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Marx, Engels, Lenin, and Stalin as highly cited researchers? Historical bibliometrics study

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Abstract
The motivation for our research is the view, widespread among Polish scientists, that under the Communist Party's rule it was always necessary to refer to Marx, Engels, Lenin or Stalin (we call them 'classics'), especially in the highly-politicised fields like humanities and social sciences, in order for the work to pass the censorship procedures and be published. Therefore, in this paper, we aim to determine whether the 'classics' were commonly cited in a formally socialist country under the rule of the Communist Party (Polish Workers' Party/Polish United Workers' Party). To address the main research question, we use the Citation Index of the History of Polish Media that covers all publications, whether scholarly articles or book publications, on the history of Polish media; in total, 6880 publications and 59,827 citations from the 1945–2009 period. We found that citations of the works of the 'classics' ($N=296$) constitute 0.49% of all citations in the database used and that the practice of citing the 'classics' was extremely rare (just 64 occurrences in the analysed sample). Our research also contributes to the development of reflection in historical bibliometrics and argues that bibliographical databases need to cover various types of publications, especially scholarly book publications, written in different languages (not only in English).

Keywords Historical bibliometrics · Highly cited researchers · Marx · Engels · Lenin · Stalin · History · Polish media

Introduction

In this paper, we aim to determine whether Karl Marx, Friedrich Engels, Vladimir Lenin and Joseph Stalin (henceforth, 'classics') were commonly cited in a formally socialist country under the rule of the Communist Party (Polish United Workers' Party). The direct motivation for our research is the view, widespread among Polish scientists, that under the Communist Party's rule it was always necessary to refer to the 'classics' (the so-called ritual citations), especially in the highly-politicised fields like humanities and social sciences,

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in order for the work to pass the censorship procedures and be published (Romek, 2006, p. 25; 2010, p. 327). We intended to discover how much of this view is actually reflected in the bibliographical data and whether these 'classics' were actually cited or referenced in the majority of the scholarly publications in the period of the rule of the Communist Party in Poland (1945–1990). Moreover, to examine whether this practice continued or disappeared after the political transformation in Poland, we extended the range of years analysed to 2009, i.e., the last year of indexed publications in the database used in the study. Addressing this question is impossible when employing the most commonly-utilised databases such as Web of Science Core Collection (WoS) or Scopus because of their lack of publications in languages other than English, and their lack of scholarly book publications in general, which are crucial for the study of the social sciences and humanities. Thus, in order to investigate our research question, we used a comprehensive dataset for one discipline that covers all publications (whether scholarly articles or books) on the history of Polish media, as described in a previous study by Kolasa (2012).

Were Marx, Engels, Lenin and Stalin 'highly-cited researchers' in the science systems such that their works were part of the official ideological cannon? Was there a specific period of their enforced popularity among the scientists in specific disciplines that developed under the communist rule? The scientometrics literature suggests that this might be the case. Eugene Garfield (1980) showed that Karl Marx was the most cited researcher (in the top 100) in the Arts & Humanities Citation Index in 1977/1978, topping the list with 1644 total citations from 704 articles (the average number of citing articles was 210 and the average number of citations was 414); far more than Aristotle, Plato or Shakespeare. Part of his popularity was due the extensive citation of his works in *Deutsche Zeitschrift fur Philosophie* published in East Germany. Engels was present on the list of the top 100 influential authors, but Lenin defeated Marx in the number of total citations, scoring 1737 citations acquired from 537 sources (approx. 60% of them from the two of Soviet journals in history). Nonetheless, if the dominance of Marxist 'classics' in the field of arts & humanities in the late 1970s was discernible using a largely Anglophone database, what was the broader picture? Few sources support this conviction regarding the prevalence and the importance of the ritual practice of citation, almost mandatory in some political contexts, to Marxist classics in the socialist science systems (Hammarfelt, 2011, p. 713; Hjørland, 2013; Oleksiyenko, 2020, p. 7). Therefore, the question as to whether Marx, Engels, Lenin and Stalin were 'highly-cited researchers' in the socialist science systems is legitimate, though it cannot be answered without a different method of inquiry—that of historical bibliometrics.

Historical bibliometrics, defined as the 'bibliometric study of journals and books published in the framework of time and space' (Hérubel, 1994), focuses on the study of long-term phenomena and trends. Thus, it requires access to special sources which cover bibliographical data. The level of difficulty increases if the subjects of historical bibliometrics are social sciences and humanities (SSH) publications (Colavizza, 2018), what is well documented (Must, 2012; Pölönen & Hammarfelt, 2020; Waltman, 2016). In contrast to the STEM fields, research in the SSH has a stronger local orientation and the results are more often published in books (Hicks, 1999; Nederhof, 2006). Additional challenges of SSH studies are caused by a specific mode of proof (e.g. in history) requiring the citation of a large number of primary (material) sources that are not recorded in international citation indexes (Knievel & Kellsey, 2005). The result of these challenges is that publications in the SSH field are poorly represented in WoS and the Scopus database.

Various studies on the coverage degree of SSH publications in WoS have argued that the percentage of indexed publications from this area depends on the discipline and changes

over time (Waltman, 2016). For example, in Finland in 1998 only 19.8% of articles in the SSH were in international distribution, while four years later in 2002 this share had increased to 26.2% (Archambault et al., 2006). When the data were analysed over long periods of time, the percentage was much lower. An analysis carried out on publications concerning the history of the Polish press in the years 1945–2009 proved that the relevance between a reference source and WoS was as low as 0.38% (Kolasa, 2012), which meant that over 99.6% of publications in this field were not circulating worldwide. The findings leave little doubt that international indexes are hardly suitable for historical bibliometrics research, and this applies in similar measure to WoS, Scopus and Google Scholar (Harzing & Alakangas, 2016; Must, 2012). Therefore, addressing our research question required the use of a special database that would sufficiently cover publications from a given field.

In this study, we used the Citation Index of the History of Polish Media (CIHPM) to investigate the presence of 'classics' in scientific discourse. The CIHPM contains the complete set of publications on the history of Polish media from 1945 to 2009, which includes 24,627 documents linked by a grid of 63,811 citations. The key portion of the publications is devoted to media history (15,920 documents cited 52,254 times). The CIHPM was compiled according to a proprietary method similar to the principles used by the Institute of Scientific Information in the 1990s (Kolasa, 2011b), and targeted to achieve the highest possible concentration of citations. The final result was similar to that of the WoS; the citation impact (the number of citations per item cited) was 6.66. Although this parameter was slightly lower than the average in the WoS (10.75)(and in particular the leading disciplines like molecular biology [18.61]), it was at the same time similar to those in such fields as agricultural sciences (5.71) or materials science (5.89). On the other hand, it turned out to be almost twice as high as the identical index for the social sciences in the WoS (2.80–4.36) and four times as high as the humanities in the WoS index (1.35–1.80) (Marshakova-Shaikevich, 2001).

Background

Socialist background of the Polish science organization

The Polish science system was reshaped in the 1950s in line with the Soviet ideas of organization of that sector (Connelly, 2000; Dobbins, 2011), but Poland had never been a Soviet country, and therefore its system cannot be considered to be post-Soviet like those of Russia, Kazakhstan or Ukraine (Huisman et al., 2018). Structural similarities in science system organization, for example, a separate research sector in the Polish Academy of Sciences, specialization of the higher education institutions, the specialization of research, delegation of the universities in the teaching sphere and the intensive period of Stalinization of academic life that occurred in the 1950s, were not enough to turn the Polish system into a Soviet twin (Connelly, 2000; Zysiak, 2016). Regardless of the fact that by 1950, the science system in Poland had been integrated into the Soviet sphere of influence (Dobbins, 2011, p. 153), and that researchers, even today, continuously refer to the whole period of communist rule as the period of 'chained science' (Connelly, 2000; Herczyński, 2008), the relative cognitive autonomy of the academic profession in specific disciplines and organizations was maintained in specific periods (Hübner, 1998) Separation of research and teaching was also resisted to the greatest possible degree (Dobbins, 2011; Zysiak, 2016). In this respect,

the Polish science and higher education system differed not only from the system in the Soviet Union, but also from its Eastern European socialist neighbours, like East Germany and Czechoslovakia (Connelly, 2000; Dobbins, 2011; Zysiak, 2016).

Despite the differences between the structural dynamics of the science system in Poland and those of the Soviet and Eastern European countries, the Polish science system experienced similar trends in the reorganisation of scientific life. One of the components of these processes was the stabilisation of Marxism–Leninism as the official ideological frame of reference for academic activities. Not only were professors undergoing the same form of ritualistic socialisation as their Soviet 'comrades', they were also expected to rely on the official handbooks and to use excerpts from the 'classics' in their academic practices (Connelly, 2000, p. 180; Oleksiyenko, 2020, p. 7). Therefore, Marxism-Leninism was part of the body of the official state ideology and academics were expected to follow its rules and discoveries. These expectations were enforced on academics by the mechanisms of political pressure.

One example of the existence of these political pressures was the ideological transformation of the discipline of history in Poland that began in 1947 (Hübner, 1998). History became a target of the campaign to spread Marxist theory and its achievements in Polish science. During the series of National Congresses (1948 in Wrocław, 1951 in Warsaw, 1951–1952 in Otwock), proposals for the dialectical materialist renewal of the discipline were articulated and the influence of the communist historians on its dynamic was strengthened. In addition to the gradual institutionalisation of the Marxist-ruled discipline of history in the 1950s, the same period was marked by the growing role of the mechanisms of censorship in regulating its academic life (Romek, 2010). However, what seemed more important to successfully passing the reviews of censorship than quoting 'classics', was an alignment with a particular vision of world history and the expression of support for a specific (Soviet, Russian or Eastern European) geopolitical camp. For instance, when in 1949 Polish historian Stefan Kuczyński submitted a manuscript of his monograph *O wyprawie Włodzimierza I ku Lachom w związku z początkami Państwa Polskiego* [On the expedition of Vladimir I against Lakhs in relation to the beginnings of the Polish State] to the Ministry of Higher Education and Science with a request for a publication, it was not blocked due to the lack of citations to the works of classics. This book containing a highly detailed analysis of the Rus chronicle written by monach Nestor, from 981, while praised by the academic-censors as an excellent study, got stopped and denied publication because it denied the ethnical Rus roots of particular lands. As such, it conflicted with a specific geopolitical vision widely accepted in Soviet history (Romek, 2010, pp. 176–179).

The Citation Index of the History of Polish Media (CIHPM) versus SCOPUS

The choice of CIHPM to investigate the presence of 'classics' is due to two reasons. The first and most important is completeness of the database, allowing for an ability to draw reliable conclusions. The CIHPM registers all the literature from small historical sub-disciplines, and its selection are made using an expert method. Therefore, there are no omissions of any group of publications (as in WoS or Scopus). All publications, regardless of their form (articles, monographs, chapters, reports), language or range (local, national, international) have been registered in full. We should, however, point out that WoS or Scopus might be useful to some extent for the purposes of historical bibliometrics when the

scope of study is limited to citing authors from the UK and the US who dominate those indexes (Waltman, 2016).

We verified this claim using the Scopus data. By the query: QUERY = SUBJTERMS(1202) AND (LIMIT-TO (AFFILCOUNTRY, "United States") OR LIMIT-TO (AFFILCOUNTRY, "United Kingdom")), we found 473 documents from 1970 to 2009 which refer to Lenin's works, 2333 documents referring to Marx & Engels and 6586 documents which refer to the two authors most often co-cited from the 'classics', those being Max Weber (2061 documents) and Foucault (4525 documents). Figure 1 shows the distribution of the number of documents of historians from the US and the UK that cited the works of 'classics' (excluding Stalin), of Weber and of Foucault. It should be remembered, however, that these numbers do not include information from scholarly books, and that historians in the US and UK worked under completely different geopolitical conditions than did Polish historians. Nevertheless, referring to the 'classics' was a normal scholarly practice in history.

The second reason for the choice of CIHPM is the database's reliability (Kolasa, 2012), which allowed us to extrapolate the results to the whole of Polish history (and even the humanities). The chosen sub-discipline 'history of Polish media' has had an established position (including institutional background) in Poland since the early 1950s and is located between cultural history and political history. These features make it representative of all Polish historiography. The question remained whether and for what reasons the 'classics' were cited within the Polish media history. The answer was 'affirmative' because each of the examined 'classics' was a historical figure and therefore could be a legitimate subject of research. An additional factor favouring the citing of selected 'classics' (especially Marx and Lenin) was their methodological achievements. Marxism in its different forms has influenced various research directions, including historiography. Lenin's influence is different. As the creator of the concept of a 'new type of press', he was strongly exposed to the journalistic circles of the communist period, which influenced media history by making it more susceptible to political influence.

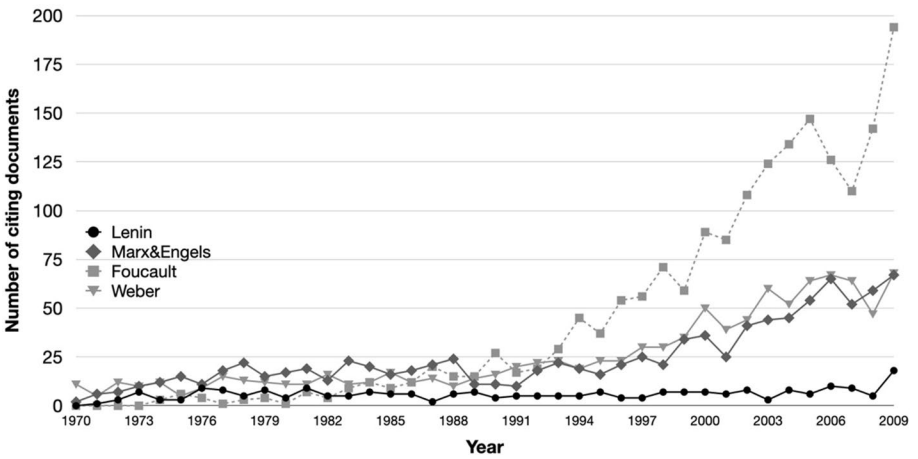

Fig. 1 The number of documents of historians from the US and the UK that cited the works of 'classics', of Weber and of Foucault in Scopus (1970–2009)

Materials and methods

For the purpose of this study, we analysed data from the following sources:

1. For calculating the number of works of the 'classics', we used data from the NUKAT (the Union Catalog of Polish Research Library Collections, nukat.edu.pl) and a report of the National Library in Poland (Dawidowicz-Chymkowska, 2020). The results of this analysis are presented in *Part A* of the results.
2. For calculating the number of citations of the works of the 'classics' in the field of the history of the Polish press, we used the CIHPM retrospective citation index, which consists of 6880 citing documents from the 1945–2009 period that produced 59,827 citations (8.69 citations on average per publication). We automatically searched in the full texts of publications indexed in the CIHPM for all occurrences of 'classics' names (Engels, Lenin, Marx and Stalin). We found 8669 occurrences in 2599 publications. Then, we categorised these occurrences into two categories: 'citations' ($N = 296$) in 162 publications and 'not relevant' ($N = 8373$), for instance, when the name The Marx–Engels–Lenin Institute in Moscow appeared. The results of this analysis are presented in Part B1 of the results.
3. For analysing exposition of citations, for example, whether citations to the 'classics' occur on the first pages of publications, which could suggest the ritual citations, we analysed 162 publications including 296 citations of the 'classics'. The results of this analysis are presented in Part B2 of the results.
4. For categorizing citations and occurrences of 'classics' names in documents that cited the classics, we qualitatively analysed 162 publications identified and described in Part B1. All publications were coded in the MaxQDA 2020 software. The PDF files (OCR), with metadata (author, publication and year) were first auto-coded through searches (in Polish) of: 'Marx', 'Engels', 'Lenin' and 'Stalin'. Fragments containing the searched phrase, plus 10 words before and 10 words after, were auto-coded (labelled, i.e., 'Lenin – auto-code'). Results for each search were cleaned from random cases (i.e. 'Lenin' in the article's heading). All other fragments were re-coded 'in-vivo' and basic code frames were created for every 'classic'. Each fragment was coded for one code only. During the second stage of checking the coded fragments, some of the codes were merged and ordered. Next, the cross-comparison between the codes for each 'classic' was enacted and the general code frame was created. The fragments were recoded. The results of this analysis are presented in Part B3 of the results.

Results

Part A: Publications of 'classics' in Polish

We analysed the number of all editions of works (mostly translations) published in the years 1945–1995 that were written by the 'classics'. We moved the end of the analysed period from 1990 to 1995 in order to include the first years of the political transformation in Poland.

The analysis revealed that works by the 'classics' (Stalin, Lenin, Marx and Engels) constituted a significant part of the publishing offer during the communist period. A total of

737 works (book versions and various editions) by them were published in Poland between 1945 and 1995, which accounted for 0.17% of the publishing offer of that period (in total, 436,063 books were published in this period). Lenin's book versions were published most often ($N=392$), followed by Marx (most often with Engels) ($N=185$) and Stalin ($N=160$). A long-term analysis led to surprising conclusions: the popularity of the classics was similar to that of the writers included in the list of school obligatory readings. The number of Lenin's book versions (editions) was only slightly lower than the number of editions of the most popular Polish writers, for example, Adam Mickiewicz ($N=421$) and Bolesław Prus ($N=489$), and almost two times higher the number of editions of the most popular foreign writers, such as William Shakespeare ($N=213$).

Figure 2 shows that the vast majority of the 'classics' works were published during the Stalinist period (1945–1955). Such a strong accumulation of them in a short period clearly indicates that they were ideologically inspired and responded to the Party's needs to equip newly formed cadres with proper ideas. The apogee of this phenomenon was between 1948 and 1953, when the cumulative number of book versions by Stalin, Lenin, Marx and Engels constituted a strongly visible percentage of the publishing offer (from 38 to 99 books by them were published annually). In the peak year of 1949, their works represented as much as 2.15% of the total books published. In the analysed decade, the number of 'classics' works was close to the number of the TOP3 books of the Polish writers (Prus, Sienkiewicz and Mickiewicz), and three times as high the as the TOP5 foreign writers (Charles Dickens, Jack London, William Shakespeare, Jules Verne and Alexandre Dumas Sr.).

The patterns and peak moments on the Fig. 2 can be easily explained. At first, the newly established socialist Polish People's Republic needed ideological backing. Thus, a state-owned publishing house, "Książka i Wiedza" ("Book and Knowledge"), opened in 1949, was producing translating and republishing the first collected and selected works by classics. After the end of the Stalinist period (around 1958) the popularity of the 'classics' in the Polish publishing market clearly declined. The publication of Stalin's works was almost completely discontinued (the last two were published in 1960). The position of Lenin also clearly weakened, and he was only periodically (Jubilee editions, the peak of 1970 and the long peak of 1984–1989 when the second, full and

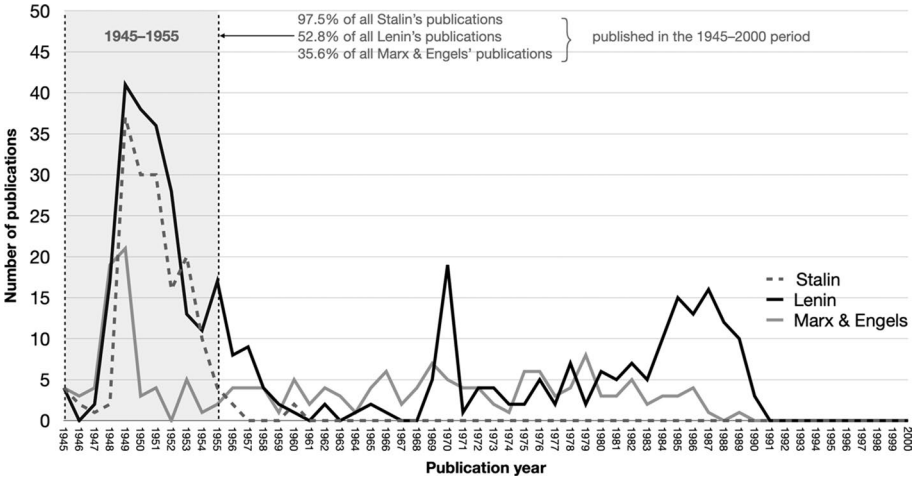

Fig. 2 The number of 'classics' published in the 1945–2000 period

uncensored edition of his works was published) a notable author on the market. The works of Marx and Engels, whose popularity only slightly declined, remained at about 3.5 works per year until the end of 1989. The relatively high visibility of the works of Stalin, Lenin, Marx and Engels in the Polish publishing market contributed to the consolidation of the stereotype of the importance of those authors and their works.

Part B: Citations of 'classics' in history of Polish media

B1: Overview of the citations of the works of 'classics'

In total, we found 296 citations of the 'classics'' works, which constitutes 0.49% of citations in the CIHMP. Table 1 describes the content of CIHPM in terms of the number of citing sources and citations produced by them across publication types.

The average number of citations in the CIHPM shows that although the number of citing articles was the highest (55.4%), they produced only 32.3% of the total number of citations. Books, on the other hand, in the opposite way: although few in number (12.7%), they produced 47.2% of all citations. In the case of sources citing the classics, the pattern is similar: 32.6% of articles produces 44.3% citations but their potential to produce citations dropped from 5.08 to 2.34. This is most clearly evidenced by the decline in the potential of books, which averaged 1.49 publications of "classics", although the average in the CIHPM is 32.2. Therefore, the potential is 21.6 times lower. To sum up: this means that publications of "classics" were cited incidentally.

In CIHPM, data different versions of the same works are aggregated what allow us to calculate h-index and provide information on the number of unique cited publications. None of the 'classics' is present in the TOP10 of highly cited researchers in the CIHPM (see Table 2). We found 157 citations to Lenin's works, 111 to Marx and Engels and 28 to Stalin's works (see Table 3). Figure 3 shows the distribution of citation across the 1945–2009 period.

In Tables 4, 5 and 6, we present top cited publications of the 'classics'.

Most of the citations to Lenin refer to his collected works. The anthologies on the press stand out and collect 20 citations in total (14 citations to the Polish version and 6 citations to the Russian version). A highly-referenced text by Lenin is his decree on the role of the press published in *Pravda*, the Bolshevik newspaper, in the year of the Revolution. Such a pattern indicates a preference for a shallow reading of the classics in the field, as ready-made anthologies allow for quick identification of useful citations to support claims. Yet, they still compose a small part of the total citations to Lenin.

Citations to *Das Kapital*, Karl Marx's main work, compose the biggest share of citations (35). While some other works were cited, mostly from the collected works volumes, they do not create a meaningful pattern. Nonetheless, citations to the two volumes of selected works by Karl Marx, indicate the existence of the pattern of shallow reading of the works of this classic.

In the case of Joseph Stalin, we found nine citations to his two classical essays, *Marxism and the Problems of Linguistics*, and *The Economic Problems of Socialism in the USSR*. The only press analysis related title, *Workers Correspondents,* entered the Top 5 but acquired only two citations in total.

Table 1 Citing sources and citations in the CIHPM according to the publication types

Publication type	Citing sources		Citations		Average number of citations per publication	Publications that cite the classics		Citations of works of the classics'		Average citations per publication of 'classics'
	N	%	*N*	%	*N*	*N*	%	*N*	%	*N*
Journal articles	3812	55.4	19,370	32.3	5.08	56	32.6	131	44.3	2.34
Books	877	12.7	28,241	47.2	32.20	86	50.0	128	43.2	1.49
Book chapters	2023	29.4	10,499	17.5	5.18	24	14.0	28	9.5	1.17
Other types	168	2.5	1,717	3.0	10.22	6	3.5	9	3.0	1.50
Total	6880	100	59,827	100	8.69	172	100	296	100	1.72

Table 2 Top 10 most cited authors according to CIHPM database (Kolasa, 2011a)

Rank	Author	Number of citations	h-index	Number of cited publications
1	Andrzej Paczkowski	1075	14	75
2	Jerzy Myśliński	894	18	43
3	Jerzy Jarowiecki	704	14	50
4	Jerzy Łojek	660	10	74
5	Alina Słomkowska	609	12	31
6	Tadeusz Cieślak	564	12	38
7	Zenon Kmiecik	446	11	63
8	Lucjan Dobroszycki	424	8	16
9	Andrzej Notkowski	404	9	49
10	Joachim Glensk	353	10	55

Table 3 Citations of the 'classics' in CIHPM

Rank	Author	Number of citations	h-index	Number of cited publications
1	Vladimir Lenin	157	6	58
2	Karl Marx & Friedrich Engels	111	5	36
3	Joseph Stalin	28	2	19

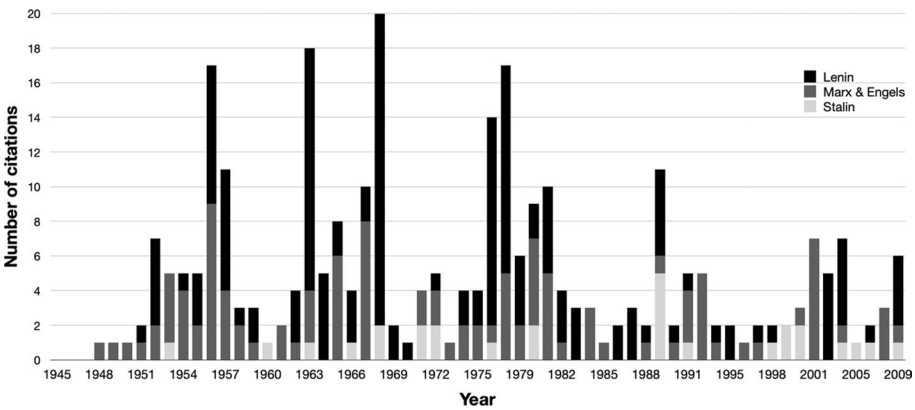

Fig. 3 The number citations to 'classics' publication in the 1945–2009 period

B2: 'Classics' in the first page of publications and types of citations

A view widespread among the Polish academics is that the 'classics' were cited on the first page of many works to show that a given author respected them. Thus, we verified whether citations occur on the first pages of analysed publications included in the CIHPM.

Table 4 TOP10 of most-often cited works of Lenin

Rank	Work title	Citations
1	Lenin o prasie. Warszawa 1970 [anthology]	14
2	Dzieła. T. 27. Warszawa 1954 [collected works volume]	10
3	Dzieła. T. 5. Warszawa 1950 [collected works volume]	8
4	Dzieła. T. 25. Warszawa 1951 [collected works volume]	7
5	Dzieła wybrane. T. 1. Warszawa 1948 [collected works volume]	7
6	Dekret o prasie, „Prawda" 1917	6
7	Lenin o pieczati. Moskwa 1959 [anthology]	6
8	Dzieła. T. 1. Warszawa 1950 [collected works volume]	5
9	Dzieła. T. 4. Warszawa 1954 [collected works volume]	5
10	Dzieła. T. 28. Warszawa 1954 [collected works volume]	5
TOP10 combined		73
48 other works		84
Total		157

Table 5 TOP10 of most-often cited works of Marx and Engels

Rank	Work title	Citations
1	Kapitał [The Capital – various editions]	35
2	Dzieła. T. 1. Warszawa 1960 [collected works volume]	10
3	Manifest Komunistyczny. Warszawa 1949	9
4	Dzieła wybrane. T. 1. Warszawa 1949 [selected works volume]	8
5	Osiemnasty Brumaire'a Ludwika Bonaparte	7
6	Dzieła wybrane. T. 2. Warszawa 1949 [selected works volume]	4
7	Dzieła. T. 3. Warszawa 1961 [collected works volume]	3
8	Wojna domowa we Francji. Warszawa 1945	3
9	Przyczynek do krytyki ekonomii politycznej. Warszawa 1955	2
10	List do Kugelmana. Niewydane Pisma Karola Marksa. Warszawa 1923	2
TOP10 combined		83
26 other works		28
Total		111

Our analysis revealed that such regularities cannot be found in the analysed works. An example of instrumental treatment of 'classics' is the book by Zygmunt Młynarski called *Zarys historii prasy polskiej* (an outline of the history of the Polish press) (1957), in which he quoted and referred to Lenin twice on the first page to demonstrate what Lenin taught on subject of the bourgeois press. Such cases, however, are rare. Thus, we argue that this kind of content-based analysis, combined with the study of exposition, can be effectively conducted on the press material, whereas in scientific publications it does not have much explanatory power.

Table 6 TOP5 of most-often cited works of Stalin

Rank	Work title	Citations
1	W sprawie marksizmu w językoznawstwie. Warszawa 1950	6
2	Ekonomiczne problemy socjalizmu w ZSRR. Warszawa 1952	3
3	Momenty narodowe w budownictwie partyjnym i państwowym. Dzieła t. 5. Warszawa 1950 [collected works volume]	2
4	O korespondentach robotniczych, Dzieła t. 6. Warszawa 1951 [collected works volume]	2
5	Na śmierć Lenina, "Nowe Widnokręgi" 1941	1
TOP5 combined		14
12 other works		14
Total		28

B3: Types of citations and ways of referring to 'classics'

Our code frame contains the following codes:

1. *Citations*: references either a given 'classic' by name or a citation of a work without giving a full bibliographic reference. The citations in the qualitative analysis do not coincide (and cannot coincide) with the number of citations determined by bibliometric analysis.
2. *Ritual citations*: a reference to the 'classic' as an unquestionable authority, demonstrating positive affection, not related or loosely related to the subject of a given text.
3. *Critical citations*: a critical and negative reference to a social and political practice associated personally with a 'classic' or with the name of a given 'classic'.
4. *Ideas—press*: a code containing substantive references to the concept of a given 'classic' in the area of deliberations on the press.
5. *Ideas—general*: a code that includes references to general theories and concepts developed by a given 'classic' and covering a wider socio-economic area than that of press analysis itself.
6. *Doctrine – fact*: an informative reference to the nature of specific material and cognitive practices, or a period in the history of Poland or other socialist countries.
7. *Historical figure*: a code containing references to a given 'classic' as a participant in historical events, the author of works published in a given period or a political actor whose activity was referred to in the analysed press titles.
8. *Unrelated:* cities, institutions or places of publication with the surname or nickname of a 'classic' in their names.

The occurrences of fragments in the analysed material are presented in Table 7. The section below Table 7 presents partial results of the analysis for each of the 'classics' and the summative results for the whole corpus.

Table 7 The statistics of the frequency of fragments occurrence

	Marx	Engels	Lenin	Stalin
Citations	157	45	160	93
Ritual citations	39	4	21	0
Critical citations	52	2	38	88
Ideas—press	9	0	81	5
Ideas—general	9	9	46	3
Doctrine fact	472	40	64	45
Historical figure	158	10	56	58
Unrelated	41	5	56	8
Total	937	115	522	300

Marx

For Marx, 1112 search hits were found and 948 fragments were coded. After the first stage of cleaning the coded fragments, 937 remained.

In the fragments that were analysed and coded, one can see that Marx and Marxism are inherent component of the party's and workers' press titles that subdiscipline of the history of the press was researching. For example, when the research object is a daily newspaper of a socialist party, reference to Marx is natural in such material, and in consequence it also forms a natural reference in research articles and books on such topic. Authors do not make much use of Marx's theories, and they rarely refer to his concepts in the field of reflection about press and censorship. Marx often functions as a historical figure and the author of *Das Kapital*, but only insofar as it is important for the analysed newspapers, periodicals or publishing processes. Phrases such as 'as the infallible author of *Capital* has already stated' did not appear in the analysed material. Ritual, non-cognitive practices of invoking Marx, his works or theories were sporadic. Critical citations to Marx or Marxism were equally few, though present.

Engels

For Engels, 129 search hits were found and 115 fragments were coded. In the analysed and coded material, Engels usually did not constitute an independent point of reference for the authors. Rather, he functioned in tandem with Marx. When he or his output appeared, or the mentions were justified, the authors either discussed the attitude of the analysed genre of press to the output of Marx and Engels, or the publishing activities aimed at popularizing it. Ritual citations were few.

Lenin

We found 560 search hits. After automatic coding, 534 fragments were obtained. After the first stage of cleaning, 522 remained. Ritual, empty references to Lenin turned out to be rare in the analysed material (supported or unsupported by a bibliographic reference). If the authors referred to Lenin, they either did so with reference to his major propositions in the field of press theory, or they referred to Lenin as a historical figure who was also active in the field of either publishing or organizing the press sector in the Soviet Union. Lenin's other ideas were of rather marginal importance to the authors. In the analysed material

there was also a trend of critical citations to Lenin as a historical figure and Leninism as a practice.

Stalin

We found 333 search hits and 300 fragments were coded. Unlike in the case of Lenin, there were no traces of ritual and non-cognitive references to Stalin in the analysed material. The discussion of the negative legacy of Stalinism dominated the material, along with reference to Stalin's death as a moment marking the end of a certain era. Stalin's contribution to the development of the sub-discipline was mentioned incidentally. Stalin's ideas were not a source of any inspiration.

The three challenges

The three challenges related to investigating the practices of citing 'classics' were distinguished in the analysed material. First, the question of their real contribution to the development of the sub-discipline. Second, the scale of ritual citations practices, forced by the ideological conditions inherent in referring to the 'classics'. Third, the presence of critical citations to the 'classics'.

The history of the press is a sub-discipline that hardly transforms Marxist theory into its research practice. References to broader concepts of dialectical materialism or historical materialism appeared rarely in the analysed material. The analyses remain on a descriptive, atheoretical level within the realm of methodological nationalism, limiting themselves to drawing conclusions about national practices in the area of the press.

The Leninist concept of the press remains essentially the only substantive contribution of the 'classics' to this sub-discipline. Apart from sporadic exceptions referencing Marx's statements about censorship, as well as Stalin's statements on workers' correspondents, other references to the 'classics' were not closely related to the theory or method used in the analysed sub-discipline. The status of recalling the Leninist concept of the press can be described as problematic. In the years 1945–1990, the use of the 'Leninist concept of the press' was related primarily to the methodological orientation of the author; in the later works (after 1990), it functioned as a report on the ideas about the role of the press available in this field in the past. However, regardless of the assessment of the use of the Leninist concept, the substantive contribution of the 'classics' to the development of the analysed sub-discipline was small.

Ritual references to Marx and Marxism, Lenin and Engels faded almost completely in the 1980s. In the entire analysed material, they did not constitute a significant set of coded fragments (in total 64 out of 1,874 coded fragments, 3.4%). It is significant that the analysed corpus did not find a ritual reference to Stalin, which could indicate that the subdiscipline was actually subjected to the influence of Stalinism. If the scope of what can be considered a ritual reference in this corpus was extended to include some references to the Leninist concept of the press, they would not, in total, exceed 5% of the analysed material. Considering the scarcity of the practice of quoting the 'classics' in the corpus, as well as the scarcity of the practice of ritual citation within the works that cite the 'classics', it can be concluded that this practice was not common in the subdiscipline of the history of the press. The distribution of references coded as ritual citations is shown below in Fig. 4.

The distribution of critical citations is shown below Fig. 5.

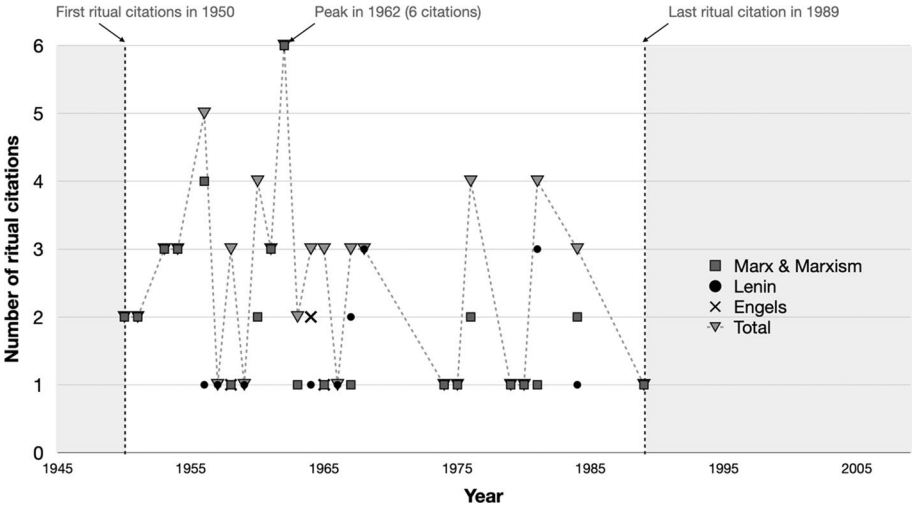

Fig. 4 Number of ritual citations to 'classics' by year

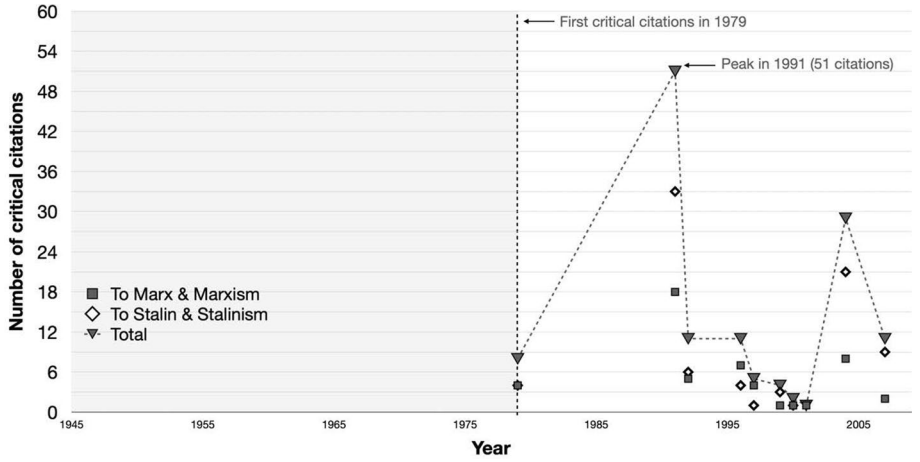

Fig. 5 Number of critical citations to 'classics' by year

Critical citations to Marx and Marxism, and critical citations to Stalin and Stalinism appear above all in the post-1990 texts. The only exceptions to this rule are texts from the late 1970s, where a coming-to-terms with the legacy of Stalinist practices of specific press titles was experienced or the political approach of the analysed editorials was discussed. Large numbers of critical citations were concentrated in only a few works included in the analysed corpus.

Discussion and conclusions

In this study, we investigated whether a widespread view in the Polish academia that the so-called 'classics' (Marx, Engels, Lenin and Stalin) were 'highly-cited researchers' during the communist era of the Polish state is valid. Thus, we examined the number of citations of the works of the 'classics' in the field of the history of the Polish press. Because of the limitations of the global bibliographic databases like WoS or Scopus, we used the CIHPM, a retrospective citation index which consists of works on history in the Polish press.

Our findings showed that the ritual practice of citing the 'classics' is extremely rare (just 64 occurrences in the analysed sample) and faded almost completely in the 1980s. It turns out that many works have been published in the field we analysed that do not refer to the 'classics' in any way, which means that our findings did not confirm this common view among Polish scholars. Naturally, we cannot exclude the possibility that this may be due to the specificity of the subdiscipline (history of the Polish press) and that in other areas (e.g. sociology) the results would be different. We also want to emphasise that historical bibliometrics must be extremely sensitive to the socio-historical context. We are aware that an analogous analysis of the history of the press carried out, for instance, on Czech publications, might yield different results, or that the interpretation of similar results should be subject to different assumptions because of, among other reasons, the different patterns of the Stalinisation of the sciences in the other socialist countries of Eastern Europe (Connely, 2000).

This study demonstrated that bibliometrics (but not only historical bibliometrics) needs the greatest possible coverage of publications, not only in English, but also in all other languages. Moreover, it was possible to achieve our research objective because we did not focus only on articles from scientific journals, but were also able to examine scholarly book publications. Indeed, it would be possible that authors in the 1950–1980s referred ritually to the 'classics' only in books but not in their articles published in journals. Our analysis, however, showed that this practice did not occur in book publications either.

Garfield, in his paper referenced at the beginning of this article, expressed the opinion that there is a need for more historical data on the dynamics of sciences: 'More back year citation indexes would be valuable for the arts and humanities and also in the social and natural sciences. Certainly the field of the history of science would be enormously aided by a citation index going back to the beginning of the twentieth century' (1980, p. 54). The existence of such indexes and databases could support the deepening of our understanding of the history of science and open more paths for the development of historical bibliometrics. While Garfield's plea was related to the further expansion of the ISI composed indexes, we believe that this expansion could also include aspects of the differentiation of languages of the publications and a spread into different, marginalised geopolitical research publication systems. Thus, our research contributes not only to the development of the reflection in historical bibliometrics, but also shows how high-standard bibliometric databases (like CIHPM) could be useful in making Garfield's dream come true.

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References

Archambault, É., Vignola-Gagné, É., Côté, G., Larivière, V., Gingras, Y., Vignola-Gagne, É., Côté, G., Larivière, V., & Gingras, Y. (2006). Benchmarking scientific output in the social sciences and humanities: The limits of existing databases. *Scientometrics, 68*(3), 329–342. https://doi.org/10.1007/s11192-006-0115-z

Colavizza, G. (2018). Understanding the history of the humanities from a bibliometric perspective: Expansion, conjunctures, and traditions in the last decades of Venetian historiography (1950–2013). *History of Humanities, 3*(2), 377–406. https://doi.org/10.1086/699300

Connelly, J. (2000). *Captive university: The Sovietization of East German, Czech and Polish higher education, 1945–1956*. University of North Carolina Press.

Dawidowicz-Chymkowska, O. (2020). *Ruch Wydawniczy w Liczbach tom 69: 2019 książki*. Biblioteka Narodowa.

Dobbins, M. (2011). Higher education policies in Central and Eastern Europe: Convergence towards a common model? *Palgrave Macmillan*. https://doi.org/10.1057/9780230297494

Garfield, E. (1980). Is information retrieval in the arts and humanities inherently different from that in science? The effect that ISI®'s citation index for the arts and humanities is expected to have on future scholarship. *The Library Quarterly, 50*(1), 40–57. https://doi.org/10.2307/4307182

Hammarfelt, B. (2011). Interdisciplinarity and the intellectual base of literature studies: Citation analysis of highly cited monographs. *Scientometrics, 86*(3), 705–725. https://doi.org/10.1007/s11192-010-0314-5

Harzing, A.-W., & Alakangas, S. (2016). Google scholar, scopus and the web of science: A longitudinal and cross-disciplinary comparison. *Scientometrics, 106*(2), 787–804. https://doi.org/10.1007/s11192-015-1798-9

Herczyński, R. (2008). *Spętana nauka: Opozycja intelektualna w Polsce 1945–1970*. Wydawn. Naukowe Semper.

Hérubel, J.-P.V.M. (1994). Historical bibliometrics: Its purpose and significance to the history of disciplines. *Libraries & Culture, 34*(4), 380–388.

Hicks, D. (1999). The difficulty of achieving full coverage of international social science literature and the bibliometric consequences. *Scientometrics, 44*(2), 193–215. https://doi.org/10.1007/BF02457380

Hjørland, B. (2013). Citation analysis: A social and dynamic approach to knowledge organization. *Information Processing & Management, 49*(6), 1313–1325. https://doi.org/10.1016/j.ipm.2013.07.001

Hübner, P. (1998). Dwa modele organizacji środowiska historyków w Polsce z 1947 i 1951 roku. *Komunikaty Mazursko-Warmińskie, 1*, 55–71.

Huisman, J., Smolentseva, A., & Froumin, I. (Eds.). (2018). *25 years of transformations of higher education systems in post-Soviet Countries: Reform and continuity*. Springer. https://doi.org/10.1007/978-3-319-52980-6.

Knievel, J. E., & Kellsey, C. (2005). Citation analysis for collection development: A comparative study of eight humanities fields. *The Library Quarterly, 75*(2), 142–168. https://doi.org/10.1086/431331

Kolasa, W. M. (2011a). Historia mediów polskich w świetle wskaźników bibliometrycznych. *Zeszyty Prasoznawcze, 54*(3–4), 207–208.

Kolasa, W. M. (2011b). Retrospektywny indeks cytowań w humanistyce: Koncepcja, metoda, zastosowania. *Przegląd Biblioteczny, 4*, 466–486.

Kolasa, W. M. (2012). Specific character of citations in historiography (using the example of Polish history). *Scientometrics, 90*(3), 905–923. https://doi.org/10.1007/s11192-011-0553-0

Marshakova-Shaikevich, I. (2001). Nauka polska u progu XXI wieku: Analiza bibliometryczna dorobku Polski i państw Unii Europejskiej. *Roczniki Biblioteczne, 45*, 147–165.

Must, Ü. (2012). Alone or together: Examples from history research. *Scientometrics, 91*(2), 527–537. https://doi.org/10.1007/s11192-011-0596-2

Nederhof, A. J. (2006). Bibliometric monitoring of research performance in the social sciences and the humanities: A review. *Scientometrics, 66*(1), 81–100.

Oleksiyenko, A. V. (2020). Is academic freedom feasible in the post-Soviet space of higher education? *Educational Philosophy and Theory*. https://doi.org/10.1080/00131857.2020.1773799

Pölönen, J., & Hammarfelt, B. (2020). Historical bibliometrics using Google Scholar: The case of Roman law, 1727–2016. *Journal of Data and Information Science, 5*(3), 18–32. https://doi.org/10.2478/jdis-2020-0024

Romek, Z. (2010). *Cenzura a nauka historyczna w Polsce 1944–1970* (Wyd. 1). Wydawn. "Neriton."
Romek, Z. (2006). "Cenzura kreatywna" w PRL a środowisko naukowe historyków. *Przegląd Historyczny, 1*(97), 23–37.
Waltman, L. (2016). A review of the literature on citation impact indicators. *Journal of Informetrics, 10*(2), 365–391. https://doi.org/10.1016/j.joi.2016.02.007
Zysiak, A. (2016). *Punkty za pochodzenie. Powojenna modernizacja i uniwersytet w robotniczym mieście*. Nomos.