Scientometrics (2017) 111:1673–1686
DOI 10.1007/s11192-017-2312-3

Profiles of monograph authors in the social sciences and humanities: an analysis of productivity, career stage, co-authorship, disciplinary affiliation and gender, based on a regional bibliographic database

Frederik T. Verleysen[1] · **Truyken L. B. Ossenblok**[1]

Received: 13 September 2016 / Published online: 3 March 2017

Abstract Scholarly monograph authors are compared to other authors, based on bibliographic data registered in the VABB-SHW database from Flanders (Belgium). Monograph authors are found to be most often established male researchers with high productivity, who are relatively less involved in research collaboration (co-authored publications) than are other authors. There exists a clear divergence between most of the individual social science disciplines, where monograph authors make up a marginal share of all authors, and several humanities disciplines where shares are up to one fifth. Relatively more female and non-established authors publish monographs in the humanities compared to the social sciences. A statistical comparison of productivity points to diverging publication patterns in Flemish SSH research: the group of most productive authors counts both monograph authors who also rely on other book publication types, and other authors who publish mostly journal articles.

Keywords Social sciences and humanities · Books · Disciplinary affiliation · Career-stage · Gender · Co-authorship · Productivity

Introduction

In spite of recurrent prophecies during the 1990s of the printed scholarly monograph's imminent demise in the face of technological revolution (Thompson 2002, 2005), over the past 15 years books have remained an essential publication type for many fields in the

✉ Frederik T. Verleysen
Frederik.Verleysen@uantwerpen.be

Truyken L. B. Ossenblok
Truyken.Ossenblok@uantwerpen.be

[1] Centre for R&D Monitoring (ECOOM), Faculty of Social Sciences, University of Antwerp, Middelheimlaan 1, 2020 Antwerp, Belgium

social sciences and humanities (SSH). Previous research has shown the substantial and undiminishing share of book publications in local, regional or national databases, sometimes used in performance-based research funding systems (Engels et al. 2012; Kousha et al. 2011; Puuska 2014; Sivertsen and Larsen 2012), the relatively high and persistent citation impact of books (Gorraiz et al. 2013; Leydesdorff and Felt 2012; Torres-Salinas et al. 2013a, b) and the role that monographs and edited books can play in aspects of collaboration and internationalization of scholarly research (Ossenblok and Engels 2015; Ossenblok et al. 2015; Verleysen and Engels 2014a). Unsurprisingly, the publication of a monograph by an esteemed publisher still carries great prestige within many scholarly academic communities (Giménez-Toledo et al. 2013) and can be decisive in acquiring university tenure in humanities faculties, e.g. in the United States (Cronin and La Barre 2004). Books rather than specialized academic journals also play a translational role in the interaction between academic research and the educational and cultural sectors (Kousha and Thelwall 2015; White et al. 2009) and a still wider readership within society at large (Verleysen and Engels 2014b; Zuccala et al. 2015). Given all this evidence of books' continuing relevance for the SSH, it is not surprising that more and more countries are taking books into account for their own funding and/or evaluation models for academic research (Giménez-Toledo et al. 2016).

While the continuing importance of the monograph for many branches of SSH research and information dissemination seems incontestable, there is still a lack of knowledge on many aspects of the writing, editing and publication of scholarly books. There are already some indications in the literature that the preference of scholars for certain publication types correlates with their experience and seniority as academic researchers. For instance, both monograph and book chapters are published more frequently by senior researchers, especially in the humanities (Díaz-Faes et al. 2015). As knowledge accumulates with time, the further researchers have progressed in their career, the more likely they are to have published a monograph (Cronin and La Barre 2004; OAPEN-UK 2014). By contrast, conference proceedings papers are often authored by junior researchers, as these are likely to use conference presentations to gain academic experience (Puuska 2010).

In this article, we use bibliographic data from a comprehensive regional database in Flanders (Belgium), the Flemish Academic Bibliographic Database for the Social Sciences and Humanities (VABB-SHW), to explore the profile of monograph authors in the SSH. We present an analysis of five key elements: disciplinary affiliation, career stage, gender, co-authorship frequency and productivity. As such, our article can be considered a sibling of the study by Ossenblok et al. (2015) on scholarly academic book editors. By exploring the characteristics of monograph authors in the SSH we aim to contribute to understanding by what type of scholar books in the SSH are written and published.

Data and method

Our analysis is based on the data set used by Ossenblok et al. (2015) for the analysis of academic book editors, comprising the peer reviewed publication output of 8966 social sciences and humanities (SSH)-affiliated authors, working at the five universities in Flanders and registered in the VABB-SHW. Since 2010, the VABB-SHW has been integrated into the performance-based research funding model for the universities in Flanders (Belgium). For an exhaustive account of the VABB-SHW, its procedures, selection

principles and context, we refer to Engels et al. (2012), Verleysen et al. (2014), and Ossenblok (2016).

All authors in the database have at least one peer-reviewed publication in the period 2000–2011, whether a journal article, monograph, edited book chapter or proceedings paper. Publications were weighted using the weights used in the Flemish performance-based funding model, the BOF-key, where articles, book chapters, and edited books receive a weight of 1, monographs one of 4 and proceedings one of 0.5. In addition, all authors were assigned to one of 16 SSH disciplines registered in the VABB-SHW (see also Table 1). All publications in the VABB-SHW are assigned to one or more disciplines, according to the departmental affiliation(s) of their authors or editors at one of the five Flemish universities. Because author affiliation is not directly registered in the VABB-SHW, we assigned authors to a discipline by counting the number of publications by which they are linked to a discipline. When an author name was connected to multiple disciplines, we classified that author under the discipline that occurred most frequently. In 564 cases (6.2%) two disciplines had an equal number of publications for one author, in which case the first discipline according to alphabetical order was chosen (Ossenblok et al. 2015). In addition, the gender of researchers was added to the bibliographic dataset. As the VABB-SHW does not register personal data on authors, the two authors of this paper independently classified all unambiguous first names into males and females. The remaining

Table 1 Number of Flemish SSH researchers, female and male per discipline, with minimum 1 publication in the VABB-SHW (2000–2011)

Discipline	Authors in VABB-SHW				Av # monographs per monograph author
	# total	# monograph authors	% monograph authors	% monograph authors with 1 monograph	
Total	8966	515	6		1.4
Humanities	3951	384	10	80	1.3
Archaeology	172	8	5	75	2.5
Communication studies	249	9	4	89	1.1
History	289	31	11	90	1.1
History of arts	270	14	5	57	1.6
Law	874	62	7	79	1.3
Linguistics	519	76	15	91	1.1
Literature	195	40	21	70	1.4
Philosophy	364	43	12	81	1.3
Theology	213	49	23	65	1.7
Social sciences	5015	131	3	75	1.6
Criminology	198	8	4	63	1.4
Economics	1404	50	4	72	1.9
Educational sciences	509	15	3	73	1.3
Political sciences	312	29	9	66	1.8
Psychology	885	12	1	92	1.1
Social health sciences	1229	8	1	100	1.0
Sociology	341	6	2	83	1.2

researchers, including all author names for which no consensus was found, were looked up on the web pages of their universities, resulting in the identification of gender for an additional 1462 authors. Finally, this paper differentiates between established and non-established researchers, based on a productivity threshold. Established researchers are defined as having a total of 12 whole counted weighted publications or more and at least one publication in a minimum of 6 different years in the period 2000–2011. These heuristics were chosen after inspection of typical properties of authors in the database. The productivity threshold broadly corresponds with that between pre-doctoral and post-doctoral researchers (postdocs and professors) in Flemish SSH. Of course, non-established researchers as well may have a number of publications within up to five years, may have a prolific set of outputs before or after the period analysed, or may have many outputs of a type not recorded in the database (e.g., book reviews).

Our method for analysing the profiles of scholarly monograph authors consists mainly of a contrastive analysis for monograph authors ($n = 515$) and other authors ($n = 8451$) of five elements: disciplinary affiliation, career stage, gender, collaboration (i.e. co-authorship frequency) and productivity. The first four paragraphs of the results section present an analysis of the three nominal variables in our dataset: disciplinary affiliation, career stage and gender. Here, descriptive statistics are used, as well as a Chi square test for measuring the association (Cramér's V for effect size) between the three variables. The last two paragraphs of the results section analyse the two remaining, continuous variables: co-authorship frequency and publication productivity. Given that publication output in our dataset is not normally distributed, differences between monograph authors and other authors for these variables were analysed making use of two non-parametric tests, an independent samples Mann–Whitney *U* test and a Wilcoxon signed rank test.

Results

Disciplinary affiliation

As mentioned in the introduction, the VABB-SHW classifies all SSH authors affiliated with a Flemish university into 16 disciplines, belonging to either the social sciences (SS) or the humanities (H). A first finding (Table 1) is that the number and share of monograph authors varies considerably between disciplines. In the whole dataset there are 515 (6%) monograph authors, or 10% of all authors in the humanities and 3% of those in the social sciences. When looking at the absolute number of monograph authors, shown in Table 1, the three highest scoring disciplines are linguistics (H; $n = 76$), law (H; $n = 62$) and economics (SS; $n = 50$). The lowest scoring are sociology (SS; $n = 6$), archaeology (H; $n = 8$), criminology (SS; $n = 8$), social health sciences (SS; $n = 8$), and communication studies (SS; $n = 9$). We note that some disciplines (e.g. economics, law or social health sciences) count a far larger number of authors than others. When disciplines are ranked by share of monograph authors, we observe that the relatively small discipline of theology (H; 23%) comes out on top, followed by literature (H; 21%) and linguistics (H; 15%). At the other end we find social health sciences, psychology (both SS; 1%), and sociology (SS; 2%). There thus appears to be a divide mainly between the social sciences, with a generally much lower percentage of monograph authors, and the humanities, where monograph authors make up a larger share. The SS discipline with the highest share of monograph

authors is political sciences (9%), thereby overtaking several humanities disciplines. The humanities discipline with the lowest share is archaeology (5%).

For the whole dataset the average number of monographs per monograph author is 1.4. 79% of all monograph authors has published 1 monograph, which makes the monograph the publication type with the lowest rate of repetition per author in the VABB-SHW during 2000–2011; by comparison, 30% of article authors has only written 1 article, 47% of book chapter authors has authored one book chapter and 37% of the editors has edited one edited book. As is shown by Fig. 1, the average number of monographs per monograph author is lower in the humanities (1.3) compared to the social sciences (1.6). 80% of all humanities monograph authors has written 1 monograph, whereas in the social sciences this is 75%. When comparing disciplines, the highest average number of monographs per monograph author occurs in archaeology (2.5),followed by economics (1.9), political science (1.8) and theology (1.7). The lowest average number is registered for social health sciences (1.0), psychology, history, communication sciences and linguistics (all 1.1).

Career stage

Overall in Flanders, 16% of all SSH researchers registered in the VABB-SHW are classified as established researchers. In the humanities 17% is established, in the social sciences 16% (Ossenblok et al. 2015). 57% of monograph authors is established and 43% is non-established. For the other authors, these shares are 14 and 86%. As a publication type in Flanders the scholarly monograph is clearly associated with established researchers. As shown in Fig. 2, the share of established researchers among monograph authors is larger in the social sciences (69%) compared to the humanities (53%).

Gender

Overall in the SSH in Flanders, monograph authors are substantially more often men (75%) than women (25%) For the other authors in our dataset this is 59 and 41% respectively. By comparison, in the whole VABB-SHW, in the humanities and the social sciences about 2 in 5 (42 and 38% respectively) authors (2000–2011) is Female. However, as shown in Fig. 3,

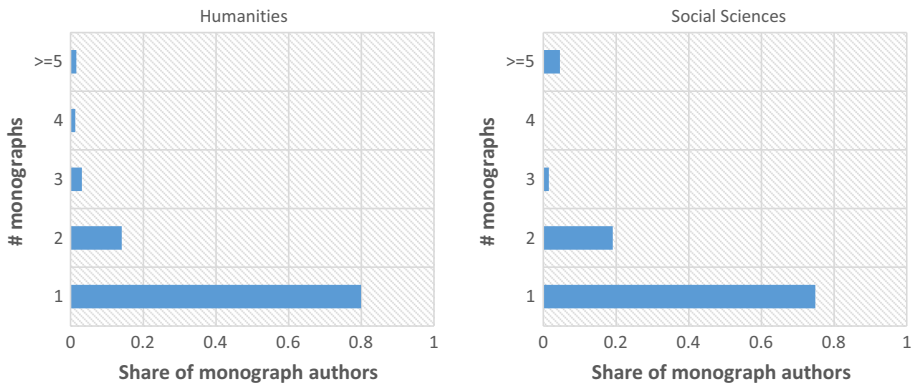

Fig. 1 Share of monograph authors per number of monographs for the humanities and the social sciences (2000–2011)

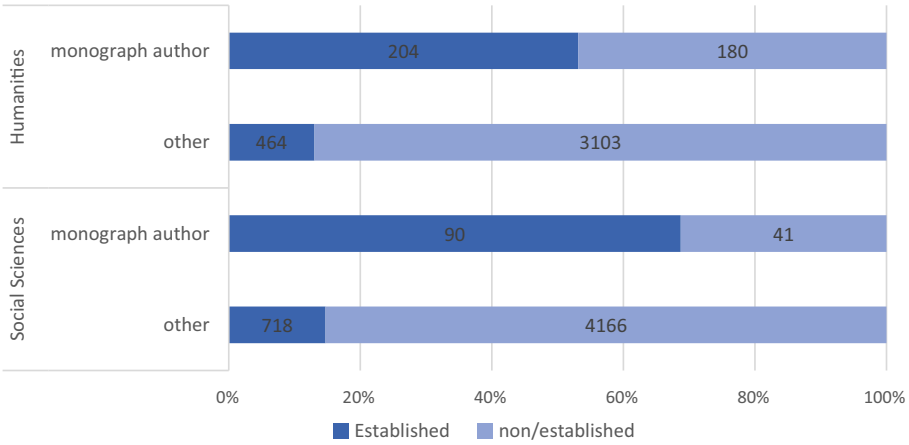

Fig. 2 Number and share of established and non-established researchers among monograph authors and other authors for the humanities and the social sciences (2000–2011)

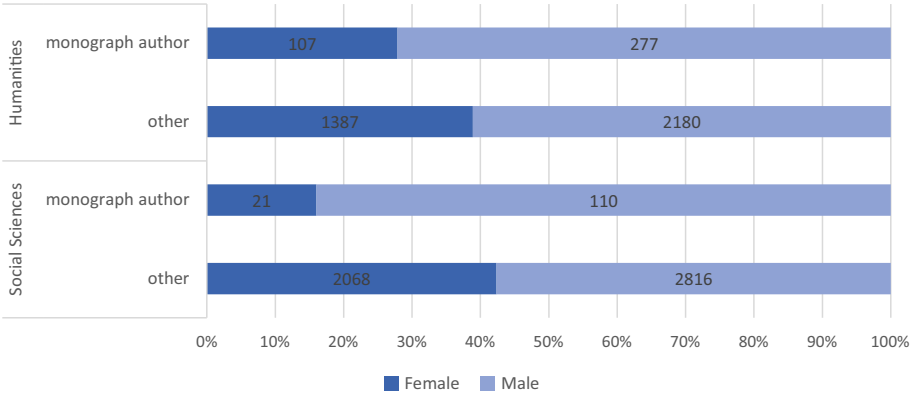

Fig. 3 Number and percentage of males and females among monograph authors and other authors

female researchers in the humanities are more likely to author a monograph (28%) than are their colleagues in the social sciences (18%).

Association between the nominal variables

The paragraphs above have discussed three nominal variables (disciplinary affiliation, career stage and gender) which constitute elements of the profile of monograph authors. As these particular variables can be expected to be related, we here examine the strength of association between being a monograph author and these three variables, as well as between these three variables (Table 2). Although the magnitude of the effect size between variables is never greater than small (0.1) to almost medium (0.3), relative differences between values are apparent: the strongest association is that between being a monograph author and career stage (0.270) and the weakest that between career stage and disciplinary affiliation (0.012). In the range of outcomes the association between being a monograph

Table 2 Cramér's V for strength of association between being a monograph author, career stage, gender, and affiliation to the social sciences (SS) or humanities (H)

	Monograph author (*y*/*n*)	Career stage	Gender	Disciplinary affiliation (SS/H)
Monograph author (*y*/*n*)	1			
Career stage	0.270*	1		
Gender	0.076*	0.134*	1	
Disciplinary affiliation (SS/H)	0.152*	0.012*	0.039*	1

* $p < 0.05$

author and disciplinary affiliation (0.152) and between gender and career stage (0.134) occupy the middle ground.

Co-authorship

Figure 4 shows that in the humanities 73% of all monographs is single-authored, whereas in the social sciences this is only 34%. The average number of authors per co-authored monograph is higher for the social sciences compared to the humanities: 29% of all monographs in the social sciences have 3 or more authors, whereas in the humanities this is 9%. The collaborative publication of monographs is thus mostly a phenomenon observed for the social sciences. In general, collaborating for the publication of a monograph occurs less frequently compared to other publication types registered in the VABB-SHW (Ossenblok 2016).

Shifting the focus to the authors of monographs, co-authorship occurrence was tested statistically for all authors in our dataset in order to further determine the profile of monograph authors compared to that of other authors. This analysis was carried out separately for the social sciences and the humanities. First, the absolute number of all co-authored publications, (i.e. monographs, articles, edited books, chapters and proceedings) for both groups was analysed by means of an independent samples Mann–Whitney *U* test. The same statistical test was then applied to the share of co-authored publications in the total publication output of authors belonging to the two groups. For both absolute numbers

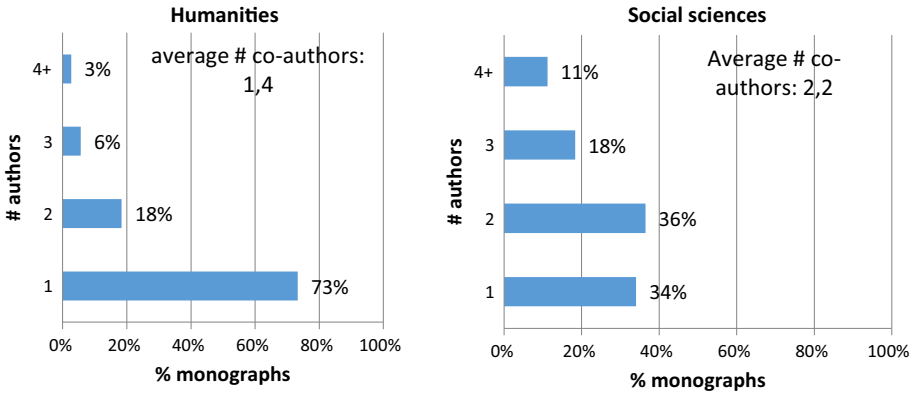

Fig. 4 Share of monographs per number of authors (2000–2011)

and fractions, distributions for monograph authors and other authors were assessed by visual inspection as dissimilar. Test results are as follows:

Social sciences:

- The absolute number of co-authored publications for monograph authors (mean rank = 3886.11) was found to be statistically significantly higher than that for other authors (mean rank = 2493.95), $u = 500{,}435.00$, $z = 10.93$, $p < 0.0005$.
- The fraction of co-authored publications for monograph authors (mean rank = 1401.00) was found to be statistically significantly lower than that for other authors (mean rank = 2560.01), $u = 174{,}885.00$, $z = -12.84$, $p < 0.0005$.

Humanities:

- The absolute number of co-authored publications for monograph authors (mean rank = 2452.97) was found to be statistically significantly higher than that for other authors (mean rank = 1935.30), $u = 870{,}088.00$, $z = 8.58$, $p < 0.0005$.
- The fraction of co-authored publications for monograph authors (mean rank = 1535.97) was found to be statistically significantly lower than that for other authors (mean rank = 2033.78), $u = 517{,}043.50$, $z = -8.37$, $p < 0.0005$.

The test results can be summarized by stating that although monograph authors in both the social sciences and the humanities publish a higher absolute number of co-authored publications than do other authors, the share of co-authorships in their total publication output is significantly smaller.

When we only look at the established monograph authors, who can be assumed to be more collaborative than their non-established colleagues (Ossenblok et al. 2015), Table 3 demonstrates that the share of collaborative publications is lower in the humanities compared to the social sciences, confirming previous research (Ossenblok et al. 2015). Established monograph authors have fewer publications in collaboration in both the humanities (Δ, i.e. difference = 13%) and the social sciences ($\Delta = 6\%$). However, when we look at the share of international collaborations (i.e. co-authorship of a Flemish affiliated author and a researcher affiliated elsewhere), established monograph authors in the humanities collaborate slightly more internationally than their colleagues who haveńt published a monograph ($\Delta = 3\%$), whereas in the social sciences, monograph authors appear to collaborate slightly less internationally than their colleagues ($\Delta = 5\%$).

Table 3 Total number of publications, number and share of publications in collaboration and in international collaboration, for both established monograph authors and established other authors, in the humanities and the social sciences (VABB-SHW, 2000–2011)

	Total # publications	# co-authorships	%	# international co-authorships	%
Humanities					
Monograph authors ($n = 384$)	5599	2465	44	1072	43
Other authors ($n = 3567$)	11,105	6308	57	2494	40
Social sciences					
Monograph authors ($n = 131$)	3604	3090	86	1516	49
Other authors ($n = 4884$)	23,262	21,452	92	11,524	54

Productivity

The paragraph above on career stage has defined an 'established researcher' in terms of productivity, i.e. as having a minimum number of weighted publications in at least six years during 2000–2011. As we have shown that monograph authors are more often established researchers than are other authors, we expect that with regard to their overall output as a group they are also more productive than the group of other authors. This is confirmed statistically by an independent samples Mann–Whitney U test to compare the performance of both groups with regard to the weighted output of the four publication types other than monographs. For assessing productivity in the SSH, where productivity differences are closely intertwined with diverging and hitherto insufficiently documented disciplinary and sub-disciplinary research cultures, for now we choose to analyse the VABB-SHW dataset as a whole, without further differentiation.

For all four publication types distributions of output numbers for monograph authors and other authors were visually assessed as dissimilar between groups. Test results are as follows:

- Article output for monograph authors (mean rank = 6722.71) was found to be statistically significantly higher than that for other authors (mean rank = 5016.40), $u = 3{,}385{,}150.00$, $z = 13.099$, $p < 0.0005$.
- Edited book output for monograph authors (mean rank = 6558.15) was found to be statistically significantly higher than that for other authors (mean rank = 5025.31), $u = 3{,}298{,}918.5$, $z = 26.783$, $p < 0.0005$.
- Book chapter output for monograph authors (mean rank = 7989.68) was found to be statistically significantly higher than that for other authors (mean rank = 4947.84), $u = 4{,}049{,}041.500$, $z = 30.594$, $p < 0.0005$.
- Proceedings papers output for monograph authors (mean rank = 5399.80) was found to be statistically significantly higher than that for other authors (mean rank = 5087.99), $u = 2{,}691{,}947.500$, $z = 4.157$, $p < 0.0005$.

In order to more closely assess productivity in relation to the publication patterns of both groups, i.e. publication type preference apart from monographs, a comparison was made between pairs of monograph authors and other authors with the same total weighted publication output for the 2000–2011 period. As in our dataset there are many more other authors than monograph authors, for each monograph author a random machine-generated selection of one paired other author was made. A Wilcoxon signed-rank test then determined whether there was a statistically significant higher median weighted output per publication type for either of the two groups (515 pairs). Test results are as follows (data are median weighted numbers of publications unless otherwise stated):

- For articles, in 22 pairs there was a higher publication count for monograph authors, in 482 pairs for other authors, and in 11 pairs there was a tie. Article output of monograph authors (7) was found to be significantly lower (median difference = 6) than that of other authors (14), $z = -18.624$, $p < 0.000$.
- For edited books, in 154 pairs there was a higher publication count for monograph authors, in 66 pairs for other authors, and in 295 pairs there was a tie. Due to low publication numbers, median values for both groups equal zero. Edited book output of monograph authors was found to be significantly higher than that of other authors, $z = -5.020$, $p < 0.000$.

- For book chapters, in 295 pairs there was a higher publication count for monograph authors, in 118 pairs for other authors, and in 102 pairs there was a tie. Book chapter output of monograph authors (2) was found to be significantly higher (median difference = 1) than that of other authors (0), $z = -9.625$, $p < 0.000$.
- For proceedings papers, in 38 pairs there was a higher publication count for monograph authors, in 56 pairs for other authors, and in 421 pairs there was a tie. Due to low publication numbers, median values for both groups equal zero. No significant difference in output between both groups was found, $z = -1.261$, $p = 0.207$.

Summarizing these test results, it is noticeable how in the paired test setup monograph authors remain more productive for both edited books and book chapters. For articles, however, other authors are now considerably more productive. These findings are in line with the results of Ossenblok et al. (2015).

Discussion and conclusions

Several elements influence the choice of scholars to publish research results in the form of a monograph. In the social sciences and humanities (SSH), a lower degree of codification and the absence of a uniform symbol system can be assumed to imply that research questions, methodology and discussion of results require a more elaborate form to inform colleagues of the context and the correct interpretation of the research conducted, and to persuade them of the significance of the findings (Kyvik 1991; Whitley 2000). This suggests that in some—but likely not all—epistemic communities or research contexts in the SSH monographs are better suited for communicating with peers, and seem to carry a greater prestige than do journal articles. Furthermore, as research in the SSH has traditionally been more local and society-oriented than is the case for scientific, medical and technical fields, international competition for publishing has been less intense in the SSH, so more time could be devoted to writing in the more elaborate form of a book (Kyvik 1991; Whitley 2000).

In the context of the performance-based research funding systems for academic research being implemented in more and more countries, future research based on currently unavailable longitudinal publication data will need to assess whether book-centered publication cultures in the SSH have endured unaltered, or rather have changed due to any possible publication behaviour-altering effects such systems are sometimes reported to have (Ossenblok et al. 2012; Hammarfelt and de Rijcke 2015). As especially unestablished researchers seem likely to react to incentive structures for publishing (Hammarfelt and de Rijcke 2015), a delayed effect of the funding system on the publication patterns of monograph authors in Flanders and elsewhere remains a possibility requiring further investigation.

For the time being, the analysis in this paper of comprehensive publication data registered in the VABB-SHW allows us to identify several key elements of the profiles of monograph authors in Flemish SSH research:

Disciplinary affiliation

Monograph authors are found in all 16 disciplines of the social sciences and humanities registered in Flanders. However, there exists a clear divergence between most of the individual social sciences, where monograph authors make up a marginal share of all

authors, and several humanities disciplines where shares are up to one fifth. Disciplinary differences are also present. In order to assess the preference of specific disciplines for the monograph as a publication type, it should be taken into account that disciplines not only differ in the share of monograph authors, but also in the average number of monographs per monograph author. We found, for instance, that linguistics has 15% monograph authors, of whom 9% has published more than 1 monograph, whereas archaeology has only 5% monograph authors, of whom 25% have published more than one monograph. For 2000–2011, the most monograph-oriented discipline in Flanders is theology with a share of 23% monograph authors, 35% of whom have published more than one monograph.

Career stage and gender

Scholars who authored monographs during 2000–2011 are found in a majority of cases to be established researchers: while almost six out of ten of the monograph authors are established, more than eight out of ten of other authors are unestablished. The association of the monograph with experienced researchers is stronger in the social sciences than in the humanities, confirming similar findings by Ossenblok et al. (2015) on book editors. This difference can perhaps be explained by relatively more Ph.D. theses by unestablished researchers in humanities disciplines published as books (i.e. with ISBN) and included in the VABB-SHW and funding model. In a large majority of cases (75%) monograph authors affiliated with Flemish universities are males. When interpreting these gender differences, it needs to be taken into account that in Flanders, as elsewhere, established academia consists disproportionally of males. In the humanities females are more often found to be monograph authors than is the case in the social sciences.

Productivity

A statistical analysis of the productivity of both groups, monograph authors and other authors, gives additional insight on how the publication of monographs in Flemish SSH research is embedded in a specific publication pattern different from that of other authors. While on the whole monograph authors are more productive than other authors in terms of total weighted publication output, a comparison by which monograph authors are paired with other authors on a matching overall productivity shows that attaining high productivity in Flemish SSH is achieved in contrasting ways. Investing considerable time and effort both in writing monographs and in editing edited books (Ossenblok et al. 2015), often published alongside journal articles, is one way; another is to focus primarily on publishing more articles. These results on productivity and the underlying diversity of scholarly publication patterns in Flanders have a wider relevance in the context of research evaluation in the SSH, likely also for other countries (Verleysen and Weeren 2016).

Co-authorship

Correlating with their high overall productivity, monograph authors are frequently involved in co-authorships. In terms of the share of co-authorships in their total output, however, monograph authors are significantly less collaborative than are other authors. This can be explained by the fact that Flemish scholars with a preference for book publications also tend to show an orientation towards single authorship (Verleysen and Weeren 2016).

A limitation of our findings relates to the inclusion of only peer reviewed monographs in the VABB-SHW and the Flemish funding model. Especially in the humanities scholars affiliated in Flanders frequently publish their monographs with local commercial publishers, most of whom do not conduct verifiable peer review for their whole portfolio (Borghart 2013). Yet, such monographs may still be widely read and cited by academic peers, without being included in the VABB-SHW. Therefore the selection of monograph authors used for the analysis in this paper may be slightly biased towards the social sciences, where books are more frequently published by publishers with standardized peer review procedures, which are indeed included in the VABB-SHW (Verleysen and Engels 2014b; Verleysen et al. 2014).

Future research into scholarly author profiles in the SSH could include comparisons with other countries where bibliographic data similar to that in Flanders is available. The varying selection principles for book publications between countries does make accurate comparisons methodologically challenging. In Norway and Finland, for instance, the share of book publications in the total output of the SSH is substantially larger than in Flanders. This is not so much caused by different publication patterns at the level of the SSH, but indeed by different selection principles for books: in the two Nordic countries book publishers are grouped into two quality levels, both of which are included in the database and funding model, whereas Flanders has adopted a single level of included publishers (Verleysen et al. 2014). Therefore, It remains to be seen to what extent our findings for Flemish monograph authors can be generalized to other countries. At the level of disciplines within the SSH, publication patterns in Western countries tend to be similar (Ossenblok et al. 2012; Sivertsen and Larsen 2012). Additional bibliometric analyses could show whether this similarity also exists when comparing the publication profiles of types of authors.

Acknowledgements The authors thank Tim Engels, Raf Guns and Ronald Rousseau for their helpful comments and suggestions. The Centre for R&D monitoring (ECOOM) is funded by the Flemish government.

References

Borghart, P. (2013). A label for peer-reviewed books. *Learned Publishing, 26,* 167–171. doi:10.1087/20130303.

Cronin, B., & La Barre, K. (2004). Mickey Mouse and Milton: Book publishing in the humanities. *Learned Publishing, 17*(2), 85–98.

Díaz-Faes, A. A., Bordons, M., van Leeuwen, T., & Galindo, M. P. (2015). Outlining the scientific activity profile of researchers in the social sciences and humanities in Spain: The case of CSIC. In A. A. Salah, Y. Tonta, A. A. Akdag Salah, C. R. Sugimoto, & U. Al (Eds.), Proceedings of ISSI 2015 Istanbul: 15th international society of scientometrics and informetrics conference, Istanbul, Turkey, 29 June to 3 July 2015. Istanbul: Bogaziçi University Printhouse.

Engels, T. C. E., Ossenblok, T. L. B., & Spruyt, E. H. J. (2012). Changing publication patterns in the social sciences and humanities, 2000–2009. *Scientometrics, 93*(2), 373–390. doi:10.1007/s11192-012-0680-2.

Giménez-Toledo, E., Manana-Rodriguez, J., Engels, T. C. E., Ingwersen, P., Pölönen, J., Sivertsen, G., et al. (2016). Taking scholarly books into account. Current developments in five European countries. *Scientometrics*. doi:10.1007/s11192-016-1886-5.

Giménez-Toledo, E., Tejada-Artigas, C., & Manana-Rodriguez, J. (2013). Evaluation of scientific books' publishers in social sciences and humanities: Results of a survey. *Research Evaluation, 22,* 64–77. doi:10.1093/reseval/rvs036.

Gorraiz, J., Purnell, P. J., & Glänzel, W. (2013). Opportunities and limitations of the Book Citation Index. *Journal of the American Society for Information Science and Technology, 64*(7), 1388–1398. doi:10.1002/asi.22875.

Hammarfelt, B., & de Rijcke, S. (2015). Accountability in context: Effects of research evaluation systems on publication practices, disciplinary norms and individual working routines in the faculty of arts at Uppsala University. *Research Evaluation, 24,* 63–77.

Kousha, K., & Thelwall, M. (2015). Web indicators for research evaluation. Part 3: books and non-standard outputs. *El professional de la informacion, 26*(6), 724–736.

Kousha, K., Thelwall, M., & Somayeh, R. (2011). Assessing the citation impact of books: the role of Google books, Google Scholar, and Scopus. *Journal of the American Society for Information Science and Technology, 62*(11), 2147–2164.

Kyvik, S. (1991). *Productivity in academia: Scientific publishing at Norwegian universities*. Trogstadt: Norwegian University Press.

Leydesdorff, L., & Felt, U. (2012). Edited volumes, monographs and book chapters in the Book Citation Index (BKCI) and Science Citation Index (SCI, SoSCI, A&HCI). *Journal of Scientometric Research, 1,* 28–34. doi:10.5530/jscires.2012.1.7.

OAPEN-UK. (2014). Survey of use of monographs by academics—as authors and readers (Report). Retrieved from http://oapen-uk.jiscebooks.org/research-findings/researcher-survey-2014/.

Ossenblok, T. L. B. (2016). *Scientific communication in the social sciences and humanities. Analysis of publication and collaboration in Flanders.* (Doctoral dissertation). Antwerp: University of Antwerp.

Ossenblok, T. L. B., & Engels, T. C. E. (2015). Edited books in the social sciences and humanities: Characteristics and collaboration analysis. *Scientometrics*. doi:10.1007/s11192-015-1544-3.

Ossenblok, T. L. B., Engels, T. C. E., & Sivertsen, G. (2012). The representation of the social sciences and humanities in the Web of Science. A comparison of publication patterns and incentive structures in Flanders and Norway (2005–9). *Research Evaluation, 21,* 280–290.

Ossenblok, T. L. B., Guns, R., & Thelwall, M. (2015). Book editors in the social sciences and humanities: an analysis of publication and collaboration patterns of established researchers in Flanders. *Learned Publishing, 28,* 261–273. doi:10.1087/20150405.

Puuska, H.-M. (2010). Effects of scholar's gender and professional position on publishing productivity in different publication types. Analysis of a Finnish university. *Scientometrics, 82*(2), 419–437. doi:10.1007/s11192-009-0037-7.

Puuska, H.-M. (2014). *Scholarly publishing patterns in Finland—A comparison of disciplinary groups.* (Doctoral dissertation). Tampere: University of Tampere.

Sivertsen, G., & Larsen, B. (2012). Comprehensive bibliographic coverage of the social sciences and humanities in a citation index: An empirical analysis of the potential. *Scientometrics, 91*(2), 567–575.

Thompson, J. W. (2002). The death of the scholarly monograph in the humanities? Citation patterns in literary scholarship. *Libri, 52,* 121–136.

Thompson, J. B. (2005). *Books in the digital age. The transformation of academic and higher education publishing in Britain and the United States*. Cambridge: Polity Press.

Torres-Salinas, D., Robinson-Garcia, N., Cabezas-Clavijo, Á., & Jiménez-Contreras, E. (2013a). Analyzing the citation characteristics of books: Edited books, book series and publisher types in the Book Citation Index. *Scientometrics, 98*(3), 2113–2127. doi:10.1007/s11192-013-1168-4.

Torres-Salinas, D., Rodriguez-Sanchez, R., Robinson-Garcia, N., & Fdez-Valdivia, J. A. G. (2013b). Mapping citation patterns of book chapters in the Book Citation Index. *Journal of Informetrics, 7*(2), 412–424.

Verleysen, F. T., & Engels, T. C. E. (2014a). Barycenter representation of book publishing internationalization in the social sciences and humanities. *Journal of Informetrics, 8,* 234–240.

Verleysen, F. T., & Engels, T. C. E. (2014b). Internationalization of peer reviewed and non-peer reviewed book publications in the social sciences and humanities. *Scientometrics, 101*(2), 1431–1444. doi:10.1007/s11192-014-1267-x.

Verleysen, F. T., Ghesquière, P., & Engels, T. C. E. (2014c). The objectives, design and selection process of the Flemish Academic Bibliographic Database for the Social Sciences and Humanities (VABB-SHW). In W. Blockmans et al. (Eds.), *The use and abuse of bibliometrics* (pp. 115-125): Academiae Europaea; Portland Press.

Verleysen, F. T., & Weeren, A. (2016). Clustering by publication patterns of senior authors in the social sciences and humanities. *Journal of Informetrics, 10,* 254–272. doi:10.1016/j.joi.2016.01.004.

White, H. D., Boell, S. K., Yu, H., Davis, M., Wilson, C. S., & Cole, F. T. H. (2009). Libcitations: A measure for comparative assessment of book publications in the humanities and social sciences. *Journal of the American Society for Information Science and Technology, 60*(6), 1083–1096.

Whitley, R. (2000). *The intellectual and social organization of the sciences*. Oxford: Oxford University Press.

Zuccala, A., Verleysen, F. T., Cornacchia, R., & Engels, T. C. E. (2015). Altmetrics for the humanities: comparing Goodreads reader ratings with ciatations to history books. *Aslib Journal of Information Management, 67*(3), 320–336. doi:10.1108/AJIM-11-2014-0152.