

Quadruple Helix Structures of Quality of Democracy in Innovation Systems: the USA, OECD Countries, and EU Member Countries in Global Comparison

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Abstract The analytical research question of this contribution is twofold. (1) To develop (and to proto-type) a conceptual framework of analysis for a global comparison of quality of democracy. This framework also references to the concept of the “Quadruple Helix innovation systems” (Carayannis and Campbell). (2) The same conceptual framework is being used and tested for comparing and measuring empirical quality of democracy in the different OECD and European Union (EU27) member countries. In theoretical and conceptual terms, we refer to a Quadruple-Dimensional structure, also a Quadruple Helix structure (a “Model of Quadruple Helix Structures”) of the four basic (conceptual) dimensions of freedom, equality, control, and sustainable development for explaining and comparing democracy and quality of democracy. Put

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in summary, we may conclude for the USA that the comparative strength of quality of democracy in the USA focuses on the dimension of freedom. The comparative weakness of the quality of democracy in the USA lies in the dimension of equality, most importantly income equality. Quadruple Helix refers here to at least two crucial perspectives: (1) the unfolding of an innovative knowledge economy also requires (at least in a longer perspective) the unfolding of a knowledge democracy; (2) knowledge and innovation are being defined as key for sustainable development and for the further evolution of quality of democracy. How to innovate (and reinvent) knowledge democracy? There is a potential that democracy discourses and innovation discourses advance in a next-step and two-way mutual cross-reference. The architectures of Quadruple Helix (and Quintuple Helix) innovation systems demand and require the formation of a democracy, implicating that quality of democracy provides for a support and encouragement of innovation and innovation systems, so that quality of democracy and progress of innovation mutually “Cross-Helix” in a connecting and amplifying mode and manner. This relates research on quality of democracy to research on innovation (innovation systems) and the knowledge economy. “Cyber democracy” receives here a new and important meaning.

Keywords Basic quadruple-dimensional structure of quality of democracy · Democracy · Cyber democracy · Interdisciplinary · International comparison of OECD and European Union member countries · Knowledge democracy · Quadruple and quintuple helix · Quadruple helix innovation systems · Quality of democracy · Trans-disciplinary · USA

Introduction: Research Design and Research Question for the Comparative Analysis

This article focuses on analyzing quality of democracy in a comparative approach. Even though comparisons are not the only possible or legitimate method of research, our contribution is based on the opinion that comparisons provide crucial analytical perspectives and learning opportunities. Therefore, our analysis is being guided and governed by the following proposition: *national political systems (political systems) are comprehensively understood only by using an international comparative approach.* International comparisons (of country-based systems) are common (see the status of comparative politics, for example in Sodaro 2004). Comparisons do not have to be based necessarily on national systems alone but can also be carried out using “within”-comparisons inside (or beyond) subunits or regional subnational systems, for instance the individual provinces in the case of Austria (Campbell 2007, p. 382).

The pivotal analytical research question of this article is twofold:

1. To develop (to “proto-type”) a conceptual framework of analysis for a global comparison of quality of democracy. This framework will also reference to the concept of the “Quadruple Helix innovation systems” (Carayannis and Campbell 2014, 2015). Quadruple Helix and Quadruple Helix structures represent here an interdisciplinary (and trans-disciplinary) linkage that connects research in quality of democracy with innovation concepts (see also Bast et al. 2015).¹ This

¹ See also the Web site of “Arts, Research, Innovation and Society” (ARIS): <http://www.dieangewandte.at/aris>

- interdisciplinary perspective should furthermore emphasize the overall importance of knowledge (and of knowledge and innovation) for society, economy, and democracy.
2. This same conceptual framework will be used and will be tested for comparing and measuring quality of democracy in the different Organization for Economic Co-Operation and Development (OECD) and European Union (EU27) countries. First propositions are being formulated about democracy in the USA but clearly need further follow-up inquiry in a later phase and discourse. This comparison is more exploratory in nature and character and wants to provide further evidence about the usefulness of the developed framework. This framework should inspire and inform future research on quality of democracy but also future research in reference to knowledge and innovation systems (see also Campbell 2012; Campbell and Carayannis 2014).

In our analysis presented here, quality of democracy should be compared mutually between all member countries to the OECD and all the member countries to the European Union (EU15, EU27),² thus leading to a country-based comparison of democratic quality. Supranational aggregations (like of the whole European Union at the EU level of institutions) or transnational aggregations (global level) shall not be dealt with. The OECD consists primarily of the systems of Western Europe (EU as well as non-EU), North America (USA and Canada), Japan, Australia, and New Zealand. Outside these regions, Israel, Mexico, and Chile are part of the OECD, which highlights the global expansion and reach of OECD. The OECD countries can be *majorly* determined over the following two features: economically as “advanced economies” (IMF 2011, p. 150), and politically, the majority of the OECD countries are determined as “established democracies” or as “Western democracies.” Furthermore, we may also discuss, how relevant the concepts of “advanced societies” and “advanced democracies” are (Carayannis and Campbell 2011, p. 367; also Carayannis and Campbell 2012). However, in this context, it appears more crucial that the OECD countries (again by the majority) can be seen as an empirical manifestation of liberal democracy, as known in the beginning of the twenty-first century. Ludger Helms (2007, p. 18) pointed out: “For a system to be identified as a liberal democracy, or simply as liberal-democratic, liberal as well as democratic elements have to be realized in adequate volumes.”³ Just as decisive is Helms’ (2007, p. 20) statement: “The political systems of Western Europe, North America and Japan examined in this study can be distinguished—despite all the differences—as liberal democracies.” Since the OECD countries are majorly represented by advanced democracies and advanced economies, the OECD countries are very suitable as a Peer Group for the comparisons of different OECD countries, for example, the USA with other OECD countries, in order to carry out a “fair” comparison. For a comparison of the quality of democracy of the USA with other countries (democracies), the “comparative benchmark” must be of the highest possible standard, in order to submit propositions that test the actual quality of a concrete democracy. *Concerning quality of democracy, what can the United States learn from other democracies?* This same question applies also to all the other democracies.

² Most, however not all, member countries of the EU are also member countries to the OECD.

³ Quotes from original sources in German were translated into English by the authors of this analysis.

This emphasis of the OECD comparative assessment of quality of democracy will not be based on a time series pattern; instead it will focus on an indicator-specific system using empirical information available from a more recent year (mostly 2010, referring to data publicly accessible as of early 2012).⁴ A broad spectrum of indicators will be considered for this purpose, which appears to be necessary in order to conclude different (underlying) theories and models about quality of democracy. Follow-up studies will certainly be conceivable to integrate this empirically comparative snapshot of the quality of democracy. As of January 2012, the OECD has over 34 member countries. *These OECD member countries define the primary reference framework for the international comparison in this analysis.* Since not every member state of the current EU27⁵ is a member of the OECD, the decision to include the non-OECD countries of the EU27 countries was made for the country comparison, which therefore results in an expansion of the group of countries to “OECD plus EU27.” These additional countries are Bulgaria, Latvia, Lithuania, Malta, Romania, and Cyprus. In total, our presented country sample for the comparison of quality of democracy consists of 40 countries.

There is naturally not only a single democracy theory (theory about quality of democracy), but the field of democratic theories is rather pluralistic and heterogeneous. Various theories and models co-exist about democracies (Cunningham 2002; Held 2006; Schmidt 2010). Metaphorically, based on these (partly contradictory) different theories, democracy theory could also be constructed as a *meta-theory*. Theoretically, democracy can be understood as *multi-paradigmatic*, meaning that there is not only one (dominant) paradigm for democracy. Therefore, we have to state pluralism, competition, co-existence, and co-development of different theories about democracy. *Our analysis is based on the additional assumption (which does not have to be shared necessarily) that between democracy theory on the one hand and democracy measurement on the other hand, important (also conceptual) cross-references (and linkages) take place. Within this logic, a further development or improvement of the democracy theory demands a systematic attempt of democracy measurement, regardless of how incomplete or problematic an empirical assessment of democracy is.* Just like there is no “perfect” democracy measurement, there is also no “perfect” democracy theory (see for example Campbell and Barth 2009; Lauth et al. 2000; Lauth 2004, 2010, 2011; Munck 2009; Schmidt 2010, pp. 370–398). Theories about the quality of democracy are partly already further developed, than it is often (in popular research) being assumed. One of the most important theory models about the quality of democracy that permits an empirical operationalization comes from O’Donnell (2004a). The field of the quality of democracy is no longer a vague one, especially not for OECD countries⁶.

The further structure of this contribution is divided into the following three sections: in *Conceptualizing Democracy and the Quality of Democracy: Freedom, Equality, Control and Sustainable Development (Model of Quadruple Helix Structures)* section, different conceptualizations of democracy and of quality of democracy are being

⁴ Since our analysis is more explorative in character (wanting to test the design of a developed comparative framework), the year 2010 qualifies as sufficiently recent.

⁵ This reference year of 2012 explains why we did not include Croatia into our analysis. Croatia joined the European Union as late as 2013 (creating by this the EU28).

⁶ For further contextual information, see: Beetham 2004; Cullell et al. 2004; Freedom House 2011d; Kuhn 1962; O’Donnell 2004b; Pelinka & Rosenberger 2003; Rosenberger & Seeber 2008; Schmitter 2004; Umpleby 1990; and Wiener 1948.

presented, followed (in *The Quality of Democracy in Comparative Perspective: A Comparative Empirical View of the OECD Countries (and EU27 Member Countries) Relating to the Dimensions of Freedom, Equality, Control, and Sustainable Development* section) by the concrete empirical comparison of quality of democracy in the OECD countries and the member countries to the European Union. In the conclusion (*Conclusion: Comparative Assessment and First Evaluation of Quality of Democracy in OECD Countries and the EU27 Member Countries* section), we attempt to assess quality of democracy in the USA, based on the formulation of first propositions. Furthermore, the “Quadruple Helix” is being emphasized as an interdisciplinary and trans-disciplinary approach for bringing democracy discourses and innovation discourses closer together.

Conceptualizing Democracy and the Quality of Democracy: Freedom, Equality, Control, and Sustainable Development (Model of Quadruple Helix Structures)

How can democracy and the quality of democracy be conceptualized? Such a (theoretically justified) conceptualization is necessary in order for democracy and the quality of democracy to be subjected to a democracy measurement, *whereby democracy measurement, in this case, can be examined along the lines of the definition of democracy (thus democracy measurement to be utilized to improve the democracy theory)*. Hans-Joachim Lauth (2004, pp. 32–101) suggests in this context a “three-dimensional concept of democracy,” which is composed of the following (conceptual) dimensions: *equality, freedom, and control* (see Figs. 1 and 2).⁷ Lauth (2004: 96) underlines that these dimensions are “sufficient” to obtain a definition of democracy. The term “dimension” offers a conceptual elegance that can be applied “trans-theoretically,” meaning that different theories of democracy may be put in relation and may be mapped comparatively in reference to those dimensions. Metaphorically formulated, dimensions behave like “building blocks” for theories and the continuing development of theory. In the following analysis (see later), we furthermore propose to introduce “sustainable development” as a further basic dimension for democracy and quality of democracy.

Empirically, it should also be added that the traditional public perception of Western Europe indicates that individuals with a more-left political orientation prefer equality, and individuals with a more-right (conservative) political orientation have preferences for freedom (Harding et al. 1986, p. 87). The European left/right axis would translate itself well for the North American contexts by using a liberal/conservative axis (with left=liberal and right=conservative).

With regard to democracy and the quality of democracy, we are confronted with the following point-of-departure question: whether (1) democracy as a key feature or criterion exclusively refers or should refer to the political system or whether (2) democracy should also include social (societal), economic, as well as ecological contexts of the political system. This produces implications on the selection of

⁷ These dimensions we want to interpret as “Basic Dimensions” of democracy and of the quality of democracy.

Basic Dimensions of Democracy and the Quality of Democracy:

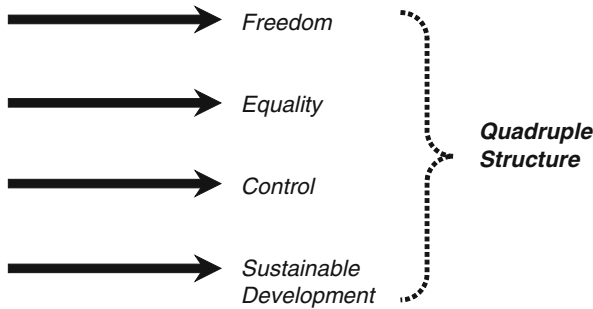


Fig. 1 The basic quadruple-dimensional structure of democracy and the quality of democracy. Source: Authors’ own conceptualization and visualization based on Campbell (2008, p. 32; 2012, p. 296), Campbell and Carayannis (2013a), and for the dimension of “control” on Lauth (2004, pp. 32–101)

indicators to be used for democracy measurement. How “limited” or “broadly” focused should be the definition of democracy? This is also reflected in the *minimalistic* versus *maximalist* democracy theory debate (see, for example, Sodaro 2004, pp. 168, 180, and

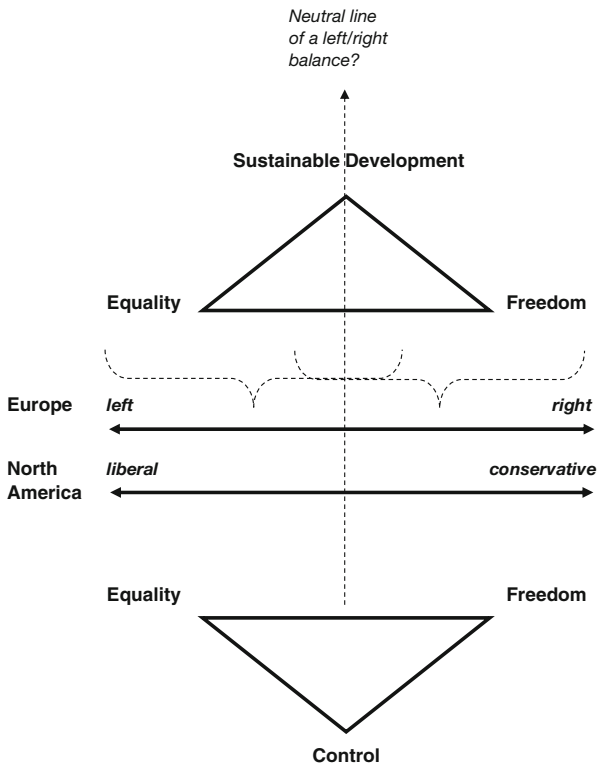


Fig. 2 Dimensions (conceptual dimensions) for the measurement of democracy and the quality of democracy. Source: Authors’ own conceptualization and visualization based on Campbell (2008, p. 32; 2012, p. 296) and (for the *lower triangle*) on Lauth (2004, pp. 32–101)

182). In this regard, various theoretical positions elaborate on this concept. Perhaps, it is (was) from an orthodox point of view of theory to limit democracy to the political system (see the review of Munck 2009, pp. 126–127). More recent approaches are more sensitive for the contexts of the political system, however, still must establish themselves in the political mainstream debates (see, for example, Stoiber 2011). Nevertheless, explicit theoretical examples are emerging for the purpose of incorporation into the democracy models the social (societal), economic, and ecological contexts. The theoretical model of the “Democracy Ranking” is an initiative that represents such an explicit example (Campbell 2008; Campbell et al. 2013). The Democracy Ranking is an international civil society initiative that measures regularly quality of democracy in a global approach and comparison.⁸

Over time, democracy theories are becoming more complex and demanding in nature, regardless, whether the understanding of democracy refers only to the political system or includes also the contexts of the political system. This also reflects on the establishment of democracy models. The most simple democracy model is that of the “electoral democracy” (Helms 2007, p. 19), also known as “voting democracy” (“*Wahldemokratie*”; Campbell and Barth 2009, p. 212). An electoral democracy focuses on the process of elections, highlights the political rights, and refers to providing minimum standards and rights, however, enough to be classified as a democracy. Freedom House (2011a) defines electoral democracy by using the following criteria: “A competitive, multiparty political system”; “Universal adult suffrage for all citizens”; “Regularly contested elections”; and “Significant public access of major political parties to the electorate through the media and through generally open political campaigning.” The next, qualitatively better level of democracy is the so-called liberal democracy. A liberal democracy is characterized by political rights, and more importantly also by civil liberties as well as complex and sophisticated forms of institutionalization. The liberal democracy does not only want to fulfill minimum standards (thresholds) but also aims on ascending to the quality and standards of a developed, hence, an advanced democracy. Every liberal democracy is also an electoral democracy, but not every electoral democracy is automatically a liberal democracy. In this regard, Freedom House (2011a) states: “Freedom House’s term ‘electoral democracy’ differs from ‘liberal democracy’ in that the latter also implies the presence of a substantial array of civil liberties. In the survey, all the ‘Free’ countries qualify as both electoral and liberal democracies. By contrast, some ‘Partly Free’ countries qualify as electoral, but not liberal, democracies.” Asserting different (perhaps ideal-typical) conceptual stages of development for a further quality increasing and progressing of democracy, we may put up for discussion the following stages: *electoral democracy*, *liberal democracy*, and *advanced (liberal) democracy with a high quality of democracy*.

In *Polyarchy*, Robert A. Dahl (1971, pp. 2–9) comes to the conclusion that mostly two dimensions suffice in order to be able to describe the functions of democratic regimes: (1) *contestation* (“public contestation,” “political competition”) as well as (2) *participation* (“participation,” “inclusiveness,” “right to participate in elections and office”).⁹ Also, relevant are Anthony Downs’ eight criteria in *An Economic Theory of Democracy*

⁸ Visit for more detailed information the website of the Democracy Ranking at <http://democracyranking.org/>

⁹ In the Figs. 3 and 4, we propose to interpret these two dimensions, introduced by Dahl, as “Secondary Dimensions” for describing democracy and democracy quality for the objective of measuring democracy.

(1957, pp. 23–24), defining a “democratic government,” but it could be argued that those are affiliated closer with an electoral democracy. In the beginning of the twenty-first century is the conceptual understanding of democracy and the quality of democracy already more differentiated, it can be said that crucial conceptual further developments are in progress. Larry Diamond and Leonardo Morlino (2004, pp. 22–28) have come up with an “eight dimensions of democratic quality” proposal. These include (1) *rule of law*, (2) *participation*, (3) *competition*, (4) *vertical accountability*, (5) *horizontal accountability*, (6) *freedom*, (7) *equality*, and (8) *responsiveness*. Diamond and Morlino (2004, p. 22) further state “The multidimensional nature of our framework, and of the growing number of democracy assessments that are being conducted, implies a pluralist notion of democratic quality.” These eight dimensions distinguish themselves conceptually with regards to procedure, content as well as results as the basis (conceptual quality basis) to be used in differentiating the quality of democracy (see Diamond and Morlino 2004, pp. 21–22, 2005; see also Campbell and Barth 2009, pp. 212–213). The “eight dimensions” of Diamond and Morlino may be interpreted as “Secondary Dimensions” of democracy and the quality of democracy for the purpose of democracy measurement (see Figs. 3 and 4).

“Earlier debates were strongly influenced by a dichotomous understanding that democracies stood in contrast to nondemocracies” (Campbell and Barth 2009, p. 210). However, with the quantitative expansion and spreading of democratic regimes, it is more important to differentiate between the qualities of different democracies.¹⁰ Democracies themselves are subject to further development, which is a continuous process and does not finish upon its establishment. Democracies have to find answers and solutions to new challenges and possible problems. Democracies are in constant need to find and re-invent themselves. Observed over time, different scenarios could take place and could keep a democracy quality going on constantly, and democracy quality could erode, but also improve. *A betterment of the quality of democracy should be the ultimate aim of a democracy. Earlier ideas about an electoral democracy are becoming outdated and will not suffice in today’s era.*

Guillermo O’Donnell (2004a) developed a broad theoretical understanding of democracy and the quality of democracy. In his theoretical approach, quality of democracy develops itself further through an interaction between human development and human rights: “True, in its origin the concept of human development focused mostly on the social and economic context, while the concept of human rights focused mostly on the legal system and on the prevention and redress of state violence” (O’Donnell 2004a, p. 12). The human rights differentiate themselves in civil rights, political rights, and social rights, in which O’Donnell (2004a, p. 47) assumes and adopts the classification of T. H. Marshall (1964). Human development prompts “... what may be, at least, a minimum set of conditions, or capabilities, that enable human beings to function in ways appropriate to their condition as such beings” (O’Donnell 2004a, p. 12), therefore in accordance with human dignity and, moreover, the possibility of participating realistically in political processes within a democracy. O’Donnell also refers directly to the *Human Development Reports* with the *Human Development Index (HDI)* that are being released and published annually by the United Nations Development Program (UNDP).¹¹

¹⁰ According to Freedom House (2011b), in the year 1980, no less than 42.5 % of the world population lived in “not free” political contexts. By 2010, this share dropped to 35.4 %.

¹¹ For a comprehensive web site address for all *Human Development Reports* that is publicly accessible for free downloads, see <http://hdr.undp.org/en/reports/global/hdr2011/>

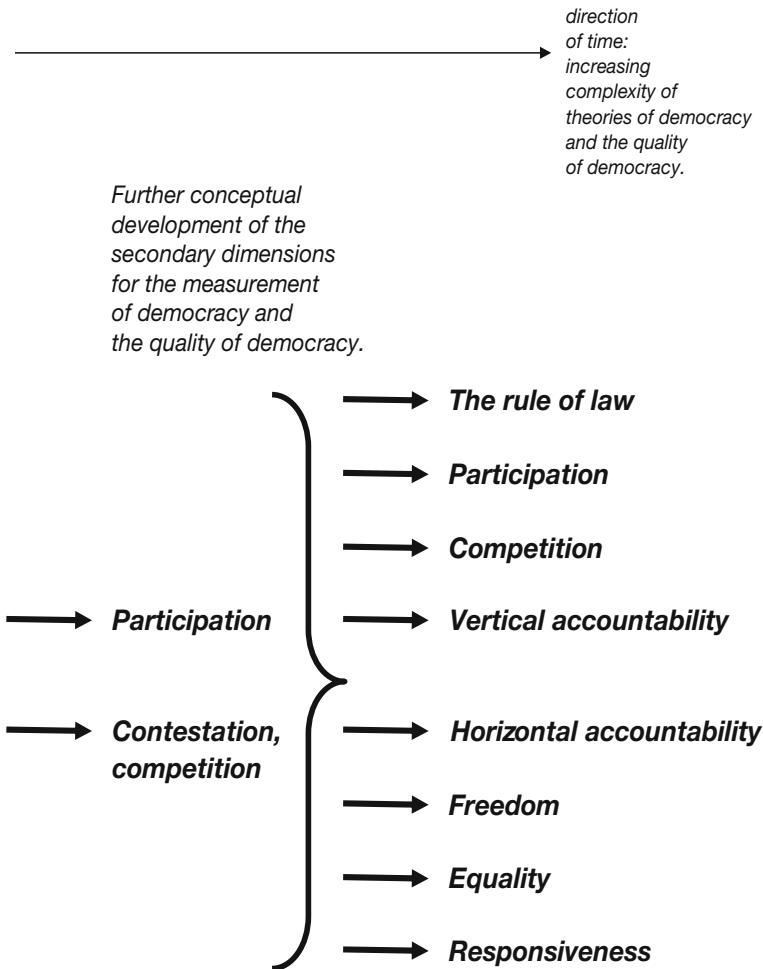


Fig. 3 Dimensions (secondary dimensions) for the measurement of democracy and the quality of democracy (Part A). Source: Authors’ own conceptualization and visualization based on Dahl (1971), Diamond and Morlino (2004, pp. 20–31; 2005) and Campbell (2008, p. 26)

Explicitly, Guillermo O’Donnell (2004a, pp. 11–12) points out: “The concept of human development that has been proposed and widely diffused by UNDP’s *Reports* and the work of Amartya Sen was a reversal of prevailing views about development. ... The concept asks how every individual is doing in relation to the achievement of ‘the most elementary capabilities, such as living a long and healthy life, being knowledgeable, and enjoying a decent standard of living’” (O’Donnell 2004a, pp. 11–12; UNDP 2000, p. 20). *If the implementation of O’Donnell is reflected upon the initial questions asked in this contribution for the conceptualization of democracy and the quality of democracy, it can be interpreted, but also convincingly argued that “sustainable development” can be suggested as an additional dimension (“Basic Dimension”) for democracy, which would be important for the quality of*

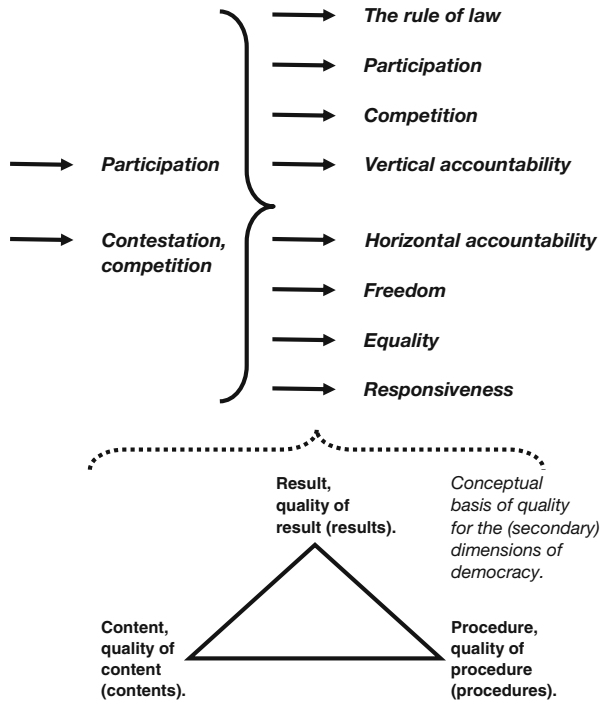


Fig. 4 Dimensions (secondary dimensions) for the measurement of democracy and the quality of democracy (Part B). Source: Authors' own conceptualization and visualization based on Dahl (1971), Diamond and Morlino (2004, pp. 20–31; 2005) and Campbell (2008, p. 26)

democracy in a global perspective.¹² As a result of the distinction between dimensions (basic dimensions) for democracy and the quality of democracy, the following proposition is put up for debate: in addition to the dimensions of *freedom*, *equality*, and *control* as being suggested by Lauth (2004, pp. 32–101), *the dimension of sustainable development should be introduced as a fourth dimension* (see again Fig. 1). Regarding suggestions for defining sustainable development, Verena Winiwarter and Martin Knoll (2007, pp. 306–307) commented: “In the meantime, as described, multiple definitions for sustainability exist. A fundamental distinction within the definition lies in the question whether only the relation of society with nature or if additionally social and economic factors should be considered.”

There are different theories, conceptual approaches, and models for knowledge production and innovation systems. In the Triple Helix model of innovation, Etzkowitz and Leydesdorff (2000, p. 112) developed a conceptual architecture for innovation, where they tie together the three helices of academia (higher education), industry (business), and state (government). This conceptual approach was extended by Carayannis and Campbell (2009, 2012, p. 14) in the so-called

¹² For a systematic attempt of empirical assessment on possible linkages between democracy and development, see Przeworski et al. (2003).

Quadruple Helix model of innovation systems by adding as a fourth helix the “media-based and culture-based public,” “civil society,” and “arts, artistic research, and arts-based innovation” (Carayannis and Campbell 2014, pp. 6, 15; Carayannis and Campbell 2015, pp. 41–42; Bast, Carayannis and Campbell 2015). *The Quadruple Helix, therefore, is broader than the Triple Helix, and contextualizes the Triple Helix, by interpreting Triple Helix as a core model that is being embedded in and by the more comprehensive Quadruple Helix. Furthermore, the next-stage model of the Quintuple Helix model of innovation contextualizes the Quadruple Helix, by bringing in a further new perspective by adding additionally the “natural environment” (natural environments) of society.* The Quintuple Helix represents a “five-helix model,” “where the environment or the natural environments represent the fifth helix” (Carayannis and Campbell 2010, p. 61). In trying to emphasize, compare, and contrast the focuses of those different Helix innovation models, we can assert that the Triple Helix concentrates on the knowledge economy, the Quadruple Helix on knowledge society and knowledge democracy, while the Quintuple Helix refers to socioecological transitions and the natural environments (Carayannis et al. 2012, p. 4; see also Carayannis and Campbell 2011). *For explaining and comparing democracy and the quality of democracy, we propose a “Quadruple-dimensional structure” of four different “basic dimensions” of democracy that are being called freedom, equality, control, and sustainable development* (Fig. 1 offers a visualization on these). Here, we actually may draw a line of comparison between concepts and models in the theorizing on democracy and democracy quality and the theorizing on knowledge production and innovation systems. This also opens up a window of opportunity for an interdisciplinary and trans-disciplinary approaching of democracy as well as of knowledge production and innovation. *In conceptual terms, the Quadruple-dimensional structure of democracy could also be re-arranged (re-architected) in reference to helices, by this creating a “Model of Quadruple Helix Structures” for democracy and the quality of democracy.* The metaphor and visualization in reference to terms of *helices* emphasizes the fluid and dynamic interaction, overlap and co-evolution of the individual dimensions of democracy. As basic dimensions for democracy, we propose (proposed) to identify freedom, equality, control, and sustainable development. Figure 5 introduces a possible visualization from a helix perspective for a theoretical framing of democracy.

As already being mentioned, equality is often associated closer with left-wing political positions and freedom with right-wing positions. *A measure of performance of political and non-political dimensions in relation to sustainable development has the advantage (especially in the case where sustainable development is understood comprehensively) that this procedure is mostly (often) left/right neutral. Such a measure of performance as a basis of the assessment of democracy and quality of democracy offers an additional reference point (“meta-reference point”) outside of usual ideologically-based conflict positions* (Campbell 2008, pp. 30–32). It can be argued in a similar manner that the dimension of control mentioned by Lauth (2004, pp. 77–96) positions itself as left-right neutral as well. The definition developed by the “Democracy Ranking” for the quality of democracy is “Quality of Democracy=(freedom and other characteristics of the political system) and (performance on the nonpolitical dimensions).” *The definition is interpreted as a further empirical operationalization step and as a practical application for the measurement of democracy and the quality of*

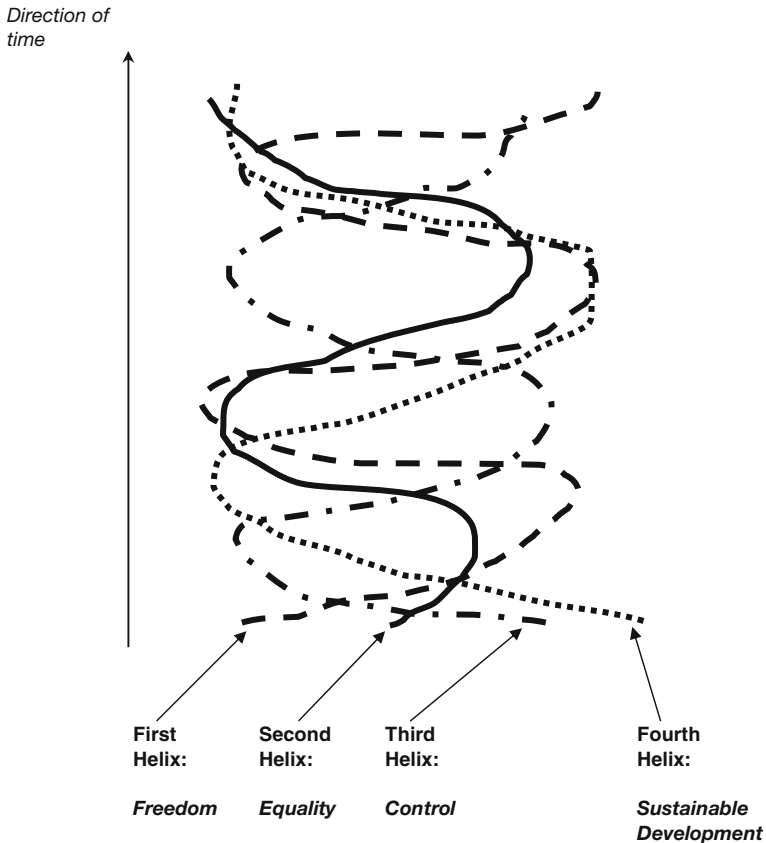


Fig. 5 The quadruple helix structure of the basic dimensions of democracy and the quality of democracy. Source: Authors' own conceptualization based on Etzkowitz and Leydesdorff (2000, p. 112), Carayannis and Campbell (2012, p. 14), Danilda et al. (2009), Campbell (2008, p. 32) and for the dimension of "control" on Lauth (2004, pp. 32–101)

democracy respectively which is based on the theory about the quality of democracy by Guillermo O'Donnell. However, the conceptual democracy formula of the Democracy Ranking has been developed independently (Campbell and Sükösd 2002).

There exist several global initiatives that commit themselves to a regular empirical democracy measurement.¹³ The works of Freedom House (see, for example, Gastil 1993) and of the Democracy Ranking shall be elaborated in more detail during the analysis of the quality of democracy in the USA and in Austria. Other initiatives (without claiming entirety) include Vanhanen's Index of Democracy¹⁴ (Vanhanen 2000), Polity IV¹⁵, Democracy Index¹⁶ (EIU 2010), and the Democracy Barometer¹⁷ (Bühlmann et al. 2011)

¹³ It cannot be convincingly argued that there are no data or indicators for a comparative measurement of democracy (at least in the recent years). Of course, there can and should be discussions about the quality of these data and their cross-references to theory of democracy.

¹⁴ See <http://www.prio.no/CSCW/Datasets/Governance/Vanhanens-index-of-democracy>

¹⁵ See <http://www.systemicpeace.org/polity/polity4.htm>

¹⁶ See http://www.eiu.com/public/topical_report.aspx?campaignid=demo2010

¹⁷ See <http://www.democracybarometer.org/>

(for a comparison of different initiatives, see Pickel and Pickel 2006, pp. 151–277, and Campbell and Barth 2009, pp. 214–218). The Democracy Barometer provides a “Concept Tree” (“*Konzeptbaum*”) for the quality of democracy which also consists of the three dimensions of freedom, control, and equality: “The Democracy Barometer assumes that democracy is guaranteed by the three principles of Freedom, Control, and Equality”.¹⁸ A strong resemblance with the three (basic) dimensions of democracy by Lauth (2004, pp. 32–101) is evident in which the talk is also about equality, freedom, and control (Fig. 1).

The *International Institute for Democracy and Electoral Assistance* (International IDEA),¹⁹ established in Stockholm, Sweden, dedicated itself to the approach of the *Democratic Audit* by assessing the quality of democracy. IDEA uses its own *State of Democracy (SoD) Assessment Framework* for this purpose which is built on the following two principles: “popular control over public decision-making and decision-makers” and “equality of respect and voice between citizens in the exercise of that control” (IDEA 2008, p. 23). This framework is understood as a further level of operationalization for the democracy assessment of such concepts developed by David Beetham. Beetham (1994, p. 30) argues that a “complete democratic audit” has to cover the following areas: “free and fair elections,” “civil and political rights,” “a democratic society,” and “open and accountable government.” Beetham has been successively involved in various Democratic Audit Processes in the UK (see, for example, Beetham et al. 2002), and moreover (at least for the further conceptual development), he is also committed with IDEA (see again IDEA 2008). The Assessment Framework of IDEA for democracy evaluation has been applied to 21 countries since 2000, however excluding Austria, Germany, and Switzerland.²⁰

Besides those more globally reaching initiatives of a comparative assessment of quality of democracy, other studies prefer focusing on the democracy of a particular country. For example, Austria represents the type of an advanced small-sized country democracy in Europe, also being a member country to the European Union. To summarize the current status of research and studies regarding the quality of democracy in Austria, the mid-1990s provide a useful starting point. The “*Die Qualität der österreichischen Demokratie*” (*Quality of Democracy in Austria*, by Campbell et al. 1996) represented the first attempt to analyze the Austrian quality of democracy, at least from an academic (and sciences-based) point of view. The next, once again systematic approach of evaluation of the Austrian quality of democracy took place in the “*Demokratiequalität in Österreich*” (*Quality of Democracy in Austria*, by Campbell and Schaller 2002).²¹ In an exclusive chapter contribution from this volume, an attempt was made to understand or to position the quality of democracy of Austria interactively between basic rights or human rights (“*Grundrechten*”)²² on one hand and power-balancing structures (“*Macht-ausbalancierenden Strukturen*”)²³ on the other (Campbell

¹⁸ The original quote in German is “Das Democracy Barometer geht davon aus, dass Demokratie durch die drei Prinzipien Freiheit, Kontrolle und Gleichheit sichergestellt wird.” See http://www.democracybarometer.org/concept_de.html

¹⁹ See <http://www.idea.int/>

²⁰ For an overview, see <http://www.idea.int/sod/worldwide/reports.cfm>

²¹ In the meantime, this book already can be downloaded for free as a whole and complete PDF from the web. Visit the following link: <http://www.ssoar.info/ssoar/View/?resid=12473>

²² “*Grundrechte*” here may be interpreted as *human rights* as they are being proposed by Guillermo O’Donnell (2004a, pp. 12, 47).

²³ In reference to the already mentioned basic dimensions of democracy and the quality of democracy, the power-balancing structures (“*Macht-ausbalancierenden Strukturen*” or “*Macht-ausgleichenden Strukturen*”) may be aligned to the dimension of control (see Lauth 2004, pp. 77–96).

2002, p. 19). Later studies have already started preferring a comparative approach (see Beck and Schaller 2003; Fröschl et al. 2008; Barth 2010, 2011; Campbell 2012).

The Quality of Democracy in Comparative Perspective: a Comparative Empirical View of the OECD Countries (and EU27 Member Countries) Relating to the Dimensions of Freedom, Equality, Control, and Sustainable Development

The following session validates the quality of democracy in the OECD (EU27) countries through empirical indicators by providing a comparative approach and analysis in order to create a platform to discuss the propositions for assessing and analyzing quality of democracy (as is being finally attempted in [Conclusion: Comparative Assessment and First Evaluation of Quality of Democracy in OECD Countries and the EU27 Member Countries](#) section). Assessment, even more importantly *evaluation*, is being used here less to provide factual statements, but rather more as a stimulant for discussion and to search for possibilities to improve democracy. Evaluation is therefore meant to provoke *democracy learning* (“*Demokratielernen*”). The benchmark for comparison covers all the member states of the OECD, complemented by the remaining member states of the EU27. The chosen time frame is always the last year with available data information (as of early 2012), usually extracted from the year 2010.²⁴ Only available indicators were used and no new indicators were created. *This emphasized and emphasizes to refer to already existing knowledge.* Indicators being used are from such institutions (organizations) that have a relatively “impartial” (“nonpartisan”) reputation, but also reflect a certain consensual “mainstream” point of view. Possible critical findings weigh even more for this particular reason. That should also underline that the OECD countries have been well documented regarding indicators over a longer period of time (which does not deny the need for new and even better indicators). *In order to support a comparative analysis and view, all the indicators have been re-scaled on a rating spectrum from 0 to 100, in which “0” indicates the worst possible (theoretically and/or empirically) and “100” the best empirical value of measurement for the interpretation of democracy and quality of democracy (in the specific context of our forty-country-sample here).*²⁵ Results of that re-scaling are being represented in Table 1. Data in Table 2 are arranged somewhat differently: there, the highest observed empirical value still is 100; “0”, however, is not the lowest possible value, but the lowest empirically observed value.²⁶ Mean values in Tables 1 and 2 are not weighted by population. Concerning acronyms, being used in Tables 1 and 2, see the explanation in the attached footnote.²⁷ The comparison is based on a total of 11 indicators, in which the majority (more or less) fits nicely or at least convincingly into the four identified (basic) dimensions of democracy (see Fig. 1 in [Conceptualizing Democracy and the Quality of Democracy: Freedom,](#)

²⁴ Partially, in Tables 1 and 2, we had to estimate, to which calendar year a specific index year referred to.

²⁵ For the process of re-scaling the freedom of press and the Gini coefficient, we therefore had to shift reversely the value direction of the primary data, to make values (data) compatible with the other indicators.

²⁶ Therefore, put in contrast, a comparison of the indicators in Table 1 and 2 should allow for a better and more nuanced interpretation of the different countries and their quality of democracy (OECD, EU27).

²⁷ Acronyms in Tables 1 and 2 have the following meaning: US = United States and UK = United Kingdom.

Table 1 Quality of democracy of the OECD (EU27) countries in comparison (part A)

	Political rights (2010)	Civil liberties (2010)	Freedom of press (2010)	Economic freedom (2010)	Gender equality (2010)	Income equality (2009)	Corruption perceptions index (2010)	Human development index (2010)	Democracy ranking (2009–2010)	Migrant integration policy index (2010)	MIPEX: access to nationality (2010)
Australia	97.50	95.00	87.78	100.00	85.30	86.91	93.54	98.50	90.02	81.93	93.90
Austria	97.50	96.67	87.78	87.15	83.81	96.73	84.93	93.78	90.48	50.60	26.82
Belgium	97.50	96.67	97.78	85.09	88.15	96.99	76.32	93.89	90.25	80.72	84.14
Bulgaria	87.50	78.33	72.22	78.66	81.70		38.64	81.56	72.25	49.39	29.26
Canada	100.00	98.33	90.00	97.94	86.68	88.48	95.69	96.25	90.37	86.75	90.24
Czech Republic	95.00	95.00	90.00	85.33	79.35	97.38	49.41	91.64	80.39	55.42	40.24
Chile	97.50	96.67	78.89	93.82	82.21	66.23	77.40	85.21	81.31		
Cyprus	95.00	93.33	86.67	88.85	76.71		67.71	88.96	80.62	42.16	39.02
Denmark	100.00	95.00	96.67	95.27	91.08	98.43	100.00	94.86	94.61	63.85	40.24
Estonia	97.50	93.33	91.11	91.15	81.65	89.66	69.86	88.42	81.54	55.42	19.50
Finland	100.00	100.00	100.00	89.70	98.26	96.99	98.92	93.46	97.25	83.13	69.51
France	95.00	95.00	85.56	78.30	82.06	92.54	73.09	93.68	86.24	61.44	71.95
Germany	97.50	95.00	92.22	87.03	88.85	92.28	84.93	95.93	91.63	68.67	71.95
Greece	90.00	83.33	77.78	73.09	80.85	90.71	37.57	91.21	78.90	59.03	69.51
Hungary	92.50	88.33	77.78	80.72	77.60	95.29	50.48	86.39	77.29	54.21	37.80
Iceland	100.00	98.33	97.78	82.66	100.00	91.49	91.39	95.18			
Ireland	97.50	96.67	93.33	95.39	91.70	92.54	86.01	96.25	91.74	59.03	70.73
Israel	90.00	78.33	78.89	83.03	80.97	82.33	65.55	94.11	82.45		
Italy	92.50	86.66	73.33	73.09	79.43	86.78	41.87	92.60	80.28	72.29	76.83
Japan	92.50	85.00	87.78	88.24	76.09	87.83	83.85	95.50	83.83	45.78	40.24
Korea	90.00	83.33	75.56	84.60	73.32	89.66	58.02	95.07	79.36		
Latvia	82.50	86.66	82.22	79.76	86.58		46.18	85.21	77.64	37.34	18.28

Table 1 (continued)

	Political rights (2010)	Civil liberties (2010)	Freedom of press (2010)	Economic freedom (2010)	Gender equality (2010)	Income equality (2009)	Corruption perceptions index (2010)	Human development index (2010)	Democracy ranking (2009–2010)	Migrant integration policy index (2010)	MIPEX: access to nationality (2010)
Lithuania	92.50	88.33	86.67	86.42	83.40		53.71	85.74	79.70	48.19	24.38
Luxembourg	100.00	100.00	97.78	92.36	84.41	93.19	91.39	91.85		71.08	80.49
Malta	97.50	96.67	86.67	79.63	77.79		60.17	88.10		44.57	31.70
Mexico	72.49	61.66	42.22	82.18	77.15	68.59	33.26	81.46	63.88		
Netherlands	100.00	96.67	95.56	90.54	87.43	92.41	94.62	96.46	93.58	81.93	80.49
New Zealand	97.50	96.67	94.44	99.76	91.46	87.70	100.00	96.25	93.92		
Norway	100.00	100.00	98.89	85.21	98.51	98.17	92.47	100.00	100.00	79.52	49.99
Poland	95.00	91.67	83.33	77.69	82.30	90.97	56.94	86.07	79.70	50.60	42.68
Portugal	97.50	96.67	92.22	77.57	83.56	84.69	64.48	85.64	85.67	95.18	100.00
Romania	85.00	81.66	64.44	78.42	79.62		39.72	82.64	71.56	54.21	35.36
Slovak Republic	92.50	88.33	86.67	84.24	79.44	97.25	46.18	88.32	76.95	43.37	32.92
Slovenia	95.00	88.33	83.33	78.30	82.34	100.00	68.78	93.68	85.09	59.03	40.24
Spain	100.00	95.00	85.56	85.09	88.73	89.40	65.55	93.03	87.84	75.90	47.55
Sweden	100.00	100.00	98.89	87.15	94.23	96.99	98.92	95.82	98.85	100.00	96.34
Switzerland	97.50	95.00	96.67	99.27	89.29	91.23	93.54	95.71	96.56	51.80	43.90
Turkey	67.49	59.99	51.11	77.82	69.44	77.36	47.26	73.85	58.94		
U.S.	95.00	93.33	92.22	94.30	86.74	81.41	76.32	96.46	89.45	74.70	74.39
UK	100.00	95.00	90.00	90.30	87.33	85.73	81.70	91.43	90.48	68.67	71.95
Mean (unweighted)	94.25	91.00	85.69	86.13	84.39	89.83	70.91	91.25	84.61	63.81	55.83

Source: Authors' own re-scaling based on original sources (see text for source citation)

Scale range 0–100, 0=lowest possible (theoretical and/or empirical) value, 100=highest empirical value (per indicator)

Table 2 Quality of democracy of the OECD (EU27) countries in comparison (part B)

	Political rights (2010)	Civil liberties (2010)	Freedom of press (2010)	Economic freedom (2010)	Gender equality (2010)	Income equality (2009)	Corruption perceptions Index (2010)	Human development Index (2010)	Democracy ranking (2009–2010)	Migrant integration policy Index (2010)	MIPEX: access to nationality (2010)
Australia	92.31	87.50	78.85	100.00	51.90	61.24	90.32	94.26	75.70	71.15	92.54
Austria	92.31	91.67	78.85	52.25	47.01	90.31	77.42	76.23	76.82	21.15	10.45
Belgium	92.31	91.67	96.15	44.59	61.22	91.09	64.52	76.64	76.26	69.23	80.60
Bulgaria	61.54	45.83	51.92	20.72	40.10		8.06	29.51	32.40	19.23	13.43
Canada	100.00	95.83	82.69	92.34	56.41	65.89	93.55	85.66	76.54	78.85	88.06
Czech Republic	84.62	87.50	82.69	45.50	32.41	92.25	24.19	68.03	52.23	28.85	26.87
Chile	92.31	91.67	63.46	77.03	41.77	0.00	66.13	43.44	54.47		
Cyprus	84.62	83.33	76.92	58.56	23.80		51.61	57.79	52.79	7.69	25.37
Denmark	100.00	87.50	94.23	82.43	70.81	95.35	100.00	80.33	86.87	42.31	26.87
Estonia	92.31	83.33	84.62	67.12	39.95	69.38	54.84	55.74	55.03	28.85	1.49
Finland	100.00	100.00	100.00	61.71	94.29	91.09	98.39	75.00	93.30	73.08	62.69
France	84.62	87.50	75.00	19.37	41.30	77.91	59.68	75.82	66.48	38.46	65.67
Germany	92.31	87.50	86.54	51.80	63.51	77.13	77.42	84.43	79.61	50.00	65.67
Greece	69.23	58.33	61.54	0.00	37.34	72.48	6.45	66.39	48.60	34.62	62.69
Hungary	76.92	70.83	61.54	28.38	26.71	86.05	25.81	47.95	44.69	26.92	23.88
Iceland	100.00	95.83	96.15	35.59	100.00	74.81	87.10	81.56			
Ireland	92.31	91.67	88.46	82.88	72.83	77.91	79.03	85.66	79.89	34.62	64.18
Israel	69.23	45.83	63.46	36.94	37.73	47.67	48.39	77.46	57.26		
Italy	76.92	66.67	53.85	0.00	32.69	60.85	12.90	71.72	51.96	55.77	71.64
Japan	76.92	62.50	78.85	56.31	21.74	63.95	75.81	82.79	60.61	13.46	26.87
Korea	69.23	58.33	57.69	42.79	12.69	69.38	37.10	81.15	49.72		
Latvia	46.15	66.67	69.23	24.77	56.09		19.35	43.44	45.53	0.00	0.00

Table 2 (continued)

	Political rights (2010)	Civil liberties (2010)	Freedom of press (2010)	Economic freedom (2010)	Gender equality (2010)	Income equality (2009)	Corruption perceptions Index (2010)	Human development Index (2010)	Democracy ranking (2009–2010)	Migrant integration policy Index (2010)	MIPEx: access to nationality (2010)
Lithuania	76.92	70.83	76.92	49.55	45.69		30.65	45.49	50.56	17.31	7.46
Luxembourg	100.00	100.00	96.15	71.62	48.99	79.84	87.10	68.85		53.85	76.12
Malta	92.31	91.67	76.92	24.32	27.33		40.32	54.51		11.54	16.42
Mexico	15.38	4.17	0.00	33.78	25.23	6.98	0.00	29.10	12.01		
Netherlands	100.00	91.67	92.31	64.86	58.85	77.52	91.94	86.48	84.36	71.15	76.12
New Zealand	92.31	91.67	90.38	99.10	72.05	63.57	100.00	85.66	85.20		
Norway	100.00	100.00	98.08	45.05	95.11	94.57	88.71	100.00	100.00	67.31	38.81
Poland	84.62	79.17	71.15	17.12	42.08	73.26	35.48	46.72	50.56	21.15	29.85
Portugal	92.31	91.67	86.54	16.67	46.20	54.65	46.77	45.08	65.08	92.31	100.00
Romania	53.85	54.17	38.46	19.82	33.31		9.68	33.61	30.73	26.92	20.90
Slovak Republic	76.92	70.83	76.92	41.44	32.73	91.86	19.35	55.33	43.85	9.62	17.91
Slovenia	84.62	70.83	71.15	19.37	42.20	100.00	53.23	75.82	63.69	34.62	26.87
Spain	100.00	87.50	75.00	44.59	63.12	68.60	48.39	73.36	70.39	61.54	35.82
Sweden	100.00	100.00	98.08	52.25	81.13	91.09	98.39	84.02	97.21	100.00	95.52
Switzerland	92.31	87.50	94.23	97.30	64.95	74.03	90.32	83.61	91.62	31.34	31.34
Turkey	0.00	0.00	15.38	17.57	0.00	32.95	20.97	0.00	0.00		
U.S.	84.62	83.3	86.54	78.83	56.60	44.96	64.52	86.48	74.30	59.62	68.66
UK	100.00	87.50	82.69	63.96	58.54	57.75	72.58	67.21	76.82	50.00	65.67
Mean (unweighted)	82.31	77.50	75.24	48.46	48.91	69.89	56.41	66.56	62.52	42.25	45.95

Source: Authors' own re-scaling based on original sources (see text for source citation)

Scale range 0–100, 0=lowest empirical value, 100=highest empirical value (per indicator)

Equality, Control, and Sustainable Development (Model of Quadruple Helix Structures) section). Such a broad indicator spectrum is used for an attempt “to determine a multilayered quality profile of democracies” and could thus help, as put up for discussion by Hans-Joachim Lauth (2011, p. 49), to develop “qualitative or complex approaches for democracy measurement.” In the subsequent Tables 1 and 2, the empirical results are provided and in what follows, the exact sources of indicators are being displayed and presented:

1. *The dimension of freedom:* For this, *political rights*, *civil liberties*, and *freedom of press* are used as indicators as drawn up yearly by the Freedom House (2011c, d). Civil liberties play an important role, as they help allocate systems between primary *electoral democracies* and *liberal democracies* (with a higher quality of democracy). For political rights and civil liberties, the differentiated “aggregate and subcategory scores” are accessed. In some cases, controversial discussions take place concerning the reliability of Freedom House. But, it appears that the methodology being used by Freedom House in the previous years has improved and Freedom House operates through a peer-review-process that corresponds to the basic academic standards (Freedom House 2011a). Also, the Freedom House data related to OECD countries are less problematic than the data available regarding non-OECD countries. Moreover, Freedom House rates freedom in multiple countries as higher than that prevailing in the USA itself (see also the discussion by Pickel and Pickel 2006, p. 221). Additionally, data from the *Index of Economic Freedom* have been added (Heritage Foundation 2011). Regarding economic freedom, there appears to be a conflict or dilemma whether this should influence an evaluation measure (of freedom) of the quality of democracy.
2. *The dimension of equality:* The choice rests on two indicators in this case. Regarding gender equality, the *Global Gender Gap Index* is referred to, as is being published annually by the World Economic Forum (Hausmann et al. 2011). As a comprehensive measure for gender equality, it covers the following areas: “economic participation and opportunity,” “educational attainment,” “health and survival,” and “political empowerment.” With respect to income equality, the *Social and Welfare Statistics* of the OECD (2011) are used for reference. Concerning distribution of income, we decided to employ the “Gini coefficient” for the total population (“after taxes and transfers”, as the respective OECD source indicates; OECD 2011).²⁸ The Gini coefficient is also known as the “Gini index.”
3. *The dimension of control:* The *Corruption Perceptions Index* (CPI) is used in this regard, which is published yearly by Transparency International (TI 2011). The CPI aggregates different opinion surveys and ranks countries according to the perceived level of corruption in a country. Corruption is (indirectly) used as an interpretation tool to measure the extent as to which the dimension of control is functioning (or not). The higher the values (data) for the Corruption Perceptions Index in the Tables 1 and 2, the lower are the levels of perceived corruption.

²⁸ Concerning the Gini coefficient (re-scaled as income equality) in the Tables 1 and 2, we interpreted 2009 as the approximate year of reference for the calendar year. The OECD online data base (OECD 2011) speaks in this respect of the “Late 2000s.”

4. *The dimension of sustainable development*: The first choice rests on the *Human Development Index* (HDI), which is published regularly by the United Nations Organization (UNDP 2011). The HDI is calculated using the following dimensions: “long and healthy life,” “knowledge,” and “a decent standard of living.” The HDI therefore measures *human development*, which is one of the two basic principles that combine together with *human rights* to provide and explain the theoretical foundation and theoretical architecture of Guillermo O’Donnell (2004a) regarding the quality of democracy. As a second indicator, the aggregated “total scores” of the Democracy Ranking (2011) are considered. The *Democracy Ranking 2011* calculates the average means for the years 2009–2010 and aggregates the different dimensions in the following way (Campbell 2008, p. 34): *politics* 50, and 10 % each for *gender, economy, knowledge, health, and environment*.²⁹ Thereby, the Democracy Ranking defines and analyses sustainable development even more comprehensively than the Human Development Index (HDI). The “...*Democracy Ranking displays what happens when the freedom ratings of Freedom House and the Human Development Index of the United Nations Development Program are being pooled together into a comprehensive picture*” (Campbell 2011, p. 3).
5. *Other indicators*: Two indicators of the *Migrant Integration Policy Index* (MIPEX) are adopted in comparing the quality of democracy (Huddleston et al. 2011): The “overall score (with education)” as well as the “access to nationality.” This index therefore measures the integration of immigrants and non-citizens respectively in a society and democracy. At first glance, it is not completely clear in which aforementioned dimensions (freedom, equality, control, and sustainable development) should the MIPEX be allocated. The possibility of multiple allocations is conceivable.

Conclusion: Comparative Assessment and First Evaluation of Quality of Democracy in OECD Countries and the EU27 Member Countries

The following two research questions governed the analytical procedure of this article: (1) to develop (in fact to proto-type) a conceptual framework of analysis for a global comparison of quality of democracy. This framework will also reference to the concept of the Quadruple Helix innovation systems; (2) in a second step, to use and to test this same conceptual framework for a comparative measurement of quality of democracy in the different OECD and EU27 member countries. *In theoretical and conceptual terms, we referred to a Quadruple-Dimensional structure, also a Quadruple Helix structure (a “Model of Quadruple Helix Structures”) of the four basic dimensions of freedom, equality, control, and sustainable development, for explaining and comparing democracy and the quality of democracy.*

What comes to mind, when looking at quality of democracy in reference to OECD and EU member countries, is the comparatively high ranking and positioning of the Nordic countries in Europe, particularly Norway, Sweden, Finland, and Denmark.³⁰ Also,

²⁹ See also <http://www.democracyranking.org/en/>

³⁰ See also on the web the newest and most recent scores of the Democracy Ranking 2014: http://democracyranking.org/?page_id=828

Switzerland places very high. The Nordic countries and Switzerland are also a good example for sustainable development, because they achieved and realized a development across different dimensions and indicators, so their progress is well balanced. Of course, from a philosophical perspective, we always could speculate “how high is the high” of quality of democracy in the Nordic countries and in Switzerland from a “really timeless viewpoint.” But, in “relative” empirical terms, no country or no democracy places higher than the Nordic countries and Switzerland (so far). So, they define a practical and pragmatic benchmark for quality of democracy that already is accomplishable by countries. “The Nordic democracies (and Switzerland) demonstrate in empirical terms and in practice, which degrees and levels of a quality of democracy already can be achieved at the beginning of the twenty-first century” (Campbell 2011, p. 6).

In the following, we provide a first assessment for the quality of democracy in the USA, based on the empirical data that is strictly and consistently comparative in nature and character, and put forward first propositions.³¹ For the comparative assessment of the quality of democracy in the USA, we can formulate the following tentative propositions. The USA ranks highest on the HDI (dimension of sustainable development) and on political rights, economic freedom, civil liberties, and freedom of press (all dimension of freedom).³² Concerning the dimension of equality, the scoring of the United States is not that good anymore. With regard to gender equality, the U.S. positions itself slightly above OECD average, but concerning income equality, the USA performs clearly below OECD average. Concerning the perceived corruption, we already asserted that this indicator could be assigned to the dimension of control. In reference to the Corruption Perceptions Index, the USA scores higher (meaning to have less perceived corruption) than the OECD average, but behind several of the more developed OECD countries.³³ Concerning the data of the Democracy Ranking 2011 (dimension of sustainable development), the USA performs clearly above the OECD average.³⁴ On the Migrant Integration Policy Index (MIPEX), the USA also scores above OECD average.³⁵ *Put in summary, we may conclude that the comparative strengths of the quality of democracy in the USA focus on the dimension of freedom and on the dimension of sustainable development. Further containment of corruption marks potentially a sensitive area and issue for the USA. The comparative weakness of the quality of American democracy lies in the dimension of equality, most importantly income equality. Income inequality defines and represents a major challenge and concern for democracy in the USA.*

A different approach is to compare democracy in the USA (“American democracy”) not only with other individual (European) countries, but with larger political-spatial entities, for example an indicator-based aggregation of all of the member countries to the European Union (EU27), creating or approximating by this a version of “European democracy”.³⁶ For this particular comparison, we can propose a series of different

³¹ We will also add a few comments on quality of democracy in Austria.

³² Interestingly, with regard to political rights and civil liberties, the USA ranks behind Austria.

³³ Levels of corruption are being perceived to be higher in the USA than in Austria.

³⁴ In the Democracy Ranking 2011, Austrian democracy scores higher than the USA.

³⁵ On migrant integration policy, Austria scores dramatically lower than the USA.

³⁶ Thought about this from a different angle, it also would be possible to compare the different (50) states of the USA individually with the different (national) member countries to the European Union. In that sense, the whole USA also resembles an “aggregation”; therefore, it makes additional sense to compare the USA with an aggregation of the EU member countries.

propositions, it appears that US democracy is leading with regard to freedom, and European democracy with regard to equality. While results for political freedom and gender equality are more mixed, the results for economic freedom and income equality are clearly more evident. In terms of economic freedom, the USA is ahead of (aggregated) Europe, and in terms of income equality, (aggregated) Europe is ahead of the USA (Campbell 2013).³⁷ *Does this mean that American democracy has specialized more on realizing freedom, while European democracy (despite national variations) places a greater emphasis on equality?*³⁸ *Within the international system of global democracy, different democracies may have placed a different emphasis on different dimensions of quality of democracy, producing perhaps complementary effects for the overall world-wide further development of democracy.* What is more important for democracy and quality of democracy, freedom, or equality? Again in the long run, obviously, both dimensions, freedom and equality, matter, particularly for contributing to the perspective (dimension) of sustainable development. These differences in American and European democracy also stress the opportunity, but also the real need of democracies, to learn mutually from each other (also as an expression of advanced political culture).³⁹

The following final propositions (in context of our current analysis here) can be put forward for further discussion for the further development of discourses that are interested to intertwine (“Inter-Helix”) quality of democracy with innovation and innovation systems:

1. *The basic Quadruple-dimensional structure of democracy and quality of democracy:* The Quadruple Helix structure of quality of democracy identifies four basic (conceptual) dimensions for quality of democracy: freedom, equality, control, and sustainable development (Fig. 1). *Particularly sustainable development marks here a new and innovative contribution to theory of democracy.* Sustainable development also helps to avoid that models of measurement of democracy are biased toward a left-leaning or right-leaning ideological pole of political preferences. Sustainable development adds the important contribution of a more “neutral left/right balance” (Fig. 2). *For sustainable development, knowledge and innovation play an important role, thus fostering the coming-together of knowledge society, knowledge economy and knowledge democracy.* Components of knowledge can be research, education, and innovation (Campbell and Carayannis 2013b; Carayannis and Campbell 2012).
2. *Quadruple Helix of quality of democracy and of innovation systems:* Quadruple Helix qualifies as a concept with interdisciplinary and trans-disciplinary capacities and capabilities. Quadruple Helix refers to the basic (conceptual) dimensions of democracy and quality of democracy. Quadruple Helix also represents the

³⁷ On political freedom and income equality, the EU15 is internationally more competitive than the EU27 (Campbell 2013, pp. 336, 340).

³⁸ Does this furthermore mark “archetypical” differences in political philosophy?

³⁹ Focusing more specifically on the situation of Austrian democracy, the following publications deal with quality of Austrian democracy by referring (in greater detail) to a wider spectrum of themes: Beetham 1994; Campbell 2002, pp. 30–31, 39; Campbell 2007, pp. 392–393, 402; Campbell 2011; Campbell 2015; IDEA 2008; Müller and Strøm 2000, p. 589; Pelinka 2008; Poier 2001; Rosenberger 2010; Sickinger 2009; Valchars 2006; Wineroither 2009.

- architecture of Quadruple and Quintuple Helix innovation systems, demonstrating, how knowledge and innovation processes in mature and advanced innovation systems are being progressed. Quadruple Helix fulfills here at least two crucial functions: (a) *Knowledge and innovation are being defined as key for sustainable development and for the further evolution of quality of democracy.* Knowledge and innovation are receiving an additional meaning and importance for democracy and theory of democracy. How to innovate (and re-invent) knowledge democracy? Democracy discourses and innovation discourses develop further in mutual cross-reference. (b) The other crucial function of the Quadruple Helix is that it demonstrates that the context of society and of democracy are important for innovation systems. *The unfolding of an innovative knowledge economy also requires (at least in a longer perspective) the unfolding of a knowledge democracy.* So, there is also a “perspective of democracy” for advancing innovation systems. “Democracy of Knowledge” plays in both ways (Carayannis and Campbell 2012).
3. *There is no Quadruple or Quintuple Helix innovation system without a democracy:* Pre-Quadruple Helix innovation systems (such as the Triple Helix) can be applied in very different political environments. Triple Helix is possible in combination with democratic or non-democratic political regimes. The Quadruple Helix is here more specific and concrete. *The architectures of Quadruple Helix and Quintuple Helix innovation systems demand and require the formation of a democracy, implicating that quality of democracy provides for a nurturing of innovation and innovation system, so that quality of democracy and progress of innovation mutually “Cross-Helix” in a connecting and amplifying mode and manner.* In a win-win scenario, quality of democracy and innovation systems, they both cross-link and co-evolve. “The way how the Quadruple Helix is being engineered, designed, and architected clearly shows that there cannot be a Quadruple Helix innovation system without democracy or a democratic context” (Carayannis and Campbell 2014, p. 19). This relates research on quality of democracy to research on innovation (innovation systems) and knowledge economy.⁴⁰ The one matters for the other. “*Cyber-Democracy*” receives here a new meaning (Campbell and Carayannis 2014).

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⁴⁰ See also forthcoming Carayannis et al. (2017).

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