II. SOCIAL AND CULTURAL ASPECTS

2

From the Periphery to the Center of Global Knowledge Production? A Bibliometric Analysis of the Evolution of a Social Science Community from a Small Country: Austria

Arno Tausch

The University of the Free State;
Bloemfontein, South Africa

Abstract

This bibliometric analysis of the global presence of Austrian political science (104 senior political scientists) is based on Scopus and OCLC WorldCat. Our global market presence indicators are the number of articles indexed in Scopus; the total number of quotations documented in Scopus; the H-Index according to Scopus; OCLC WorldCat: book with the largest global library presence; OCLC WorldCat: book with the second largest global library presence; OCLC WorldCat: book with the third largest global library presence.

The results of a promax factor analysis of our data and the rankings of the global presence of Austrian political science according to the criteria used in this article are presented.

There is ample evidence of a successful publication strategy based on the international journals, indexed in Scopus and the diffusion of book titles in the global libraries, contained in the OCLC WorldCat by a significant proportion of the Austrian political science community. The data from the Clarivate Analytics Web of Science support our contentions including for the period of 1970–2019.

The arguments against an international publication strategy, citing the global science enterprise as an international mode of power, are utterly wrong. There is no alternative to mainstream scientific publishing with major international journal and book publishers.

Keywords: *economic impacts of globalization, related disciplines, cultural economics.*

Introduction

This contribution provides a bibliometric analysis of the evolution of Austrian political science and its presence in global scientific journals and libraries.

It is based on the study of the publication patterns of 104 senior political scientists associated with Austrian academic institutions since 1970.[1] The detailed analysis of the trajectory of this social science community, which hitherto was not really at the center of global knowledge production in the field, generally associated with the major political science institutions in the United States of America, the United Kingdom and a few other countries, ranking top on any common University ranking system, offers many insights into the evolution of global social science in the period of globalization. This analysis attempts to identify which conditions have led to the considerable global presence of the top Austrian social scientists and offers a number of implications for the social science communities around the globe. The implications drawn hold not only for the Austrian political science community but for social scientists from smaller countries and from countries of the semi-periphery and periphery all over the world.

Today, the use of bibliometric comparisons to assess the scientific impact of a political science community is commonplace in the literature (Erne 2007; Hix 2004; Nederhof 2006). There is now a great variety of countries being cove-red by such studies and the political science communities under such scrutiny include, besides Austria (Ennser-Jedenastik *et al.* 2018) the Czech Republic (Kouba *et al.* 2015); Eastern Europe (Jokic *et al.* 2019); the Francophone countries (Simard and Cornut 2012); Germany (Chi 2012; Kittel 2009; Pehl 2012; Plümper 2003); Latin America (Basabe-Serranoand Huertas 2018); Norway (Schneider 2009); Poland (Bukowska and Łopaciuk-Gonczaryk 2018); Portugal (Cancela *et al.* 2014); Quebec, Canada (Cardinal and Bernier 2017); Switzerland (Bernauer and Gilardi 2010); and the United Kingdom (Butler and McAllister 2009).

But these analyses content themselves with the usual bibliometric indicators of social science journal publications, citations, and a few other analytical indices associated with them, like the H-Index. The Austrian case study, mentioned above (Ennser-Jedenastik *et al.* 2018), only calculates the Austrian share in political social science and international relations publishing over time. None of these studies, however, hitherto analyzed the problem of the global library presence of such a community. Seen from the perspective of smaller countries and the global periphery and semi-periphery, this problem is far from trivial, and deserves a lot of future research efforts.

---

[1] Mr. Farid Hafez from Salzburg University received his *Habilitation* degree too recently to be considered here in our final results.

In general, only occasionally international social science journals ever took notice of the development of political science in Austria in general. One of these few exceptions was the analysis published by Pelinka in 1996 in the leading political science journal of the neighboring country Switzerland in which the author already discovered a strong, and, what we interpret even alarming, dependence of the career patterns of political science professors in Austria on its neighboring 'big brother', Germany, a country with the same official language as Austria, which plays such a dominant role in the Eurozone (Laski and Podkaminer 2012; Podkaminer 2016). Moreover, this dependence of the Austrian Universities on Germany increased ever since. Today, 28 % of the 2,500 university professors in Austria are Germans.[2] Even the *Frankfurter Allgemeine (FAZ),* Germany's leading newspaper, wrote, 'Aus der Internationalisierung wurde eine Germanisierung' (Seiser 2017) (which means 'internationalization turned into Germanization'). Most available analyses about the general trajectory of political science in Austria concurred with the general conclusions of Pelinka's analysis, published two and a half decades ago: a relatively low degree of internationalization of the discipline in the country (Decker *et al.* 2018; Heinisch 2004, 2018; König 2010, 2011, 2013).

The aim of the present contribution is to show that Pelinka's call for increased internationalization of the discipline, for many years centered around the niche of the study of the Austrian political system, was put into practice by a significant and growing number of scholars, especially from the younger generations. An important segment of the profession took up the challenges of prevailing on global science markets, thus re-iterating the results of an earlier extensive bibliometric analysis already published on the subject (Tausch 2016). In a similar vein, Ennser-Jedenastik *et al.* (2018), based on a bibliometric analysis about Austrian political science using more limited data from the *Web of Science* came to a parallel positive conclusion. At about 0.7 % of the worldwide political science research output in 2016, Austria's contribution is even larger than its share of the world's population (about 0.1 %) and, more importantly, its share of global GDP (about 0.34 %).

Our new hard bibliometric data corroborate the general political economy strategy advice of opening up to global markets (OECD 1998).

In a standard fashion, the evidence presented here is, of course, also based on the count of the number of articles, the number of citations, and the H-Index of authors (Bernauer and Gilardi 2010), all evidenced in the most encompassing global science documentation system today, *Scopus*.[3] But as an important addi-

---

[2] URL: https://science.orf.at/stories/2871360/.
[3] URL: https://www.elsevier.com/solutions/scopus; see also de Moya-Anegón *et al.* 2007; Falagas *et al.* 2008. I would like to thank the Department of Development Studies at Vienna University for the opportunity to use the *Scopus* database.

tion, we apply the relatively new methodology of assessing the global library outreach of each of our analysed 104 authors achieved by their three most widely circulated book and book chapter publications (White *et al.* 2009; Tausch 2018).

We present ranking data according to these variables, using well-established techniques of parametric indicator construction based on factor analysis (Heshmati and Oh 2006; Heshmati 2003; Kumbhakar *et al.* 1999; Casu *et al.* 2004).

Some stylized comparisons of the data with the achievements of the respective current political science association presidents in Germany,[4] Switzerland,[5] and the United States of America[6] are presented as simple benchmark indicators of the standards achieved in other countries. And the Austrian's achievements are compared with those of Elinor Claire Ostrom (1933–2012), who is the single political scientist ever to have won the Nobel Memorial Prize in Economic Sciences (2009).[7] The methodology of our comparisons are simple and admittedly even primitive: instead of collecting the data of thousands of political scientists in those countries, we attempt to answer a simple question: Who else than the current President of a Political Science Association represents the prevailing quality standards of political science, widespread in the country? Who else than the single political scientist ever to have been awarded a Nobel Prize might serve as a role model for the global profession?

We finally rounded up our *Scopus*-based analyses with data from the Clarivate Analytics *Web of Science.* The Social Sciences Citation Index (SSCI) was selected, and the results from the fields of Political Science (POL SCI) and International Relations (IR) were specified.[8] In addition, we analyzed the performance of the respective political science community – Austria, Germany, Switzerland, in relation to the share of global GDP of the respective country.

Background

The overall development of political science in Austria can now look back on more than five decades of development (Brand and Kramer 2011; Decker *et al.* 2018; Heinisch 2004; Karlhofer and Plasser 2012; König 2010, 2011, 2013; Markovits and Rosenberger 2001; Pelinka 1995, 2018; Sauer 2016). The list of the past presidents of its professional association, the *Austrian Political Science Association,*[9] assembles the names of the leading personalities who played

---

[4] Germany has two competing political science associations: the DVPW (see URL: https://www. dvpw.de/), and DGPW (URL:http://www.dgfp.org/).

[5] SVPW (URL: https://www.svpw-assp.ch/home/).

[6] APSA (URL: https://www.apsanet.org/).

[7] See URL: https://www.nobelprize.org/prizes/lists/all-prizes-in-economic-sciences/.

[8] See URL: https://clarivate.com/webofsciencegroup/solutions/web-of-science/.

[9] URL: https://www.oegpw.at/ueber-uns/information-in-english.

a pivotal role in the establishment of the discipline since the late 1960s. Without hesitation, one of them is Anton Pelinka, who was elected to this office two times in his long and fruitful career, spanning over almost six decades. *OCLC Classify* nowadays mentions none the less than 25 of his works, which are present at more than 100 libraries around the globe.[10] For any reader of this article, *OCLC WorldCat Identities* offers an additional free, one-click access to the impressive scholarly achievements of this particular Austrian political scientist.[11]

Senn and Eder (2018) in their recent analysis highlighted that the evolution and development of political science in Austria has progressed in five distinct phases, thus reiterating the account already provided by Pelinka himself in 1966. More pessimistic accounts of the trajectory of the discipline in the most periods abound (Decker *et al.* 2018; König 2011; Heinisch 2018).

Still somehow supporting the quoted instances of Austrian self-criticism, the international ranking of Austrian political science journals is currently indeed not yet satisfactory.[12] The ranking of journals which we briefly report here is based on *SCImago Journal & Country Rank,* which is a publicly available portal that includes journals and country scientific indicators developed from the information contained in the *Scopus* database. Not only journals from highly developed Western countries are ranked ahead of the flagship journal of Austrian political science, but also journals from Eastern Europe, the BRICS countries and developing countries, which all did rather well in comparison to the *Austrian Political Science Review* (journals in the Russian Federation, Brazil, Romania, Chile, Colombia, Croatia, India, Turkey, China, the Czech Republic, Lithuania, Mexico, Philippines, Poland, Singapore, Slovenia, South Korea, Taiwan-China, and Venezuela). They all would offer rich and growing publication opportunities, and no gatekeepers in Germany are needed to foster a future career of an Austrian social scientist:

Acquiring a Perspective from Earlier Studies on the Subject

At the outset, we should state that a bibliometric analysis (Braun 1985) of the global library and academic journal presence must not be interpreted as yet

---

[10] URL: http://classify.oclc.org/classify2/ClassifyDemo?search-author-txt=%22Pelinka%2C+Anton%2C+1941-%22.

[11] URL: https://www.worldcat.org/identities/lccn-n80110040/.

[12] URL: https://www.scimagojr.com/journalrank.php?category=3320. It should be emphasized that in general, science and medical journals rank higher than social science journals. The *Austrian Political Science Review,* in global terms, is ranked only 22049th of 31,971 scientific journals, while the journal *Social Evolution & History* is ranked 19,392. The world's leading political science journal *The American Journal of Political Science* is ranked 83rd of all global journals.

another attempt to arrive at a measure of '*academic quality*'. As in the hitherto published single and encompassing bibliometric analysis of Austrian political science (Tausch 2016), we are mainly concerned about reaching out to global scientific markets and about the use of publishing opportunities, pure and simple. In overall terms, the analysis of the global publishing impact of more than 300 political science researchers from Austria and more than 70 senior researchers with '*habilitation*'[13] (*i.e.,* roughly equivalent to tenured professors) already revealed a high global outreach of a considerable and growing globalized segment of the Austrian political science research community (*Ibid.*).

Methodology and Data for the Present Article

Our present analysis now estimates the global impact of the meanwhile 104 senior Austrian political science researchers, associated today or formerly associated with the three departments of political science in Innsbruck, Salzburg and Vienna. They currently or in the past were working at these departments as full or associate professors, or were granted the '*venia legendi*' in the course of the habilitation procedure at their respective departments according to Austrian University law (see also Pelinka 1996). Our sample also contains the current and past presidents of the *Austrian Political Science Association.* We also cross-checked the entries in our sample with the current staff of the major political science think-tanks of the country (see Tausch 2021: Appendix). All scholars with a '*habilitation*' degree were included in the sample.

Bernauer Gilardi (2010) in their bibliometric analysis of the trajectory of Swiss political science relied on the usual methodology combining the number of articles, academic citations and the so-called H-Index in the *Web of Science.* The present analysis is based on the same benchmark indicators, provided by the even more encompassing data base Scopus.

In a simple and clear-cut way, we also rely here on data provided by the *OCLC WorldCat,* the world's single and all-encompassing union catalogue of academic libraries around the globe. [14] Our global market presence indicators for our political science community under investigation thus are:

- number of articles indexed in *Scopus;*.
- total number of quotations documented in *Scopus;*
- H-Index according to *Scopus;*
- *OCLC WorldCat*: book with the largest global library presence;
- *OCLC WorldCat*: book with the second largest global library presence;
- *OCLC WorldCat*: book with the third largest global library presence.

---

[13] URL: https://en.wikipedia.org/wiki/Habilitation; see also Brechelmacher *et al.* 2015.
[14] URL: https://www.worldcat.org/; URL: http://classify.oclc.org/classify2/.

One should make some additional remarks here. *Firstly,* Bernauer and Gilardi (2010) correctly emphasized that the citation process is not necessarily neutral; it can amplify dubious research results and understate solid ones. However, we can agree with their statement that the number and impact of publications is an important indicator of the international visibility of research activity.

Ideally, our bibliometric investigation should have analyzed the time series data for the performance of the median of the Austrian political science community in comparison with that of other analyzed political science communities. For Austria alone, this would have required the analysis of the time series performance of the currently 500 members of the *Austrian Political Science Association*.[15] The competing German political science associations, whose split is beyond the theme of analysis of the present essay (Daase and Deitelhoff 2018; Falter and Wurm 2013; Roß 2013), the DVPW,[16] and the DGPW,[17] have 1,500 members, respectively 200 members each, while the Swiss Political Science Association, SVPW-ASSP,[18] has around 600 members[19] and the American Political Science Association (APSA), founded in 1903, today has 11,000 members in more than 100 countries. Alternatively, we thus had chosen to interpret the succession of the consecutive Presidents of the Austrian Political Science Association and their current global presence in journals and in global libraries as an acceptable *first proxy indicator* of the way, the discipline sets itself its standards. Thus, our comparisons with the 'publication culture' of the political science communities in Germany, Switzerland, and the United States of America rested *as a first approximation* on the analysis of the global journal and library presence of the current Presidents of the respective political science associations in the three countries. In addition, our comparative parameters included the analysis of the journal and global library presence of the first and single winner of a Nobel Prize, the late Nobel Laureate in Economics Elinor Ostrom:[20]

- current German political science president (DVPW) Armin Schäfer – '*Germany 1*';[21]
- current German political science president (DGPW) Florian Grotz – '*Germany 2*';[22]
- current Swiss political science president (SVPW) Pascal Sciarini – '*Switzerland*';[23]

---

[15] URL: https://www.oegpw.at/startseite.
[16] URL: https://www.dvpw.de/.
[17] URL: http://www.dgfp.org/.
[18] URL: https://www.svpw-assp.ch/home/.
[19] URL: https://www.svpw-assp.ch/de/portrait/.
[20] URL: https://www.nobelprize.org/prizes/economic-sciences/2009/ostrom/biographical/.
[21] URL: https://www.dvpw.de/wir/vorstand/.
[22] URL: http://www.dgfp.org/index.php/vorstand.

- current United States political science association (APSA) President Paula D. McClain – '*USA*';[24]
- Nobel Laureate Elinor Ostrom – '*Nobel Laureate*'.

We also compared the global presence of the *median* of the Austrian political science community in journals and in international libraries to the mentioned scholars from Germany, Switzerland, and the United States of America.

Secondly, we highlight that the reason to include data about the global library presence of scientific works is quite simple and has been explained at length in current bibliometric literature (White *et al.* 2009; Zuccala and White 2015; Zuccala and Guns 2013; Zuccala *et al.* 2014, 2015). Counting the presence of author's or even publishing companies' outputs in Union catalogues is a straightforward methodology to ascertain something like the 'real market weight'. White *et al.* (2009) point to the fact that whereas traditional citation counts reflect judgments by authors' peers on publications useful to them, Lib-citation counts reflect judgments by librarians on the usefulness of publications for their various audiences of readers. We arrive at the startling conclusion that title after title you enter into the system of the *OCLC WorldCat,* you arrive at the diagnosis that around 70–80 % of all social science titles are held in the libraries in the vicinity of < 3800 kms from Winnipeg, Canada in the geographical center of the highly developed part of the North American continent, 10–20 % in the vicinity of < 1750 kms from Brussels, Belgium, and even smaller but relatively constant shares are registered for the social science markets of Australia, New Zealand, Southern Africa, and China and East and Southeast Asia.

Thirdly, one should reflect here on the methods of Index construction. Following the introduction of the meanwhile world-famous *Human Development Index* and its annual updates in the Human Development Report in recent years (see UNDP 2013), a rich literature on the quantitative measurement of development outcomes has been developed. These outcomes are often multidimensional and each of the dimensions is represented by several indicators with both positive and negative effects on the development outcome. The multidimensionality of the outcome requires the creation of composite indices to have a single measure of performance and also to aggregate the indicators to rank the researchers in one unique way.

Heshmati (2006a, 2006b) highlighted that there are at least two parametric indices employed for computing an index of any development process: the principal component (PC) or factor analysis (FA). PC is frequently used in most analyses.[25]

---

[23] URL: https://www.svpw-assp.ch/the-association/standing-committee/.

[24] URL: http://people.duke.edu/~pmcclain/; https://www.cambridge.org/core/societies/american-political-science-association.

[25] Principal Component analysis was originally developed by Pearson (1901) and further improved by Hotelling (1933). Heshmati and Oh (2006) used the method for computation of Lisbon De-

PC analysis is a multivariate technique used for examining relationships within a set of interrelated quantitative variables. Given a dataset with J indicators, at most P principal components can be computed; and each is a linear combination of the original indicators with coefficients equal to the *Eigenvectors* of the correlation of the covariance matrix. The principal components are sorted according to the descending order of the *Eigenvalues*, which are equal to the variance of the components. PC analysis is a way to uncover approximate linear dependencies among the indicators. This method gives a least square type solution to the following model:

$$Y = XB + E \qquad \text{(Eq.)}$$

where Y is a $n \times p$ matrix of the centered observed indicators, X is the $n \times j$ matrix of scores of the first j principal components, B is a $j \times p$ matrix of *Eigenvectors* or factor patterns, E is a $n \times p$ matrix of residuals, n is the number of observations, p is the number of partial indicators, and j is the number of indicators of a development process. Unlike the traditional least-squares estimation method case, where the vertical distance between the observed and the fitted line is minimized, here the sum of the squared residuals is measured as distances from the point to the first principal axis.

As part of the analysis, the *Eigenvalues* and *Eigenvectors* are investigated. The *Eigenvalues* greater than 1.0 are used in the computation of the development process index. The *Eigenvalues* are declining from the first component to other components. By looking at the *Eigenvectors,* it becomes evident which indicators form a specific component and the nature of their effects. In each sub-component, an indicator with an *Eigenvector* exceeding 0.30 or 0.50 is considered statistically as a significant contributor to the principal component.

In practice many researchers use only the first principal component in the computation of a parametric index and in the ranking studied. This method has the disadvantage in that it ignores the information embodied in the remaining indicators. One alternative to account for the information embodied in all principal components with an *Eigenvalue* bigger than one is to use a weighted average PC index. In the aggregation of the principal components, one can use their explained share of the total variance as weights. This method of aggregation will allow the utilization of information from all indicators of an outcome.

It should be emphasized that the PC method is generally a very useful method to reduce the complexity of the data with multi-dimensions. However, the linear combinations of the different dimensions of interest may not be always easy to interpret.

---

velopment Strategy Index while Heshmati *et al.* (2008) used it to study child well-being in high- and middle-income countries.

Our chosen method of factor rotation was *Promax* factor rotation (Cureton and Mulaik 1975; Finch 2006; Hendrickson and White 1964; Ogasawara 1998). The used statistical software was *IBM SPSS* Version 24 (Basto and Pereira 2012). Finch (2006), using an item response function, conducted a simulation study to compare the performance of two commonly used methods of factor rotation, namely orthogonal (*Varimax*) and oblique (*Promax*) to identify the presence of a simple structure. Factor rotation involves a transformation of the initial factor loadings to obtain a greater simple structure without changing the underlying mathematical relationships in the data. Finch suggests the nonlinear factor analysis rotation method as the preferred method. Orthogonal rotations assume that the factors are uncorrelated, while the oblique rotations assume that the factors are correlated. The former contains the correlation between the factors, while the latter measures the relationship between the individual factors and items. *Promax* takes the rotated matrix provided by *Varimax* and raises the loadings to powers where the transformed loading values reflect the simple structure better than in the case of *Varimax*. The results from the Finch (2001) simulation study suggest that the two approaches are equally able to recover the underlying factor structure.

Results

In the following, we will briefly present the research results of our investigation.

The Evolutionary Aspect of Austrian Political Science

In a nutshell, we first analyze here how well the *successive past* Presidents of the Austrian political science association from the year 1970 onwards compare with the standards, set by *current* Presidents of the political science associations of Germany, Switzerland and the United States of America and the only Nobel Laureate of global political science.

So, in our following graphs, we analyze the (current) global journal and library presence of the *successive* Presidents of Austrian Political Science with that of the current Presidents of the Political Science Associations in Germany, Switzerland, and the United States of America, and Nobel Laureate Elinor Ostrom. Our figures are a first indicator for the positive and successful evolution of Austrian political science over the last five decades. The tenure of Rainer Bauböck as President of the *Austrian Political Science Association* implied a culmination in the internationalization process of the Austrian political science community (see Figs 1–6). Especially in comparison to the neighboring country Germany, the presence of Bauböck and other presidents of *Austrian Political Science Association* is noteworthy indeed.
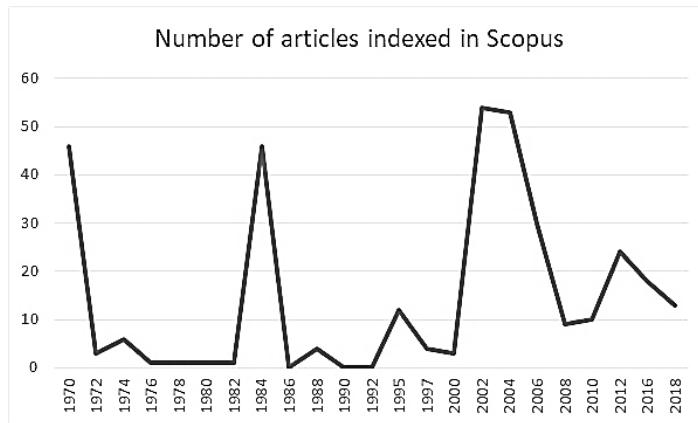
Fig. 1. Number of articles indexed in *Scopus*

	Germany 1	**Germany 2**	**Switzer-land**	**USA**	**Nobel Laureate**
Number of articles indexed in *Scopus*	16	13	58	41	204
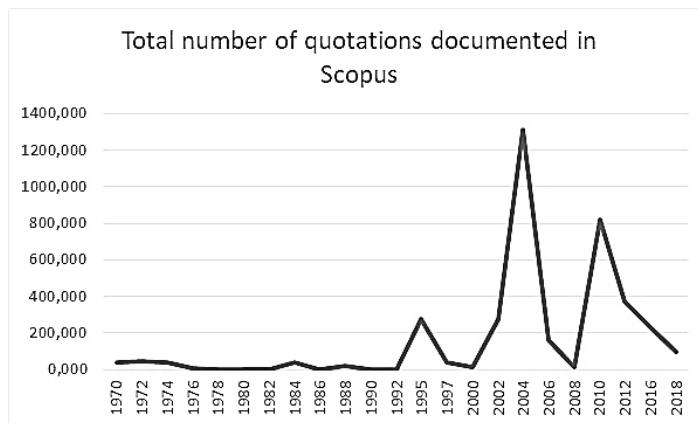
Fig. 2. Total number of quotations documented in *Scopus*

	Germany 1	**Germany 2**	**Switzer-land**	**USA**	**Nobel Laureate**
Total number of quotations docu-mented in *Scopus*	374	54	802	629	46633
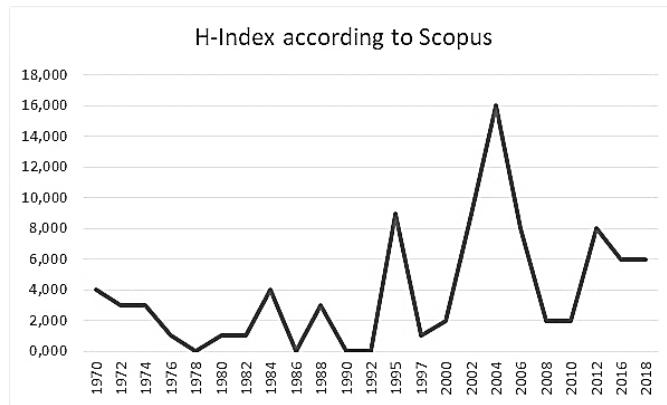
Fig. 3. H-Index according to *Scopus*

	Germany 1	**Germany 2**	**Switzer-land**	**USA**	**Nobel Laureate**
H-Index according to *Scopus*	9	4	17	10	75
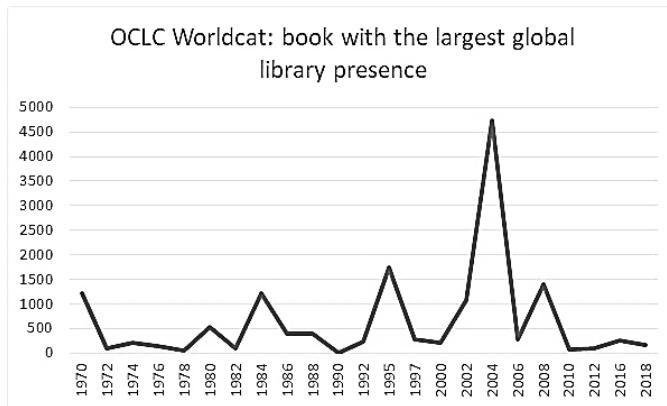
Fig. 4. *OCLC WorldCat:* book with the largest global library presence

	Germany 1	**Germany 2**	**Switzer-land**	**USA**	**Nobel Laureate**
OCLC WorldCat: book with the largest global library presence	67	1432	154	2004	2209
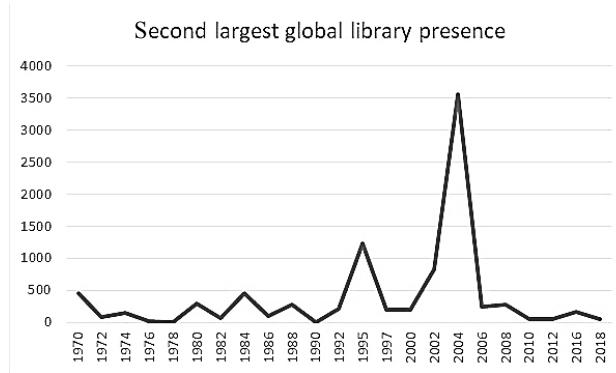
Fig. 5. *OCLC WorldCat:* book with the second largest global library presence

	Germany 1	**Germany 2**	**Switzer-land**	**USA**	**Nobel Laureate**
OCLC WorldCat: book with the second largest global library presence	61	296	59	1750	2041
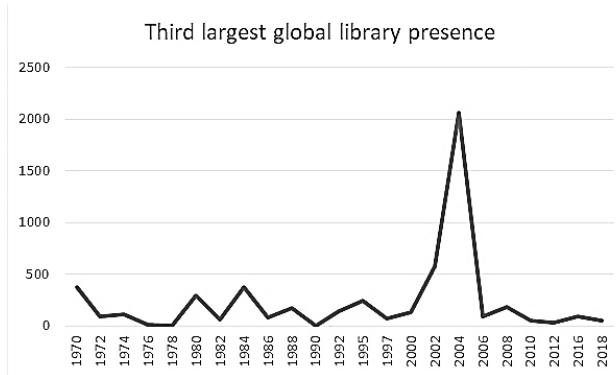
Fig. 6. *OCLC WorldCat:* book with the third largest global library presence

	Germany 1	**Germany 2**	**Switzer-land**	**USA**	**Nobel Laureate**
OCLC WorldCat: book with the third largest global library presence	56	251	56	320	1960

Even at the risk of oversimplifying our results so far, one can say that the successive Austrian political science presidents compare well with the performance of the current German political science presidents, but that the journal publication performance of the current Swiss political science president rather resembles the American example.

Towards a Factor Analytical Parametric Global Market Presence Index

In the following, we present the results of our promax factor analysis of the global publishing presence of the Austrian political science community. Tables 1–3 inform about the most important properties of the factor analytical results – the *Eigenvalues* and the explained variances, the factor loadings of the structure matrix, and the high correlation between the two components. We propose to name the two resulting promax factors '*successful book authors*' and '*successful journal article authors*'. The correlation between the two factors is +.538, that is it can be safely assumed that successful journal publishing and successful book publishing go hand in hand, and the explained variance is 28.9 % (see Table 3).

The total variance explained by our factor analytical model is more than 90 % (see Table 3). Table 1 reveals that the H-Index, achieved by a scholar in the scientific documentation system *Scopus,* is the variable with the highest factor loading for the factor '*successful journal article authors*'.

Table 1. The *Eigenvalues* and the explained variance of our factor analytical model

	Eigenvalues	% of variance explained	% of total variance explained
Successful book authors	4.185	69.751	69.751
Successful journal article authors	1.216	20.258	90.009

Table 2. The structure matrix loadings of our promax factor analytical model

	Successful book authors	Successful journal article authors
Number of articles indexed in *Scopus*	0.525	0.932
Total number of quotations documented in *Scopus*	0.544	0.929
H-Index according to *Scopus*	0.478	0.973
OCLC WorldCat: book with the largest global library presence	0.920	0.465
OCLC WorldCat: book with the second largest global library presence	0.972	0.549
OCLC WorldCat: book with the third largest global library presence	0.960	0.538

Table 3. The correlations of the components of the promax factor analytical model

Correlation matrix of components	Successful book authors	Successful journal article authors
Successful book authors	1.000	0.538
Successful journal article authors	0.538	1.000

The Rankings According to the Parametric Global Market Presence Indicators

Appendix Table 2 (see Tausch 2021) contains the rankings of the global presence of Austrian political science according to the criteria used in this article. The table is based on standard weighting of the factor scores of the promax factor analytical model by the *Eigenvalues* of the factors (Tausch and Heshmati 2017). While we underline that the results reproduce over 90 % of the variance of the original data based on six indicators, one should take into account that in no way these data represent a qualitative ranking of the 104 scholars.

But following the well-established and conservative quality criterion of scholarly journal publishing, where our respective promax factor combines numbers of articles, citations, and the H-Index, it turns out that currently the following scholars are the top 20 % of the profession in Austria:

1. Barbara Prainsack
2. Wolfgang C. Müller
3. Andreas Dür
4. Gerda Falkner
5. Christian Traweger
6. Rainer Bauböck
7. Herbert Gottweis
8. Christian Haerpfer
9. Markus Wagner
10. Ulrich Brand
11. Volkmar Lauber
12. David F. J. Campbell
13. Birgit Sauer
14. Simona Piattoni
15. Ludger Helms
16. Gabriele Spilker
17. Michael Blauberger
18. Sylvia Kritzinger
19. Ronald Pohoryles
20. Thomas Meyer

Discussion

Thus far, our article already made it sufficiently clear that Austrian political science can be more than proud of its achievements. There is ample evidence of a successful publication strategy based on the international journals, indexed in *Scopus* and the diffusion of book titles in the global libraries, contained in the *OCLC WorldCat* by a significant proportion of the Austrian political science community. We also reached the conclusion that Austrian political science is doing much better than its flagship journal. Working with the geographical criteria used in this article (see above), one can establish[26] that of the 453 copies of the *Austrian Political Science Review (Österreichische Zeitschrift für Politikwissenschaft)*, 251 (*i.e.*, 55 %) are available in North America, and 169 (*i.e.*, 37 %) are available in the libraries of the European Union. Only 7 % are available in the rest of the world. It should be mentioned here by comparison that the German political science flagship journal *Politische Vierteljahresschrift* is present at 593 global libraries, 460 of these in North America.[27] But an astonishing number of the Austrian political scientists under scrutiny here (30 of 104, *i.e.* 28.8 %) could place their most widely disseminated work at more libraries than the *Austrian Political Science Review*. 15 scholars (14.4 %) even surpassed the global library presence of the *Austrian Political Science Review* with their second-best work, and five scholars (4.8 %) surpassed the global presence of Austrian political science journal even with their third best placed work.

Some More Comparisons from the Web of Science

We finally rounded up our *Scopus*-based analyses with data from the Clarivate Analytics *Web of Science*. We selected the Social Sciences Citation Index (*SSCI*), and specified results from the fields of Political Science (POL SCI) and International Relations (IR).[28] We compared the number of *SSCI* publications in POL SCI or in IR in 1970–2014 and in 2015–2019, examined the world share of the respective political science community in 1970–2014 and in 2015–2019, and considered the improvements of the most recent five-year period compared to the years 1970–2014. In addition, we analyzed the performance of the respective political science community in relation to the share of global GDP of the respective country.[29]

Austrian political science has now a world share of 0.88 %, thus almost tripling its low percentage share of 0.34 % of the years 1970–2014. The Austrian political science community could thus improve its hitherto very low global

---

[26] URL: https://www.worldcat.org/advancedsearch.
[27] URL: https://www.worldcat.org/advancedsearch.
[28] URL: https://clarivate.com/webofsciencegroup/solutions/web-of-science/.
[29] URL: https://www.statista.com/.

share by a factor of 2.59. The share of Austrian political scientists in global social scientific publishing in *SSCI* journals is now 2.59 greater than Austria's share in global GDP.

However, Table 4 also demonstrates the quantitative and qualitative leap forward by the Swiss political science community during the same time period, which now has a global percentage share of 1.87 % of all published materials in the field of Political Science and International Relations, indexed in the *Social Sciences Citation Index*. The Swiss colleagues of the Austrian political scientists still even more forcefully followed the strategy, advocated in this article, and increased their global share in *Social Sciences Citation Index* relevant publishing by 3.50. The Swiss share in the published materials in the field of Political Science and International Relations, indexed in the *Social Sciences Citation Index,* is now 4.56 times higher than the share of Switzerland in global GDP, thus indicating that over the last years, the small country Switzerland became a global medium power in world-wide political science.

Table 4. Austrian, German and Swiss political science in the Clarivate Analytics *Web of Science* (*Social Sciences Citation Index*) – Political Science (POL SCI) and International Relations (IR)

	Austria	**Germany**	**Switzerland**
Number of *SSCI* publications POL SCI or IR 1970–2014	1935	14528	3035
Number of *SSCI* publications POL SCI or IR 2015–2019	615	3946	1301
World share of *SSCI* publications in POL SCI and IR 1970–2014 in %	0.34	2.56	0.53
World share of *SSCI* publications in POL SCI and IR 2015–2019 in %	0.88	5.67	1.87
Share of world GDP, 2018	0.34	3.22	0.41
World share of *SSCI* publications in POL SCI and IR 2015–2019 in % is x-times greater than the share of world GDP, 2018	2.59	1.76	4.56
Improvement 2015–2019 to 1970–2014 by a factor of …	2.59	2.22	3.50

The success story of the last five years also implies that the Austrian political scientists' work published between 2015 and 2019 amounted to 24 % of the total contributions ever published by Austrian political scientists in the *SSCI* since 1970. In Switzerland, this share was even 30 %, indicating the rapid internationalization of social science in both countries over the last five years.

Conclusions and Strategic Implications

We argue that Austrian social scientists would do well to consider also publishing in well-established journals in the geographical vicinity of Austria or in the BRICS countries. With a growing recruitment of the academic staff of Austrian Universities from the big neighboring country Germany, such a strategic choice also has important cultural and scientific foreign policy implications. Faced with the depressing realities of German economic dominance in the Eurozone (see Laski and Podkaminer 2011; Laski and Walther 2015), German dominance over Austrian Universities is a far bigger problem than any 'dangers' 'emanating' from the Anglo-Saxon science enterprise as an international mode of power.

Not only journals from highly developed Western countries are nowadays ranked ahead of the flagship journal of Austrian political science, but also the journals from Eastern Europe, the BRICS countries and developing countries, which all did rather well in comparison to the *Austrian Political Science Review* (journals in the Russian Federation, Brazil, Romania, Chile, Colombia, Croatia, India, Turkey, China, the Czech Republic, Lithuania, Mexico, Philippines, Poland, Singapore, Slovenia, South Korea, *etc.*). 30 years after the fall of the Iron Curtain, it is depressing to see that of the 104 Austrian political scientists analyzed here, only a handful of them ever published in the high-quality Political Science journals being published in Eastern Europe and being indexed in the *Central and Eastern European Online Library CEEOL*.[30] In the hearts and minds of the Austrian political science community, all too often, the Iron Curtain still seems to divide the European continent. The same applies to the many high-quality publishing opportunities, now existing with Russia's *Socionauki* journals.[31]

If anything, cultural diversity in publishing will be an important task for Austrian political scientists in the future. Compared to the bibliometric study Tausch (2016), the number of Austrian political scientists publishing in French or Spanish still remains very low. These structures will have to change, if Austrian political science wants to continue its successful path.

References

Basabe-Serrano S., and Huertas S. 2018. El estado de la investigación en ciencia política sobre América Latina. *Revista Española de Ciencia Política* 47: 153–170.

Basto M., and Pereira J. M. 2012. An *IBM SPSS* R-Menu for Ordinal Factor Analysis. *Journal of Statistical Software* 46(4): 1–29.

Bernauer T., and Gilardi F. 2010. Publication Output of Swiss Political Science Departments. *Swiss Political Science Review* 16(2): 279–303.

---

[30] URL: https://www.ceeol.com/.
[31] URL: https://www.sociostudies.org/.

Brand U., and Kramer H. 2011. Für eine kritische Politikwissenschaft. Anmerkungen zu Thomas Königs Essay 'Das unvollständige Projekt. Bestandsaufnahme der österreichischen Politikwissenschaft'. *ÖZP – Austrian Journal of Political Science* 40(3): 315–323.

Braun T. 1985. *Scientometric Indicators: A 32-Country Comparative Evaluation of Publishing Performance and Citation Impact.* Singapore – Philadelphia: World Scientific.

Brechelmacher A., Park E., Ates G., and Campbell D. F. 2015. The Rocky Road to Tenure – Career Paths in Academia. *Academic Work and Careers in Europe: Trends, Challenges, Perspectives* / Ed. by T. Fumasoli, G. Goastellec, and B. Kehm, pp. 13–40. Cham: Springer.

Bukowska G., and Łopaciuk-Gonczaryk B. 2018. Publishing Patterns of Polish Authors in Domestic and Foreign Economic Journals. *Ekonomista* (4): 442–466.

Butler L., and McAllister I. 2009. Metrics or Peer Review? Evaluating the 2001 UK Research Assessment Exercise in Political Science. *Political Studies Review* 7(1): 3–17.

Cancela J., Coelho T. D., and Ruivo J. P. 2014. Mapping Political Research in Portugal: Scientific Articles in National Academic Journals (2000–2012). *European Political Science* 13: 327–339.

Cardinal L., and Bernier A. 2017. La gouvernance francophone de la Revue canadienne de science politique et la diffusion des connaissances en français, de 1968 à 2015. *Revue canadienne de science politique* 50(1): 57–76.

Casu B., Girardone C., and Molyneux P. 2004. Productivity Change in European Banking: A Comparison of Parametric and Non-Parametric Approaches. *Journal of Banking & Finance* 28(10): 2521–2540.

Chi P. S. 2012. Bibliometric Characteristics of Political Science Research in Germany. *Proceedings of the American Society for Information Science and Technology* 49(1): 1–6.

Cureton E. E., and Mulaik S. A. 1975. The Weighted *Varimax* Rotation and the *Promax* Rotation. *Psychometrika* 40(2): 183–195.

Daase C., and Deitelhoff N. 2018. Schiss vor'm Schisma. Für epistemische Toleranz in der Politikwissenschaft und den Internationalen Beziehungen. *ZIB Zeitschrift für Internationale Beziehungen* 25(2): 3–5.

de Moya-Anegón F., Chinchilla-Rodríguez Z., Vargas-Quesada B., Corera-Álvarez E., Muñoz-Fernández F. J., González-Molina A., and Herrero-Solana V. 2007. Coverage Analysis of *Scopus*: A Journal Metric Approach. *Scientometrics* 73(1): 53–78.

Decker P., and Campbell D. F. J., and Braunstein J. 2018. Interdisciplinarity as a Source of Relevance in Political Science. *ÖZP – Austrian Journal of Political Science* 47(3): 19–32.

Ennser-Jedenastik L., Meyer T. M., and Wagner M. 2018. The Relevance of Empirical Political Science in Austria: Ask Important Questions, Study Them Rigorously, and Let People Know. *Österreichische Zeitschrift für Politikwissenschaft* 47(3): 33–42.

Erne R. 2007. On the Use and Abuse of Bibliometric Performance Indicators: A Critique of Hix's 'Global Ranking of Political Science Departments'. *European Political Science* 6(3): 306–314.

Falagas M. E., Pitsouni E. I., Malietzis G. A., and Pappas G. 2008. Comparison of PubMed, *Scopus*, Web of Science, and Google Scholar: Strengths and Weaknesses. *The FASEB Journal* 22(2): 338–342.

Falter J. W., and Wurm F. W. (Eds.) 2013. *Politikwissenschaft in der Bundesrepublik Deutschland: 50 Jahre DVPW*. Cham: Springer-Verlag.

Finch H. 2006. Comparison of the Performance of *Varimax* and *Promax* Rotations: Factor Structure Recovery for Dichotomous Items. *Journal of Educational Measurement* 43(1): 39–52.

Heinisch R. 2004. Political Science between Intellectual Achievement, Critical Discourse and a Search for Relevance: Reflections on the State of the Discipline in Austria and the United States. *Demokratie und Politik. 40 Jahre Politikwissenschaft in Österreich* / Ed. by H. Kramer, pp. 71–98. Wien: Peter Lang.

Heinisch R. 2018. Struggling to Address the 'Big and Burning' Questions: The Opportunities and Perils of (Austrian) Political Science Going Mainstream. *Österreichische Zeitschrift für Politikwissenschaft* 47(3): 71–79.

Hendrickson A. E., and White P. O. 1964. *Promax*: A Quick Method for Rotation to Oblique Simple Structure. *British Journal of Statistical Psychology* 17(1): 65–70.

Heshmati A., Tausch A., and Bajalan C. 2008. Measurement and Analysis of Child Well-Being in Middle and High Income Countries. *European Journal of Comparative Economics* 5(2): 227–286.

Heshmati A. 2003. Productivity Growth, Efficiency and Outsourcing in Manufacturing and Service Industries. *Journal of Economic Surveys* 17(1): 79–112.

Heshmati A. 2006a. Measurement of a Multidimensional Index of Globalization. *Global Economy Journal* 6(2): Article 1.

Heshmati A. 2006b. The Relationship between Income Inequality Poverty, and Globalization. *The Impact of Globalization on the World's Poor* / Ed. by M. Nissanke, and E. Thorbecke, pp. 59–93. Basinsgtoke – New York: Palgrave Macmillan.

Heshmati A., and Oh J-E. 2006. Alternative Composite Lisbon Development Strategy Indices: A Comparison of EU, USA, Japan and Korea. *The European Journal of Comparative Economics* 3(2): 133–170.

Hix S. 2004. A Global Ranking of Political Science Departments. *Political Studies Review* 2(3): 293–313.

Hotelling H. 1933. Analysis of a Complex of Statistical Variables into Principal Components. *Journal of Educational Psychology* 24: 417–441.

Jokić M., Mervar A., and Mateljan S. 2019. The Development of Political Science in Central and Eastern Europe: Bibliometric Perspective, 1996–2013. *European Political Science* 18(3): 491–509.

Karlhofer F., and Plasser F. 2012. Die Innsbrucker Politikwissenschaft: Konsolidierung und Profilbildung. *Österreichische Zeitschrift für Politikwissenschaft* 41(1): 95–112.

Kittel B. 2009. Eine Disziplin auf der Suche nach Wissenschaftlichkeit: Entwicklung und Stand der Methoden in der deutschen Politikwissenschaft. *Politische Viertel-jahresschrift* 50(3): 577–603.

König T. 2010. Die Geschichte der Disziplin Politikwissenschaft im Verhältnis zu öster-richischer Forschungspolitik und gesellschaftlichen Rahmenbedingungen. *Steuerung von Wissenschaft? Die Governance des österreichischen Innovationssystems* / Ed. by P. Biegelbauer, pp. 223–257. Innsbruck: Studienverlag.

König T. 2011. Das unvollständige Projekt. Bestandsaufnahme der österreichischen Politikwissenschaft. *ÖZP – Austrian Journal of Political Science* 40(1): 81–89.

König T. 2013. Vom Naturrecht zum Behavioralismus und darüber hinaus. Konzep-tionelle Grundlagen der Disziplin Politikwissenschaft in Österreich. *Österreichische Zeitschrift für Politikwissenschaft* 41(4): 419–438.

Kouba K., Císař O., and Navrátil J. 2015. The Czech Political Science: A Slow March Towards Relevance. *Political Science in Europe at the Beginning of the 21st Century* / Ed. by B. Krauz-Mozer, M. Kułakowska, P. Borowiec, and P. Ścigaj, pp. 63–85. Jagiellonian University Press.

Kumbhakar S. C., Heshmati A., and Hjalmarsson L. 1999. Parametric Approaches to Productivity Measurement: A Comparison Among Alternative Models. *Scandinavi-an Journal of Economics* 101(3): 405–424.

Laski K., and Podkaminer L. 2011. Common Monetary Policy with Uncommon Wage Policies: Centrifugal Forces Tearing the Euro Area Apart. Intervention. *European Journal of Economics and Economic Policies* 8(1): 21–29.

Laski K., and Podkaminer L. 2012. The Basic Paradigms of EU Economic Policy-Making Need to Be Changed. *Cambridge Journal of Economics* 36(1): 253–270.

Łaski K., and Walther H. 2015. Kalecki's Profits Equation After 80 Years. *Michał Kalecki in the 21st Century*, pp. 131–156. London: Palgrave Macmillan.

Markovits A. S., and Rosenberger S. K. (Eds.) 2001. *Demokratie: Mudus und Telos: Beïtrage für Anton Pelinka*. Wien: Böhlau Verlag.

Nederhof A. J. (2006). Bibliometric Monitoring of Research Performance in the Social Sciences and the Humanities: A Review. *Scientometrics* 66(1): 81–100.

OECD – Organisation for Economic Co-operation and Development. 1998. *Open Markets Matter: The Benefits of Trade and Investment Liberalisation.* Paris: Organi-sation for Economic Co-operation and Development.

Ogasawara H. 1998. Standard Errors for Rotation Matrices with an Application to the *Promax* Solution. *British Journal of Mathematical and Statistical Psychology* 51(1): 163–178.

Pearson K. 1901. On Lines and Planes of Closest Fit to Systems of Points in Space. *Philosophical Magazine* 6(2): 559–572.

Pehl M. 2012. The Study of Politics in Germany: A Bibliometric Analysis of Subfields and Methods. *European Political Science* 11(1): 54–70.

Pelinka A. 1995. Fluch und Segen der Normalität. Zur Situation der Politikwissenschaft in Österreich. *Österreichische Zeitschrift für Politikwissenschaft* 24(3): 347–351.

Pelinka A. 1996. Politikwissenschaft in Österreich. *Swiss Political Science Review* 2(4): 1–12.

Pelinka A. 2018. The Discipline of Political Science: (Re)Positioning between Naïve Objectivity and Self-Destroying Pure Partisanship. *ÖZP – Austrian Journal of Political Science* 47(3): 81–88.

Plümper T. 2003. Publikationstätigkeit und Rezeptionserfolg der deutschen Politikwissenschaft in internationalen Fachzeitschriften, 1990–2002. Eine bibliometrische Analyse der Veröffentlichungsleistung deutscher politikwissenschaftlicher Fachbereiche und Institute. *Politische Vierteljahresschrift* 44(4): 529–544.

Podkaminer L. 2016. Economic Disintegration of the European Union: Not Unavoidable, but Probable. *Acta Oeconomica* 66(s1): 49–60.

Roß B. (Ed.) 2013. *Migration, Geschlecht und Staatsbürgerschaft: Perspektiven für eine anti-rassistische und feministische Politik und Politikwissenschaft.* Vol. 16. Cham: Springer-Verlag.

Sauer B. 2016. Austrian Exceptionalism? Insights from a Huge Department in a Small Country. *European Political Science* 15: 332–342.

Schneider J. W. 2009. An Outline of the Bibliometric Indicator Used for Performance-Based Funding of Research Institutions in Norway. *European Political Science* 8(3): 364–378.

Senn M., and Eder F. 2018. Cui Bono Scientia Politica? A Multi-Dimensional Concept of Relevance and the Case of Political Science in Austria. *Österreichische Zeitschrift für Politikwissenschaft* 47(3): 1–17.

Sieber J., and Gradmann S. 2011. *How to Best Assess Monographs?* Berlin: Humboldt University.

Seiser M. 2017. Aus der Internalisierung wurde eine Germanisierung. *Frankfurte Allgemeine.* December, 26. URL: https://www.faz.net/aktuell/wirtschaft/immer-mehr-deutsche-professoren-in-oesterreich-15350152.html.

Simard C., and Cornut J. 2012. La science politique francophone. Défis et trajectoires. *Politique et Sociétés* 31(3): 3–8.

Tausch A. 2016. The Global Publishing Trajectory of a European Political Science Community: Indices, Trends, and Implications. [La trayectoria global de publicaciones de una Comunidad Europea de Ciencia Política: índices, tendencias e implicaciones]. *Entelequia: Revista Interdisciplinar, (Universidad de Cadiz)* 19: 261–324. URL: https://revistaentelequia.wordpress.com/2016/11/26/la-trayectoria-global-de-publicaciones-de-una-comunidad-europea-de-ciencia-politica-indices-tendencias-e-implicaciones.

Tausch A. 2018. The Market Power of Global Scientific Publishing Companies in the Age of Globalization: An Analysis Based on the *OCLC WorldCat. Journal of Globalization Studies* 9(2): 63–91. URL: https://www.sociostudies.org/upload/sociostudies.org/journal/jogs/2018_2/063-091.pdf; https://doi.org/10.30884/jogs/2018.02.05.

Tausch A., and Heshmati A. 2017. Testing Turkey's Place Within the Maps of Global Economic, Political and Social Values. *Polish Political Science Review* 5(1): 73–110.

Tausch A. 2021. From the Periphery to the Center of Global Knowledge Production? A Bibliometric Analysis of the Evolution of a Social Science Community from a Small Country: Austria. *Journal of Globalization Studies* 12(2): 69–102. Volgograd: Uchitel.

UNDP. 2013. *Human Development Report 2013. The Rise of the South: Human Progress in a Diverse World.* New York: Oxford University Press.

White H. D., Boell S. K., Yu H., Davis M., Wilson C. S., Cole, and Fletcher T. H. J. 2009. *Libcitation*s: A Measure for Comparative Assessment of Book Publications in the Humanities and Social Sciences. *Journal of the American Society for Information Science & Technology* 60(6): 1083–1096.

Zuccala A. A., and White H. D. 2015. Correlating *Libcitation*s and Citations in the Humanities with *WorldCat* and *Scopus* Data. *Proceedings of the 15th International Society for Scientometrics and Informetrics (ISSI)* / Ed. by A. A. Salah, Y. Tonta, A. A. Akdag Salah, C. Sugimoto, and U. Al, pp. 305–316. Istanbul, Turkey, June 29 – July, 4. Bogazici University.

Zuccala A., and Guns R. 2013. Comparing Book Citations in Humanities Journals to Library Holdings: Scholarly Use Versus Perceived Cultural Benefit. *Proceedings of the 14th International Conference of the International Society for Scientometrics and Informetrics*, pp. 353–360. Vienna: AIT Austrian Institute of Technology.

Zuccala A., Guns R., Cornacchia R., and Bod R. 2015. Can We Rank Scholarly Book Publishers? A Bibliometric Experiment with the Field of History. *Journal of the Association for Information Science and Technology* 66(7): 1333–1347.

Zuccala A., Someren M., and Bellen M. 2014. A Machine-Learning Approach to Coding Book Reviews as Quality Indicators: Toward a Theory of Megacitation. *Journal of the Association for Information Science and Technology* 65(11): 2248–2260.