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Changes in Psychology Publication Patterns in the Nordic Universities: A Bibliometric Analysis based on Current Research information Systems data

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Abstract: There is little empirical research focusing on the publication patterns of psychology. Using research information system (CRIS) data, the current analysis will give a more comprehensive view of the publication types, languages, co-authorship patterns, and publishers preferred by Nordic psychology researchers beyond Web of Science and Scopus. This study shows that the total number of publications as well as the number of authors per publication has increased during 2014-2023. The research also expands previous research by showing that besides scholarly papers, academic psychologists continue to write book publications and national language publications. These are largely missing from commercial databases. Yet, large international publishers remain dominant, although the role of OA publishers such as Frontiers and MDPI has strengthened.

Keywords: bibliometrics, research information systems (CRIS), publication patterns, psychology departments, Finland, Sweden, Denmark, Norway

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1. Introduction

This article examines the publication patterns in psychology using data from current research information systems (CRISs), reported by researchers or imported centrally. The CRIS data provide broad coverage and completeness (Aksnes & Sivertsen, 2019) and a more realistic perspective to the study of science and publication patterns compared with commercial databases like Web of science (WoS) and Scopus.

Over the last two decades the CRISs have been implemented widely in all over the world, especially in Europe and in Australia (de Castro & Puuska, 2023). There are at least two main functions served by these systems. Firstly, they act as research portals, showcasing the institution's research activity, such as research results. Secondly, they function as data warehouses, supporting internal decision-making processes and monitoring research performance (de Castro & Puuska, 2023). Unlike WoS and Scopus, which prioritise English-language peer-reviewed journals and often exclude books and national publications (Aksnes & Sivertsen, 2019; Hicks, 2005; Piro et al., 2013), CRIS data encompass a wider range of languages and publication types. This broader scope enables a more complete insight into the publishing behaviour.

Psychology research addresses diverse topics taking place in complex and changing environments (Smedslund et al., 2022). This leads to publishing in varied venues and audiences. Publications, as the primary outputs of research, are important for investigating disciplinary structures, working practices and audiences of the research (Whitley, 2000). Therefore, including various types of publications in the analysis is crucial for gaining holistic understanding of the communication patterns.

Further, psychology has often been studied as part of broader disciplinary groups in bibliometric analyses using CRIS data (e.g. Puuska (2014a). However, there is little empirical research focusing specifically on publication patterns in the field of psychology. Moreover, there are only a few bibliometric studies covering psychology publication patterns in more than one country (Denissen & Rauthmann, 2024; Kulczycki et al., 2020; Martinčević et al., 2023).

By using Nordic cross-country publication data from a period of ten years, this study offers a more comprehensive approach that significantly surpasses the limitations of traditional bibliometric studies. CRIS data enables better understanding of the diverse audiences, languages, publication types (e.g. book publications, publications in national languages), and publishers. As Denissen and Rauthmann (2024, p. 25) state: "not all authors of psychology journals are psychologists, and conversely not all psychology researchers publish in psychology journals". This study aims at covering that complexity to better reflect the patters of psychological research publications by studying the phenomenon at two levels:

First, a publication level analysis will examine the patterns of scholarly output at the level of individual publications, including journal articles, books, and book chapters. Also potential shifts in publication trends will be studied, comparing developments between two intervals: 2014-2018 and 2019-2023. The more specific research questions are the following:

1. What is the distribution of publications by a) different publication types and b) languages?
2. What is the distribution of publications according to the number of co-authors?
3. What is the coverage of psychology publications in Web of Science and Scopus?

Second, a publication-channel-level analysis will examine the patterns of scholarly dissemination at the level of journal publishers, comparing developments between 2014-2018 and 2019-2023. The research question is the following:

4. What are the most popular publishers of peer-reviewed publications?

2. Psychology as a Discipline and Its Publication Patterns

In the twentieth century, psychology started to professionalise and institutionalise as a discipline including fields such as personality, motivation, and applied psychology (Krampen et al., 2011). However, as Danziger (1997) states, these fields were easier to integrate institutionally than intellectually, leading to psychology being fragmented and incoherent. Danziger (1997) depicts psychology as a cultural construction that is shaped by social contexts.

According to Krampen et al. (2011) psychology includes various scientific subfields, whose research topics have to be analysed from both a natural science and an arts and humanities perspective. For example, in neuropsychology, and experimental psychology research projects tend to require larger resources and involve more people. On the other hand, research on e.g. media psychology, and traffic psychology is done more individually or in small groups and require smaller resources. Some other research fields (e.g. work and organisational psychology) lie in the between (Krampen et al., 2011).

Research on publishing patterns based on CRIS data has examined psychology as a subset of social sciences and focused primarily on scholarly publications (e.g. Auranen & Pölönen, 2023; Kulczycki et al., 2020, 2022; Piro et al., 2013). Findings have shown that academic psychologists prefer publishing in journals and communicating research for international audience in English (Engels & Kulczycki, 2022; Kulczycki et al., 2020, 2022; Ossenblok et al., 2012; Sivertsen, 2022). Within social sciences and humanities (SSH) psychology seems to belong to the more collaborative disciplines (Ossenblok et al., 2014), with publication patterns closer to medicine and health sciences than the other SSH sciences (Piro et al., 2013; Puuska, 2010).

Studies have shown that differences in publication patterns within disciplines may be even larger than between disciplines (Denissen & Rauthmann, 2024; Piro et al., 2013; Puuska, 2014b). Denissen and Rauthmann (2024) adopted and modified the journal classification of psychological disciplines of WoS in their analysis of Google Scholar profiles. They found cognitive neuroscience and developmental psychology being less productive in terms of research output than personality psychology and psychometrics. Personality psychology seems to be a hub science attracting citations from other disciplines (Denissen & Rauthmann, 2024).

To summarise, earlier research has identified some general patterns in publication types and language use, notably a preference of peer-reviewed journals and the use of English language. However, there is a lack of empirical research on popularising and disseminating psychology research beyond academic audience. Further, studies at the level of disciplinary groups do not consider the differences in publishing patterns between subdisciplines (Sandgren, 2021). The novelty of this macro-level study is the completeness of publication data and the more fine-grained analysis of the publication patterns of academic psychologists.

3. Research Setting

3.1 Studied Organisations

This study focuses on the publishing patterns of psychology in Nordic universities. The data used for this analysis consists of bibliographic information of publication outputs affiliated with psychology departments of eight universities. They were published between 2014-2023 and registered in the institutional or national research information system. According to the websites of the case universities of the study, non-scholarly and scholarly publications are recorded in the CRIS database, and most of them aim at comprehensively collecting the SSH research outputs.

The criteria for selecting psychology departments within Nordic countries are based on the following requirements: The department of psychology belonged to a university with a broad research profile, not specialised in only one subfield of psychology, and offered psychology PhD level education. Furthermore, the institutional publication data could be exported from the institutional or from the national research information portal in such a format (e.g. csv, excel, json) that it allowed statistical analysis.

At two Finnish universities (Turku and Helsinki), psychology departments included also logopedics. The non-psychology affiliated publications were excluded from the dataset based on their organisational affiliation information. In the University of Helsinki data, if the first subject was logopedics, the publication was removed from the dataset.

3.2. Data

The data includes a deduplicated, unique list of publications on the Nordic level. Publications have been exported from the institutional or national CRIS databases. Table 1 presents the organisations, and the number of publications included in the analysis.

Only text-based publications were included, and interviews as well as other oral presentations were excluded. Posters, errata, or meeting abstracts were excluded from the analysis. Dissertations were included in the analysis as their own group, whereas other theses (e.g. master's theses) were excluded.

While some details (e.g. language) were more comprehensively covered in the data files, others, such as WoS and Scopus identifiers were searched based on the DOI numbers in the data, and for books (chapters, monographs and edited books) based on ISBN numbers and publication titles. Furthermore, in the Lund data export, the peer-review information was missing. However, by filtering publications on the research portal and matching them in Excel based on publication id, this information could be added to the data. Additionally, the Finnish VIRTA publication information service data was used to enrich Finnish CRIS datasets for missing information, such as author count.

Table 1. Number and percentage of psychology publications by affiliated university in 2014-2023.

Country	Affiliated University	CRIS database	Publications n (%)
Finland	Univ. of Turku	UTUCris	1070 (6,2)
	Univ. of Helsinki	Tuhat	1986 (11,6)
	Univ. of Jyväskylä	Converis	1816 (10,6)
Sweden	Univ. of Stockholm	DiVA	2391 (14,0)
	Univ. of Lund	LUCRIS	1231 (7,2)
	Univ. of Uppsala	DiVA	1069 (6,2)
Denmark	Univ. of Copenhagen	Research Portal Denmark	2457 (14,4)
Norway	Univ. of Oslo	Cristin	5050 (29,6)
Total			**17070**

The duplicates were cross-checked across the whole dataset. To do that, the data structure was unified in Excel and then exported to R for dataset combination and DOI, WoS id, Scopus id, and title duplicate checks. From R the files were imported to Excel and the duplicate rows were manually removed. Each publication was included only once even if it included multiple psychology authors (altogether 517 duplicates were removed). Finally, the CRIS datasets were merged in R.

3.3 Data Analysis

The variables included into the study as well as the publication categorisation are presented in tables 2 and 3.

Table 2. The variables used in the analysis.

1) Publication type	5) Publication year
2) Peer-review status	6) WoS id
3) Language	7) Scopus id
4) Author count	8) Publisher

Table 3. The publication type categorisation used in the analysis.

1) Peer-reviewed article or review	5) Conference publication
2) Non-peer-reviewed publication in a journal or a newspaper or a web publication	6) Report
3) Book chapter	7) Doctoral dissertation
4) Monograph or edited book	

The first publication type category consists of peer-reviewed articles and reviews. To identify peer-reviewed journal articles, mainly two approaches are used. First, the peer-review status can be validated by the library and following a quality index of publication outlets (applied in Finland). The second method, applied in Norway and in Denmark (until the end of 2021), is based on the use of authority lists to identify peer-reviewed articles. The peer-review status of the articles is taken as reported in the CRIS data. For Norway, all articles and reviews included in the Norwegian Science Index (NVI) are treated as peer reviewed. Only journal publications are considered in the peer-reviewed category.

The second category, the non-peer-reviewed publications (excl. books) contains publications aimed at non-scientific and scientific audience. The non-scientific publications include outputs such as newspaper articles, trade journal publications as well as web publications. Publications targeted for scientific audience include non-peer-reviewed research articles, as well as ephemeral scientific publications, such as editorials, letters, and commentaries. The handling of non-peer-reviewed publications varies across universities. For example, the Finnish publication registration guidelines generally exclude the registering of reader opinion pieces in newspapers. However, the Norwegian non-NVI subset also included these, as it is voluntary for researchers to submit information on their non-scholarly outputs and there are no specific guidelines for registering them. Due to the less consistent and probably less comprehensive coverage of non-scholarly publications, the results for this part are limited.

The analysed dataset covers publications over a ten-year-speriod, which was divided into two time-intervals: 2014-2018 and 2019-2023. These time intervals

are compared to identify possible changes in publication types, number of authors and journal publishers across years.

The assignment of language to each publication was done based on the information provided in the CRIS data. The publications were classified to three groups: English language, national language and other languages. From the author count analysis, the dissertations and edited monographs were removed. For the included publication types, the author count was taken from the CRIS data files as such when available. In some sub-datasets this information was missing (e.g., University of Helsinki) but could be mapped from the Finnish national VIRTA database based on publication IDs. Publications were classified as single-authored publications, and co-authored publications with two, three, four, five or six to 20 authors, and publications with 20 or more authors.

To compare the coverage, the following WoS Core Collection databases were used: Science Citation Index Expanded (SCIE), Social Sciences Citation Index (SSCI), Arts & Humanities Citation Index (AHCI), Conference Proceedings Citation Index (CPCI), Book Citation Index (BKCI), and Emerging Sources Citation Index (ESCI). Scopus has only one database, so it was included as it is.

In the analysis of journal publishers, the Analyze results functionality of Web of Science was used to generate a list of publishers for all peer-reviewed articles and reviews in the dataset for the period of 2014-2023. Separate lists were created for the periods of 2014-2018 and 2019-2023. WoS indexes the publisher information of each journal issue, enabling to examine possible changes in publisher information over time (Larivière et al., 2015). Furthermore, publisher information was checked separately for publications missing from WoS but indexed in Scopus (446 publications). Entries that had minor spelling differences or parts of the name of the owning organisation present in the imprint name were merged (e.g. Wiley Blackwell to Wiley and Routledge Journals, Taylor & Francis to Taylor & Francis).

4 Results

4.1 Publication Type and Language

A total of 17070 publications (see table 4) were included in the analyses, of which 85 % were English-language and 14 % national-language publications. The share of other languages was minimal (0,7 %).

Majority (76 %) of the publications are peer-reviewed journal articles or reviews of which most (96 %) are written in English. Book chapters form less than 10 percent of the publications, and they are written slightly more often in English (54 %) than with national languages (44 %). The share of monographs (2 %), conference publications (1 %), reports (1 %), and dissertations (2 %) is small in the data.

The share of non-peer-reviewed publications of the total is 9 %. Two-thirds (63 %) of the non-peer-reviewed publications were in national languages.

Table 4. Number and percentage of publications by publication type and language in 2014-2023.

Publication type (% of total; n)	Language		
	English%	**National%**	**Other%**
Peer-reviewed article or review (76,2; 13003)	96,2	3,4	0,4
Non-peer-reviewed publication (excl. books) (9,0; 1541)	36,4	62,5	1,2
Book chapter (7,8; 1328)	53,5	43,6	2,9
Monograph or edited book (2,0; 334)	33,8	62,0	4,2
Conference publication (1,3; 219)	94,5	5,5	0
Report (1,4; 232)	23,7	75,9	0,4
Doctoral dissertation (2,4; 413)	95,9	4,1	0
Total (100;17070)	**85,2**	**14,0**	**0,7**

Between the two five-year intervals (2014-2018 and 2019-2023) the total number of publications rose from 7422 to 9648 (by 13 %). This is caused by the increasing publishing of peer-reviewed publications, whose proportion rose by 17 percent (from 41 % to 59 %).

The share of non-peer-reviewed publications rose by six percent, whereas the share of all other publication types slightly decreased from 2014-2018 to 2019-2023 (table 5).

Table 5. Percentage of publications by publication type in 2014-2018 and 2019-2023.

Publication type (n)	**2014-2018 (%)**	**2019-2023 (%)**
Peer-reviewed article or review (13003)	41,3 %	58,7 %
Non-peer-reviewed publication (excl. books) (1541)	47,2 %	52,8 %
Book chapter (1328)	52,8 %	47,2 %
Monograph or edited book (334)	50,9 %	49,1 %
Conference publication (219)	56,6 %	43,4 %
Report (232)	53,4 %	46,6 %
Doctoral dissertation (413)	50,8 %	49,2 %
Total (17070)	**43,5 %**	**56,5 %**

4.2 Number of Authors

Most (89%) of the publication are written by more than one author (*n* =14693; excl. dissertations and edited books). The figure 1 shows a clear increase in the share of publications with 6 to 20 authors per publication from 2014-2018 (28 %) to 2019-2023 (36 %). Most of these are written in English. The share of publications with 1-3 authors has declined, and especially the proportion of publications with 1-2 authors has dropped between the periods of 2014-2018 and 2019-2023.

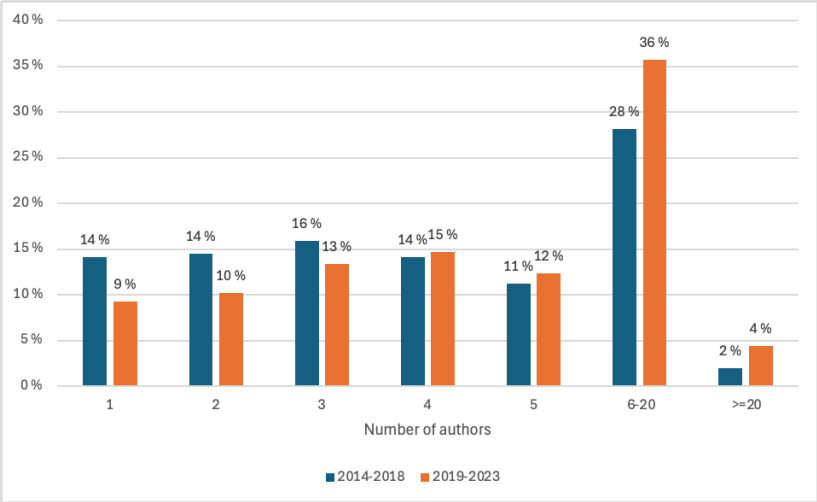

Figure 1. Share of publications by the number of authors per publication in 2014-2018 (*n* = 7170) and 2019-2024 (*n* = 9412). Dissertations and edited books are excluded.

4.3. Coverage in Web of Science and Scopus

Overall, psychology publications are well covered by both databases. Scopus has a slightly better coverage (78 %) of the dataset's publications in comparison to WoS (75 %) (table 6). Both databases have a good representation of English-language publications (Scopus 91 %; WoS 88 %) and especially of the peer-reviewed journal articles and reviews (Scopus 97 %; WoS 94 %). However, the databases have a poor coverage of the dataset's non-English publications (Scopus 3 %; WoS 0,8 %) as well as monographs and edited books (Scopus 29 %; WoS 15 %).

The difference in coverage between Scopus and Wos is most evident for the English-language monographs and edited books (Scopus 29 %; WoS 15 %), book chapters (Scopus 38 %; WoS 18 %), and conference publications (Scopus 42 %; WoS 36 %). The English-language non-peer-reviewed publications, that are mainly commentaries, letters and editorials in scientific journals, are covered nearly equally in Scopus (68 %) and WoS (66 %). Scopus also has a higher

share of non-English peer-reviewed articles and reviews (10 %) and of the non-peer-reviewed publications (1 %) than WoS (4 % and 0,2 %, respectively).

Table 6. The coverage of 2014-2023 publications indexed in Scopus and Web of Science by language and publication type (excl. dissertations).

Language and publication type	**Scopus (%)**	**WoS (%)**
Total (n=16657)	77,7	74,5
English language (n=14152)	**91,0**	**87,6**
Peer-reviewed article or review (n=12506)	96,8	94,4
Non-peer-reviewed publication (n=561)	67,6	66,0
Book chapter (n=710)	38,0	17,9
Monograph or edited book (n=113)	29,2	15,0
Conference publication (n=207)	42,0	36,2
Report (n=55)	1,8	0
Other languages (n=2505)	**2,6**	**0,8**
Peer-reviewed article or review (n=497)	10,3	3,6
Non-peer-reviewed publication (n=980)	1,3	0,2
Book chapter (n=618)	0	0
Monograph or edited book (n=221)	0	0
Conference publication (n=12)	0	0
Report (n=177)	0	0

4.4 Publishers of Peer-reviewed Articles and Reviews

There were a total of 13003 peer-reviewed articles and reviews published by psychology faculty between 2014-2023. Of these, 94 % (*n* =12257) were found in WoS or Scopus and included in the publisher analysis. According to results in table 7, the four top publishers accounted for half of the 12257 papers indexed in WoS or Scopus (51 %; *n* = 6245). These were big commercial publishers (Elsevier, Wiley, Taylor & Francis and Springer) with a wide range of WoS-indexed journals (more than 200 journals per publisher in the dataset). Among the top 15 publishers there were only two non-profit organisations (APA and PLOS).

Table 7 shows that between 2014-2018 and 2019-2023 publishers that increased their share more than one percent included Frontiers Media SA (3 %), MDPI (2 %), Springer Nature (2 %), and Nature Portfolio (2 %). Typical for these publishers is that they have a smaller number of journals in the dataset (ranging from 19 to 42 journals per publisher), yet they include some of the most popular venues for researcher submissions. For instance, the fully open-access Frontiers in Psychology and Scientific Reports are among the top three most popular journals. Three other publishers to slightly increase their proportion were Wiley (0,3 %), Springer (0,3 %), and BMJ Publishing Group (0,5 %).

Notable is that PLOS has lost its share by 1,6 %. Although, the open-access journal Plos One is the second most popular journal in the dataset, the number of publications decreased from 173 (2014-2018) to 135 (2019-2023). Other publishers to lose their share more than one percent between the intervals of 2014-2018 and 2019-2023 include Elsevier (-1 %), Taylor & Francis (-2 %), and the group of other publishers (-3 %) (table 7).

Table 7. The list of top publishers based on the share of peer-reviewed articles and reviews indexed in WoS or Scopus (*n* = 12258).

Publisher	**All %**	**2014-2018 %**	**2019-2023 %**	**Difference %**
Elsevier	20,2	21,0	19,6	-1,3
Wiley	11,9	11,7	12,0	0,3
Taylor & Francis	10,7	12,1	9,7	-2,3
Springer	8,2	8,1	8,4	0,3
Frontiers Media SA	6,5	4,5	7,9	3,4
Sage	5,9	6,2	5,6	-0,6
Biomed Central (BMC)	3,6	3,9	3,5	-0,5
American Psychological Association	3,4	3,8	3,1	-0,7
Oxford Univ Press	3,2	3,4	3,1	-0,3
PLOS	2,5	3,5	1,9	-1,6
Cambridge Univ Press	2,4	2,6	2,3	-0,3
Nature Portfolio	2,2	1,3	2,8	1,5
MDPI	1,9	0,5	2,8	2,4
Springer Nature	1,9	0,6	2,7	2,1
BMJ Publishing Group	1,2	0,9	1,4	0,5
Other publishers	14,3	16,0	13,1	-2,8
Total number of publications	**12257**	**4966**	**7291**	

5. Discussion and Conclusions

This study offers a novel contribution by examining the publishing patterns of psychology based on Nordic CRIS data providing a more comprehensive picture of publishing patterns in the field.

The first research question investigated the publication patterns of academic psychologists at the level of individual publications. The results show that the four literatures of social science as categorised by Hicks (2005) are present in the dataset: international journals, national journals, books, and the non-scholarly press. The peer-reviewed scholarly articles and reviews represent

76 % of the publications in the dataset, showing that publications are primarily used to report new results for other scientists mainly internationally. Their share has also increased by 17 % between the time intervals of 2014-2018 and 2019-2023. This trend follows the similar trend in psychological publication production shown by Krampen (2016) and Kulczycki et al. (2022). The increase in peer-reviewed publications can be attributed to various factors, including the metrics employed in research evaluation, research collaboration and the overall expansion of scientific activity, particularly in terms of growth in academic staff (Haddow & Hammarfelt, 2019; Joy, 2006; Norwood et al., 2024).

According to results, academic psychologists interact societally in professional and in public media, although the share of non-peer reviewed publishing is small (9 %) of the total number of publications. They communicate professionally beyond academia in magazines targeted for professionals in psychology and other related fields and publish reports and write textbooks. Psychology scholars also interact in public media by writing in newspapers and popular magazines as well as on the internet. Book publishing, especially chapters in edited books, and non-scholarly literatures has remained stable across the decade. These seem to complement international journal publishing as Sivertsen (2022) writes. However, although the recent declarations have emphasised the role of multilingualism in scholarly publishing (Federation Of Finnish Learned Societies et al., 2019) and in research evaluation (CoARA, 2022), the majority of the publications are in English and the share of national languages of the total number of publications (14 %) is small in the dataset.

The second research question focused on the number of authors per publication and by language. The results showed that for the total dataset (excl. dissertations and edited books) co-authorship is typical (87 %). There was a clear increase in the share of English-language multi-authored papers with 6-20 authors from 2014-2018 to 2019-2023. This rise in co-authored papers in psychology is in line with observations of other researchers (Henriksen, 2016; Krampen et al., 2012; Ossenblok et al., 2014). According to Henriksen (2016) the methodological differences affect the collaboration patterns in psychology. Research principally based on experiments, larger datasets, quantitative methods, and interdisciplinary collaboration have the highest rise in the number of authors and international collaboration.

The third research question compared the coverage of the Nordic psychology publications by WoS and Scopus, showing that the dataset's peer-reviewed publications are very well represented in the databases. However, for the non-peer-reviewed publications, especially for journal publications in the native languages as well as for book publications the coverage is limited. It seems that the situation has not changed much from that reported in earlier research for SSH in general (Hicks, 2005; Sivertsen, 2016a). WoS and Scopus have a similar coverage of the dataset's peer-reviewed articles, and all in all the difference

between the databases was small, although Scopus has a slightly better coverage than WoS. As WoS as well as Scopus are used, for example in the research evaluation (Pölönen & Kulczycki, 2025) their influence is inevitably reflected in researchers' selection of publication outlets. Yet, publications not indexed in WoS or Scopus are not meaningless, and to advance responsible research assessment, more incentives are called to support local or national studies (Pölönen & Kulczycki, 2025).

The fourth research question focused on the publishers of peer-reviewed articles and reviews covered by WoS and Scopus. The top four publishers (Elsevier, Springer Nature, Wiley and Taylor & Francis) accounted for 51 % of the publications. Some decrease can be seen when compared with the results of (Larivière et al., 2015) who state that the share of the top five publishers in psychology based on WoS data (Reed-Elsevier, Wiley-Blackwell, Springer, Taylor & Francis, and Sage) was 71 % in 2013. The consolidation of publishers in SSH is affected by the fragmentation of SSH disciplines, which leads to smaller local scientific societies who are more likely to be acquired or have agreements with the large commercial publishers for publishing their journals (Larivière et al., 2015). However, our results indicated a decrease in the share of two (Elsevier, Taylor & Francis) of the top four commercial publishers in the latter 2019-2023 period. At the same time the share of the fully OA journal publishers, for example Frontiers and MDPI has increased. Although a journal is included in WoS or Scopus, authors should be careful with specific publishers. For instance, for MDPI increasingly high rates of self-citations from other MDPI journals has been observed, and for MDPI and Frontiers the proportion of special issues has grown drastically (Hanson et al., 2024; Oviedo-García, 2021).

This study has some limitations. For instance, the number of organisations included in the study is limited, and all are in Nordic countries. Also, the category of non-refereed publications is heterogeneous, as institutions vary in how they manage and report these types of research outputs. Further, the publisher analysis is based on the limited data from WoS and Scopus. Therefore, the generalisation of the findings is limited.

In future, the publications excluded by WoS and Scopus (i.e. national publications, book chapters, edited volumes, monographs), as well as the collaboration patterns and OA publishing of academic psychologists should be studied. Furthermore, the researchers' motivations to choose a particular journal would be a fruitful topic of research.

References

Auranen, O., & Pölönen, J. (2023). Comparing Finnish universities' publication profiles using multidimensional field-normalized indicators. 27th International Conference on Science, Technology and Innovation Indicators (STI 2023). 27th International Conference on Science, Technology and Innovation Indicators (STI 2023). https://doi.org/10.55835/64416fdfb12efcf39479c136

Aksnes, D. W., & Sivertsen, G. (2019). A Criteria-based Assessment of the Coverage of Scopus and Web of Science. Journal of Data and Information Science, 4(1), 1–21. https://doi.org/10.2478/jdis-2019-0001

CoARA. (2022). CoARA – Coalition for Advancing Research Assessment. Access date 25.05.2025 available at https://coara.eu/

Danziger, K. (1997). Naming the mind: How Psychology Found Its Language. https://ebookcentral.proquest.com/lib/tampere/detail.action?docID=1023989

de Castro, P., & Puuska, H.-M. (2023). Research Information Management Systems: Covering the whole research lifecycle. Proceedings of European University Information Systems Congress 2023, 95, 257–265.

Denissen, J. J. A., & Rauthmann, J. F. (2024). A comprehensive scan of psychological disciplines through self-identification on Google Scholar: Relative endorsement, topical coverage, and publication patterns. PLOS ONE, 19(1), e0296421. https://doi.org/10.1371/journal.pone.0296421

Engels, T. C. E., & Kulczycki, E. (2022). Handbook on research assessment in the social sciences. Edward Elgar Publishing.

Federation Of Finnish Learned Societies, The Committee for Public Information; Publishing, The Finnish Association for Scholarly; Universities Norway; European Network for Research Evaluation in the Social Sciences and the Humanities (2019). Helsinki Initiative on Multilingualism in Scholarly Communication. Figshare. Journal contribution. https://doi.org/10.6084/M9.FIGSHARE.7887059

Haddow, G., & Hammarfelt, B. (2019). Quality, impact, and quantification: Indicators and metrics use by social scientists. Journal of the Association for Information Science and Technology, 70(1), 16–26. https://doi.org/10.1002/asi.24097

Hammarfelt, B. (2018). Taking Comfort in Points: The Appeal of the Norwegian Model in Sweden. Journal of Data and Information Science, 3(4), 85–95. https://doi.org/10.2478/jdis-2018-0023

Hanson, M. A., Barreiro, P. G., Crosetto, P., & Brockington, D. (2024). The strain on scientific publishing. Quantitative Science Studies, 5(4), 823–843. https://doi.org/10.1162/qss_a_00327

Henriksen, D. (2016). The rise in co-authorship in the social sciences (1980–2013). Scientometrics, 107(2), 455–476. https://doi.org/10.1007/s11192-016-1849-x

Hicks, D. (2005). The Four Literatures of Social Science. In H. F. Moed, W. Glänzel, & U. Schmoch (Eds.), Handbook of Quantitative Science and Technology Research (pp. 473–496). Kluwer Academic Publishers. https://doi.org/10.1007/1-4020-2755-9_22

Joy, S. (2006). What Should I Be Doing, and Where Are They Doing It? Scholarly Productivity of Academic Psychologists. Perspectives on Psychological Science, 1(4), 346–364. https://doi.org/10.1111/j.1745-6916.2006.00020.x

Krampen, G. (2016). Scientometric trend analyses of publications on the history of psychology: Is psychology becoming an unhistorical science? Scientometrics, 106(3), 1217–1238. https://doi.org/10.1007/s11192-016-1834-4

Krampen, G., Fell, C., & Schui, G. (2011). Psychologists' research activities and professional information-seeking behaviour: Empirical analyses with reference to the theory of the Intellectual and Social Organization of the Sciences. Journal of Information Science, 37(4), 439–450. https://doi.org/10.1177/0165551511412148

Krampen, G., Huckert, T., & Schui, G. (2012). The impact of anglicizing former German-language psychology journals on authorship and citation frequencies. European Psychologist, 17(3), 190–198. https://doi.org/10.1027/1016-9040/a000074

Kulczycki, E., C.E. Engels, T., & Pölönen, J. (2022). Multilingualism of social sciences. In T. C. E. Engels & E. Kulczycki (Eds.), Handbook on Research Assessment in the

Social Sciences. Edward Elgar Publishing. https://doi.org/10.4337/9781800372559.00031

Kulczycki, E., Guns, R., Pölönen, J., Engels, T. C. E., Rozkosz, E. A., Zuccala, A. A., Bruun, K., Eskola, O., Starčič, A. I., Petr, M., & Sivertsen, G. (2020). Multilingual publishing in the social sciences and humanities: A seven-country European study. Journal of the Association for Information Science and Technology, 71(11), 1371–1385. https://doi.org/10.1002/asi.24336

Larivière, V., Haustein, S., & Mongeon, P. (2015). The Oligopoly of Academic Publishers in the Digital Era. PLOS ONE, 10(6), e0127502. https://doi.org/10.1371/journal.pone.0127502

Martinčević, M., Maslić Seršić, D., & Jokić, D. (2023). Contribution of CEE authors to psychological science: Is the growing trend of publishing in non-CEE journals still present 10 years after its inception? Scientometrics, 128(6), 3703–3721. https://doi.org/10.1007/s11192-023-04695-5

Norwood, A. E. Q., Hatvany, T. C., Barber, K. E., Lyons, J. T., & Griffith, J. D. (2024). Scholarly accomplishments: A United States survey of academic psychologists. Current Psychology, 43(22), 19732–19746. https://doi.org/10.1007/s12144-024-05773-4

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(4), 280–290. https://doi.org/10.1093/reseval/rvs019

Ossenblok, T. L. B., Verleysen, F. T., & Engels, T. C. E. (2014). Coauthorship of journal articles and book chapters in the social sciences and humanities (2000-2010): Coauthorship of Journal Articles and Book Chapters in the Social Sciences and Humanities (2000-2010). Journal of the Association for Information Science and Technology, 65(5), 882–897. https://doi.org/10.1002/asi.23015

Oviedo-García, M. Á. (2021). Journal citation reports and the definition of a predatory journal: The case of the Multidisciplinary Digital Publishing Institute (MDPI). Research Evaluation, 30(3), 405–419a. https://doi.org/10.1093/reseval/rvab020

Piro, F. N., Aksnes, D. W., & Rørstad, K. (2013). A macro analysis of productivity differences across fields: Challenges in the measurement of scientific publishing. Journal of the American Society for Information Science and Technology, 64(2), 307–320. https://doi.org/10.1002/asi.22746

Pölönen, J., & Kulczycki, E. (2025). Multilingualism is important for all fields of science. In J. Soler & K. Kaufhold, Language and the Knowledge Economy (pp. 151–175). Routledge. https://doi.org/10.4324/9781003413066-11

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. https://doi.org/10.1007/s11192-009-0037-7

Puuska, H.-M. (2014a). Scholarly Publishing Patterns in Finland [Dissertation, University of Tampere]. https://urn.fi/URN:ISBN:978-951-44-9480-2

Puuska, H.-M. (2014b). Scholarly publishing patterns in Finland: A comparison of disciplinary groups [Dissertation]. University of Tampere.

Sīle, L., Pölönen, J., Sivertsen, G., Guns, R., Engels, T. C. E., Arefiev, P., Dušková, M., Faurbæk, L., Holl, A., Kulczycki, E., Macan, B., Nelhans, G., Petr, M., Pisk, M., Soós, S., Stojanovski, J., Stone, A., Šušol, J., & Teitelbaum, R. (2018). Comprehensiveness of national bibliographic databases for social sciences and humanities: Findings from a European survey. Research Evaluation, 27(4), 310–322. https://doi.org/10.1093/reseval/rvy016

Sivertsen, G. (2016a). Patterns of internationalization and criteria for research assessment in the social sciences and humanities. Scientometrics, 107(2), 357–368. https://doi.org/10.1007/s11192-016-1845-1

Sivertsen, G. (2016b). Publication-Based Funding: The Norwegian Model. In M. Ochsner, S. E. Hug, & H.-D. Daniel (Eds.), Research Assessment in the Humanities (pp. 79–90). Springer International Publishing. https://doi.org/10.1007/978-3-319-29016-4_7

Sivertsen, G. (2022). Publishing in the social sciences and its representation in research evaluation and funding systems. In Handbook on research assessment in the Social Sciences (pp. 238–261).

Smedslund, G., Arnulf, J. K., & Smedslund, J. (2022). Is psychological science progressing? Explained variance in PsycINFO articles during the period 1956 to 2022. Frontiers in Psychology, 13, 1089089. https://doi.org/10.3389/fpsyg.2022.1089089

Whitley, R. (2000). The intellectual and social organization of the sciences. (2nd ed.). Oxford University Press.