitals (4): Granados's Goyescas, guitar recital	Y	Y	Y/N	N
Ancient music (7) Savall, Alarcón, . . .	Y	Y	Y/N	N
Jazz (3)	Y/N	Y	Y	Y/N
Tango (1)	Y/N	Y/N	Y	Y
Students concerts (3)	Y	Y	N	N
Children (2)	Y	Y	Y	N
Children choir (1)		Y	Y	
Workshops for				
Children (6) (percussion, violin)	Y	Y	Y	Y
Adults (2) (Flamenco)	Y	Y	Y	Y
Popular events				
Bal tango P.Harvey/Radiohead	N	Y	Y	Y
<i>Sunday July 1 (29 events)</i>				
Orchestras and ensembles (3) music from the two continents	Y	Y	Y/N	N
Recitals (5)	Y	Y	Y/N	Y
Ancient music (4)	Y	Y	Y/N	N
Jazz (2)	N	Y	Y	Y/N
Popular: Colombia, zarzuela (3)	N	Y/N	Y	Y
Student concerts (3)	Y	Y	Y/N	N
Children (1) "L'Homma de la Mancha"	Y	Y	Y	Y
Workshops for				
Children (7)	Y	Y	Y	Y
Adults (1)	Y	Y	Y	Y

Notes: Y = Yes, N = No, Y/N = possible indicate the ex ante dedication of the organizers of a particular event to a certain type of listeners

is keen to participate in such an event. The influence of the radio network in attracting people cannot be underestimated although no figures are available to us at this stage for the purpose of estimating this effect.

4 Conclusion

The typology of the consumer of classical music has to be reassessed in order to better cope with the specific expectations of new audiences. The supply of classical music institutions has to be systematically enlarged in terms of locations, programs, pedagogical environment and use of new technologies and communications systems.

The setting up of a season will have to take the form of a matrix-style system where all proposals should be directly linked to the various demands of the audience. The future of classical music is becoming less of a question related to calls for public funding (although this remains crucial in continental Europe). Today the question is linked to developing a diversified supply of events sufficiently ample to fulfil the expectations of new audiences. Inducing these to attend musical performances is also a matter of reaching them eventually through specific networks within the population. Proactive attitudes from cultural institutions constitute a key factor in this context.

References

- Bakhshi, H. (2017). Digital research and development in the arts. In V. M. Ateca-Amestoy, V. Ginsburgh, I. Mazza, J. O'Hagan, & J. Prieto-Rodriguez (Eds.), *Enhancing participation in the arts in the EU*. Cham: Springer.
- Bourdieu, P. (1984). *Distinction: A social critique of the judgement of taste*. Cambridge, MA: Harvard University Press.
- Chan, T. W. (2010). *Social status and cultural consumption*. Cambridge, MA: Cambridge University Press.
- Fernandez-Blanco, V., Perez-Villadoniga, M. J., & Prieto-Rodriguez, J. (2017). Looking into the profile of music audiences. In V. M. Ateca-Amestoy, V. Ginsburgh, I. Mazza, J. O'Hagan, & J. Prieto-Rodriguez (Eds.), *Enhancing participation in the arts in the EU*. Cham: Springer.

Michel Hambersin After studies in law and economics, Michel Hambersin, Honorary Professor of Finance at the University of Brussels, has simultaneously developed an activity in international banking and in music (he has been chairman of Ars Musica, the Belgian based festival of contemporary music, and is the musical critic of the newspaper "Le Soir"). Member of the Belgian Royal Academy, he is presently engaged in research in economics of culture.

The Cultural Value and Variety of Playing Video Games

Karol J. Borowiecki and Juan Prieto-Rodriguez

Abstract This chapter compares different profiles of video game players and studies how these groups differ in their cultural consumption patterns. By using a unique dataset on cultural participation in Denmark, we address the problem of over-aggregation and differentiate between several profiles of video gamers based on the genre they play. We find that video gamers are far from being unresponsive to other forms of cultural consumption. In fact, they rather exhibit, on average, better cultural habits than non-players. In particular, they have higher frequencies of reading, museum and performing arts attendance, and are more likely to be involved in active music participation. The exception exists for the category of reflex game players; this could be driven by age effects, since reflex games are the most popular among (males) under 40.

Keywords Cultural participation • Video games

1 Introduction

One of the issues often neglected within the field of cultural economics is that many of the studies on cultural participation are affected by over-aggregation. Whether the data used relates to museums, performing arts or other more typically studied cultural attractions, research often underlies the strong assumption of homogeneity in products. This does not differ from the majority of research on demand. However, while the assumption of homogeneity in products can be seen as a weak assumption in most markets, cultural markets are characterized, perhaps even defined, as being extremely heterogeneous. In fact, this is one of their main characteristics and as such, implies that cultural goods can incorporate completely different values and features even within the same category. This heterogeneity also

K.J. Borowiecki (✉)

Department of Business and Economics, University of Southern Denmark, Odense, Denmark
e-mail: kjb@sam.sdu.dk

J. Prieto-Rodriguez

Department of Economics, University of Oviedo, Oviedo, Spain
e-mail: juanprieto@uniovi.es

leads to different kinds of consumers within each cultural sector and the existence of niche consumers. For instance, mainstream theatre contrasts radically from alternative or classical theatre and this also implies significant differences in the types of audience. Similarly, museums can differ depending on the nature of the exhibit, ownership or size. Depending on its exact attributes, a museum may be visited by a certain type of audience. This consideration applies naturally also to books, cinema and other audio-visual products, including video games.

This problem of over-aggregation in cultural economics could well be related to the lack of data good enough to consider the diversity of cultural goods.¹ Of relevance also, are the classic findings outlined by Baumol and Bowen (1966, p. 84) that “audiences from art form to art form are very similar”. If different art forms have the same type of audiences, can differences exist within the same type of cultural good? We believe that yes, and argue, first, that different factors affect diversity in cultural consumption (across goods and within industries) and, second, that low consumer diversity between different types of cultural goods can coexist with a relative large diversity within cultural industries. We outline and support our arguments by referring to the fast growing video games industry.

Here, by using a unique dataset on cultural participation in Denmark, we are able to disentangle the types of video games into a range of sub-categories and study the emerging differences in the consumption patterns and consumer backgrounds and behaviours. We also compare other cultural consumptions patterns depending on whether one plays or does not play video games. As such, this paper is a response to the suggestions by Borowiecki and Prieto-Rodriguez (2015), who propose that video games research should examine more closely how the playing patterns and socio-economic background of the video gamer changes for different types of game.

2 The Cultural Value of Video Games

As we have already pointed out in Borowiecki and Prieto-Rodriguez (2015), within the humanities, the arts and cultural value of the new genre of video games is recognized and has been studied already a long time ago. In fact, various disciplines other than economics have identified a number of interesting parallels drawn between video games and other traditional art forms from the 90s. For instance, Laurel (1991) highlights how digital media enable their users to enhance their roles to drama performers and to act not just as audience members. The game player is able to alter the story by way of, as Laurel’s calls it, a performative authorship that

¹See Sect. 1 of this book where some methodological issues regarding audience studies are discussed including those linked with the quality of the available surveys in Europe. Also, chapters on EU cinema audiences and on music listening in Spain analyse different profiles of cultural consumers trying to emphasise the importance of movie and music genres.

shapes the behaviour of the game character and influences the events that unfold in the plot. Furthermore, Murray (1997) studies the connections between traditional narratives and new digital environments and how the new digital mediums can be used to magnify the potential of expression available for story-telling.

The artistic properties of video games can go beyond the narrative or theatrical expressions, where iconographic landscapes (Jenkins 2006) resemble the features of contemporary art. The Museum of Modern Art in New York took this parallelism into account and has included, since March 2013, an exhibition of the best in video game design and aesthetics as part of its permanent collection. According to the curator, video games are art due to the visual quality and aesthetic experience of, but “they are also design, and a design approach is what we chose for this new foray into this universe” (Antonelli 2012). The visual aspects of video games are of great importance not only because they affect the experience of playing a game, but also because they allow customers to view the product before the actual game play. It is therefore not a coincidence that game artists are equally well sought after as game programmers (Bethke 2003). However, despite the increasing demand for game artists, the contribution of an individual remains usually unobserved and the relevant labour market is not characterized by the superstar phenomenon present in other cultural industries. This is so as games are rarely bought nowadays due to the fact that a famous programmer or game artist developed the product.²

While some recognize cultural value in even the earliest games from the 1970s (e.g. Murray 1997), the relatively recent technological advancements created enormous potential for artistic expression and creation of cultural content. Jenkins (2006) explains how creativity is stimulated when the constant shift in the basic tools and resources of game designers redirects their attention from mastering a tool to exploring properties and potentials of the medium. Similarly, in the past, technological advances have affected production of traditional cultural formats: print technology stimulated the development of novels and, more recently, film technology advanced the production of movies (Murray 1997).

Within the game industry, the advancement of the available technology allows for increasingly sophisticated game design, but also demands larger sizes of development teams, increased development times and rising budgets. Interestingly, technological improvements have a different effect on other cultural industries. For example, music or film industry technologies enable cheaper production and stimulate the emergence of independent musicians or film producers. This leads to increasing differences in the organizational structures across those industries. While in the music industry the musician, especially a famous one, is more

²This was different when games were not so complex and were often developed by single artists and designers. Consider for example the action-adventure game *Another World*, developed by Eric Chahi, which was highly innovative in the use of cinematic effects in the graphics. The game sold around a million copies during the 1990s and was selected as one of the first 14 titles to be exhibited in the video game art exposition at the Museum of Modern Art in New York.

important than the publisher, in the game industry, publishers are more important than developers.³

Alongside the technological advancements, came the emergence of multiplayer online games. In those games, the power of the player can go beyond the possibility of impacting the character and plot of the game—affecting other real people as well. With this in mind Espen Aarseth, editor of the *International Journal of Computer Game Research*, highlights the cultural superiority of video games, which by combining aesthetic elements with social ones, allow direct communication and interaction between participants. Video games thus incorporate greater cultural value than the more traditional mass media, such as theatre, movies, TV shows and novels (Aarseth 2001). Interestingly, multiplayer video games have arguably the potential to improve our understanding of human behaviour and economic activity. Often, these virtual worlds offer a unique context for natural experiments, a high number of participants as well as tightly controlled experimental conditions (Castronova 2001).

3 Data from Denmark

The dataset used in the analysis comes from the 2012 Danish Cultural Habits and Preferences Survey (*Kulturvaneundersøgelsen*), issued by the Ministry of Culture. It is the seventh study since 1964 and contains information on participation in different cultural activities and the use of media. Furthermore, the dataset contains information on some personal characteristics: gender, age, region and civil status. Unfortunately, there is no information on educational attainments, which is usually one of the key variables to explain cultural consumption although it is probably more relevant for participation in the ‘high’ arts.

A total number of 3644 observations are available with 3576 valid responses regarding the intensity of video games playing. The variable of main interest records the frequency of playing video games with the following eight categories: more than 3 h per day, more than 1 h per day, every day or almost every day, 3–4 days per week, 1–2 days per week, 1–3 days per month, less often and never.

This dataset also provides information on the type of video game played by the respondent. The survey distinguishes between 15 video game genres from platform to virtual reality games. However, seven categories represent very specific game types with a small number of players (below 5% of the sample). Taking into account the labels used by the survey and the correlation between categories, we have defined the following four groups: (a) Classics: classics games and puzzles; (b) Reflex: action, fight, platform, shooter, car, RPG, simulators and sports games; (c) Strategic: strategic and graphic adventures and (d) Social: party and virtual reality games.

³See Egenfeldt-Nielsen et al. (2008) for an overview of the economic organization of the video game industry.

Table 1 Frequency of playing video games by genre

Variable	Mean	Std. Dev.
Classic	0.242	0.428
Puzzle	0.135	0.341
Classic and puzzle	0.283	0.451
Action	0.075	0.264
Driving	0.046	0.209
Fight	0.026	0.159
Platforms	0.056	0.231
R.P.G.	0.044	0.204
Shoot	0.065	0.247
Simulator	0.019	0.137
Sports	0.063	0.243
Reflex	0.162	0.368
Graphic adventures	0.046	0.209
Strategy	0.066	0.248
Strategy and adventures	0.091	0.288
Party	0.035	0.184
Virtual reality	0.032	0.177
Party and virtual reality	0.059	0.235
Video gamers	0.407	0.491

Table 1 displays the playing frequencies associated with each genre and also for the four categories that we will subsequently be used in this chapter. Although they are the two most popular groups, we aggregate classic and puzzle games because they present a very high correlation and a very significant Pearson's Chi-squared coefficient ($\chi^2(1) = 626.29$), which implies that the null hypothesis of independence between these two variables can be rejected.

4 Types of Games and Gender

We now describe the main characteristics of video gamers and the types of games they play. First, we explore the differences in playing video games and the corresponding intensity between gender and across age.

According to Fig. 1, and in line with the findings of Borowiecki and Prieto-Rodríguez (2015) for Spain, females are significant video games consumers. The probability of playing video games changes with age more intensively for men than women although this decreases over an individual's lifetime for both groups. Younger males play more than females but middle age and older females have a higher probability of playing than males, crossing as people turn 40. Therefore, whereas among adolescents, the likelihood of playing is almost 100% for men, it is

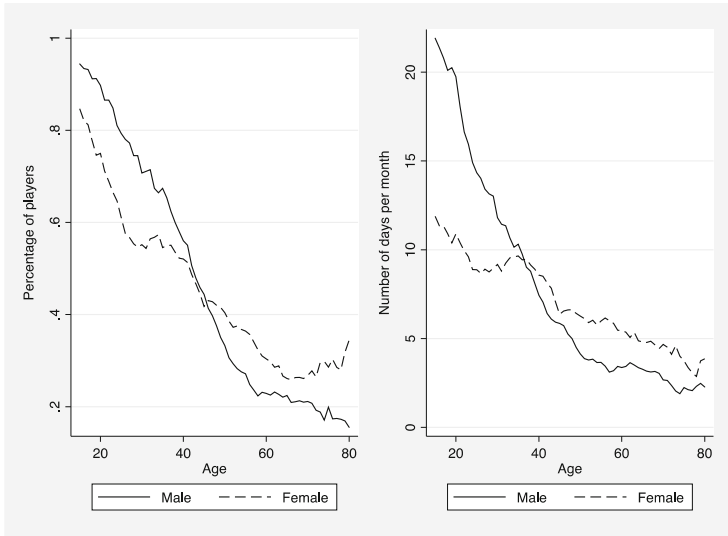


Fig. 1 Probability and frequency of playing video games by gender and age

<85% for women. However, among senior cohorts, females have a probability of playing almost double to that of males.

The intensity of playing also has a different pattern for men and women by age. Video games playing decreases over an individual's lifetime, however at an unequal rate. Young people especially males often play around 20 days per month, but this decreases sharply to below 5 days per month on reaching their 50s. For women the decrease is less dramatic and drops from about 12 to around 5 days per month. The frequency functions for both gender cross at the age of 36 years. We conclude that there exists a marked gender difference in terms of probability and intensity of playing in favour of young men compared to women of the same cohort, but this difference disappears at middle-age and reverses for older generations.

Figure 2 displays the proportion of players for each type of game by gender and age. It is noteworthy how classic video games become increasingly relevant with age, exhibiting a markedly upward trend; however, for any age-cohort these types of games are more popular amongst females than males, with an almost constant 20% gap. Strategic games popularity increases up to an individual's late 20s when it peaks and then decreases for both males and females. These games are not very popular with middle age and older players and are fairly independent of gender, being played by about 10% of players. However, we observe an important difference among the youngest cohorts: Strategic games are the second most popular type of games amongst young males (reaching up to 30%) but are significantly less popular with young females (always below 18%).

Finally, the most marked differences by gender can be observed for reflex games (action, fight, platform, shooter, car, RPG, simulators and sports games). On the one hand, as a game they are the most likely to be played in the case of youngest and

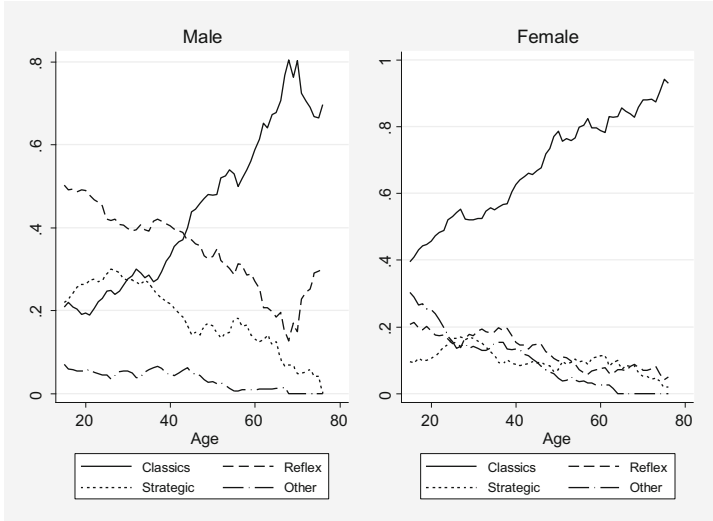


Fig. 2 Type of video games played by gender and age

middle age males and are the second most popular amongst older men. Despite a gradual decrease with age for almost all male cohorts this type of video game is chosen by at least 20% of players and has a peak at 50% for teenagers. On the other hand, the decrease with age is less marked for females, being played by roughly 20% of female players between the ages of 15–40 years and <10% for older women.

It is clear that there are genre differences both in the type of games played and the amount of time devoted to play. It is also important to point out that playing video games is in terms of activity neither exclusive to teenagers nor a domain of male players only.

5 Cultural Participation by Type of Game

Video games are often perceived as creative goods that have a low cultural value, if any as well as being envisaged as problematic, because they are substitutes for ‘genuine’ cultural goods. Video gamers, especially, young cohorts use their leisure time to play instead of dedicating time to reading or attending theatrical plays or music concerts. Using econometrics tools, Borowiecki and Prieto-Rodriguez (2015) show that this claim is inaccurate. In fact, the probability of playing a video game is positively correlated with the consumption of other cultural goods (e.g., listening to music) or active involvement in artistic activities (such as writing or visual arts production). Moreover, they find no negative impact on reading habits or practicing performing arts or musical activities.

In this section, we try to undertake a more in-depth analysis by examining whether the differences in cultural habits are linked to the kind of video games that people play. Specifically, we look at reading frequency, attendance of theatrical performances and visits to museums.

Reading can be considered as one of the main intellectual and cultural activities and the basis for many others.⁴ Therefore, potentially, bad reading habits by video gamers may be an indicator of poorer cultural lives. We investigate this hypothesis by exploring whether video game players and non-players exhibit different reading habits.

Figure 3 displays average reading frequencies for different video gamers distinguishing three types of readings: fiction, sciences and comics. The picture indicates a rather high reading frequency for video game players. As for fiction, all but reflex games fans have a higher reading frequency than non-players, although notably only classic games players reveal a significantly higher rate. For scientific and technical books, non-players have a lower frequency than players and the difference is significant for all groups except for reflex games. Finally, comics are read more frequently by video gamers, especially by reflex and social game players. It is worthwhile noting that, according to Borowiecki and Prieto-Rodriguez (2015), reading is not significantly correlated with the probability of playing when other factors are controlled for. However, it is also true that these controls included another literacy activity, namely writing, that was in fact positively and significantly correlated with video game frequency. Another difference is that, in this chapter, we disaggregate types of video games and we do not use multiple correlation analysis. In any case, the evidence presented here indicates that video gamers are not as was perceived, individuals with a complete disinterest in reading; on the contrary, on average, they exhibit better reading habits than the average non-player.

Figure 4 presents the number of times per year different types of video gamers attend performing arts distinguishing in this context theatre, opera and lyric theatre (labelled Opera), musicals and cabaret. Within each group, independently of the type of video games played or whether the respondent plays at all, we observe the same ranking in popularity among the four types of performing arts, with theatre proving the most popular and opera the most exclusive. We also observe that non-players attend opera significantly more often than players.⁵ Although these differences are statistically significant, opera attendance rates for non-players are twice the attendance of reflex game players but this difference is below one fifth for classic games. This result could be due to an underlying age effect since, as we have

⁴Fernández-Blanco et al. (2017) have found a positive correlation between reading as a leisure activity and visits to museums, expositions and monuments, active cultural participation (e.g., playing music or practicing traditional visual arts) and video watching, listening to music or attending cinema. This positive link was also significant with self-declared interest in cultural activities. Additionally, they have also found a positive correlation between video gaming and the number of books read.

⁵We run several tests of hypotheses comparing means to assess whether the observed mean differences are statistically significant or not.

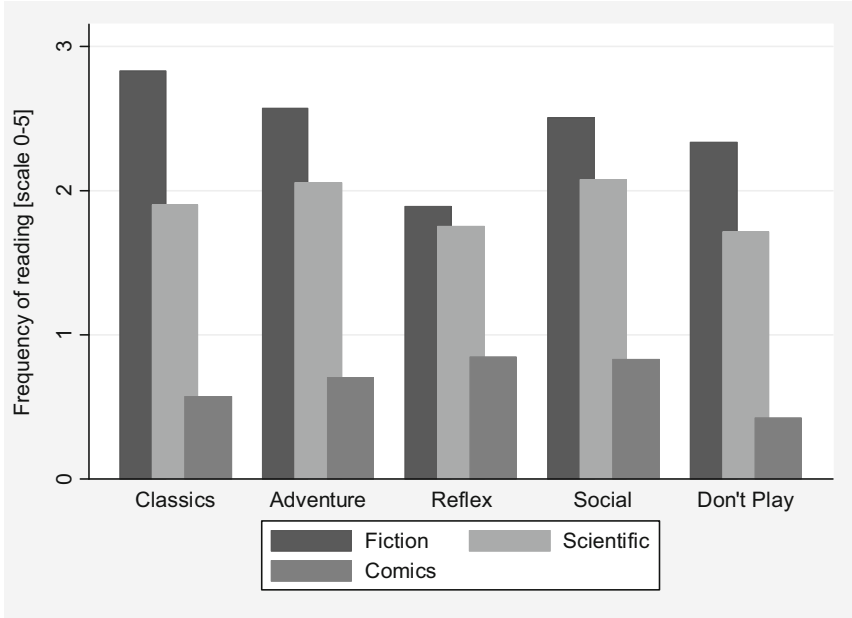


Fig. 3 Reading frequency by type of game played

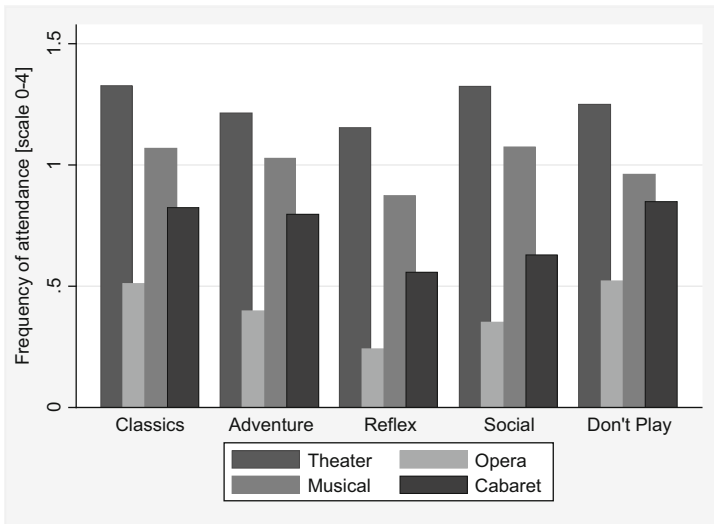


Fig. 4 Attendance at various theatrical attractions by type of video game played

seen previously, reflex games are especially popular among the youngest players while classic games are increasingly popular with age. In turn opera and lyrical theatre, although always very exclusive are more popular among middle-aged and

older people. Regarding cabaret, differences are again smaller when comparing classic and social game players with non-players and larger with regard to reflex game players.

People that play classic and puzzle video games, on the one hand, and social games, on the other, have on average a higher demand for theatre and musicals than non-players. The differences are insignificant for adventure and strategic games players and the only group of gamers that underperform non-players are those playing reflex games.

Regarding museums (Fig. 5), non-players present higher attendance rates than reflex games players for history museums, monuments and art museums and galleries. However, non-players do not have significantly higher rates of attendance to history or art museums compared to players of other games. In fact, adventure and strategy players have a significantly higher average frequency of attendance than non-player for both types of museums.

Classic and puzzle game players are the most common museums and art gallery visitors; this can possibly be attributed to the age effect. Finally, all video players visit a natural history museum more often than non-players, although for classic games, the significance level of this difference is 10% only. Again, this could be related to the age differences, since natural history museums may be more popular among young people. In any case, it seems that being a video game player does not necessary imply a lower demand for museums, although there are some clear differences across the game genres.

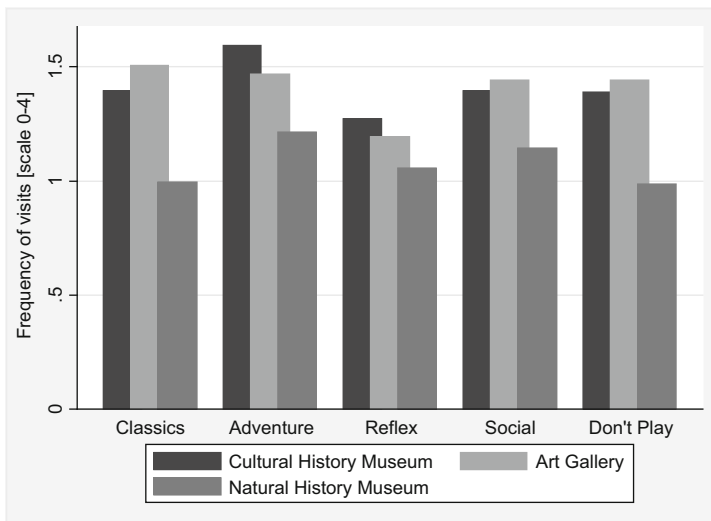


Fig. 5 Attendance of various types of museums by type of game played

6 Music Video Games and Participation in Music

Finally, we explore how playing video games is correlated with music listening or concert attendance. For this reason, we avail ourselves of the music video games category, which is most closely related to music in general. An implicit advantage of the survey design is that questions on music activities were asked in the music module that comes before the video games module without any cross reference to video games. Therefore, we can almost be sure that the figures presented in this section for music activities are not biased because of a misinterpretation of the question. For instance, if a respondent reported to have been singing, it is unlikely that this was when she played the singing video game *Singstar* or similar.⁶ As seen in Fig. 6 those who play music video games also listen to music more frequently. The gap is larger for males than for females but significant in both cases. Therefore, not surprisingly, those who play music games have a higher probability of listening to other music in addition to the music in video games. Moreover, those playing games exhibit a higher participation in music activities: They are more likely to sing, play musical instruments or compose. The probability of playing an instrument or composing music is twice as large for those who play music video games.

Finally, using data on the type of concerts attended, we describe, in Fig. 7, what music genre is preferred by those who play music video games. We can observe some interesting results regarding the correlation between attendance to music concerts and playing music video games. First, genres that are typically associated

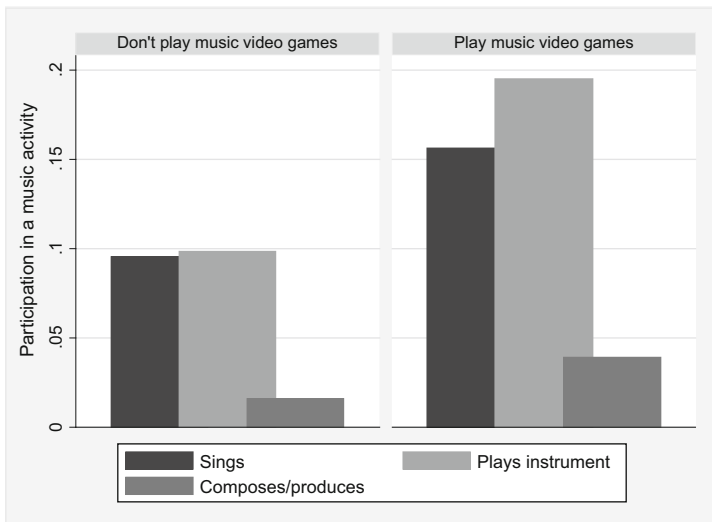


Fig. 6 Probability of participation in music activities

⁶Music games are called “party games” in the survey. The given examples are *Singstar* or *Dance Dance Revolution*.

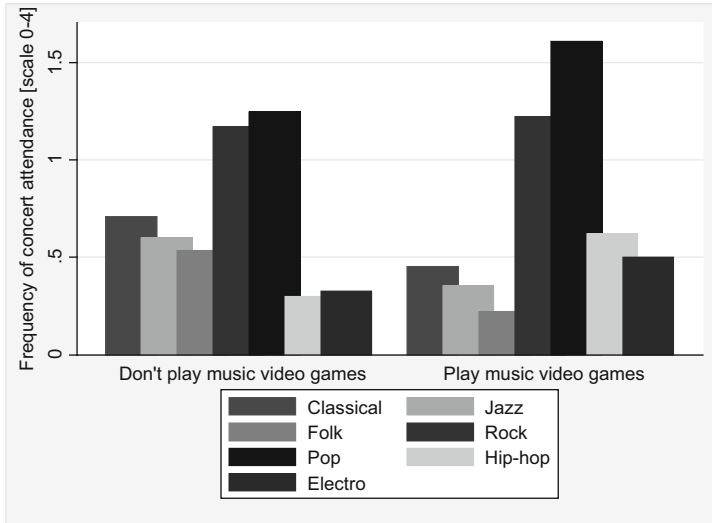


Fig. 7 Frequency of concert attendance by those who play music games

with middle age and older people (classical music, jazz and folk)⁷ show a higher rate of concert attendance for non-players. Second, there is a very large relative difference for electronic and hip-hop attendants in favour of those who play music games. People playing music games also attend pop music and rock concerts more frequently, but here the difference is not significant. These results may again be attributable to age effects.

7 Conclusion

Video games are not always thought of as creative products, even in comparisons with the three main cultural industries: music, movies and publishing. There is also evidence of prejudice towards individuals who play video games, either on a console, a personal computer, a tablet or a smart phone. As in the films *Bowling for Columbine* (2002) and *Elephant* (2003), winners of the Oscar for the best documentary and the Palme d'Or at Cannes Film Festival respectively, video gamers are sometimes viewed as young nihilists who dedicate their time to killing virtual people without really worrying about other forms of cultural consumption. These perceptions find no support in our data.

It can be argued that many products of the video game industry do not aspire to such high standards of creativity and are oriented to a mass consumption market without artistic aspirations. But, equally so, could we not use these same arguments

⁷See Fernández-Blanco et al. in this volume.

to describe the situation in the audiovisual industry, film and fiction? How many products of the cultural industries are put on the market with a questionable cultural value? Therefore, it seems unfair to judge video games with standards that we do not strictly apply to other cultural sectors.

Recent years have seen numerous changes in the video games industry resulting in an expansion of both demand and supply which accompanied by technological advancements, have served to bring it closer to other cultural industries. For instance, older generations of gamers have grown up, but still play; maybe not the same type of games but they are still characterized by positive playing probabilities and frequencies. Additionally, gaming platforms are more diverse than ever before and attract new players and developers. Games have become increasingly complex and the industry focuses more on game development and promotion. Related to all this, video games players cannot be viewed as a niche consumer anymore. They are mainstream consumers and their consumption exhibits a very high degree of heterogeneity, which includes, as observed in this study, a heterogeneous genre demand. Our analyses illuminate some of the biases associated with over-aggregation, which is common in cultural economics. The disaggregation conducted does not solve the problem entirely, since even within a single video game category, heterogeneity exists. An action game can vary, for example, based on its degree of violence, or where, or when it is set. In some way, each single video game, similar to any cultural product, is unique.

In this study, we also find that video gamers are far from being unresponsive to other forms of cultural consumption. They tend on average to exhibit better cultural habits than non-players with, in general, higher frequencies of reading, museum and performing arts attendance, and active music participation. The main exception is the case of reflex game players. This group exhibits the lowest demand for other cultural activities with differences that are in many cases significant. These patterns could be strongly driven by age, since reflex games are more popular among (males) under 40. Therefore, it is possible that these consumers do not attend opera or read as often as other groups because they are younger on average and not because they play sport, shooting or simulator games. Their age determines their high demand for this type of games and the low participation in other cultural activities but without a causal link between both variables.

Acknowledgments This chapter has also benefited from the support of the Government of Spain (Spanish project #ECO2011-27896).

References

- Aarseth, E. (2001). Computer game studies, year one. *Game Studies*, 1(1).
- Antonelli, P. (2012). Video games: 14 in the collection, for starters. *MoMA PSI Blog*. Accessed October 16, 2016, from www.moma.org/explore/inside_out/2012/11/29/video-games-14-in-the-collection-for-starters

- Baumol, W. J., & Bowen, W. G. (1966). *Performing arts, the economic dilemma: A study of problems common to theater, opera, music, and dance*. New York: Twentieth Century Fund.
- Bethke, E. (2003). *Game development and production*. Plano, TX: Wordware Publishing Inc.
- Borowiecki, K. J., & Prieto-Rodriguez, J. (2015). Video games playing: A substitute for cultural consumptions? *Journal of Cultural Economics*, 39(3), 239–258.
- Castronova, E. (2001). *Virtual worlds: A first-hand account of market and society on the cyberian frontier* (CESifo Working Paper Series, 618).
- Egenfeldt-Nielsen, S., Smith, J. H., & Pajares-Tosca, S. (2008). *Understanding video games: The essential introduction*. New York: Routledge.
- Fernández-Blanco, V., Prieto-Rodríguez, J., & Suárez-Pandiello, J. (2017). A quantitative analysis of reading habits. *International Journal of Arts Management*, 19(3), 19–32.
- Jenkins, H. (2006). *Convergence culture: Where old and new media collide*. New York: New York University Press.
- Laurel, B. (1991). *Computers as theatre*. Boston: Addison-Wesley Longman Publishing Co., Inc.
- Moore, M. (2002). *Bowling for Colombine*.
- Murray, J. H. (1997). *Hamlet on the holodeck: The future of narrative in cyberspace*. New York: Free Press.
- Van Sant, G. (2003). *Elephant*.

Karol Jan Borowiecki is Assistant Professor at the Department of Business and Economics at University of Southern Denmark. He holds a Ph.D. in Economics from Trinity College Dublin. His research interests are mainly in urban economics and labor economics. He has studied the historical incidence, development and long-term importance of cultural heritage and artistic activity in Europe. As such, he has investigated the extent of historical migration and geographic clustering of classical composers, the socio-economic consequences of geographic concentration and the impact of war on migration and productivity outcomes of creative people. He has published in the *Journal of Urban Economics*, *European Review of Economic History*, *Journal of Cultural Economics and Urban Studies*, and is the recipient of various awards and grants, including the ACEI Presidents' Prize for Best Paper (Copenhagen 2010).

Juan Prieto-Rodriguez is Full Professor of Economics in the University of Oviedo. His fields of specialization are cultural, public and labor economics. His main interests in cultural economics are cultural participation and cultural industries. He is the current Executive Secretary-Treasurer of ACEI. He has published more than 60 articles in applied and theoretical economics in international journals such as *Economics Letters*, *European Journal of Operational Research*, *Industrial and Labor Relations Review*, *International Journal of Forecasting*, *Journal of Economic Psychology*, *Journal of Cultural Economics and Kyklos*. He was the coordinator of PUCK.

Measuring the Economic Effects of Events Using Google Trends

Olivier Gergaud and Victor Ginsburgh

Abstract The chapter describes the different techniques that may be used to measure the short-term economic fallouts of cultural events and, in particular, of music and opera festivals. It tries to distinguish failsafe methods—which are unfortunately not always easy to use—from more doubtful ones, in particular contingent valuation and interviews—which lead to exaggerated evaluations. Examples are provided in each case. We also suggest a new and inexpensive method to evaluate the relative numbers of visitors (by country of origin), which does not suffer from the overstatements provided by contingent valuation and interviews.

Keywords Funding cultural events • Impact studies • Google Trends

1 Introduction

According to journalist Jacques Drillon (2012), there are some 1800 festivals organized every year in France. “Organizers,” he adds, “spell the first name of Kurt Weill ‘Court.’ One can hardly measure the state of decay of culture in France.” Of course, this covers all kinds of music festivals as well as theater festivals. The French official festival website¹ lists 62 classical music and opera festivals between June 1 and August 31, 2013. Wikipedia’s² website of opera festival lists 8 opera festivals in Austria, 7 in France, 10 in Germany, 13 in Italy, 12 in the United

¹http://www.francefestivals.com/calendrier2013_2014.pdf

²http://www.en.wikipedia.org/wiki/List_of_opera_festivals

O. Gergaud (✉)

KEDGE—Bordeaux Business School, Talence, France

LIEPP, Sciences Po, Paris, France

e-mail: olivier.gergaud@kedgebs.com

V. Ginsburgh

ECARES, Université Libre de Bruxelles, Brussels, Belgium

CORE, Université Catholique de Louvain, Louvain-la-Neuve, Belgium

e-mail: vginsbur@ulb.ac.be

Kingdom, and 2 in Switzerland. The website *Musicaustria*³ lists 109 classical music and opera festivals for Austria. This is just a very partial description of what happens in some European countries, but begs for answers to two important questions:

- (a) Can one measure the economic fallouts of festivals?
- (b) Since only visitors from other countries can contribute to the GDP of the country in which they are organized, are festivals more than beg-thy-neighbor and beg-thy-local-authorities-for-subsidies events? If so, they are economically unjustified.

The answer to the first question is positive, but some methods suffer from serious flaws. Organizers of festivals very often use consultants who unfortunately convey fully misleading messages. One such extreme example is the report presented at the 2011 Forum d'Avignon boasting "the lever effect of public cultural expenditure on GDP: a reality!" This report was drafted by TERA consultants (2011) who claim on p. 30 of their report that "an 18.6€ rise in cultural spending per city inhabitant is tied to a greater GDP value per head of 625.4€."⁴ This fully nonsensical and unbelievable "reality" is based on a linear regression with 47 observations (cities) of GDP per capita on cultural spending per capita, and a certain number of control variables that are hardly more exogenous than cultural spending per capita. Those who wrote this report do not realize that causality could also go the other way: Larger GDP causes more spending! A first year undergraduate student who has had a course in logics, not even econometrics, knows the difference between correlation and causality. But this is what consultants present at a world forum on culture held every year in Avignon. It wrongly induces local, regional and even national authorities to subsidize such events, since their result implies that "investing" one euro in culture generates 34 (=625.4/18.6) euros, which is plain surrealism. Even Magritte never thought of this.

One or two examples illustrate point (b) quite well. Maugham and Bianchini (2004) have looked at 11 festivals organized in 2002–2003 in the East Midlands (England). In their report on economic and social fallouts, they conclude that the events were very successful: £1 million of total income, including £400,000 earned income from tickets sales; £990,000 of expenses "which may have contributed a further £570,000 to the East Midland's economy" (p. 4) were financed by national (Arts Council England) or local authorities, and £7 million spent by visitors "which may have generated a further £4 million to the region" (p. 4). However, 16% of

³<http://www.musicaustria.at/en/mica/most-useful-contacts/festivals>

⁴This is what is usually called the "cultural" multiplier. The commissioner of the Belgian city of Mons which was elected as European Capital of Culture 2015 is more modest: 60€ million will be invested but the 60 million will have a financial fallout of 360 million, a multiplier of 6. The "theory" invoked to justify this evaluation is "this is what happened in Lille which was the European Capital of Culture in 2004," which may itself be based on a previous comparable event, and so forth. Posted at <http://www.lalibre.be/regions/hainaut/mons-2015-2014-sera-l-annee-de-la-concretisation-52c2ad1f35701baedaadaa21>

visitors live at walking distance (less than a mile) from the festivals, 50% at <5 miles and 84% live within 25 miles. There is no concern in the report about how and where those people would have spent the £7 million had they not attended the festivals. If they had been spent locally, there would be no gain for the region (not to speak about the country) in which the festivals were organized. In a similar study conducted by Négrier et al. (2010) on 49 French festivals, the authors note that 66% of the public is local, 18% are visiting and living with their family, friends or in second residences. Only 16% stay in hotels. So it is again mostly locals who spend income that they would almost surely have spent in their region.

One may also argue that a city that fails to organize such events may 'loose' if its citizens are attracted by events organized by its neighbors. In that sense, the 11 festivals organized in the East Midlands, as well as the Schleswig-Holstein music festival that is decentralized over some 40 locations⁵ in the State of Schleswig-Holstein are rational. They provide enjoyment to a broader audience of locals who do not have to travel too much, and save on organizational costs (reservations, contacts with artists, etc.) by maintaining a single centralized structure.

However, given the number of festivals organized in the various examples given earlier, it is quite doubtful that flocks of people move across countries and borders to visit festivals that they can also attend in their home country, region or even city.

But this is a purely financial analysis, which does not take into account the fallouts on the well-being of visitors. Maybe so, but very little research has been devoted to this aspect since well-being is even more difficult to measure. One study by Steiner et al. (2015), which is not concerned with music festivals but with the case of European capitals of culture, shows that satisfaction of local inhabitants decreases during the event (because of extra pollution, crowding, traffic jams, noise, increase in housing prices, and mega public spending which cannot be used for other, perhaps more commendable, purposes) and gets back to its previous level after the event. There is thus no long-term gain, and local inhabitants even incur a loss of welfare during the event. Whether the supposedly positive welfare effects on neighboring and foreign visitors exceeds the loss incurred by locals has, to our knowledge, never been studied.

We restrict our analysis on ways to measure the direct (or short-term, though some methods can also be used to elicit long-term effects) economic consequences and do not examine whether recurrent festivals (such as Bayreuth, Salzburg, and many others) have long-term economic consequences on the development of the region. The choice of music and opera festivals is motivated by the fact that music is accessible without knowing any other 'language' than the universal language of music. Such festivals can really be international and may hope to cater the tastes of foreigners as well. Theater festivals, such as Avignon or Stratford-on-Avon and its Shakespeare festival, could have been analyzed as

⁵For details, see <http://www.shmf.de/inhalt.asp?ID=14933>

well, but these are usually not visited by people who do not understand the language in which the plays are performed.⁶

The paper is organized as follows. Section 2 deals with the various methods that can be used to evaluate the economic effects of cultural events. We concentrate on ‘occasional’ events such as festivals and exhibitions, but the technology can be extended to analyze museums, concert, dance, or theater series. Our conclusions are rather pessimistic, and our claim is that only very carefully run econometrics on thoughtfully constructed datasets can give good answers. Most methods, such as surveys, contingent valuation and econometrics run by consultants, are often seriously biased and misleading. Section 3 discusses a method (based on *Google Trends* data) that, though as rough as the many others, is an inexpensive and unbiased way of evaluating from where (region, country) visitors come. Section 4 concludes.

2 Evaluation Methods

In his overview paper of the economics of sports mega-events, Matheson (2008) draws a distinction between *ex ante* and *ex post* evaluation methods. He considers, for example, that ‘contingent valuation’ or ‘input-output-based methods’ (to be discussed below) belong to *ex ante* methods. Actually, many evaluations methods are indeed carried out before the event takes place, but they could as well be used after the event. Contingent valuation used to assess the cost of the 1989 *Exxon Valdes* oil spill in Alaska was of course carried out after the event happened (see Arrow et al. 1993). Input-output tables can obviously be used afterwards as well. But what Matheson (2008) shows is that *ex ante* estimates often exaggerate the economic benefits of these events. And the reason is understandable, since *ex ante* evaluations are used to generate public subsidies as well as private sponsors. Lack of exaggeration may clearly lead to no or certainly less subsidies.

In what follows, we make no distinction between *ex ante* and *ex post* evaluations. The case under review and the objectives should make it clear whether one should proceed before or after the event, as well as which method should be used. But it is obvious that *ex post* evaluations contain much more information. One simple example is useful in this respect. It would be very easy to use local value added tax (VAT) receipts and compare VAT collected before, during and after the event. This would be the best economic marker of what the event brought to the community where it was organized,⁷ though it has nothing to say about the origin of visitors.

⁶See also Frey (1986, 1994, 2000), Frey and Busenhardt (1996), O’Hagan (1992) and Vaughan (1980) who analyze other aspects of opera and music festivals.

⁷After taking into account the organizational costs of the event.

We now describe several methods that have been and are still used to evaluate the opportunity to create cultural events, or to measure their fallouts: input-output analysis, time series and hedonic pricing econometrics, natural experiments, randomized experiments, contingent valuation, referenda, and surveys.

2.1 *Input-Output Analysis*

The oldest approach is input-output analysis using national or regional input-output tables in which one injects estimates of final demands, and recovers sector multiplier effects. Humphreys and Plummer (1995) used this method to assess the future impact of the Olympics held in the State of Georgia (US) in 1996. This may work for Olympic Games that are large if not worldwide events, but it would be more difficult to use for smaller ones such as musical festivals for two reasons: (a) the effects are much smaller and probably unnoticeable, and (b) one needs local input-output tables which hardly exist at this level of disaggregation.⁸

Input-output analysis, which is completely outdated, is the method that was used recently by KEA Consultants (see Kern 2016) to evaluate *ex post* the fallouts realized by the city of Mons (Belgium), one of the 2015 European Capitals of Culture. Interestingly and curiously enough they find that the ‘cultural multiplier’ of the event, such as defined in footnote 4, turned out to be equal to 5.5, which is almost equal to the one that was predicted before the event. See footnote 4 for more information.

2.2 *Time Series and Hedonic Pricing Econometrics*

Time series econometrics is used only rarely, both because of lack of data, and because of events that are again too small to make it possible to discern a *blip* in aggregate time series. Here, the idea is to analyze time series before the event, extend these during a couple of years after the event took place, and analyze the impact during and after the event. Skinner (2006) looks at three blockbuster exhibitions organized in the city of Jackson, Mississippi: The Palaces of St. Petersburg (in 1996; 553,900 visitors), Splendors of Versailles (1998; 271,500 visitors) and The Majesty of Spain (2001; 318,400 visitors). Skinner collected monthly employment data between January 1990 and August 2002, used ARIMA-type models and intervention analysis and concluded (but did not “prove”⁹) that the exhibitions had a significant impact on community employment. Plaza (2006), Plaza et al. (2011) use time series to show that

⁸Computable general equilibrium models suffer from similar problems.

⁹This is what she writes (pp. 123–124): “The results presented here do not ‘prove’ that Jackson’s blockbuster art exhibits caused a concomitant growth in employment. No statistical technique is capable of such a proof. They do however provide support for *ex ante* estimates of the real growth effects of blockbusters alleged by economic impact studies. In addition, these results also provide

the Bilbao Guggenheim museum has had real effects on the local economy. Plaza et al. (2012) provide some evidence that image accumulation in online newspapers and social media had a large role in branding the museum's image.

Hedonic econometrics can be used to analyze the consequences of a regular cultural event, a new construction (such as a museum, a concert hall, a sports stadium) or of the listing of an existing building on prices in the neighborhood. In this context, the hedonic method consists in running regressions of prices on characteristics of neighboring constructions (area, number of rooms, style of the house, existence of a garden, other amenities) as well as on the distance with respect to what is thought to have had an effect on prices. The coefficient picked up by distance would tell whether there is an effect. Benhamou (2004, 2012) illustrates the method and provides excellent examples for listed houses: Does listing of a building change real estate prices in the neighborhood?¹⁰ The effects of Bilbao Guggenheim could be studied using the same technique.

2.3 *Natural Experiments*

A natural experiment is the result of an unexpected event that makes it possible to compare the behavior of agents in normal times (the so-called control situation) with the behavior during or after the event in case it is considered to have changed the situation permanently (the so-called treatment). A very nice example is the one exploited by Ali et al. (2008) who tried to check whether the grades given by famous wine taster Robert Parker had an effect on prices of Bordeaux wines. Parker uses to come to Bordeaux since 1994, and grades *en primeur*¹¹ wines during the spring that follows the September–October harvest. His grades are published in April and prices of *en primeur* wines become public during the autumn of the same year. If there is a 'Parker effect,' they should 'contaminate' prices and it is impossible to disentangle the Parker effect included in 'after Parker' prices. In 2003, it so happened that Parker did not travel to Bordeaux, because he was afraid of flying from the US to France at the very moment President Bush was considering to oust Saddam Hussein. Ali et al. use econometrics to estimate the difference that the absence of Parker generated by comparing prices 'without Parker' (the control) to prices 'with Parker' (the treatment), and find that Parker's grading increases prices by some three euros per bottle. Prices used in the control groups are from the 2002 vintage which has been judged similar to the 2003 vintage under consideration.

statistical support for the hypothesis that continual funding for such exhibitions can serve as a *deus ex machina* for metropolitan economic growth."

¹⁰See also Ginsburgh and Waelbroeck (1998) who estimate the effect on the cost of housing in Brussels of the final decision to settle the Parliament of the European Union in Brussels.

¹¹*En primeur* are wines that are sold at discount prices while they are still in barrels.

This brings us to a similar case that happened just before the 2003 Avignon Festival was poised to start, but got cancelled because actors went on strike, though everything was ready to run the show. The effects on VAT receipts in 2003 during the month of the cancelled festival (control) could have been compared to the receipts collected in the years during which it took place (treatment). The way VAT is collected and reported does unfortunately make this impossible, since French VAT proceeds are not available on a daily, weekly or even monthly basis. A recent analysis carried out by Brodaty (2017) on hotel nights before and after the failed 2003 edition of the Avignon Festival shows that the impact on the local economy was limited. The author uses other regions, similar to Provence where Avignon is located, but with no festival organized at the same time as a counterfactual. Note that the synthetic control approach could also have been used here to design the counterfactual.

These two examples are concerned with events (control and treatment) at different moments of time, but one can also apply the technique to events that are simultaneously organized in different locations, some being submitted to the treatment while others, that play the role of controls, are not, though the basic characteristics of locations and populations should be as close as possible to each other. This is what Billings and Holliday (2012) do in comparing the long-run fallouts of (treated) towns that hosted Olympic games with (control) towns that had been competing to host the Olympics, but were not chosen. The choice of these controls can be considered exogenous as these have been determined using the so-called Propensity Score Matching (PSM) estimation procedure.¹² Note that the synthetic control approach could have also been used here to design the counterfactual.¹³ The goal of both methods is to improve the ability of the control group to mimic as closely as possible the characteristics of the treated unit before the intervention.

2.4 *Randomized Experiments*

Natural experiments are rare, and they may not exist when needed. Randomized experiments were invented long ago by psychologists and are mostly used in the pharmaceutical industry where individuals are randomly allocated across treatment (who receive the new drug) and control (who receive a placebo) groups. The problem is again making sure that the control and treatment groups are endowed with identical characteristics, and have no contacts with each other. The method is now also introduced to analyze ‘treatments’ in economics, especially in development economics. See Duflo et al. (2008) for a thorough description of the methods which have their supporters (Imbens 2009) but also their strong opponents (Deaton 2009).

¹²See Dehejia and Wahba (2002) and Rose and Spiegel (2010).

¹³See Abadie and Gardeazabal (2003) and Abadie et al. (2010).

2.5 *Contingent Valuation, Willingness to Pay and Willingness to Accept*

Contingent valuation (CV), willingness to pay (WTP) and willingness to accept (WTA) are without doubt the methods that cultural economists prefer. WTP roughly consists in asking consumers (or producers) how much they are willing to pay to avoid a negative or to accept a positive outcome; WTA goes for compensation, and asks how much an agent would like to be paid to accept a negative outcome, or to forego a positive one.¹⁴ Ecologists and economists who care for our environment or our cultural heritage have widely (and wildly) used this method, which could also be mobilized for museums, concerts or concert halls, theatres, radio stations, etc. Other examples can be found in the special issue of the *Journal of Cultural Economics* edited by Schuster (2003). The method has been subject to criticism a long time ago¹⁵ by Arrow et al. (1993), who were commissioned to evaluate the foundations of CV and WTP by the National Oceanic and Atmospheric Administration after the Exxon Valdes oil spill.

The problem is made worse if, as happens quite often, people who are interviewed only have incomplete (or no) information about the goods or services that they have to value, or worse, if these goods and services do not yet exist, but are to be created or introduced. How should we know how much each of us loses (or, how much Alaska lost) after an oil spill, or how much we would be willing to pay to avoid such a spill? So we just invent answers.¹⁶

Arrow et al. (1993) were very critical, but Diamond and Hausman (1994), and 20 years later Hausman (2012) are just killing the idea. The first paper asks whether “some number [is] better than no number,” and the second adds to this by suggesting that contingent valuation is not only “dubious,” it is “hopeless” as well. Carson (2012) defends the method in the very same issue of the *Journal of Economic Perspectives* in which Hausman (2012) launches his hopelessness attack. Portney (1994), Epstein (2003), Throsby (2003) are lukewarm but still defend the method arguing that there is little other choice, and 7500 or so people seem to have used it according to Carson (2011) who lists a bibliography containing 7500 entries on the subject. The debate seems therefore far from being closed. Hausman’s (2012) conclusion is utterly pessimistic: “I do not expect

¹⁴Shogren et al. (1994) show that the two methods lead to different results, though in theory, they should not. See also the discussion in Hausman (2012).

¹⁵For being dependent on the way questions are asked, as well as on their phrasing and the order in which they appear in the surveys.

¹⁶Kahneman and Knetsch (1992) have shown that “the assessed value of a public good is demonstrably arbitrary, because WTP for the same good can vary over a wide range depending on whether the good is assessed on its own or embedded as part of a more inclusive package.” This is the so-called embedding effect. See also Diamond and Hausman (1994) for a very compelling example.

that proponents and opponents of CV will ever agree. Some bad ideas in economics and econometrics maintain a surprising viability.”

2.6 *Referenda*

Referenda are often used at the canton level in Switzerland in order to decide on the usefulness of cultural investments. In some sense, they inherit the same defects as contingent valuation methods, though if the project is carried out, taxpayers who vote will have to pay for it, which is not the case with contingent valuation. Frey (2000, Chap. 8) defends the idea, however, because referenda may (and do) lead to important public discussions before they take place, which informs those who will have to cast their vote. This is what happened with the referendum organized to decide whether the Kunstmuseum Basel should buy two Picasso paintings. Schultze and Ursprung (2000) discuss a similar case, concerned with the Opernhaus Zürich.

Though referenda are often criticized because they may be implemented for populist reasons (the Brexit referendum is one such case), and because voting decisions are influenced by recent events,¹⁷ it may be worth thinking of using them before making expensive local or regional decisions, exactly for the reason that is invoked by Frey, Schultze and Ursprung.

2.7 *Surveys*

Surveys of future, current, or past participants in a cultural event invariably come up with very positive results. The reason is that in most cases the event cannot be organized without subsidies, and both private and public donors have to be convinced that the event will be, is, or was a profitable operation.

Those surveys, or better said, the way their results are exploited, written and presented to those who finance the events, keep by-passing four essential issues: (a) a large part of expenses is made by locals; (b) these expenses are merely substitutes of expenses that would have occurred locally sooner or later; (c) subsidies originate from taxes or profits of firms (sponsoring) and are compared to what visitors buy, which includes the cost incurred to produce the good or service; if it is a glass of San Pellegrino produced in Italy that is sold in Aix-en-Provence, it is Italy that benefits, not France or at best just a handful of wholesalers and retailers; and (d) the event may create eviction as well, since tourists who would have liked to visit the town or the region where the festival takes place, do not go because they fear traffic jams, noise, or have problems finding a hotel room. To conclude, we do not criticize the concept of

¹⁷The usual “loaded” example is to run a referendum on the abolition of the death penalty after some horrible crime has been committed. See also Hainmueller and Hangartner (2013).

running surveys (though the answers given by visitors and others are often not much more than cheap talk), but there is much to be said against the way results are used.

2.8 Overall Evaluation

Natural experiments as well as cleverly designed randomized trials, time series analyses and hedonic pricing, to some extent and in specific cases, are superior to all other methods, and should be used whenever possible. Other methods are weak (input–output analysis can hardly capture small effects such as those of a music festival) or strongly biased by the questions and answers because “I am willing to pay” is not the same as “I am paying” (as is the case in contingent valuation, willingness to pay or to accept, and surveys). Though referenda may suffer from the same defects, they may indeed enlighten citizens by the discussions and newspaper articles that precede the referendum.

3 An Inexpensive and Efficient Method: *Google Trends*

By now, the reader should have realized that most methods, especially the less trustworthy and most expensive ones (contingent valuation, surveys and poor econometrics run by consultants) are often useless. Here is one that is simple, inexpensive, and there is no reason to believe that it is biased. It helps counting those who (may) attend events, and register *from where* they are coming. The ‘from where’ is important to measure short-term economic fallouts, since local visitors do hardly contribute to the local economy, while neighbors or countrymen may enrich the local economy, but what they spend there is no gain for the country or the region as a whole.

The method takes advantage of the fact that more and more tourists consult websites to plan their trips. Xiang and Gretzel (2010) mention that, already in 2005, the Travel Association of America found that 64% of travelers used search engines before, during or after their trip.¹⁸ These queries, including those about festivals are collected by *Google Trends*. It is obviously not certain that all those who “google” a festival’s website will attend the festival, but according to Choi and Varian (2012) *Google Trends* can help improving forecasts of the current level of activity in various circumstances. They use, among others, *Google Trends* planned travel data to predict the number of visitors (not their spending) to Hong Kong, a topic that is very close to our concern, and show that *Google* searches on the word ‘Hong Kong’

¹⁸According to several sources, this percentage seems to have increased to 84% during the last years. See <http://skift.com/2012/07/30/infographic-how-tourists-use-the-internet-before-during-and-after-their-trip/>

are positively related to arrivals. Vosen and Schmidt (2011) show that in almost all conducted in-sample and out-of-sample forecasting experiments their *Google* indicator outperforms survey-based indicators used to measure private consumption. Carrière-Swallow and Labbé (2013) find that models incorporating *Google Trends* data outperform benchmark specifications, provide substantial gains in information delivery times, and are better at identifying turning points in car sales data in Chile. Wu and Brynjolfsson (2009) explain how *Google* searches foreshadow housing prices and sales in the United States. The present list is far from being exhaustive¹⁹ but we should also add here that *Google Trends* data perform quite well in matter of unemployment forecasting in the United States (D'Amuri and Marcucci 2010), Germany (Askatas and Zimmermann 2009) and Israel (Suhoy 2009). McLaren and Shanbhoge (2011) summarize how web search data can be used for economic *nowcasting* by central banks. Ginsberg et al. (2009), among others, show that *Google* queries accurately estimate the current level of weekly influenza activity in each region of the United States, with a reporting lag of about 1 day only.²⁰

How are data derived in *Google Trends*? This is, according to *Google's* help center, what the method does:

Google Trends analyzes a portion of *Google* web searches to compute how many searches have been done for the terms you've entered relative to the total number of searches done on *Google* over time. This analysis indicates the likelihood of a random user to search for a particular search term from a certain location at a certain time. Keep in mind that *Trends* designates a certain threshold of traffic for search terms, so that those with low volume will not appear. Our system also eliminates repeated queries from a single user over a short period of time, so that the level of interest is not artificially impacted by these types of queries. Say you've entered the search term tea, setting your location parameter to Scotland, and your time parameter to March 2007. In order to calculate the popularity of this term among users in Scotland in March of 2007, *Trends* examines a percentage of all searches for tea within the same time and location parameters. The results are then shown on a graph, plotted on a scale from 0 to 100. The same information is also displayed graphically by the geographic heat map.

To illustrate the value of *Google Trends* to evaluate the effect of cultural events, we analyze 12 important European classical music and opera festivals listed in Table 1.

Festivals are often searched for under slightly different names. The official name for the Bayreuth Wagner Opera festival is Bayreuther Festspiele, but there are also visitors who try to find information under the following terms: Festival de Bayreuth

¹⁹For a survey on the various applications using *Google Trends* data in an attempt to improve economic and non-economic predictions see an updated version of the seminal paper by Choi and Varian (2012) available at <http://people.ischool.berkeley.edu/~hal/Papers/2011/ptp.pdf>

²⁰For other applications, see also <http://www.ons.gov.uk/ons/guide-method/method-quality/specific/economy/economic-value-of-tourism/google-trends/conclusion/index.html>

Table 1 Terms used on *Google Trends* to retrieve the number of visitors of sites

Country	Name of the festival	Google Trends query
Austria	Salzburger Festspiele (Salzbg)	Salzburger Festspiele + Salzburg Festival + Salzburg Festival + Whitsun Festival
France	Festival International d'Art Lyrique d'Aix-en-Provence (Aix)	Festival Aix + Festspiele Aix – <i>Aix les Bains</i> – <i>Festival Marseille</i> – <i>Festival Avignon</i>
	Festival International d'Opéra Baroque de Beaune (Beaune)	Festival Beaune + Festpiele Beaune – <i>Festival Beaune Policier</i>
	Festival International de Piano de La Roque d'Anthéron (Roque)	Festival Roque Antheron + Festpiele Roque Antheron
	Chorégies d'Orange (Orange)	Chorégies Orange + Festspiele Orange – <i>Orange County</i> – <i>Orange Festival Warsaw</i>
	Festival de Saintes (Saintes)	Festival Musique Saintes + Festspiele Musik Saintes
	Festival de Musique de Strasbourg (Strasbg)	Festival Strasbourg + Festspiele Strasbourg – <i>Inox</i> – <i>Artefacts</i>
Germany	Bayreuther Festspiele (Bayreuth)	Bayreuth Festival + Bayreuther Festspiele + Bayreuth Wagner + Wagner Festival + Wagner Festspiele – <i>Richard Wagner</i>
	Schleswig-Holstein Musik Festival (Schl-Hol)	Schleswig Holstein Festival + Schleswig Holstein Festspiele + Schleswig Festspiele + Schleswig Festival
Italy	Rossini Opera Festival, Pesaro Festival (Pesaro)	Rossini Opera Festival + Pesaro Festival + Rossini Opera Festspiele + Pesaro Festspiele
Switzerland	Lucerne Festival (Lucerne)	Lucerne Festival + Luzern Festspiele
	Verbier Festival (Verbier)	Verbier Festival + Verbier Festspiele

Note: In the last column, queries containing terms in italics had to be subtracted since they were caught by the other terms, though they had nothing in common with the festival

(French), Bayreuth Festival (English and German), Wagner Festival, Wagner Festspiele. The names that we entered and for which we used *Google Trends* to count and aggregate queries over the period 2004–2013 are given in Table 1 for each case.²¹ We may obviously have missed a couple of terms, but the most important ones are taken into account.

Google Trends automatically normalizes the largest number of queries to 100. Therefore only relative numbers are available. Table 2 summarizes the information for Google international queries from various countries. It shows that two of the 12 festivals (Salzburger and Bayreuther Festspiele) can be considered to attract foreigners (that is from countries other than the one in which the festival is organized). Only one among the six French festivals (Aix-en-Provence) as well as the two Swiss festivals (Lucerne and Verbier) succeed in getting some international

²¹We also had to *subtract* some terms close to those of the festivals that we study, but that are concerned with different events. Those are the terms in italics in Table 1.

Table 2 International Google visitors

	Austria		France			Germany			Italy		Switzerland		
	Salzbg	100	Aix	Beaune	Roque	Orange	Saintes	Strasbg	Bayreuth	Schl-Hol.	Pesaro	Lucerne	Verbier
Austria		100							49				
Belgium		1											
Canada									4				
France	1	100	100	100	100	100		100	10			2	6
Germany	9	5					8		100	100		3	4
Italy	1								8		100	1	
Netherlands	1								10				
Spain	1								9				
Switzerland	7	26							31			100	100
U.K.	1	4							8			1	3
U.S.		1							4	4		1	2

All Festivals (local country = 100; in bold in the table)

audience. Therefore most of the money spent in these cities originates from the country itself and has obviously no impact on its GDP. Given the number of festivals organized in each country, all this ends up almost being a zero-sum game in each country. The methods used in accounting for tourism expenditure should thus correct their numbers and remove domestic visitors from their data, using the ratios suggested by the *Google Trends* analysis.

4 Concluding Remarks

Since festivals are organized in so many places at about the same time of the year, they end up transferring (some) money from one type of expenditure to another as well as from one region to another within the same country, with the exception of Bayreuth and Salzburg, which do somewhat better.

We agree that the monetary aspect that we emphasize in this paper may be considered a narrow view of what such events bring to (mostly very local) people in terms of welfare gains as long as they attend. Those who are not interested in the event are probably not so happy as suggested in the study of European Capitals of Culture, which may however suffer from what we criticized in Section 2 about surveys, contingent valuation and several other approaches.

Acknowledgments We are grateful to Victor Fernandez Blanco, Michel Hambersin, and Yann Nicolas for many useful comments.

References

- Abadie, A., & Gardeazabal, J. (2003). The economic costs of conflict: A case study of the Basque country. *American Economic Review*, 93, 113–132.
- Abadie, A., Diamond, A., & Hainmueller, J. (2010). Synthetic control methods for comparative case studies: Estimating the effect of California's tobacco control program. *Journal of the American Statistical Association*, 105, 493–505.
- Ali, H. H., Lecocq, S., & Visser, M. (2008). The impact of gurus: Parker grades and en primeur wine prices. *The Economic Journal*, 118, 158–173.
- Arrow, K., Solow, R., Portney, P., Leamer, E., Radner, R., & Schuman, H. (1993). *Report of the NOAA Panel on contingent valuation*. Accessed October 16, 2016, from http://www.economia.unimib.it/DATA/moduli/7_6067/materiale/noaa%20report.pdf
- Askatas, N., & Zimmermann, K. (2009). *Google econometrics and unemployment forecasting* (IZA Discussion Paper 4201).
- Benhamou, F. (2004). Who owns cultural goods? The case of the built heritage. In V. Ginsburgh (Ed.), *Economics of Art and culture*. Amsterdam: North Holland.
- Benhamou, F. (2012). *Economie du Patrimoine Culturel*. Paris: La Découverte.
- Billings, S., & Holliday, S. (2012). Should cities go for the gold? The long-term impact of hosting the Olympics. *Economic Inquiry*, 50, 754–772.
- Brodady, T. (2017). Annulations des festivals d'Avignon et d'Aix-en-Provence en 2003: des catastrophes économiques locales? In Y. Nicolas & O. Gergaud (Eds.), *Evaluer les politiques publiques de la culture* (pp. 45–68). Paris: Ministère de la Culture—DEPS.

- Carrière-Swallow, Y., & Labbé, F. (2013). Nowcasting with Google Trends in an emerging market. *Journal of Forecasting*, 32, 289–298.
- Carson, R. (2011). *Contingent valuation: A comprehensive bibliography and history*. Cheltenham: Edward Elgar.
- Carson, R. (2012). Contingent valuation: A practical alternative when prices aren't available. *The Journal of Economic Perspectives*, 26, 27–42.
- Choi, H., & Varian, H. (2012). Predicting the present with Google Trends. *Economic Record*, 88, 2–9.
- D'Amuri, F., & Marcucci, J. (2010). *Google it! Forecasting the US unemployment rate with a Google job search index* (FEEM Working Paper No. 31). Available at SSRN and accessed October 16, 2016, from <https://ssrn.com/abstract=1594132>
- Deaton, A. (2009). *Instruments of development: Randomization in the tropic, and the search for the elusive keys to economic development* (NBER Working Paper 14690).
- Dehejia, R., & Wahba, S. (2002). *Propensity score matching methods for non-experimental causal studies* (Discussion paper 0102-14). Columbia University.
- Diamond, P., & Hausman, J. (1994). Contingent valuation: Is some number better than no number. *Journal of Economic Perspectives*, 8, 45–64.
- Drillon, J. (2012, June). Festivals: la grande illusion. *Le Nouvel Observateur*, 21, 115–118.
- Duflo, E., Glennerster, R., & Kremer, M. (2008). Using randomization in development economics research: A toolkit. In T. P. Shultz & J. Strauss (Eds.), *Handbook of development economics*. Amsterdam: Elsevier.
- Epstein, R. (2003). The regrettable necessity of contingent evaluation. *Journal of Cultural Economics*, 27, 259–274.
- Frey, B. (1986). The Salzburg Festival from the economic point of view. *Journal of Cultural Economics*, 10, 27–44.
- Frey, B. (1994). The economics of music festivals. *Journal of Cultural Economics*, 18, 29–39.
- Frey, B. (2000). *Arts and economics*. Berlin: Springer.
- Frey, B., & Busenhardt, I. (1996). Special exhibitions and festivals. In V. Ginsburgh & P. M. Menger (Eds.), *Economics of the arts*. Amsterdam: Elsevier.
- Ginsberg, J., Mohebbi, M., Patel, R., Brammer, L., Smolinski, M., & Brilliant, L. (2009). Detecting influenza epidemics using search engine query data. *Nature*, 457, 1012–1014.
- Ginsburgh, V., & Waelbroeck, P. (1998). The EC and real estate rents in Brussels. *Regional Science and Urban Economics*, 28, 497–511.
- Hainmueller, J., & Hangartner, D. (2013). Who gets a Swiss passport? A natural experiment in immigrant discrimination. *American Political Science Review*, 107, 159–187.
- Hausman, J. (2012). Contingent valuation: From dubious to hopeless. *Journal of Economic Perspectives*, 26, 43–56.
- Humphreys, J. M., & Plummer, M. K. (1995). *The economic impact on the State of Georgia of hosting the 1996 Olympic games*. Athens, GA: Selig Center for Economic Growth.
- Imbens, G. (2009). *Better late than nothing: Some comments on Deaton (2009) and Heckman and Urzua (2009)* (NBER Working Paper 14896).
- Kahneman, D., & Knetsch, J. (1992). Valuing public goods: The purchase of moral satisfaction. *Journal of Environmental Economics and Management*, 22, 57–70.
- Kern, P. (2016). *KEA evaluation impact Mons 2015 Capitale européenne de la culture*. Accessed October 16, 2016, from <http://www.slideshare.net/PhilippeKern/kea-evaluation-impact-mons-2015-captiale-europenne-de-la-culture>
- Matheson, V. (2008). The effect of the world biggest events on local, regional and national economies. In D. Howard & B. Humphrey (Eds.), *The business of sports*. Westport, CT: Praeger Publishers.
- Maugham, C., & Bianchini, F. (2004). *The economic and social impact of cultural festivals in the East Midlands of England final report*. Arts Council England. Leicester: De Montfort University.
- McLaren, N., & Shanbhoge, R. (2011). Using internet search data as economic indicators. *Bank of England Quarterly Bulletin*, 2011 Q2. Accessed October 16, 2016, from www.bankofengland.co.uk/publications/quarterlybulletin/qb110206.pdf

- Négrier, E., Djakouane, A., & Jourda, M. T. (2010). *Les publics des festivals*. Paris: Editions Michel de Maule et France Festivals.
- O'Hagan, J. (1992). The Wexford Opera Festival: A case for public funding? In R. Towse & A. Kakhee (Eds.), *Cultural economics*. Berlin: Springer.
- Plaza, B. (2006). The return on investment of the Guggenheim Museum Bilbao. *International Journal of Urban and Regional Research*, 30, 452–467.
- Plaza, B., Gonzalez-Flores, A., & Galvez-Galvez, C. (2011). Testing the employment impact of the Guggenheim Museum Bilbao via tourism satellite accounts. *Tourism Economics*, 17, 223–229.
- Plaza, B., Haarich, S., & Waldron, C. (2012). *Branding Bilbao: Assessing the role of an art museum in creating a valuable place brand*. Paper presented at Association of Cultural Economics International meeting (ACEI 2012), Kyoto, Japan.
- Portney, P. (1994). The contingent valuation debate: Why economists should care. *Journal of Economic Perspectives*, 8, 3–17.
- Rose, A., & Spiegel, M. (2010). *The Olympic effect*. Manuscript.
- Schultze, G., & Ursprung, H. (2000). Le donna e mobile—Or is she? Voter preferences and public support of the performing arts. *Public Choice*, 102, 131–149.
- Schuster, M. (Ed.). (2003). Contingent valuation in cultural economics. *Journal of Cultural Economics*, 27, 155–285.
- Shogren, J. F., Shin, S. Y., Hayes, D. J., & Kliebenstein, J. B. (1994). Resolving differences in willingness to pay and willingness to accept. *The American Economic Review*, 84(1), 255–270.
- Skinner, S. (2006). Estimating the real growth effects of blockbuster art exhibits: A time series approach. *Journal of Cultural Economics*, 30, 109–125.
- Steiner, L., Frey, B., & Hotz, S. (2015). European capitals of culture and life satisfaction. *Urban Studies*, 52(2), 374–394.
- Suhoy, T. (2009). *Query indices and a 2008 downturn* (Bank of Israel Discussion Paper 6).
- TERA Consultants. (2011). *The impact of cultural spending. An analytical survey of 47 cities across the world*. In Paper presented at the 2011 Forum d'Avignon. Accessed October 16, 2016, from <http://www.forum-avignon.org/en/study-tera-consultants-forum-davignon>
- Throsby, D. (2003). Determining the value of cultural goods: How much (or how little) does contingent valuation tell us? *Journal of Cultural Economics*, 27, 275–285.
- Vaughan, D. (1980). Does a festival pay? In W. Hendon, J. Shanahan, & A. MacDonald (Eds.), *Economic policy for the arts*. Cambridge, MA: Abt Books.
- Vosen, S., & Schmidt, T. (2011). Forecasting private consumption: Survey-based indicators vs. Google trends. *Journal of Forecasting*, 30, 565–578.
- Wu, L., & Brynjolfsson, E. (2009). *The future of prediction: How Google searches foreshadow housing prices and sales* (Technical report, MIT). Accessed October 16, 2016, from www.nber.org/confer/2009/PRf09/Wu_Brynjolfsson.pdf
- Xiang, Z., & Gretzel, U. (2010). Role of social media in online travel information search. *Tourism Management*, 31, 179–188.

Olivier Gergaud is Professor of Economics at KEDGE Business School and affiliate researcher at LIEPP, Sciences Po. He holds a Ph.D. from the University of Reims (2000), and an accreditation to supervise research from Sciences Po (2009). His research areas are Cultural Economics, Restaurants Economics, Wine Economics, Sports Economics and Economics of Pro-Social Behavior. He has published in international journals such as *Economic Journal*, *Economic Inquiry*, *Journal of Economic Behavior and Organization*, *Journal of Portfolio Management*, *Family Business Review*, *Journal of Sports Economics*, *Journal of Wine Economics*, *Journal of Cultural Economics*. In addition, he serves on the Editorial Advisory Board of the *Journal of Wine Economics*.

Victor Ginsburgh is Honorary Professor of Economics at Université Libre de Bruxelles, and former co-director of the European Center for Advanced Research in Economics and Statistics (ECARES). He is also a member of the Center for Operations Research and Econometrics

(CORE), Université Catholique de Louvain since 1972. He was visitor at Yale University, University of Chicago, University of Virginia, University of Louvain, as well as in Marseille, Paris, Strasbourg and Alexandria (Egypt). He wrote and edited 15 books (among which *The Structure of Applied General Equilibrium*, Cambridge, MA: MIT Press, 1997, with M. Keyzer, *How Many Languages Do We Need*, Princeton University Press, 2011 with Shlomo Weber and edited with D. Throsby the two volumes of *The Handbook of the Economics of Art and Culture*, Amsterdam: Elsevier, 2006, 2013). He is the author or co-author of over 200 papers on topics in applied and theoretical economics, including industrial organization, general equilibrium analysis, the economics of art, culture and languages. His work has appeared in the *American Economic Review*, *Journal of Political Economy*, *Games and Economic Behavior*, *Journal of Economic Perspectives*, *Economic Journal*, *Journal of the European Economic Association*, *Empirical Studies of the Arts*, *Journal of Cultural Economics* and *Journal of Wine Economics*.

Part V
Funding and Innovation

Are Less Public Funds Bad? New Strategies for Art Providers

Tiziana Cuccia, Luisa Monaco, and Ilde Rizzo

Abstract Public budget constraints reduce the public funding available to art providers (AP). This ‘bad news’ is likely to impose radical changes in their strategies and it may as well give them a chance to re-think their mission in line with the new set of incentives they face. AP might try to exploit new market opportunities, enlarge the scope of their production and incorporate other non-market-oriented objectives. Strategies range from an additional supply of a specific type of art product (live artistic performances, visual arts exhibitions, etc.) to the supply of a larger variety of products and services, including educational activities for social inclusion. They can also benefit from making their business more profitable, and generate positive externalities that can be appreciated by a larger part of the local community and favour social cohesion.

Keywords Public funding • Arts production • Multi-product

1 Introduction

In this paper, we analyse the strategies that can be designed by art providers¹ (AP) against public funding cutbacks. AP use inputs to produce one or more outputs. Their mission and performance are severely affected by the set of incentives they face. Observing the effects of the public budget crisis on cultural production might provide some policy indications and hints for defining the future strategies of AP.

AP face different incentives, which lead them to behave in different ways. Their output mix may reflect their own priorities or be demand-oriented, depending on the ownership (public, non-profit or private), and on the incentives in the institutional context. An analysis of their reactions to cutbacks in public funding may offer some

¹Here the term ‘art providers’ refers to the different types of art organizations, whether they are private or public. Our analysis is mainly orientated towards private and non-profit art providers operating mainly at local level (see, below, Sect. 3).

T. Cuccia (✉) • L. Monaco • I. Rizzo
Department of Economics and Business, University of Catania, Catania, Italy
e-mail: cucciati@unict.it; luisamonaco@inwind.it; rizzor@unict.it

evidence of whether this assumption is correct and provide some useful hints to scholars and policymakers.

As is shown in chapter “The Multi-product Nature of the Firm in the Arts Sector: The Case of ‘Centro Zo’” for example, local APs in Sicily have reacted to the uncertain and unstable financial scenario, more or less consciously, by widening the range of art (or partially art) products they supply. We suggest that, in most cases, they have developed not only multi-product but also multi-function strategies, with a clear emphasis on the social aspects of their activities. This change in the social role of APs reinforces the existing reasons for public funding of the arts. But it could also indicate that the reduction of public resources may have a positive side. In Sect. 2, the reasons for public funding of the arts and the shortcomings of public intervention are briefly presented. In Sect. 3 some figures regarding public financing of culture in European countries and in Italy, with a focus on Sicily, are reported. Section 4 focuses on the analysis of the strategic behaviour adopted by local APs, in our case studies, to underline challenges and opportunities deriving from the changing scenario. Some concluding remarks will be offered in Sect. 5.

2 Public Funding of Cultural Activities: Motivations and Shortcomings

In the economic literature, it is widely agreed that public intervention is justified by the presence of well-known market ‘failures’ that prevent the fulfilment of allocative efficiency (van der Ploeg 2006; Rizzo 2011). Moreover, equity issues are usually put forward to justify public funding of cultural activities, mainly referring to the notion of accessibility (Towse 1994). Different definitions of accessibility can be used—social, economic, geographical—and, of course, the form of suitable public subsidy will depend on the definition adopted. However, the perverse redistributive effects of publicly funding the arts cannot be disregarded: In fact, the empirical evidence on the socio-economic features of arts audiences shows that they very often belong to upper-income groups. Thus, financing cultural organizations through public revenues could produce regressive effects: those who regularly consume art services represent a low percentage of the population, and their willingness to pay for cultural services is higher than the price they actually pay, while the majority of citizens rarely consume those services.

The normative approach assumes that the public sector can correct ‘market failures’, but it disregards the occurrence of ‘state failures’ in the definition and implementation of policies, as well as the related negative effects on efficiency of resource allocation in the art sector (Mazza 2011).

Asymmetric information is severe in the art sector, the consequence being that a powerful role is assigned to experts. Broadly speaking, one may believe that the decisions regarding *what* should be financed are made at a political level, potentially taking into account the indications of experts, while the decisions on *how* to

finance are usually made by bureaucracies entitled to implement policies. In Italy, bureaucrats in cultural departments are experts themselves with personal opinions on the different expressions of arts that can influence financing criteria. It is widely agreed that these public agents can act as ‘gatekeepers’. They can also have vested interests that may not be fully aligned with collective preferences. These arguments indicate how the success of public policies largely depends upon the design of proper incentives to obtain the desired outcome of maximizing social welfare.

Finally, politicians might support the arts for political gains, and/or be influenced by lobbies, interested in obtaining specific benefits which are financed by society at large. In other words, differing interests are unlikely to be equally represented by public policies and, because of information asymmetries, there is no guarantee that APs will fulfil public interest objectives (Guccio and Mazza 2014). These arguments suggest that public subsidies to the arts are more easily justified if APs emerge from their ‘ivory tower’ and make their social role more visible: APs have to engage in enlarging their audiences, play an active role in the local community and generate widespread positive externalities, not restricted just to a highly educated audience.

3 Public Funding of Cultural Activities: An Overview

In recent years, the differences across European countries in public expenditure on culture have been enhanced because of the financial crisis and severe public budget constraints (Council of Europe 2014). Public expenditure on culture was on average 1.1% of GDP in most EU-27 countries, in the period 2000–2011. Italy, however, experienced a larger reduction than other European countries, suffering from a sovereign debt crisis, such as Portugal, Ireland, Greece, Spain (AA.VV 2013a). Due to the harsh reduction in GDP registered by European countries in the period 2009–2011, the cut of public funding on culture (which was usually at the central rather than local level, Copic et al. 2013) was rather severe. In Italy the percentage of public expenditure devoted to “culture and leisure activities” was 1.5 in 1996 and, after a peak in 2004 to 2.2, it sharply declined to a minimum of <1, in 2012.²

If we consider the role played by the different levels of Government we observe that the Central Government (i.e. the Ministry of Cultural Goods, Activities and Tourism—*Ministero per i Beni, le Attività Culturali e il Turismo, MiBACT*) plays the main role. However, after the maximum peak registered in 2004 (68% of all public support), it decreased to about 40% in 2012, showing how financing has become more decentralised.³

²For other recent studies on central and local government spending for cultural activities see, AA.VV. (2013a) and Domenichini (2013).

³Data come from “Conti Pubblici Territoriali” (CPT) (Regional Public Accounts) database.

Sicily (the region which this paper focuses on) shows a trend very similar to the national one.⁴ There is, however, a significant difference in the role played by the different levels of government, as the State provides 40% of these funds, and the Regional Government contributes for about one quarter. It is important to notice that, since 2013, criteria and procedures for the distribution of funds have been specifically defined, but they respond to heterogeneous quantitative and qualitative criteria that leave a high level of discretion to the Regional Department. Such institutional shortcoming can increase the transaction costs and the uncertainty that APs have to bear when gaining access to public funds. Moreover, the administration may occasionally fail to meet the deadline for transferring the funds and/or reduce the amount of the transfer previously promised. However, the existence of public funds, although uncertain and unstable, has not stimulated APs to become experts in market strategies and has instead encouraged most of them to remain within their ivory tower, without enough incentives to play a social role to promote different cultural expressions and favour larger social inclusion.

Private financing of non-profit cultural activities at national level come essentially from private contributions of their members (31%) and the sales of market goods and services (30.2%; ISTAT 2014). Public subsidies, on the contrary, account for only a small share (9.6%). Finally, ‘Arts, cultural goods and activities’ is the sector that structurally receives the highest share (more than 30%, ACRI 2013).

4 New Funding Strategies for Art Providers

4.1 *The European and Italian Framework*

This generalized cut in public funding for culture, both in Europe and particularly in Italy, should urge APs to look for more diversified private and public sources of financing. New strategies have been adopted by APs at the European level that take in account the recent evolution of cultural policies in different European countries (see Council of Europe 2014).

A few examples that concern European case studies deserve to be mentioned. In the UK, the former National Endowment for Science, Technology and the Arts (now Nesta), established in 1998 as a public body, funded by the National Lottery and designed to promote “creativity, talent and innovation across a wide spectrum of areas and interests” (www.nesta.org.uk), has been transformed into an independent charity in 2012. Now, Nesta is a hub for innovators: It offers consultancy to individual creators and supports arts and creative projects not only in the UK but everywhere. In Spain, the political decision of outsourcing the management of

⁴For a detailed analysis of the financing flows for culture and leisure activities in Sicily, see AA. VV. (2013b).

cultural services (see Council of Europe 2014) opens new market opportunities for private companies, such as Magma Cultura (www.Magmaculture.com) that offers several cultural services (i.e. consultancy, visitor management and communication) to a large array of customers (i.e. museums, heritage sites, foundations, etc.), not only in Spain but also abroad. These examples demonstrate that institutional changes, due to public budgets constraints, can give market opportunities to private companies specialized on cultural services that have a dimension sufficient to operate in domestic and international markets.

In Ireland, a small-size example of this strategy is represented by *BlockT*, a Dublin non-profit organisation, located in a previously degraded area (Smithfield), that offers a large array of services to artists and creative people and gives them the opportunity of sharing costs and artistic experiences. Moreover, BlockT responds to the stimulus coming from Irish cultural policies that, after the recent economic crisis, encourage cooperation among artists and enhance the role that APs can play in the regeneration of degraded areas.

A recent research,⁵ based on the analysis of over 2000 cultural proposals submitted for funding in Italy, offers an interesting picture of what is labelled ‘the eco-system of cultural entrepreneurship’. Most proposals for cultural entrepreneurial activities rely on a network approach, and are characterised by a strong identity; overall, they have a limited budget (with average value of around 500,000 euro) and, therefore, face sustainability problems.⁶

A research carried out in Lombardy by Gallina et al. (2013) on the main features of cultural production,⁷ shows that young APs in the performing arts tend to differentiate their activities, indicating a strong social responsiveness and attention for their environment. Differences emerge across APs, depending also on differences in ownership and governance, with a difficult dialogue between more traditional and well established organizations and younger and more innovative ones. The latter face the most severe sustainability problems. An interesting experience is the one of the so-called Independent Centres of Cultural Production (*Centri Indipendenti di Produzione Culturale*—CIPC) in Turin which are closely investigated by Bertacchini and Pazzola (2015). These centres operate not only in the performing arts but also in design, visual arts, publishing, and pursue the mission of promoting innovative creative and cultural activities. At the same time, most of them are located in peripheral areas and are involved in urban regeneration and social inclusion projects. In terms of sustainability, their activity is mainly based on self-financing, closely related to their artistic mission, but a relevant share also

⁵The research has been carried out by ASK Bocconi, which analyses several calls of Fondazione Accenture and Edison Start.

⁶Some successful examples, such as Cascina Roccafranca, operating in Torino since 2007, points not only toward the provision of traditional art activities (music, performing arts, etc.) but also to other activities, such as operating a hub to support the development of small projects. The sustainability issue is addressed through fundraising and membership (more than 1000 members).

⁷The research is supported by Cariplo, a bank foundation mainly operating in the Region, to obtain useful hints for the design of its funding policy in the cultural sector.

derives from commercial activities. The search for public funding, however, is not dismissed, to maintain lower prices and enlarge the audience.

The strategies adopted by our case studies of APs in Catania, described in the next section, can be only partially associated to the above mentioned strategies aiming at contrasting the reduction of public funding, although similarities seems to occur with respect to the Turin case.

On the one hand, art providers of larger size (*CentroZo* and *Scenario Pubblico*) embrace a multi-product strategy: In Catania, *CentroZo* plays a similar role as *BlockT* in Dublin (taking into account the evident difference in size and political relevance of the two cities).

On the other hand, the APs discussed below are located in the historical centre of Catania and participate to its regeneration process that started in the 1990s. However, cultural activities cannot be considered fully integrated in the urban planning strategy oriented to the recovering of the historical centre. Some APs decided on their location only for economic convenience without any public support. According to the taxonomy described by Evans and Shaw (2004), the regeneration process of the historical centre of Catania recalls a ‘culture and regeneration’ plan that so far did not have a relevant social impact on the local community. Promoting local networks of APs and participation of the residents to cultural activities are the main indications of this study: They can change the present dynamics of ‘culture and regeneration’ in a ‘cultural regeneration’ process where art activities are fully integrated in the urban regeneration process.

Unfortunately, in comparison to other European countries, Italy has been too much involved in the conservative approach of its cultural heritage and discovered only recently the important role that APs can play to favour a cultural regeneration process that combines social inclusion and cohesion goals.⁸ The regeneration of the urban centres of Birmingham and Barcelona are examples of what happened in Europe in the 1990s (Evans and Shaw 2004, p. 6). Different European experiences based on the positive social impact of cultural initiatives on local communities can be mentioned: the community arts in UK, the animation *socio-culturelle* in France and *Soziokultur* in Germany (Bodo et al. 2009).

The cultural regeneration of a deprived quarter is something different, requiring the participation of the locals. In Italy, we can mention just a few best practices (Council of Europe 2014, Italy country report) that have been carried out in disadvantaged areas in Torino (San Salvario neighbourhood), in Naples (the theatrical project in the suburb of Scampia) and in Catania (the cultural projects of Fondazione Presti in the suburb of Librino). However, even though a national institutional framework to support these initiatives is still lacking, bank foundations (such as Fondazione Cariplo in Milan and Fondazione Banca Intesa San Paolo in Turin) launched proposals to support cultural networks able to promote the local community’s empowerment (Council of Europe 2014, Italy report, p. 47).

⁸In Italy, there is a long tradition of *Social Theatre* but it is mainly devoted to specific segments of the population (i.e. disabled and prisoners).

4.2 Case Studies in Catania

We now analyse some experiences of local APs in Catania, and investigate their reaction to the changing scenario as well as whether they have developed new strategies aimed at market survival.⁹ In line with this perspective, we take into account their dependency on public subsidies, to ascertain their capacity to loosen such a dependency by developing new strategies based on a multi-product supply and the promotion of a new awareness of the social role they can play.

4.2.1 Multiproduct Strategies

The large majority of private APs that we studied operate in the art field (performing arts, visual arts, heritage) and provide a wide range of diversified activities, often including non-art services. Differentiating the supply of cultural services is a strategy that many APs have pursued in recent years: it is an appropriate strategy for the purpose of reducing entrepreneurial risk and maximizing profit. Usually differentiation concerns services that can be privately supplied in the market. As soon as the amount of public subsidies declines, the role of such complementary activities increases and in many cases revenues from market activities represent the first source of funding for local APs.

However, from our investigation, APs do not seem to consider the multiproduct strategy positively, but as a 'last resort', if they fail to obtain public support. A reason could be that they fear a loss of identity. In this way, they undervalue the positive aspects that can be derived from a multiproduct strategy: Independence from local policymaking, from business as well as from the political cycles creating unstable patterns of public spending.

In many cases, APs started as mono-product activities. They then developed multiproduct strategies in order to increase market penetration. According to APs themselves, such a process, however, has to be governed carefully since it might challenge their cultural identity: Therefore, they need to develop sustainable strategies to balance financial needs with their cultural/business mission.

The process of enlarging the scope of activities is common to all the participants. It is interesting, however, that strategies are not homogeneous. Differences occur in relation to the specific field of activity as well as to the type of organisation. At least three groups can be identified.

A first group includes those producers that started as art providers (*Scenario Pubblico*, *Centro Zo*, *Brass Jazz Club*) with a relevant support from the public sector. At a later stage, they developed a range of non-art activities and services such as food and restaurant, organization of events, or sometimes leased their space to other APs. With the decrease of public subsidies, the role of such support activities has been increasing over time and can now be considered the primary

⁹For a closer analysis, see Cuccia and Rizzo (2016).

source of funding. In some cases, these APs have designed a governance system based on a specialised organisational structure.¹⁰

A second group includes APs operating in the visual art sector, which perform only activities closely related to their cultural mission. Such a strategy is adopted independently of size and governance. On the one hand, we have *Fondazione Presti* and *Fondazione Brodbeck*, which are organized as foundations and whose financial autonomy allows them to supply a range of services closely related to their core cultural business. On the other hand, a different approach has been adopted by *Bocs*, which, in coherence with its mission, has developed fundraising activities such as ‘micro-collecting’ (*microcollezionismo*) and the ‘contemporary dinner’ (*cena contemporanea*) to involve directly supporters and sympathisers. Another method of private funding involves artists who collaborate with the association by donating to *Bocs* works which will then be sold.

A third type includes APs providing services to the public sector related with the promotion and enhancement of cultural and environmental heritage (*Officine culturali*). These operators supply a range of cultural services including educational activities, book readings, activities to raise awareness towards environmental sustainability and fundraising events.

A rather different and peculiar example is offered by *Teatro Coppola*, an ‘occupied’ theatre that operates with a formally illegal status, but with the ‘implicit’ acceptance of public institutions. Occupants claim to pursue cultural and social objectives having rescued a historical place from negligence and oblivion.

4.2.2 Network and Partnership

As mentioned above, some APs developed an internal organizational structure in order to manage more efficiently a wide range of not strictly related activities. However, APs also work in connection with other private or public partners. Partnerships involve sponsorship, direct cooperation in cultural programs, and sharing of professional capacity. With such a strategy, operators can share costs on core activities, and/or widen the range of services provided, expanding their activities to other market segments.

APs are also moving toward more formalized external networks. A group of music and theatre operators has recently established a committee named ‘Postal Code 95131—Performing Arts Committee Catania Historic Centre’ (*C.A.P. 95131—Comitato Arti Performative Catania Centro*), which aims at creating a network oriented to rehabilitate the historic centre of Catania as well as to enlarge

¹⁰*Scenario Pubblico* is organised in *Metaarte* (location manager), *Compagnia Zappalà* (contemporary dance), *Modem* and *Scenario Pubblico*; *Zo*’s activities are organized into five autonomous areas (see chapter “The Multi-product Nature of the Firm in the Arts Sector: The Case of ‘Centro Zo’”, in this volume).

cultural participation to artistic activities. At the moment, there is no evidence of networks among private operators aimed at applying for EU funds.

4.2.3 Multifunction Strategies

Many APs are located in some quarters of the historical centre of Catania that have been almost abandoned for many years but been regenerated thanks to the presence of their cultural activities (even if the degree of interaction with the local community has not been fully exploited yet).

In any case, they have contributed to the regeneration of urban areas, though in different ways. The choice of location of APs can in itself be a way to generate positive externalities that deserve public subsidies. Their presence in degraded urban areas of the historical centre could, in fact, allow them to play an active role in the local community, involving the residents in art activities (i.e. educational workshops, art seminars, art production) and, thus, contributing both to transforming the area into a creative one and to promoting social cohesion. These activities—which typically generate positive externalities—further legitimate the request for public support.

We can distinguish a multiproduct strategy from a multifunction strategy, according to the kind of product supplied. In a multiproduct strategy, the private component of the cultural product supplied prevails (a music or a theatre performance, food and drinks, etc.); in a multifunction strategy the public component of the cultural services supplied prevails (stimulating participation and education of the locals, renewing abandoned buildings, participating in the enhancement of local creativity, promoting upcoming artists, offering location for start-up incubators, etc.). These two strategies can co-exist, since each provider can decide to what extent the above strategies should be pursued and combined, depending on the type of activity, organization, priorities and other contextual features. Moreover, a degree of interaction is required to make the strategies effective. A multiproduct strategy can be pursued by each AP individually. The cooperation of different APs is necessary for a multifunction strategy to be really effective: The contribution of a single provider will not be sufficient to renovate a quarter; a critical mass of APs is required.

The lack of structural cooperation among APs has so far proved to be a weakness. The APs interviewed have pursued limited forms of cooperation for the production of specific services, without fully exploiting the potential of cooperation in the credit market and in the final market for cultural services. Indeed, such a narrow approach implies private and social costs: It reduces contractual power for bargaining with the political decision-maker in order to obtain funds, as well as the effectiveness of the social role APs can play in terms of renovation and valorisation of historical quarters or suburbs. However, things seem to be slightly changing in recent times, going in the direction of increased cooperation and creation of networks.

4.2.4 The Relations with the Public Sector

The public-private relation in the art sector has changed in recent years. In some cases it has shifted from financial transfers to in-kind support. Overall, however, the role of the public sector in subsidizing cultural activities has declined almost everywhere without compensating the decrease of other types of support. The experience in Catania provides evidence of this trend. In the 1990s, cultural and artistic activities spread as a consequence of public investments and local government supported APs. Successively, the reduction of public intervention led to a somewhat conflicting relationship between APs and the public sector, which came to be perceived mainly as a bureaucratic obstacle. In many parts of Italy, and in Catania as well, groups of artists occupied abandoned public-owned buildings and reopened them as theatres,¹¹ establishing a relationship with the local community. Nonetheless, the declining role of the public sector opens up new opportunities to the private sector in the management of services for public cultural sites, in some cases resulting in public/private partnerships.

4.2.5 The Sources of Funding

Some organizations have obtained funds from the central, regional, and local governments, but they declined through time, and are now on the brink of disappearing. The shortage of public funds can be faced by differentiating funding sources, and trying to compensate the decrease of domestic ones with European funds. Such a strategy, however, requires specific skills that usually APs, especially small ones, do not have (international relations and networks, international tendency, knowledge of the procedures for accessing EU programs, etc.). Indeed, in the near future, public intervention could be redirected from financial to in-kind support, assisting APs to apply for EU programs that allow access to EU funds and facilities, and also making private credit more accessible.

In *Centro Zo*, the composition of revenues shows a remarkable trend with the inversion of the weighting of public and private revenues.¹² The same happened to *Brass Jazz Club*¹³ and to *Scenario Pubblico* that, while maintaining public support,¹⁴ experienced a substantial increase in the role of business activities (such as locations rental, food, wine and entertainment).

¹¹In Rome, Teatro Valle has been occupied for three years until June 2014. On this experience as an example of Cultural responsibility, see Salvan (2013).

¹²For details see chapter “The Multi-product Nature of the Firm in the Arts Sector: The Case of ‘Centro Zo’” in this volume.

¹³During the period 2008–2013, revenues for the main activity were 55% of the total, whilst market activities accounted for 45% of the total proceeds.

¹⁴The company is mostly financed by MiBACT (63%) and regional government (30%); other funds are assigned by local government (4%), ‘*Centro Culturale Svizzero*’ (1.2%) and the Embassy of the Netherlands (0.8%).

The composition of the revenues of *Officine Culturali* is somewhat different. Revenues from the core activity are relevant (82% in 2012) and show a progressive growth; donations account for 3% of total revenues.

Some APs are mainly self-financed. This is the case for *Fondazione Brodbeck*, *Fondazione Presti* and *Bocs*. A further source of funding is represented by donations from private sources and sponsors, with marked differences across the APs that we analyzed. *Fondazione Brodbeck*, receives 90% of its funds from its President, while 10% are given by sponsors; *Fondazione Presti* is also largely financed by the President of the foundation (80%); further funds are granted by Regional government (10%) and private sponsors (10%).¹⁵ Most of the funds of *Bocs* come from self-financing. Nonetheless, as outlined earlier, the association is promoting various donations programs to support activities.¹⁶ Finally, *Teatro Coppola* receives donations contributed by the audience of the shows instead of entry tickets; this peculiar kind of donation represents more than 89% of its revenues.

Other available potential sources of private funding such as crowdfunding have recently become more popular in this sector, although they have not been exploited so far by local APs.

5 Concluding Remarks

The analysis points out that no generalization is possible. Funding strategies are highly diversified. They concern different activities in many fields for APs differing in size and structure, although the majority are small in size with a marked local interest.

The different local experiences reported do, however, transmit a positive message. The AP involved in a project generally shows strong motivation which in turn generates a strong desire to ‘survive’ albeit there is no long-term strategy. A common strategy that can be suggested is to reinforce the role of networks in order to enhance economies of scale and scope. In the interactions with the political counterpart, APs might negotiate support not only in financial terms but also in-kind (such as spaces, training for internationalization, support to apply to EU funds, etc.). In their interactions with private credit markets, a consortium of APs could reduce the individual administrative costs of designing business and financial plans and thus increase the rate of success of loan applications (European Commission 2013). Bank foundations prefer to finance projects that create cultural synergies and benefit the areas where they operate (ACRI 2013). In the search for alternative sources of public funds, APs might make efforts to apply for EU funds

¹⁵<http://www.ilgiornaledellarte.com/fondazioni/scheda/c76>

¹⁶We refer both to donations *stricto sensu*, as well as to membership programs and donations connected to support activities.

(for example, the Creative Europe Programme). This cooperative strategy can be combined with traditional market competition where each AP will continue to supply its art product or a bundle of art services that will compete with those supplied by competitors.

A larger variety of local cultural supply will also increase the social benefits of this double-side strategy where APs cooperate in the input markets and compete in the output markets. More effort should be made to develop focused projects, allowing for different sources of private funding. A stronger commitment toward social goals—such as social inclusion, urban regeneration, and promotion of young artists—is needed to legitimate public support and promote advocacy.

Acknowledgments The authors acknowledge the contribution offered by Bocs, Brass Jazz club, Centro Zo, Fondazione Brodbeck, Fondazione Presti, Officine Culturali, Scenario pubblico and Teatro Coppola during the Puck seminar held in Catania, 10–11 June 2013. The usual disclaimer applies.

References

- AA.VV. (2013a). *I flussi finanziari pubblici nel settore cultura e servizi ricreativi – Italia, collana monografie regionali CPT*. Roma: Dipartimento per lo sviluppo e la Coesione Economica.
- AA.VV. (2013b). *I flussi finanziari pubblici nel settore cultura e servizi ricreativi – Sicilia, collana monografie regionali CPT*. Roma: Dipartimento per lo sviluppo e la Coesione Economica.
- ACRI. (2013). *Diciottesimo rapporto sulle fondazioni di origine bancaria*. Roma: ACRI—Associazione di Fondazioni e di Casse di Risparmio Spa. Accessed September 15, 2016, from <https://www.acri.it/Article/PublicArticle/337/483/diciottesimo-rapporto-sulle-fondazioni-di-origine-bancaria---anno-2012>
- Bertacchini, E., & Pazzola, G. (2015). *Torino creativa*. Torino: Edizioni GAI. Accessed October 16, 2016, from <http://www.giovaniantisti.it/torino-creativa>
- Bodo, S., Da Milano, C., & Mascheroni, S. (2009). *Periferie, cultura e inclusione sociale* (Quaderni dell'Osservatorio n.1). Milano: Fondazione Cariplo. Accessed September 15, 2016, from <http://www.fondazioneCARIPLO.it/it/strategia/osservatorio/quaderni/periferie-cultura-e-inclusione-sociale-quaderno-n-1.html>
- Copic, V., Inkel, P., Kangas, A., & Srakar, A. (2013). *Trends in public funding for culture in the EU, European Expert Network on Culture (EENC) report*. Brussels: European Expert Network on Culture.
- Council of Europe & ERICarts. (2014). *Compendium of cultural policies and trends in Europe* (15th ed.). ISSN:2222-7334. Accessed September 15, 2016, from www.culturalpolicies.net
- Cuccia, T., & Rizzo, I. (2016). Less might be better. Sustainable funding strategies for cultural producers. *City, Culture and Society*, 7(2), 109–116.
- Domenichini, G. (2013). *Il finanziamento di beni e attività culturali in Italia: ruolo e tendenze dei suoi principali attori*. Accessed September 15, 2016, from <https://mpr.a.uni-muenchen.de/43661/>
- European Commission. (2013). *Survey on access to finance for cultural and creative sectors*. Brussels: European Commission, Media Programme. Accessed September 15, 2016, from http://ec.europa.eu/culture/library/studies/access-finance_en.pdf
- Evans, G., & Shaw, P. (2004). *The contribution of culture to regeneration in the UK: A review of evidence* (Report to the Department for Culture media and Sport). London: London Metropolitan University.

- Gallina, M., Balestra, C., & Dalla Sega, P. (2013). *Le organizzazioni culturali di fronte alla crisi* (Quaderni dell'Osservatorio n.10). Milano: Fondazione Cariplo. Accessed September 15, 2016, from <http://www.fondazione-cariplo.it/it/strategia/osservatorio/quaderni/le-organizzazioni-culturali-di-fronte-alla-crisi-quaderno-n-10.html>
- Guccio, C., & Mazza, I. (2014). On the political determinants of the allocation of funds to heritage authorities. *European Journal of Political Economy*, 34, 18–38.
- ISTAT. (2014). *Il profilo delle istituzioni non profit alla luce dell'ultimo censimento*. Roma: ISTAT.
- Mazza, I. (2011). Public choice. In R. Towse (Ed.), *A handbook of cultural economics* (pp. 362–389). Cheltenham: Edward Elgar.
- van der Ploeg, F. (2006). The making of cultural policy: A European perspective. In V. A. Ginsburgh & D. Throsby (Eds.), *Handbook of the economics of art and culture* (Vol. I, pp. 1183–1221). Amsterdam: North-Holland.
- Rizzo, I. (2011). Regulation. In R. Towse (Ed.), *A handbook of cultural economics* (pp. 386–393). Cheltenham: Edward Elgar.
- Salvan, L. (2013). *Cultural responsibility. Small steps to restore anthropology in economic behaviour. Interviews and best practices* (Tafter journal – Esperienze e strumenti per cultura e territorio, n. 63). Accessed September 15, 2016, from <http://www.tafterjournal.it/2013/09/09/cultural-responsibility-small-steps-to-restore-anthropology-in-economic-behaviour-interviews-and-best-practices/>
- Towse, R. (1994). Achieving public policy objectives in the arts and heritage. In A. T. Peacock & I. Rizzo (Eds.), *Cultural economics and cultural policies* (pp. 143–165). Dordrecht: Kluwer.

Tiziana Cuccia Ph.D. is Full Professor of Economic Policy at the University of Catania, Italy, where she teaches economic policy and European economic policy. Her scientific interests concern the economic evaluation of public goods, issues in cultural economics with particular reference to artists' labor market, and tourism economics with particular attention to the role of cultural heritage in fostering tourism.

Luisa Monaco graduated in Economics (University of Catania, Italy); she holds a Ph.D in Public Economics (University of Catania, Italy). She collaborated in research projects concerning health policy with the Department of Economics and Business of the University of Catania. Currently she is a professor at the secondary school. Her research interests focus on welfare. More specifically, they concern the assessment of efficiency of higher education institutions, the economic impact of cultural policies, and the effect of public intervention on health. Further research interests are referred to demography, specifically the impact of demographic dynamics on the labour market, and the effects of ageing population on public health expenditure.

Ilde Rizzo Ph.D. is Professor of Public Finance at the University of Catania and former director of the Postgraduate Master on the Economics of Cultural Sector held by the Scuola Superiore of the University of Catania. She received a Degree of Doctor of Science honoris causa from the University of Buckingham, UK. She is President (2016–2018) of the Association for Cultural Economics International. She has published in many fields (cultural economics, efficiency of public expenditure, public procurement, health economics) monographs, edited books and referred articles in professional journals.

Arts, Culture and Creativity as Drivers for Territorial Development, Innovation and Competitiveness

Beatriz Plaza and Silke N. Haarich

Abstract Notwithstanding the heterogeneity of the Cultural and Creative Industries (CCI) sectors, all of them exhibit similar causes of market failure and face similar challenges related to the digital shift and to increasing globalisation. CCI share a common need for policy intervention to correct their market failures facing the digital and globalization challenges. This work seeks to establish a preliminary approach to the CCI's related local/regional competitiveness and innovation policies. The general objective of the work is to develop a basic understanding of the risks and challenges (organizational, technological and institutional) of the CCI in Europe in order to be able to develop smart local and regional innovation policies for competitive CCI development and a favourable stimulation of innovative spill-over effects towards the rest of the economy. The understanding of risks and challenges is relevant for the design of effective and balanced European public policies for innovation and competitiveness in an ever-more intangible and creative economy. This work seeks to give a preliminary approach to a decisive lack of knowledge on the mechanisms of creative/cultural regional innovation policies.

Keywords Cultural and creative industries • Cultural innovation policies • Market failures • Externalities • Risks • Digital • Globalization

1 Introduction

Both, economists and policymakers have shown a growing interest in the cultural and creative industries (CCI) over the past years (Söndermann et al. 2009; HKU 2010; UNCTAD 2010; EC 2010b, 2011b). This can be explained by the growing economic importance and unexploited potential of these industries. In 2008, CCIs

B. Plaza (✉)

Faculty of Economics and Business Studies, University of the Basque Country UPV/EHU, Bilbao, Spain

e-mail: beatriz.plaza@ehu.es

S.N. Haarich

Haarich Regional Research and Development, Datteln, Germany

e-mail: silke.haarich@gmail.com

accounted for 4.5% of the European Union's GDP, and employed some 3.8% of its workforce (EC 2011b). Furthermore, the non-cyclical CCI subsectors have boosted employment even during the recession (Dapp and Ehmer 2011), and the number of jobs has increased by close to 2% of the workforce annually since 2003. However, the growth potential of CCIs could accelerate only if policymakers are successful in drafting appropriate incentives as well as competitiveness and innovation policies. This paper seeks to establish a preliminary approach to the CCI's related local/regional competitiveness and innovation policies. The general objective of the work is to develop a basic understanding of the risks and challenges (organizational, technological and institutional) of the CCIs in Europe in order to be able to develop smart local and regional innovation policies for their competitive development and a favourable stimulation of innovative spill-over effects towards the rest of the economy. The understanding of risks and challenges is relevant for the design of effective and balanced European public policies for innovation and competitiveness in an ever-more intangible and creative economy. This work seeks to give a preliminary approach to a decisive lack of knowledge on the mechanisms of creative/cultural regional innovation policies.

2 A General Framework for Fostering Local/Regional CCI Innovation

The CCI is an extremely diverse sector and there exists substantial lack of knowledge and disagreement about the best public support policies, both to stimulate the CCIs and to transfer their innovative and creative potential to other economic sectors (EC 2011a, b). CCIs are situated within a given legal, political and educational framework. As an economic and innovative activity, the CCIs present a distinctive character with regard to their organisational, technological and institutional dimensions (see Fig. 1).

This characterization leads to a specific organization of the CCI-related agents (companies, entrepreneurs, associations, support entities), which differs from other economic sectors. However, on the other hand, CCIs have also a high component of risk and uncertainty (Caves 2000; Townley et al. 2009), common to other highly-innovative activities. Therefore, there are two characteristics (mutually non exclusive) that have been used to explain the specificities of CCI: (a) CCIs face high risk and uncertainty, similar to classical R&D activities. Organizational, institutional and technological structures need to be developed and supported through adequate public policies to deal with these risks and (b) they constitute a highly networked value chain since they are based on social and cultural capital and network-intensive industries (in production, consumption and distribution), which may have both a territorial basis (cities, regions) and a virtual dimension (social media, digital networks, global companies). In the case of CCI, networks more than capital or labour, help to cope with risks and challenges.

This paper seeks to set a preliminary approach to five dimensions of the relationships between CCIs and regional economic development (Fig. 2).

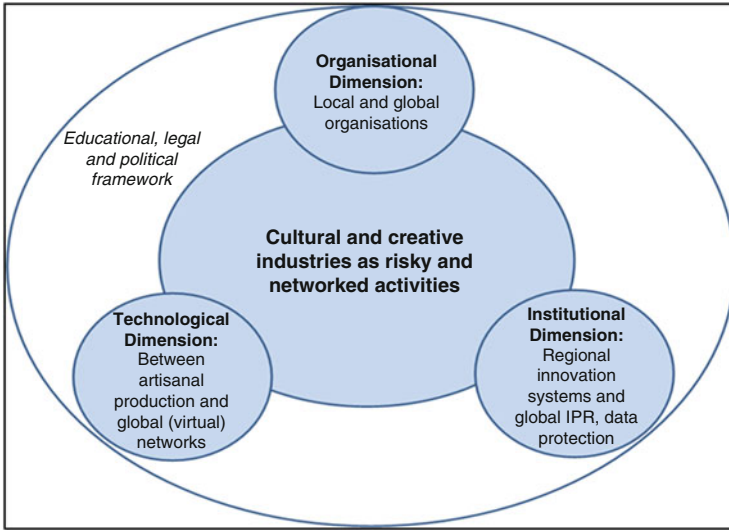


Fig. 1 Organisational, technological and institutional dimensions of Cultural and Creative Industries (CCI). Source: Own elaboration based on Martin Heidenreich’s suggestions

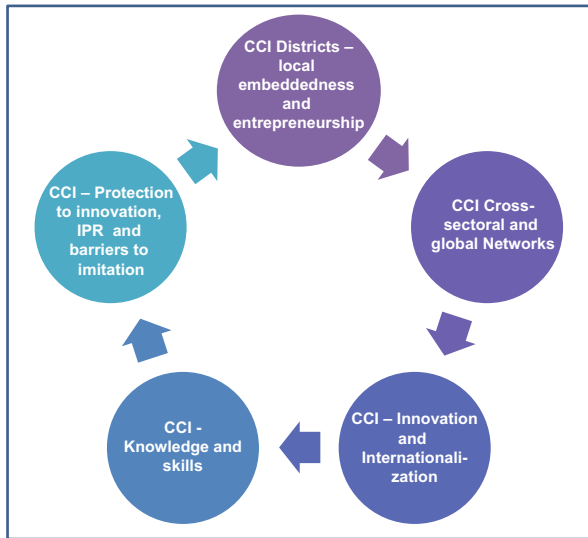


Fig. 2 Five dimensions of the relationships between Cultural and Creative Industries (CCI) and regional economic development. Source: Own elaboration based on Martin Heidenreich’s suggestions

Table 1 Characterization of two specific sub-sectors within the cultural and creative industries

Cultural infrastructures/museums	Game industry
Culture, nature of a public good	Market-based creative sector
Brand-driven innovations	Technology-driven innovations
Non-technological innovations	Technological innovations
Symbolic knowledge (branding, design, advertising)	Analytical (science-based) knowledge. Synthetic (engineering) knowledge
Value to customer created at the user-end of the value network (increasing importance of new media)	Value to customer created within the technological value chain
Place-branding driven externalities	Shared pool of skilled labour and spill-over effects on ICT, etc.
Informal barriers to imitation	Intellectual Property Rights
Production of Images at the user-end (branding in New Media)	Production of Images (part of the value-chain)
Network Economies at the user-end (accumulation of the production of images)	Technology-driven Network Economies
Museums as Multinational Organizations: global Value Chain	Games-related R&D centres: Global Innovation Networks
New eContent for new media and new image distribution channels (e.g. iPhone)	New Social Network Gaming: Changing the rules?

Source: Frey (2003), Caves (2000), Greffe (2002), Throsby (2010), de Prato et al. (2010), Towse (2010), Potts et al. (2008), Fernández-Blanco and Gil (2012), Ateca-Amestoy and Prieto-Rodríguez (2013), Cellini and Cuccia (2014), Borowiecki and Prieto-Rodríguez (2015), Dekker (2015), Benhamou (2015) and Plaza et al. (2015)

In order to deepen the available knowledge on CCIs in Europe, two antipodal cultural and creative subsectors could be analyzed, representing the ‘classical’ cultural sector and the ‘modern’ creative industries: Cultural infrastructures/museums and the video game industry. Art museums and the game industry represent two completely different business models and cover therefore a wide range of experience within the CCIs, as is shown in Table 1.

In the following section, a preliminary approach to five dimensions of the relationships between CCI and Regional Economic Development will be presented.

3 Five Dimensions of the Relationships Between CCIs and Regional Economic Development

3.1 *The Cultural and Creative Industries: An Economic Sector Between Culture and Computer*

According to the European Commission’s Green Paper on Creative and Cultural Industries, “the CCI represent an untapped potential to create growth and jobs” (EC 2010b). In fact, the growth of the CCIs in the EU from 1999 to 2003 was 12.3% higher than the growth of the overall economy (UNCTAD 2010).

Table 2 Common challenges for players in the cultural and creative industries

Micro-firms and SMEs	CCI are strongly dominated by SMEs, especially micro-firms
Uncertainty	CCI face considerable uncertainty in demand. High levels of unpredictability yield volatile returns to investment, leaving firms unable to rationally choose the profit-maximizing output
Intangibles of CCIs	CCIs face valuation difficulties because of information failures: immaterial value produced by CCIs eludes balance sheets. Competitive markets do not price the intangible assets of cultural and creative firms (e.g. singular and unique artistic inspiration), hindering potential investors. As a result, CCI face financial shortages
Spill-over effects and positive externalities	CCIs face valuation difficulties because of spillovers: CCIs give rise to important spill-over effects and positive externalities that benefit other firms and communities. As a result, CCIs do not capture all the returns to their created value (cash-inflows). That is, (1) they may invest less than would be optimal from a market perspective; and (2) CCI face financial shortages
Imitation challenges	Cultural and creative entrepreneurs' advantage largely depends on their uniqueness and exploiting first-mover advantages. Imitation at an early stage could threaten the entrepreneurs' advantages. Intellectual Property Rights (IPRs) do not work as effective protection and Barriers to Imitation of other nature need to be set up
Network markets and coordination failures	CCI operate in highly Networked Markets. Irrespective of the intrinsic aesthetic-value of the work of art, the value to the consumer arises in the social sphere, generated in the network economy. Networks usually form naturally, though coordination failures can prevent their development (e.g. while all parties potentially benefit from creating a network, there might be little incentive for one party to bear the start-up costs. As a result, (1) new relationships become difficult to forge; and (2) Well-established networks can build up barriers to entry, hindering innovation)
Non-technological innovations versus technological innovations	Most traditional CCI follow business models based on non-technological innovations. However, the emergent CCI (game industry, design) follow closely the opportunities offered by new technological innovations, mainly ICT-based. In many CCI, the possibilities of non-technological innovation (organization, marketing, etc.) are not sufficiently exploited. All CCI face the challenge to protect their knowledge and their innovation-based competitive advantages against new competitors from the emergent countries

Source: EC (2011b), Pratt (2009), Throsby (2010), Scott (2000), Power (2010, 2011), Stobbe (2011) and Plaza et al. (2015)

Reports and studies contain different definitions and models to describe the CCIs. However, albeit the diversity of models, most descriptions lead to the same collection of industries making up the creative sector (HKU 2010). In general, CCIs encompass, among others, performing arts, visual arts, cultural heritage, film, TV and radio, games, music, books and press, fashion, high cuisine, as well as creative service providers such as architecture, advertising, new media and design.

The cultural and creative sub-sectors are highly heterogeneous, with different organizational modes, different business models, diverse monopoly patterns and economies of scale, different cooperation structures, and diverse levels of public funding and economic performance within the EU (European Competitiveness Report 2010a; Dapp and Ehmer 2011; HKU 2010).

Notwithstanding the heterogeneity of the sector, all CCI exhibit similar causes of market failure and face similar challenges related to the digital shift and to increasing globalisation (see Table 2).

CCIs share a common need for policy intervention to correct the market failures facing the digital and globalization challenges. Today there are few comparative yet differentiated data sets and information on the subsectors and their specific characteristics with regard to size, markets, processes and outputs, entrepreneurship, skills and organization and innovation. In this context, future studies should aim to create a comparable European dataset on CCIs with a specific focus on CCI-related market failures and challenges, as well as mapping current CCI specific entrepreneurial and innovation policies in EU countries.

3.2 Cultural Innovation and the Importance of Geographic Proximity: Cultural and Creative Districts and Their Contribution to Innovation

Cultural innovation often generates benefits beyond the innovative firms. Inspiration (creativity), when successfully implemented in any area of the economy, contributes to the stock of knowledge and can spill-over to other firms, leading to co-location and spatial agglomeration economies (Audretsch and Feldman 1996). This corresponds to Marshall's (1890) notion of the 'atmosphere' in a given 'district' leveraging a local competitive advantage and the notion of locally embedded tacit knowledge. However, the benefits of sectoral clustering of CCIs are numerous (O'Hagan 2007).

Cultural and creative firms cluster, even more than other sectors, benefitting from knowledge sharing, trust and relational capital, pools of skilled labour, and spill-overs that make them reach external scale economies. That is, firms, suppliers and services find mutual advantage in being close to other companies in a cluster, even if they compete (Lorenzen 2007). Often there is a process of cross-fertilization between creative fields at the territorial level. Aoyama and Izushi (2003), for example, discuss how the Japanese video game industry benefits from its strengths in animated films and cartoons. Rantisi (2002) attributes the success of the fashion industry in New York to

the status of New York as an international centre of high art, opera and theatre. Plaza (2008) discusses how the architecture sector in Bilbao benefits from the success of the Guggenheim Museum.

Already Jacobs (1969) found that sector diversity, rather than cluster specialization, can explain longer-term growth and higher productivity in some places. That is, sector diversity facilitates cross-sector fertilization (inter-sectoral knowledge transfer).

Cross-sector spill-overs are not only present among creative industries, but more importantly, between creative and non-creative industries (Lorenzen et al. 2008). So called 'related variety' synergies support the idea that these inter-sector knowledge spill-overs are more powerful when firms (sectors) are related along the value chain (Asheim et al. 2007; Cooke 2007). These synergies are even a main element in the new 'smart specialization strategies', promoted by the DG REGIO of the European Commission as being a backbone of the future European Cohesion Policy (McCann and Ortega Argilés 2011). Moreover, through the analysis of creative industries' location, De Propris et al. (2009) found that creative industries tend to locate near each other depending on inter-sector linkages and, more importantly, technological complementarities.

There is an extended body of knowledge on cultural and creative districts. However, no general conclusions on the spatial relevance of CCIs across different subsectors could be drawn so far. In addition, the relationship between CCI districts and technology are still unexplored.

In this context, future studies should aim to deepen the understanding of how and how much agents and relationships between CCI-related agents contribute to create positive spatial effects and agglomeration benefits, both in physical and virtual spaces. Specific questions to take into account will be: What happens when new technologies (e.g., broadband mobile) are introduced into well-established districts? There is a trend for mobile eServices to become more Internet connected and more socially networked (e.g., mobile games). Yet, how do CCI districts react to new mobile technologies?

3.3 CCI and Their Networks as Bridges for the Transportation of Creativity and Innovation

Cultural infrastructures, as well as cultural and creative players and districts, can play an important role in creating networks between different professionals, groups, sectors and segments of society. This was observed for museums in 1989 when Star and Griesemer (1989, p. 393) took the example of a natural history research museum to show how such a cultural object can serve as a basis for cooperation between different social, scientific and professional groups, bridging diverse social backgrounds. These linkages encompass:

- (a) *Tangible networks among diverse actors*: Cultural and Creative industries can bridge networks that are not directly linked, filling structural holes (Scott 1991). A group of actors with connections to other social worlds is likely to have access to a wider range of information. In this sense, CCIs can play a critical role as innovation facilitators.
- (b) *Intangible connections between brand circuits (co-branding)*: Cultural heritage and infrastructure become effective economic engines to the extent they become effective branding engines. The branding power depends on the accumulation of different brand circuits (Plaza et al. 2015).
- (c) *Bridging tangible and intangible networks*: Cultural Industries contribute to bridging different constructs of meaning (multi-vocacy of meaning), which encourages innovation. Positive co-branding reinforces the effectiveness of tangible networks.

In this sense, cultural and creative industries can connect apparently far-off and dissimilar sectors, employing their ‘bridging’ function as it “connects concepts, places and paradigms from different backgrounds” Lazzarotti (2011, p. 352). Furthermore, cultural entities, like museums, can connect highly particular specialized global/national/local circuits that criss-cross the world connecting specific groups of cities (Sassen 2010). These circuits vary enormously. Some are specialized and some are not; some are local, some are regional and some are global. In other words, cultural industries bridge not only networks in the generic sense of the word, but more importantly they can bridge highly specialized circuits. Museums, for example, and ‘high-level culture’ institutions connect physical/material circuits: Their prestige can open access to Signature Architects (Pritzker prized circuit). They are customers for knowledge-intensive business services (e.g. signature architects) and advanced technologies (Plaza 2008). Museums connect to high gastronomy circuits like Michelin star chefs. Branded museums connect to (attract) big international tourist flows, airlines, hotel chains and/or premium fashion brands. In addition, ‘high-level cultural’ institutions, like Fashion Shows, are important, yet informal arenas for social networking, especially among the educated population and for strategies of social distinction (Bourdieu and Wacquant 1992). They may also contribute to the attractiveness of a region for members of transnational classes (Sklair 2005).

Second, CCIs can also connect apparently dissimilar regions and cities (Plaza et al. 2015), bringing together, e.g. old industrialized cities, like Bilbao with global nodes (New York) through the Guggenheim brand. A cultural and creative brand’s value lies in its ability to make a city visible and to generate economic activity. Brand image plays an important role in facilitating development and innovation processes. In our globalized world, economic regeneration is as much about image as investment and production. This is because investment and production depend on images of locations that facilitate the process of simplifying and organizing information, thus enabling people to choose the locations of their various urban experiences (economic activities). Another important factor in this context is the easier

attraction of creative talent and highly qualified professionals by cultural nodes, as suggested by Florida (2002a, b).

Third, 'high-level culture' institutions symbolically assert a city's transition into the knowledge-driven postmodern era, and its value for creativity, innovation and culture. Cultural industries produce images, and the New Media has the potential to fuel both image reproduction and image demand simultaneously. Online media (online press, blogging, Facebook, Twitter or Flickr) helps in the long run branding power of cultural infrastructures and events. The critical accumulation of these positive images supposes a break with an industrial past and the start of a new economic trajectory; they may improve the reputation of a region (Plaza et al. 2015). The economic potential of culture in regions consists mainly of breaking-up path dependencies and lock-in effects, which are so important especially in old-industrial regions. In other words, culture might be an ideal remedy against the risks of regional lock-in effects (Grabher 1993). Last, but not least, cultural industries are the expression of specific cultures and identities and connect global audiences to specific cultural settings.

In conclusion, cultural institutions and events can play an essential role in the regeneration of regions in at least three dimensions: They are an important crystallization point for social networks and regional identities; they may facilitate the recombination of knowledge and thus contribute to an innovative milieu (Camagni 2001; Crevoisier 2004); and they can break-up reputation-related path dependencies, reinforcing positive change.

Future work should study the bridging effects of cultural and creative sectors and infrastructures and generate reliable knowledge on the effects of culturally-inspired networks on economic activities and regional reputation.

3.4 Cultural and Creative Industries Between Local Embeddedness and Global Value Chains: Effects on Innovation and Internationalization

Cultural producers were traditionally embedded in local, regional and national cultural patterns, producing for local markets or for tourists to carry home 'authentic' souvenirs. But, cultural, and especially creative companies, are no longer only regional or local. Cultural and creative goods have fully entered global markets, and new business models have helped to turn them into fully-fledged export goods and services. Multi-national corporations, and their Global Value Chains (GVC), have long existed in cultural spheres of production—for example Time Warner, Viacom/Paramount, News Corporation/Fox, Walt Disney, Sony and Comcast/GE in the film industry (Scott 2005) and Random House/Bertelsmann, HarperCollins/News Corporation in the book publishing industry.

These cultural GVCs are essential protagonists of international cultural production, and organize their production and diffusion processes increasingly internationally. They provide important channels for the transfer of cultural products across national borders. In addition, the complexity and cost of innovation processes are encouraging ever more CCIs to open up and collaborate in Global Innovation Networks (GIN), desegregating R&D globally. Shortage of specialized talent in their home countries combined with R&D departments facing strong financial pressure make companies adopt GIN models (Economist Intelligence Unit 2007). Hence, cultural GVCs can be analyzed as cross-border networks for the inner-organizational transfer of cultural products and competences (Bartlett and Ghoshal 1989).

At the same time however, at least the core activities of creative production are still in many cases concentrated in the home countries of GVCs (Scott 2005). Regional or even local districts play a vital role for the profile of these GVCs. The regional environment of corporate headquarters and subsidiaries are an important source of contacts with suppliers, customers and competitors, for knowledge, partners, political support and qualified employees (Cantwell and Mudambi 2005). Therefore, GVCs are not only internationally (or in some cases even globally) active organizations, but are also nationally and regionally embedded. The organizational, institutional and cognitive proximity of regionally agglomerated cultural producers and actors facilitate interactive learning (Mattes 2012). Their institutional and socio-cultural environments also shape the creativity, the competences and the market positions of subsidiaries (Andersson et al. 2007; Kristensen and Zeitlin 2005).

The questions are (a) how cultural multinational corporations can combine the advantages of internationally distributed production and innovation processes with nationally and regionally embedded competences and know-how, (b) how and to what extent cultural are GVCs are socially embedded organizations, (c) how do GVCs strategically use the relative advantages of their regional and national environment, and (d) how are they able to market on a global scale their products and services (Meyer et al. 2011; Cantwell and Zhang 2011).

An important starting point for this discussion is the observation that “the most dynamic firms in creative cities all over the world are engaged in building international networks of creative partnerships with one another, such as joint ventures, strategic alliances, co-productions” (Scott 2006, p. 13). In this context, the role of the CCIs to create new global alliances and open to international trade might have important impacts on local and regional innovation sectors and their embeddedness in international circuits (WIPO 2007).

Future research should focus on the patterns of globalisation of CCIs, overcoming the traditional concentration on local and regional markets. Especially important will be the analysis of networks of Open Innovation/Open Creativity and the feedback to the local embeddedness of smaller players and ‘prosumers’ (consumers who co-produce and consume at the same time). Here, the analysis of both Cultural and Creative Industries will produce substantial new insights into network circuits and transaction systems.

3.5 *Managing Knowledge and Skills in CCI in a Digital and Global Age*

The organization of work is no longer characterized by the mass production of homogeneous goods in a hierarchically and bureaucratically coordinated way. The current landscape, especially in the field of CCIs, is characterized increasingly by knowledge-based forms of work that require the ability and willingness to transform established routines and practices in the face of new situations and challenges. Reich (1992) conceives this new type of work as symbol analysis: “Symbolic analysts solve, identify, and broker problems by manipulating symbols. They simplify reality into abstract images that can be rearranged, juggled, experimented with, communicated to other specialists, and then, eventually, transformed back into reality” (Reich 1992, p. 178).

Creative work is the part of knowledge-based work which focuses on the creation of “meaningful new forms” (Florida 2002a), for example research reports or books, software, video games, *objets d’art*, industrial design, fashion, brands. Florida (2002a, p. 34) who considers talent as one of the crucial success factors for creative industries (besides technology and tolerance) distinguishes two parts in this ‘creative class’: “the super-creative core” and “creative professionals”. These workers are in general academically trained; their work is characterized by more complex tasks and a high degree of job autonomy. They find themselves confronted with complex problems, and cannot forego continuous learning.

Studies have shown that CCIs often supply content that requires knowledge-based and labour-intensive input. However, production processes are not linearly organised but build around flexible and multidisciplinary teams, which often form on an *ad-hoc* project base. CCIs require therefore skilled employees, who are more likely to hold non-conventional forms of employment (freelancing, temporary contracts) and have difficulties to get their skills recognised or certified formally (HKU 2010).

Very little is known on the organization of cultural and creative work and the related competences. Florida (2002a, b) for example shows convincingly that cultural activities are highly concentrated especially in urban regions. This indicates that implicit knowledge and a pleasant, stimulating environment play an important role. Sydow and Staber (2002) illustrate that project networks are essential for the organization of television content production. These networks rely in general on supportive institutions in their surroundings. These regionally concentrated and institutionally stabilized patterns of interaction which, according to the ‘innovative milieu’ approach (Crevoisier 2004, p. 377), combines the roles of technological learning of inter-organizational networks and of spatial proximity. The core of this approach is the interaction “between the urban context and urban dynamics (...) and the evolution of production systems (economic innovation).”

Therefore, one can assume that the knowledge-based work in the cultural and creative industries is characterized not only by complex tasks and a high degree of job autonomy (as all knowledge-based work, see Reich 1992; Heidenreich 2004), but

also by the crucial role played by inter-organizational networks and by the essential role of regional institutions which stabilize the networked interactions between territorially concentrated creative activities. These networks and institutions facilitate the exchange of tacit knowledge (e.g. non-written eSkills in relation to social networking) and contribute to the innovativeness of creative milieus.

Future studies should analyze the patterns of organization of cultural and creative work and current schemes of initial and continuous learning in complex environments, which require high levels of creativity, autonomy and adaptability.

3.6 Protection of Innovation in CCIs: Intellectual Property Rights, New Forms of Value Creation and Informal Barriers to Imitation

Existing copyright and patent law is no longer coping with the ever-faster-changing digital world (Dapp and Ehmer 2011). The ongoing technological evolution has brought important changes in how industries perform and in the relationships among players within content and cultural industry chains. Digital technologies open up new opportunities for reducing barriers to entry in content publication and distribution, enabling new possibilities of engagement. CCIs are developing new forms of value creation, especially facilitated by the digital shift and new distribution and business models. The ‘open culture’ and the availability of open source publishing platforms allow for a drastic reduction of certification, publication and platform management costs, thus promoting the self-organization of content producers and favouring the start-up of new activities (Jeppesen and Molin 2003). However, more than in other sectors, cultural and creative entrepreneurs’ competitive advantages largely depend on their uniqueness and exploitation of first-mover benefits (European Competitiveness Report 2010a). Imitation at an early stage could threaten such advantages. Here, new forms of protection of innovation and barriers to imitation are developed and can generate important lessons also for other sectors.

Today, protection of innovation is widely restricted to the application of Intellectual Property Rights (IPR). Formal mechanisms for IPRs like design protection, trademarks, patents, utility models, copyright, but also informal IPR-mechanisms such as secrecy, restricted access to information, confidentiality, division of duties, loyalty building, client relationship management, etc. are the predominating protection schemes (HKU 2010). IPRs offer limited monopoly exploitation rights as an incentive for investment in new knowledge generation and use. They allow creators of knowledge to appropriate returns from innovation and therefore act as a spur to innovation. However, evidence suggests that intellectual property rights are less effective when it comes to services or to intangible and moveable goods like ideas, novels, films, music (Santagata 2002). As business models and value creation change, new production and distribution processes on the Internet known as

collective product-co-creation by ‘prosumers’ are put in place (Abadie et al. 2008). This structural transformation produces different outcomes and sustainability models: Even if in most cases some or all content is free, the created value comes from the possibility for the content provider to aggregate big amounts of free content, strengthen his reputation, collect information about users (either through deliberate feedback or indirectly, through navigation behavior tracking) and establish new relationships among users.

There is a growing field of non-technological, and informal barriers to imitation (e.g. building CCI-related Internet communities and/or branding strategies). Power and Hallencreutz (2005) argue, for instance, that globalized networks (music industry in Stockholm and Kingston) can form the basis for supporting localized production centres and protecting property rights. Non-technological barriers to imitation can rely on the firm’s advantage in distinctive organizational capabilities: Competitive advantage may be hard to replicate if the advantage is rooted in socially complex processes (e.g. when interacting social networks with online gaming). In fact, in recent years, the Internet has been the main driver in the development and rapid growth of online games. Research on social network gaming, protection of ideas and non-technological barriers to imitation still remains, however, a very small area in the broad scope of mass media research, especially in Europe.

Future studies should investigate how institutions and platforms can generate value and redistribute it among interested stakeholders in content and cultural industries. In fact, while the progressive fragmentation of value chains opens new opportunities for producers to autonomously collect the value they create, it also transfers the burden of efficiently managing the activities. Emphasis will be put on mobile technologies as opportunities to develop innovation (in market, organizational, institutional, relational, reputational and artistic terms). Future research could also bring new insights into the possibilities of knowledge and innovation protection in other sectors, especially the service sectors. Future studies should analyse the current schemes of protection of innovation, new forms of value creation and barriers to imitation, both the formal and the informal ones, and study their effectiveness and possible transfer to other economic sectors.

4 Conclusions

CCIs represent an increasing share of the regional and national economies. They give rise to strong positive externalities (within and beyond districts), important spill-overs, but also considerable uncertainty in demand and volatile returns to investment, information failures, risks of imitation at an early stage, which could threaten their growth and hinder revenues and employment. They must adapt to new digital media and globalization processes. The lessons learned for the CCI-related sectors will bring relevant knowledge in defining a new generation of

innovation and competitiveness policies that will also apply to other sectors, especially in services and other emerging industries (logistics, energy distribution).

Public policies can play an important role in fostering CCI development, to create revenues, jobs, exports as well as economic growth in general. They do so by addressing several of the common barriers and challenges for CCIs.

- (a) *Coordination and cooperation*: Effective ‘creative networks’ will influence the ability of companies, cities, regions to generate a cross-over of ideas and flows of new information to fuel innovation. Government can facilitate networking where coordination failures are present. Strong networks of persons and service providers can prevent problems arising from small-scale SMEs (Kimpeler and Georgieff 2009). New digital technologies can open up value creation networks (e.g. living labs, open virtual laboratories, could be implemented for fuelling open source research cooperation partnerships).
- (b) *Financing*: Public policy could enable efficient supply of finance by the market (e.g. private equity, micro-finance, sponsorships, and guarantee schemes). Many CCIs have difficulties funding their projects (EC 2011b). Volatile incomes, high ratio of self-employed workers and insufficient collateral all limit CCIs’ access to capital (Dapp and Ehmer 2011). Micro-firms often require amounts of <30,000€, making lending unattractive to commercial banks due to the administrative costs required (Söndermann et al. 2009).
- (c) *Research, technology development and innovation (RTDI) and internationalization*: Policy can support the internationalization and RTDI processes of SME that constitute the majority of CCIs. However, the definition of innovation used in established public programmes does not correspond to the way CCI work (Söndermann et al. 2009). Here, new forms of research and innovation support as well as adequate internationalisation schemes are required.
- (d) *Education and training*: Policies can facilitate the creation of a pool of symbolic knowledge, analytical (science-based) knowledge and synthetic (engineering) knowledge, as well as the development of business and management skills. It should be noticed that cultural and creative SMEs require support to alleviate the risk of skilled workers fluctuations.
- (e) *Framework conditions*: Legal and tax systems should be favourable, as well as systems for intellectual property protection, regulatory frameworks and competitive environments.

Finally, public policies can strengthen, channel and guide possible spill-over effects of CCIs on other industries and society at large, so that other companies, clusters, sectors or entities can benefit from cultural and creative firms through knowledge diffusion, creative partnerships or other inputs on innovation and creativity.

Acknowledgements The authors wish to thank Martin Heidenreich for helpful suggestions and insightful comments.

References

- Abadie, F., Maghiros, I., & Pascu, C. (Eds.). (2008). *The future evolution of the creative content industries*. Luxembourg: Office for Official Publications of the European Communities. Accessed September 15, 2016, from <http://ftp.jrc.es/EURdoc/JRC47964.pdf>
- Andersson, U., Forsgren, M., & Holm, U. (2007). Balancing subsidiary influence in the federative MNC. A business network view. *Journal of International Business Studies*, 38(5), 802–818.
- Aoyama, Y., & Izushi, H. (2003). Hardware gimmick or cultural innovation? Technological, cultural, and social foundations of the Japanese video game industry. *Research Policy*, 32(3), 423–444.
- Asheim, B. T., Boschma, R. A., & Cooke, P. (2007). *Constructing regional advantage: Platform policy based on related variety and differentiated knowledge bases*. Utrecht: Utrecht University Press.
- Ateca-Amestoy, V., & Prieto-Rodríguez, J. (2013). Forecasting accuracy of behavioural models for participation in the arts. *European Journal of Operational Research*, 229(1), 124–131.
- Audretsch, D. B., & Feldman, M. P. (1996). R&D spillovers and the geography of innovation and production. *American Economic Review*, 86, 630–640.
- Bartlett, C. A., & Ghoshal, S. (1989). *Managing across borders: The transnational solution*. Boston: Harvard Business School Press.
- Benhamou, F. (2015). Fair use and fair competition for digitized cultural goods: The case of eBooks. *Journal of Cultural Economics*, 39(2), 123–131.
- Borowiecki, K. J., & Prieto-Rodríguez, J. (2015). Video games playing: A substitute for cultural consumptions? *Journal of Cultural Economics*, 39(3), 239–258.
- Bourdieu, P. L., & Wacquant, J. D. (1992). *An invitation to reflexive sociology*. Chicago: University of Chicago Press.
- Camagni, R. (2001). *The economic role and spatial contradictions of global city-regions: The functional, cognitive and evolutionary context*. *Global city-regions: Trends, theory, policy*. Oxford: Oxford University Press.
- Cantwell, J., & Mudambi, R. (2005). MNE competence-creating subsidiary mandates. *Strategic Management Journal*, 26(12), 1109–1128.
- Cantwell, J., & Zhang, Y. (2011). Innovation and location in the multinational firm. *International Journal of Technology Management*, 54, 116–132.
- Caves, R. (2000). *Creative industries: Contracts between art and commerce*. Cambridge, MA: Harvard University Press.
- Cellini, R., & Cuccia, T. (2014). The artist–art dealer relationship as a marketing channel. *Research in Economics*, 68(1), 57–69.
- Cooke, P. (2007). To construct regional advantage from innovation systems first build policy platforms. *European Planning Studies*, 15(2), 179–194.
- Crevoisier, O. (2004). The innovative milieus approach: Toward a territorialized understanding of the economy? *Economic Geography*, 80(4), 367–379.
- Dapp, T. F., & Ehmer, P. (2011). *Cultural and creative industries: Growth potential in specific segments*. Frankfurt am Main: Deutsche Bank Research. Accessed September 15, 2016, from https://www.dbresearch.com/PROD/DBR_INTERNET_EN-PROD/PROD000000000272899/Cultural_and_creative_industries%3A_Growth_potential.pdf
- De Prato, G., Feijóo, C., Nepelski, D., Bogdanowicz, M., & Simon, J. P. (2010). *Born digital grown digital: Assessing the future competitiveness of the EU video games software industry*. European Commission Joint Research Centre: Institute for Prospective Technological Studies. EUR # 24555. Luxembourg: Publications Office of the European Union. Accessed September 15, 2016, from <http://ftp.jrc.es/EURdoc/JRC60711.pdf>
- De Propriis, L., Chapain, P., Cooke, P., MacNeill, S., & Mateos-García, J. (2009). *The geography of creativity* (NESTA Interim report). London: NESTA.
- Dekker, E. (2015). Two approaches to study the value of art and culture, and the emergence of a third. *Journal of Cultural Economics*, 39(4), 309–326.

- Economist Intelligence Unit. (2007). *Sharing the idea: The emergence of global innovation networks*. London: The Economist.
- European Commission. (2010a). *European competitiveness report 2010*. SEC(2010) 1276.
- European Commission. (2010b). *Unlocking the potential of cultural and creative industries*. Brussels COM(2010) 183.
- European Commission. (2011a). *Cultural statistics*. Luxembourg: Publications Office of the European Union.
- European Commission. (2011b). *Establishing a creative Europe framework programme*. SEC(2011) 1399 final.
- Fernández-Blanco, V., & Gil, R. (2012). Underneath the red carpet: Government intervention in the Spanish movie industry. *Journal of Media Economics*, 25(1), 54–72.
- Florida, R. (2002a). Bohemia and economic geography. *Journal of Economic Geography*, 2, 55–71.
- Florida, R. (2002b). *The rise of the creative class, and how it's transforming work, leisure, community and everyday life*. New York: Basic Books.
- Frey, B. S. (2003). *Arts & economics: Analysis & cultural policy*. Berlin: Springer.
- Grabher, G. (1993). The weakness of strong ties. The lock-in of regional development in the Ruhr area. In G. Grabher (Ed.), *The embedded firm* (pp. 255–277). London: Routledge.
- Greffé, X. (2002). *Arts and artists from an economic perspective*. Paris: UNESCO Publishing.
- Heidenreich, M. (2004). Knowledge-based work: An international comparison. *Management International*, 8(3), 65–80.
- HKU. (2010). *The entrepreneurial dimension of the cultural and creative industries. Study for the European Commission*. Brussels: Education, Audiovisual & Culture Executive Agency.
- Jacobs, J. (1969). *The economies of cities*. New York: Vintage.
- Jeppesen, L. B., & Molin, M. (2003). Consumers as co-developers: Learning and innovation outside the firm. *Technology Analysis & Strategic Management*, 15(3), 363–383.
- Kimpeler, S., & Georgieff, P. (2009, May 28, 29). The roles of creative industries in regional innovation and knowledge transfer – The case of Austria. In *Measuring creativity. Conference "Can creativity be measured" 2009. Proceedings* (pp. 207–219). Brussels. Luxembourg: Office for Official Publications of the EU. ISBN:978-92-79-12862-2.
- Kristensen, P. H., & Zeitlin, J. (2005). *Local players in global games. The strategic constitution of a multinational corporation*. Oxford: Oxford University Press.
- Lazzeretti, L. (2011). Culture as a source for growth and change: Some evidences from cultural clusters in Andalusia. In P. Cooke, B. Asheim, R. Boschma, R. Martin, D. Schwartz, & F. Tödtling (Eds.), *Handbook of regional innovation and growth* (pp. 350–362). Cheltenham: Edward Elgar.
- Lorenzen, M. (2007). Social capital and localised learning: Proximity and place in technological and institutional dynamics. *Urban Studies*, 44(4), 799–817.
- Lorenzen, M., Scott, A. J., & Vang, J. (2008). Geography and the cultural economy. *Journal of Economic Geography*, 8(5), 589–592.
- Marshall, A. (1890). *Principles of economics*. London: Macmillan.
- Mattes, J. (2012). Dimensions of proximity and knowledge bases: Innovation between spatial and non-spatial factors. *Regional Studies*, 46(8), 1085–1099.
- McCann, P., & Ortega Argilés, R. (2011). *Smart specialisation, regional growth and applications to EU cohesion policy* (Economic Geography Working Paper). Faculty of Spatial Sciences, University of Groningen.
- Meyer, K. E., Mudambi, R., & Narula, R. (2011). Multinational enterprises and local contexts: The opportunities and challenges of multiple embeddedness. *Journal of Management Studies*, 48(2), 235–252.
- O'Hagan, J. (2007). Simon Roodhouse, cultural quarters: Principles and practice. *Journal of Cultural Economics*, 31(2), 163–165.

- Plaza, B. (2008). On some challenges and conditions for the Guggenheim Museum Bilbao to be an effective economic re-activator. *International Journal of Urban and Regional Research*, 32(2), 506–517.
- Plaza, B., González-Casimiro, P., Moral-Zuazo, P., & Waldron, C. (2015). Culture-led city brands as economic engines: Theory and empirics. *The Annals of Regional Science*, 54(1), 179–196.
- Potts, J., Cunningham, S., Hartley, J., & Ormerod, P. (2008). Social network markets: A new definition of the creative industries. *Journal of Cultural Economics*, 32(3), 167–185.
- Power, D. (2010). *Creative business – 10 lessons to help build a business your way*. Stockholm: Volante.
- Power, D. (2011). *Priority sector report: Creative and cultural industries*. Brussels: EU Directorate General Enterprise and Industry.
- Power, D., & Hallencreutz, D. (2005). Profiting from creativity? In A. Bennet, B. Shank, & J. Toyne (Eds.), *The popular music studies reader* (pp. 253–262). Abingon: Routledge.
- Pratt, A. C. (2009). Policy transfer and the field of the cultural and creative industries: Learning from Europe? In L. Kong & J. O'Connor (Eds.), *Creative economies, creative cities: Asian-European perspectives* (pp. 9–23). Heidelberg: Springer.
- Rantisi, N. (2002). The local innovation system as a source of 'variety': Openness and adaptability in New York City's garment district. *Regional Studies*, 36(6), 587–602.
- Reich, R. B. (1992). *The work of nations. Preparing ourselves for the 21st century capitalism*. New York: Vintage Books.
- Santagata, W. (2002). Cultural districts, property rights and sustainable economic growth. *International Journal of Urban and Regional Research*, 26(1), 9–23.
- Sassen, S. (2010). Global inter-city networks and commodity chains: Any intersections? *Global Networks*, 10, 150–163.
- Scott, J. (1991). *Social network analysis*. London: Sage.
- Scott, A. (2000). *The cultural economy of cities: Essays on the geography of image-producing industries*. London: Sage.
- Scott, A. J. (2005). *On Hollywood. The place, the industry*. Princeton: Princeton University Press.
- Scott, A. J. (2006). Creative cities: Conceptual issues and policy questions. *Journal of Urban Affairs*, 28(1), 1–17.
- Sklair, L. (2005). The transnational capitalist class and contemporary architecture in globalizing cities. *International Journal of Urban and Regional Research*, 29(3), 485–500.
- Söndermann, M., Backes, C., Arndt, O., & Brünink, D. (2009). *Final report: Culture and creative industries in Germany*. Cologne: BMBF. www.kulturwirtschaft.de.
- Star, S. L., & Griesemer, J. R. (1989). Institutional ecology, 'translations' and boundary objects: Amateurs and professionals in Berkeley's Museum of Vertebrate Zoology, 1907-39. *Social Studies of Science*, 19(3), 387–420.
- Stobbe, A. (2011). *Convergence markets: Smartphones and triple play continue to erode sector boundaries*. Frankfurt am Main: Deutsche Bank Research, Economics #85.
- Sydow, J., & Staber, U. (2002). Institutional embeddedness of project networks: The case of content production in German television. *Regional Studies*, 36, 215–227.
- Throsby, D. (2010). *The economics of cultural policy*. Cambridge: Cambridge University Press.
- Townley, B., Beech, N., & McKinlay, A. (2009). Managing in the creative industries: Managing the motley crew. *Human Relations*, 62(7), 939–962.
- Towse, R. (2010). Creativity, copyright and the creative industries paradigm. *Kyklos*, 63(3), 461–478.
- UNCTAD. (2010). *Creative economy report 2010*. UNCTAD/DITC/TAB/2010/3.
- World Intellectual Property Organization—WIPO. (2007). *Study on the economic, social and cultural impact of intellectual property in the creative industries*. Geneva: WIPO. Accessed September 15, 2016, from http://www.wipo.int/export/sites/www/copyright/en/performance/pdf/impact_creative_industries.pdf

Beatriz Plaza is Professor of Urban and Regional Economics at the University of the Basque Country UPV/EHU (Bilbao). Her research interests include Cultural Tourism as Local Economic/Innovation drivers, economic impact of Superstar Museums (e.g., Guggenheim Museum Bilbao), the Economics of Culture-led City Branding, Cultural Information Goods or Digital Analytics. She has published articles in journals like *Tourism Economics*, *Tourism Management*, *International Journal of Urban and Regional Research*, *Annals of Tourism Research*, *Annals of Regional Science*, *European Planning Studies*, or *Online Information Review*. Her presentations include Akademie der Künste-Berlin (Academy of Art—Berlin), OECD LEED Programme, Stern Business School-NYU or European Union.

Silke N. Haarich is Associated Senior Consultant at Spatial Foresight (Luxemburg) since 2012. She holds a Master's Degree in Spatial Planning (Dortmund, Germany) and a Ph.D. in Economics (University of the Basque Country/Bilbao, Spain). She specialises in the design, implementation and evaluation of regional and economic development strategies and programmes, especially in the field of EU Cohesion Policy, innovation strategies and capacity building. She has widespread professional experience in Europe and Latin America.