Serendipities
Journal for the Sociology and History of the Social Sciences

ARTICLE

Differences in Social Science Reporting

Jasper W. Korte
jasper.korte@dlr.de

Abstract

Public debate heavily relies on social scientific expertise as demonstrated by recent global events like the coronavirus pandemic. Social scientific knowledge is disseminated and discussed in the mass media, the main arena for the public understanding of social science. However, science communication research overlooks the significance of disciplinary differences in social science reporting while focusing on comparison with the natural sciences. To investigate the reporting of social sciences in the German press as societal communication, anthropology, sociology, and economics are compared within a distant reading approach. In the systematic sample (8,660 articles) over the previous 20 years, the absolute numbers for all disciplines are stagnant, but the share of reporting increases. The section distributions of the three disciplines are quite different but stable over time. In contrast, the sampled periodicals show only subtle differences in reporting. Dramatic events lead to a short-term increase in economics reporting. The combination of the metadata with the semantic structures of the text shows three distinct profiles of social science reporting. These findings reveal the varieties of social science reporting as an important feature in the societal role of the social sciences.

Keywords

sociology, anthropology, economics, news media, social science reporting, topic modeling, distant reading

INTRODUCTION

As is widely known, research about science in society is primarily focused on the natural and life sciences. Others, like the social sciences or humanities, receive less attention from scholars of science communication (Schäfer 2012). This has not changed despite the growing interest in science communication in Germany in recent years (Bonfadelli et al. 2017; Schäfer et al. 2015). However, this does not reflect the attention of the mass media towards the social sciences: more recent results about science in the German press show more reporting about social sciences than about life sciences (Summ and Volpers 2016). This imbalance may be explained by the greater proximity of the social sciences to society (Osrecki 2012). The social sciences are suspected to be not “real science” in the sense of ideological neutrality, but rationalizations of political worldviews. This would make the study of social sciences in the public arena a task of political sociology. However, this would end in an endless regress of ideological suspicion – in fact, an endeavor for public discourse but not for research. Instead, we conceptualize social science reporting as a case of societal communication about science. The relationship between science and mass media remains special: social science and news media both observe society and "mutually observe each other" (Luhmann 2012, 2013). As scientific knowledge becomes increasingly relevant to all aspects of life, this is also true for social

scientific knowledge (Fischhoff and Scheufele 2013). If there is a scientification of society, there is also a social scientification of society (Weingart 2008). However, the difficulties in identifying social science in the public remain, as Cassidy (2021) states in the third version of her review of social science communication research: "social sciences and humanities research seems to be everywhere and nowhere in public communication". This has been conceptualised as stemming from the problem of the double hermeneutic (Giddens 1984: 20f.): everyday and social scientific discourse are interrelated. Concepts, ways of saying, and also methods become common knowledge through a "cultural incorporation" from the sites of social science knowledge production to society (Merton and Wolfe 1995). However, recipients valuate social scientific knowledge using their everyday common sense (Fenton et al. 1998). This leads to different views toward theoretical knowledge based in social class (Moscovici 2008).

Previous research on the social sciences in the media presents an ambiguous picture. For science reporting from a historical perspective, Bauer (2012) shows ongoing growth since the 1990s (Bauer 2012). For Germany, Elmer et al. (2008) report large increases in the 2000s, contradicting stagnating developments in Denmark or Spain (Groves et al. 2016; Vestergård and Nielsen 2017). In contrast, the last comprehensive research endeavors about social science reporting date back from the last century: Weiss and Singer 1988 for the USA and Fenton et al. 1998 for the UK. The elusiveness of social science in the public is also found in the works of Summ and Volpers (2016: 783–784; Volpers and Summ 2015), where the social sciences is the only discipline group with significantly more articles found with their "elaborate selection logic" in contrast to a "narrow". However, social and behavioral sciences appear more often in German newspapers than life or natural sciences in sum, too (Summ and Volpers 2016: 782). Research on other countries does not confirm this finding (Suljok 2020; Vestergaard and Nielsen 2016). The social sciences also hold a significant role in media expert research (Albaek et al. 2003; Wien 2009). Seniority is the most important factor for social scientists in becoming an expert (Fenton et al. 1998). Media experts show essentially, social sciences are often not the focus of news articles but are used in ancillary form (Weiss and Singer 1988; Fenton et al. 1998). There is also research in the sociology of intellectuals (Gattone 2012) or ideas (Hallet et al. 2019), that deals with the public impact of social science, which leads to an even more fragmented situation. All this underlines the importance of using comparable and reconstructable methods in the monitoring of social science reporting.

The appearance of the social sciences in the mass media differs from that of the natural sciences: social science reporting lacks the construction of the "arcane" world of science, the findings are presented as less distinct from everyday reasoning, and the knowledge is considered less reliable. Similar reservations are present in the attitudes of journalists toward social science (Evans 1995). This is associated with an everyday usage of social scientific works, findings, and theories, that is oriented toward the systemic needs of the journalists (Böhme-Dürr 1992: 175, Weiss and Singer 1988: 127-128). The two forms of knowledge also differ in the judgment of validity with paradoxical outcomes: on the one hand, the social scientific knowledge is presented as a set of time- and context-less truths (Weiss and Singer 1988: 242; Weßler 1995: 29); on the other, journalists use it to construe causal relationships blaming specific actors for social problems (Weßler 1997). The social scientification of reporting and everyday discourse makes social science disappear and yet simultaneously increases the pressure to present surprising findings. However, these findings may be criticized as incomprehensible and useless if they leave the presumed ontology of actual individuals with motivations or other journalistic self-evidents.

The relationship between journalists and scientists is ambiguous from both perspectives. From the journalists' perspective, social scientists are inaccessible: literally, because they do not answer requests, but also cognitively because of fear of their jargon (Fenton et al. 1998, Weiss and Singer 1988). The "epistemological consonance" (Fenton et al. 1998: 101-102) of journalists and social scientists to describe and explain society makes them a kind of rival. The objectivity in journalists' self-understanding clashes with the scientists' awareness that facts are products of theoretical interpretations. Journalists often use schemes oriented toward natural science to evaluate social science, which gives quantitative approaches an advantage (Schmierbach 2005). However, productive coalitions between social scientists and journalists do exist (Plesner 2009). From the perspective of scientists, you find variations of the hostile media effect: the reporting about other social or natural sciences is perceived as more accurate than the reporting about their own field (Peters 1987: 21-22), but the satisfaction with the reporting about their own research is higher than with the general reporting (Weiss and Singer 1988: 64-66). For scientists, journalists are notorious for their over-simplifications and unreliability. Social scientists struggle with specific fears of going public because they enter realms with specific rules that are not their own: this can lead to success, attention, insults, humiliation, or jealousy (Schwartz 1998, Revers 2009). For social scientists taking a normative stance, there is always too little social science in the media – or the wrong theories, results, or disciplines (Burawoy 2005). These criticisms sometimes come with more naïve expectations about the impact of media presence.

Although general social science reporting and the connections between social scientists and journalists receive some attention in the literature, some aspects of social science reporting are empirically neglected. The heterogeneity of the social sciences is overlooked due to the orientation of comparing the social sciences with the natural sciences. However, it is plausible that different disciplines with different histories, subjects, and infrastructures receive different amounts of attention in the news. Given this differentiation, we might ask whether the newspapers report in the same way about the various social science disciplines or are there differences? Finally, when we see diachronous perspectives, mostly two points in time are chosen for contrast, but observing over periods of global crisis would be crucial. To identify what effects the coronavirus pandemic has on social science reporting, it is to be measured against comparable crises like the financial crisis of 2008 onwards as well as periods without explicit global crisis reporting (Maesse 2021). This paper builds on and continues the work done for Korte (2021).

STUDY DESIGN AND SAMPLING METHOD

Newspaper reporting is the model case for investigating communication about social science (Cassidy 2014). Despite losing importance during the late twentieth century, newspapers remain a highly used medium with intermedial connections. The social sciences show an affinity to written communication, the media of social scientific argumentation and newspaper reporting are similar: parts of social scientific books can be published in newspapers with ease; longer reports by journalists can hold a social scientific value. The longer tradition of investigating newspapers allows for comparisons through space and time. The applied distant reading approach provides an overview of the general structures of reporting in the German press (Stulpe and Lemke 2016). Distant reading in contrast to close reading is not focused on features, qualities, and meanings of single documents. With the help of text mining procedures corpora of texts beyond human capacity are analyzed for regularities and patterns of language use. The results of the applied algorithms are then to be interpreted in a sociological frame of reference. The approach lacks the decomposition level of a qualitative approach but handles the mass of articles.

For the comparison, three social scientific disciplines were selected: anthropology, sociology, and economics, because they are in some aspects similar and in others quite different. All three are established disciplines at German universities (Fleck et al. 2019). All have a certain universal account of explaining the social world, which may be theoretically more contestable for economics. Economics is in Germany a larger discipline than the other two. According to official statistics (Destatis 2022), in 2021, there were over 89,000 enrolled students in economics (Wirtschaftswissenschaften) and over 240,000 in business (Betriebswirtschaftslehre), while over 16,000 in sociology and over 3,000 in anthropology. For the category of scientists (Wissenschaftliches und künstlerisches Personal (Destatis 2022)) there are over 44,000 in economics (Wirtschaftswissenschaften), over 6,000 in sociology (as part of Sozialwissenschaften/Soziologie), and over 1,000 in anthropology (as part of Kulturwissenschaften). Economics provides some features that promote media attention. The economy itself is given an important placement in the news; the long-term observation with indicators meets media values for numbers and ebbs and flows (Beyrle 2016; Suttles 2010). Economic forecasts are news when published and when they fail to materialize. In Germany, there are several extra-university research facilities for economic research conducting this kind of research. Their heads are important public figures commenting especially on political decisions. In contrast, there is only one research facility for social research in Germany and none for anthropology. "The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel" is a global media event (Lebaron 2006), it has no counterpart in sociology or anthropology. However, anthropology provides a connection to ethnological museums, which are often found in Germany. Sociology plays an important role in the public debate on the history of Germany since World War II. These structural features influence media attention.

Interestingly, the literature about economics in the mass media is not as extensive as expected. Of course, there is research about the economy in the news (Hester and Gibson 2003, Suttles 2010), and also about the field of economists and their significance in society (Maesse et al. 2021), but the role of economics in the media is not exhaustively researched. This is particular true for the German context (Maesse 2015). While in Germany, economists discuss the impact of their media presence, in sociology and anthropology the very presence is questioned. The media appearance of sociology is of some interest in the sociological community and also as a research question (Best 2003; Fähnrich and Lüthje 2017; Fleck and Hess 2016; Mikinovic 1978; Peters 1988; Revers 2009; Schwartz 1998; Siebel and Clegg Smith 2009). For anthropology, there is also some interest in the media attention, but much less from a science communication point of view (Pressereferat der DGV 1999; Shannon et al. 2021).

To obtain a comprehensive understanding of social science reporting in this study, the selection criteria focus on the mention of the disciplines. This strategy aims for all articles that pronounce the discipline and highlights what is commonly associated with its names. To cover the national news, four different newspapers were selected (die tageszeitung on the left side, Süddeutsche Zeitung on the liberal side, Frankfurter Allgemeine Zeitung on the conservative side, and Die Welt on the political right; for more detail, see the table in the appendix). The Sunday versions of the FAZ and Welt, along with two news magazines: Der Spiegel and Focus, were also included. Articles for the respective disciplines are collected from different databases (Nexis, FAZ, SZ) using a set of search strings, and these can also be found in the appendix. The material in the first phase was collected for Korte (2021), and the same strategy was applied for the second phase.

The downside of this approach is the high number of false positives. In German as well as in English, the adjective ökonomisch (economic) is commonly used to describe the actual situation of countries, organizations, or persons. The adjective soziologisch (sociological) is, in certain contexts, misused as a synonym for social, for example, describing the audience of an event by its social structural features. This type of usage is also common for ethnologisch (anthropological), where it is frequently used in reviews of novels to describe the author´s attention to detail. Additionally, the corresponding search strings are the most important for the disciplines, as the counts in Table A2 in the appendix show. Besides these special cases, all artifacts of the databases, like doublings or content lists, were manually removed, so that only articles remain that contain social scientific references.

RESULTS

Periodicals over time

A total of 8,660 articles were found. The developments of the sources and disciplines are compared in absolute and relative terms (Figure 1). There is a slight growth in absolute terms: the total average of articles per issue is 4.4, while it is 4.3 in the first phase (2002-2013) and 4.6 in the second (2019-2022). In the first phase, the trend is slightly positive; however, it reaches its peak throughout the first coronavirus lockdowns in March 2020.

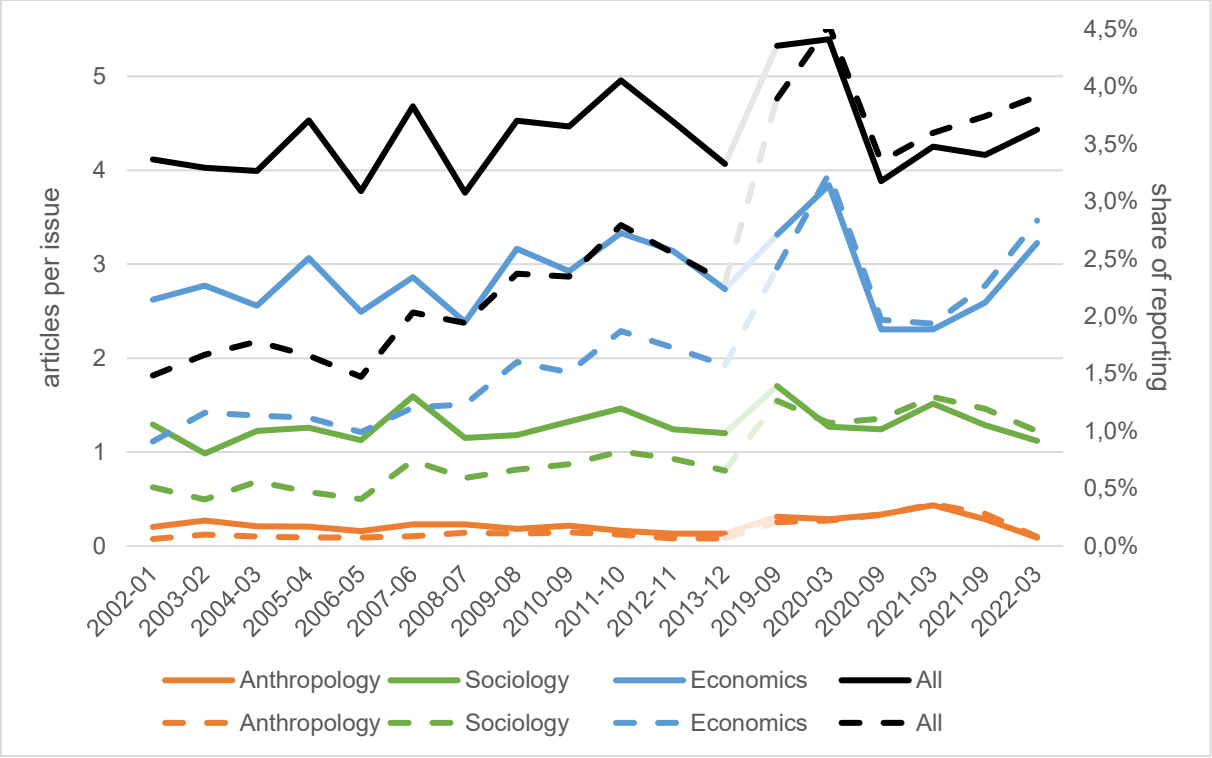

Figure 1: Mean article count per issue (solid) and percentage of articles on all articles (dashed) by discipline

Relatively to all articles listed in the databases, the growth of social science reporting is greather even than in absolute terms. On average, 2.6% of all articles are social science related, with an increase from 2.0% in the first phase to 3.8% in the second. Again, the trend is positive in the first phase, and it reaches its high in the second phase in March 2020.

The periodicals with the most social science reporting are FAS with 8.0 articles per issue, FAZ with 5.6, and WamS with 4.9. Welt and WamS are the lone periodicals with fewer articles in the second

phase than in the first. In the relative view, FAS has a proportion of 4.4% social science-related articles on all articles, Spiegel of 3.7%, and Welt of 2.8%. All periodicals share an increase in social science reporting.

For the disciplines, economics, with an average of 2.9 articles per issue, is about twice as strong as sociology (1.3) and anthropology (0.3) combined. The gap is more significant in the first phase, with 2.8 against 1.3 and 0.2, than in the second, with 2.9 against 1.4 and 0.3. While in the first phase, the trends of economics and sociology are positive while the trend of anthropology is negative, the trends in the second phase are consistent with the overall development.

From the relative perspective, economics (1.7% of all articles) outdoubles sociology (0.8%) and anthropology (0.1%), too. Again, the gap is slightly closing: in the first phase, 1.3% of all articles are economics-, while 0.6% are sociology- and 0.1% are anthropology-related; in the second phase, are 2.5% economics-, 1.2% sociology-, and 0.2% anthropology-related. The trends for all disciplines are positive in the first phase and negative in the second.

For anthropology, FAS (0.4 articles per issue), taz, and WamS (both 0.3) are the most important periodicals in absolute terms. But the FAS is the lone periodical with fewer articles in the second phase, while the WamS becomes the most important periodical in the second. In relative terms, taz (0.2%), FAS (0.2%), and Spiegel (0.1%) have the highest percentages of all articles. The ranking is unchanged between the phases, while all periodicals see more share in the second phase.

For sociology, FAS (2.4), Spiegel (1.5), and WamS (1.4) are the most important periodicals in absolute terms, but the phases have different rankings: in the first, FAS (2.2) is in front before Welt (1.6), and FAZ (1.3); in the second, FAS (3.0) leads before Spiegel (2.0) and SZ (1.3). Welt, FAZ, and WamS have fewer articles in the second phase. In relative terms, FAS (1.4%), Spiegel (1.3%), and taz (0.8%) are the top three periodicals. This does not change between the phases, but the WamS is the lone periodical that does not increase its proportion.

For economics, FAS (5.2), FAZ (4.1), and WamS (3.3) are the most important periodicals in absolute terms. WamS, taz, and Welt have fewer articles per issue in the second phase than in the first. From a relative perspective, FAS (2.8%), Spiegel (2.3%), and Welt (2.2%) see the highest percentages. Only the WamS decreases the percentage between the two phases.

3.2 Sections over time

Clear differences exist among disciplines regarding the sections of the newspapers (Table 1). Each article is presented in a section by the newspapers. To compare the distributions the different titles of the sections given by the newspapers are categorized into politics, economy, culture (Feuilleton), science, local, actuality (latest news and the title page), and miscellaneous (as a residual category). The economy section accounts for 43% of all social science-related articles. Culture (14%) and politics (11%) follow at a distance. Comparing the two phases, the halving of the local section is notable. Actuality and miscellaneous are also decreasing, while the other sections see a higher proportion (economy the most).

Economics is portrayed by the dominant economy section (61%), which is followed by politics (10%), while culture sees only 5%. Anthropology also has one important section (culture: 40%) but with bigger contractions in local (20%) and miscellaneous (14%). Sociology at last is the most mixed discipline: culture (28%) along with politics (15%) and miscellaneous (13%). The economy section is in this range at 10%, too.

	Anthro-pology	2002-2013	2019-2022	**Econo-mics**	2002-2013	2019-2022	**Socio-logy**	2002-2013	2019-2022	**All**	2002-2013	2019-2022
Actuality	**4**	3	5	**7**	7	8	**10**	11	9	**8**	8	8
Culture	**41**	36	48	**5**	5	5	**28**	28	28	**14**	13	14
Commentary	**2**	1	4	**3**	3	3	**4**	3	5	**3**	3	3
Local	**20**	24	16	**5**	6	2	**10**	12	7	**7**	8	4
Politics	**5**	6	3	**10**	10	11	**15**	14	16	**11**	11	12
Miscellaneous	**14**	14	14	**5**	6	4	**12**	12	13	**8**	8	7
Economy	**2**	3	0	**61**	60	64	**10**	9	12	**43**	42	46
Science	**11**	12	9	**4**	4	4	**11**	11	12	**6**	6	6

Table 1: Sections by disciplines and phases (2002-13; 2019-22) in percent

In comparing the two phases, anthropology shows the biggest shift from local to even more culture. The economy section sees no anthropology reporting at all in the second phase. The intensification of the dominant pattern is also found in economics, but the shift of the proportion towards economy and politics is not as strong as in anthropology. In sociology, we see minor shifts, most notably again the decrease in the local section, while not the most important section culture gets more sociology reporting, but the others aside actuality – what approves the dominant pattern of mixture in sociology.

Topics of reporting

While the metadata analyses give insights into the general structure of German social science reporting, the contents remain outside the scope. To cluster the articles regarding their contents, the topic modelling algorithm latent Dirichlet allocation (LDA) is applied (Blei et al. 2003; for an application for sociological newspaper analysis see DiMaggio et al. 2013). In LDA combinations of co-occuring words in documents of a corpus are calculated. The combinations are called topics and can be interpreted as reoccurring thematizations. Each word in an article is assigned a value for each topic and the sums of these values can be seen as measurement for the appearance of the topic in the article. The pre-processing steps were as follows: after download, metadata and article content are saved separately. Next, simple stop words were removed and the words were lemmatized (using the spaCy library for Python the words were brought to their dictionary forms). Then all words with fewer than four and more than 15 letters were eliminated. For each discipline separated the most frequent words without a content meaning as well as the least common were also excluded from the analysis (lesser occurrences than six for anthropology, 25 for sociology, and 55 for economics). The LDA was conducted using the Gensim library for Python, and the best models were identified by a large number of experiments. The experiments varied the coefficients and the number of topics (Maier et al. 2018). In the appendix, the quality measures of the models and a table with all topics with the top words can be found.

The topic modeling works a little differently for each discipline. On average, the sociology articles contain more words (988) than the anthropology articles (896) and the economic articles (773). For anthropology, the smallest articles count but the most different unique words (tokens) are found, which shows the variety of the reporting. But this also leads to the most challenging interpretation of the topics. Sociology has as many tokens as anthropology but in five times as many articles.

While the results of topic modellings are difficult to interpret and conceptualize (Grundmann 2022), the results presented are not considered as a definite list of themes of German social science reporting. The topics reveal differences in word usage, which is in reporting connected to the manifest content as well as the genre of the article. Reviews use similar words regardless of the book

reviewed, descriptions of the past other than expert interviews. The topics show a structure of the reporting that mixes manifest contents (for example: Islam, corona, euro crisis) with forms of reporting (thematization of studying, reviews, expert articles). That is why there are some topics found for all disciplines (like university) and some are very specific to one (like museums).

To discuss the results, multiple correspondence analyses were conducted with the Prince library for Python (Greenacre and Blasius 2006). For that, every topic percentage above .05 percent was coded as an occurrence, and all below as no occurrence. Besides the topics, the discussed metadata of the articles are also included. The results of the multiple correspondence analyses can be interpreted as spaces of reporting; they allow us to identify the general structure of the reporting as well as special clusters.

In the space of anthropology reporting, a triangle is formed between three clusters (Figure 2): museums and exhibitions (mostly sector 4), anthropology as science (mostly sectors 2 and 3), and anthropology in politics (mostly sector 1). The museum conglomeration grouped around the local section is the clearest to identify. Anthropological selections are an integral part of the German museum landscape, and media attention is often focused by the PR of the museums on the ongoing changes in the exhibitions or launches of new exhibitions. In the last few years, the debate about the Humboldt-Forum in Berlin (humboldt topic) and the debate about the restitution of relics to their home countries (skull topic) have given anthropology a more visible stand in the media. The boundaries of this conglomeration are areas where art and science meet (music and art topics). Along with the non-university research organizations, the topics of anthropology as a course of study and a university subject are located in the lower sectors. This can be interpreted as a difference in anthropology reporting between the organizational foundations and the knowledge produced there but circulated in other areas. This shows the two upper sectors with anthropology in connection with science and with politics. The first is in connection with the mentioned university topics and collects thematizations of anthropological knowledge and research findings. These group not along anthropological differentiations like theories or schools but on themes of general news appeal: family, society, and impressionistic descriptions of current life are connected with more or less detailed reported anthropological knowledge. Here are reviews of books alongside classical thoughts of anthropology in connection with other scientific endeavors. The exception is the expedition topic, which appears more anthropology-driven than the others. Anthropology in connection to politics is more expert-oriented and asks about instrumental knowledge provided by anthropology, for example, regarding countries like Afghanistan. This is for general public debates in Germany, like about Islam, but also about more direct individual challenges, like journeys.

Regarding the periodicals, the SZ is located in the middle of Figure 2, meaning that it covers all the mentioned forms of reporting in balance. The two Sunday issues are found between politics and science, the weekly magazines by politics alongside the Welt. The taz and the FAZ are in the lower half, but the latter is more oriented to culture, the first more to politics.

Figure 2: The space of anthropology reporting (periodicals in green, sections in red, topics in black)

The sociology space forms a square of cultural, political, economic, and scientific reporting (Figure 3). This reflects, to some extent, the divide between theoretical and empirical sociology. The section culture is found on the left of Figure 3 as one of the cornerstones of the square. From there, two lines can be drawn, one up to science over theory and one down to politics over church, international politics, and social movements. It is expected that here more interpretative and theoretical observations of society can be found. Sociological theory appears here more as a part of culture than of science. The more general the topics (religion, media, society), the more they are located at the center of sociology reporting. The more concrete, the more they appear between politics and culture. Here thematizations of the past of Germany and French theory combine with reporting about France and actual wars. In sectors 2 and 3, in contrast, there are subjects more connected to social research. Here enduring subjects of quantitative research are found as topics: family, elections, East Germany, and housing – as well as the new topic corona. The sections of economy, local, and miscellaneous

appear as the common homes of social research. The more general topics of research and university are heading towards the science cornerstone.

SZ and Welt are positioned more in the center, so they coverage is equivalent to the average reporting. Taz and the news magazines are oriented towards the politics cornerstone, WamS to the economy, and the two Frankfurter Allgemeine papers towards science.

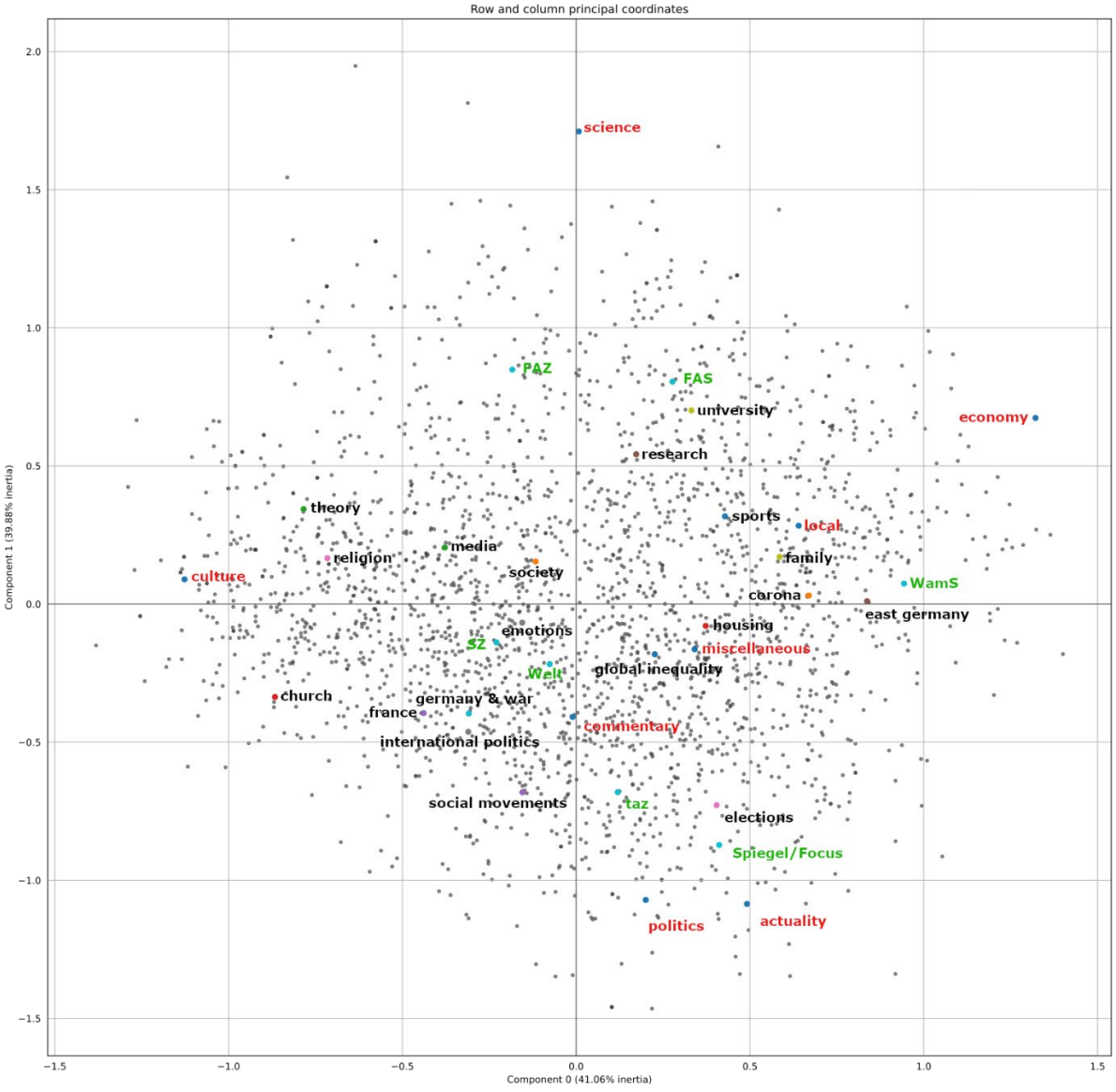

Figure 3: The space of sociology reporting (periodicals in green, sections in red, topics in black)

Economical, political, and scientific reporting form a triangle in the space of economics reporting (Figure 3). The basis of economics reporting is indicator-oriented news about the stock exchange, inflation, and the economic situation on the one side and the political regulation of the economy in work, taxes, and elections on the other side. Between these two poles, there are a variety of different topics of social research (East Germany, corona, housing) and political institutions (EU, Europe). The permanent economic observation of society also contains topics like family, enterprises, and

foreign politics. This base has on sections side economy as one cornerstone and politics along with actuality and local as the other. The other major pole of the economics reporting triangle is science and culture. There is a reporting about economics that contains discussions of theories and models. This is paired with reporting that puts economics into society, like as a subject in university, but also in analyses of football, media, or everyday life. This can also be a topic of theoretical appeal, like competition.

For the periodicals, we find taz and the news magazines, like for sociology, on the politics pole, which means that those do their political reporting more with the help of social science than the others. On the other hand, that means that indicator-based economic situation reporting is not as important as in FAZ and Welt. Again, we find the SZ in the middle of the coordinate system, this time along with the WamS. The cultural and scientific reporting of economics has its main emphasis in the FAS.

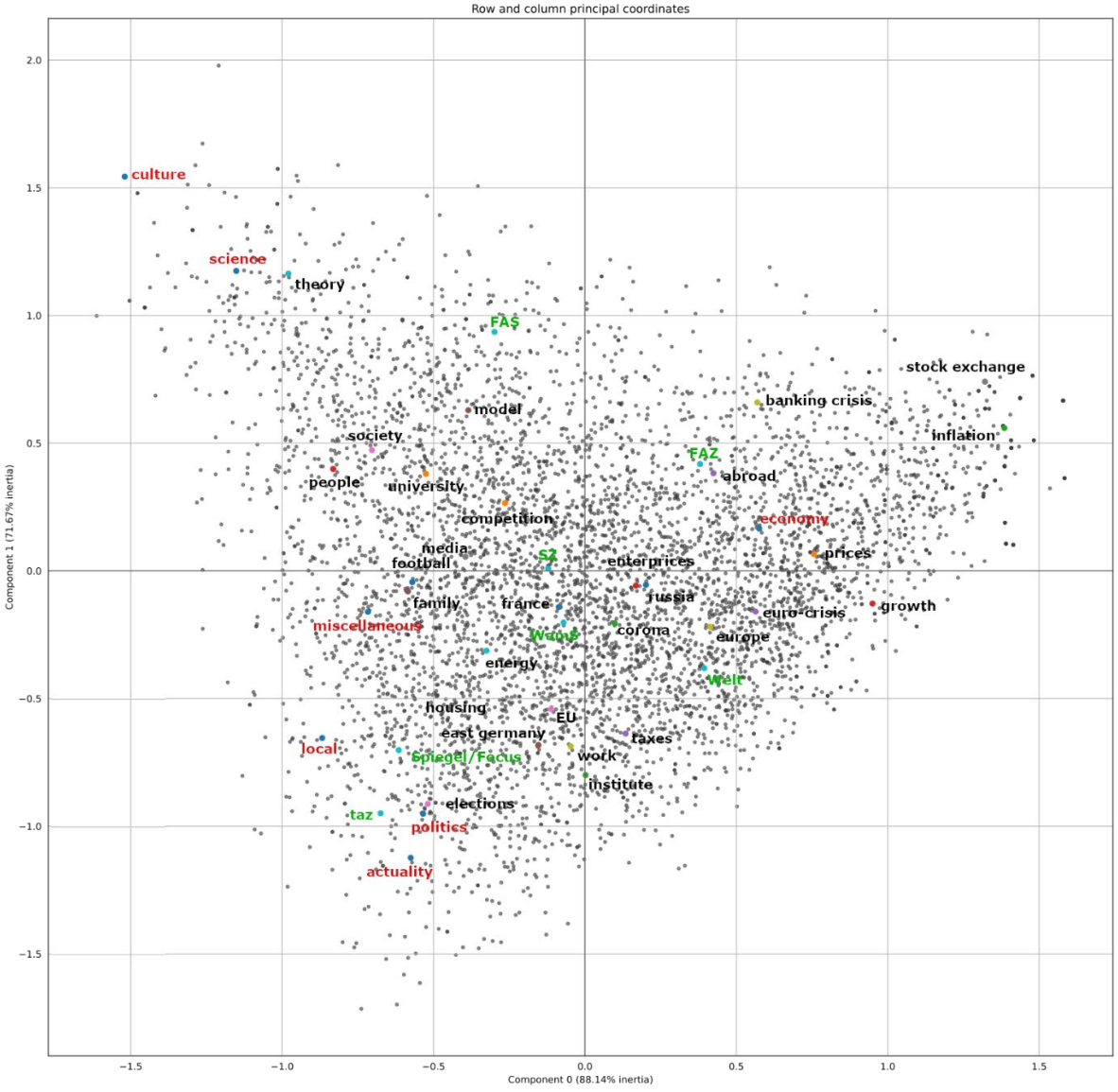

Figure 4: The space of economics reporting (periodicals in green, sections in red, topics in black)

DISCUSSION

Distant reading methods are generally composed against canons of all sorts and direct the observation to the regularities of the totality of the found objects. So, this description of the German social science reporting is not about a selection of notable events, discussions, scientists, or journalists, but about the variation in the way anthropology, sociology, and economics are reported in the media. Both social science and news media face multiple challenges in the 21st century – changing funding, audiences, distribution channels, or competitions. In light of these changes, the general structures are to be interpreted from a theory of society perspective. Social science and mass media are institutionalized permanent observations of society (Korte 2021). The mass media perform the task of disseminating knowledge to other parts of society, but they create their own images in doing so. Social sciences provide technical solutions (interpretation schemes, methods, concepts), but they primarily develop them for their own truth claims. Both are entangled in an ongoing social scientification of mass media and medialization of social science. The disciplines have to use the news media to disseminate their findings, and their organizations measure their success with this metric. The news media must draw on the permanent observations of the social sciences to provide their readers with an up-to-date portrayal of society. This includes providing quantifications of all kinds about semantic and moral changes in society as well as the social sciences as news items themselves. While the count of newspaper articles is constantly declining, the proportion of those with a reference to the social sciences rises. While it is difficult to address the changes in social side side directly here, extra-university research facilities such as museums and economic research institutions appear to be better suited to meet the media's needs and seem to be oriented towards that goal.

The appearance of social science knowledge in the media is controlled by the media. It is not the proportions of heads or students that lead to media attention. Economics is more reported than the other disciplines, but it is a larger discipline at universities or research facilities. While there are 17 times as many students and six times as many researchers in economics, it has only twice the number of articles compared to sociology and anthropology combined. The disciplines do not determine what is to be published. There is no central organization that would cover all disciplines and provide the newest and best works or knowledge for the media. Variations in the reporting of the disciplines matches the differentiation of society in the form of the differentiation of news beats. The section distributions remain stable over time, which gives specific disciplines specific freedoms. Sociology has a good chance to appear in all sections, economics is very fixed on the economy, which means established positions for social scientists in news media, too.

There is not much discipline variance regarding the periodicals, but the profiles of the disciplines show some differences. A strict left-right division is not evident. Rather, the periodicals show certain styles in their focus on social sciences. The more conservative FAZ and FAS report with a specific reference to science, the news magazines Spiegel and Focus to politics, and the right-wing Welt and WamS to economy. The left-wing taz reports proportionately more sociology and anthropology, but at the same time also less to science and more to politics and local – the liberal SZ mostly represents the average. The (unwritten) editorial guidelines and sections provide appropriate space for the different contents.

The changing daily agenda asks fordifferent experts everyday – but the need is constant. March 2020, with the first lockdowns in Germany due to the coronavirus pandemic, appears to be the exception, but it may reveal that the various disciplines work differently in crisis cycles. Economic forecasts and economic experts are the immediate social science reaction by choice – also seen in

March 2022 after the Russian invasion of Ukraine. In the same vein, the increased focus on anthropology is to be interpreted: the societal discussion of colonial objects and their restitutions is also a discussion about the role of anthropology, but not an actual anthropological research topic. The social sciences are used to comment on daily events. However, there is also reporting oriented on developments in the respective fields, mostly done in reviews of books, articles, talks, or congresses.

Mass media, in the genre of newspaper articles, translates social science in particular ways. While the analysis of re-contextualization is a task for qualitative research (Korte 2021: 148-210), some aspects can be addressed with the presented approach. The self-description of the social sciences necessarily differs from the presentation of mass media; however, it is the mass medial description that determines the impact of the social science. Social scientific findings, theories, and narratives are incorporated into the communications of mass media. They are sorted in the sections as well as the editorial guidelines. They are laid out in a specific ontology of timeless truths, biographies of important people, indicators, struggles over interpretation of theoretical concepts, exhibitions, books, conferences, casual criticism, and so on. In this regard, there is nothing special about social science reporting; mass media translate everything comparable into their communications. However, these boundaries also offer chances for irritation. This ongoing translation is the foundation of the variety of the permanent observation of society.

CONCLUSION

This study aimed to investigate social science reporting in Germany longitudinally and with special attention to three different social science disciplines: anthropology, sociology, and economics. With a broad sampling method, 8,660 articles from 18 different months in a 15 years timespan were identified and analyzed. To understand science communication more comprehensively, questions were asked about variations in reporting in terms of discipline, the extent of reporting, media outlets, sections, topics and changes within. The diversity in this reporting was revealed. This is not only true for the differences between the reporting of the natural and social sciences, but for the differences between social science disciplines, and also for the various types of reporting taking place.

Social science reporting is an essential part of news papers and it is not vanishing through the changes in news media. Most of science communication research is ignoring this fact constantly, however, the differences of social science disciplines are neglected, too. Such preconceived notions not only affect the analysis of societal dealing with science, but also the analyses of public debates and societal negotiations about the huge variety of topics covered with the help of social science. The results provided here should give contextual information for such tasks. The amount of reporting und the topical diversity should also be reminded by every social scientist complaining about insufficient reporting. Instead the results presented here should give a more realistic view on the public image the disciplines have. Ironically, such biases are mirrored in the standardized ways of journalistic dealing with social science. Economists are allowed to speak about the economy, sociologists about society, and anthropologists about culture. The classics of the disciplines are constantly referenced as well as the media events of yearly reports (mostly about economic development).

The use of text mining in social science is comparable new and is confronted with much older theories basing on different methodological logics. The challenge of interpreting results of algorithmic analyses of natural language was implicitly shown rather than explicitly discussed. The increase of material and manageable complexity provided of these methods can be countered by

interpretation basing on most general theoretical assumptions about communication in society. At least that is my suggestion: using systems theory (Luhmann 2012,2013) to deal with computational methods (compare for that strategy also Korte et al. 2023). Use sub-systemic logics as a frame of reference to interpret patterns in huge amounts of systemic communications.

The proportion of social science reporting on all reporting is constantly rising. The social scientification of news is ongoing. Economics is twice as often covered as sociology and anthropology combined. This gap was larger in the first inspection period (2002-2013) than in the second (2019-2022). In most of the periodicals, the appearances of the disciplines are quite similar, except the leftist taz, where sociology and anthropology are reported above average. The disciplines have quite different yet stable section distributions: economics is very often in the economy section, while anthropology is mostly a culture discipline, and sociology shows the largest variety. These trends are intensifying with a declining local section in the national quality press.

Topic modeling was applied to explore the variety of the different reportings. In this study, the topics were interpreted as a mixture of the subject of the article and the form of the reporting, which means there are general (universities) and special (corona) thematizations along with reviews, foreign reporting, or reporting about elections. The space of reporting was interpreted with the help of multiple correspondence analyses to reduce the complexity. The results indicate for anthropology a triangle with cornerstones: museums and exhibitions, anthropology in politics, and anthropology in science. For sociology, a square is found, which differentiates science and politics alongside a theory-driven and an empirically driven sociology. Economics displays the most profound triangle with three different economics reportings: one oriented on economic indicators, one that discusses political decisions, and one that is about theory and models.

This quantitative, mono-modal, computer-assisted approach to German science communication may raise interest in the variety of social science reporting. However, other sample logics, modalities, and methods are needed to increase the understanding of social science communication.

REFERENCES

Albæk, Erik, Peter Munk Christiansen, and Lise Togeby (2003) Experts in the Mass Media: Researchers as Sources in Danish Daily Newspapers, 1961–2001. Journalism & Mass Communication Quarterly 80(4): 937–48. https://doi.org/10.1177/107769900308000412.

Bauer, Martin W. (2012) Public Attention to Science 1820–2010 – A 'Longue Durée' Picture, in: Rödder, Simone Martina Franzen, and Peter Weingart (Eds.): The Sciences' Media Connection – Public Communication and Its Repercussions. Sociology of the Sciences Yearbook, Dordrecht: Springer Netherlands, 35–57. https://doi.org/10.1007/978-94-007-2085-5_3.

Best, Joel (2003) Killing the Messenger: The Social Problems of Sociology. Social Problems 50(1): 1–13. https://doi.org/10.1525/sp.2003.50.1.1.

Beyrle, Judith (2016) Die Form der Nachricht, Weilerswist: Velbrück Wissenschaft. https://doi.org/10.5771/9783845280905.

Blei, David M., Andrew Y. Ng, and Michael I. Jordan (2003) Latent Dirichlet Allocation. The Journal of Machine Learning Research 3: 993–1022.

Böhme-Dürr, Karin (1992) Social and Natural Sciences in German Periodicals. Communications 17(2): 167–76. https://doi.org/10.1515/comm.1992.17.2.167.

Bonfadelli, Heinz, Birte Fähnrich, Corinna Lüthje, Jutta Milde, Markus Rhomberg, and Mike S. Schäfer (Eds.) (2017) Forschungsfeld Wissenschaftskommunikation. Wiesbaden: Springer Fachmedien. https://doi.org/10.1007/978-3-658-12898-2.

Burawoy, Michael (2005) For Public Sociology. American Sociological Review 70(1): 4–28. https://doi.org/10.1177/000312240507000102.

Cassidy, Angela (2014) Communicating the Social Sciences: A Specific Challenge?, in: Bucchi, Massimiano, and Brian Trench (Eds.) Routledge Handbook of Public Communication of Science and Technology, 2nd ed., London: Routledge.

Cassidy, Angela (2021) Communicating the Social Sciences and Humanities: Challenges and Insights for Research Communication, in: Bucchi, Massimiano, and Brian Trench (Eds.) Routledge Handbook of Public Communication of Science and Technology, 3rd ed., London: Routledge.

DiMaggio, Paul, Manish Nag, and David Blei (2013) Exploiting Affinities between Topic Modeling and the Sociological Perspective on Culture: Application to Newspaper Coverage of U.S. Government Arts Funding. Poetics 41(6): 570–606. https://doi.org/10.1016/j.poetic.2013.08.004.

Elmer, Christina, Franziska Badenschier, and Holger Wormer (2008) Science for Everybody? How the Coverage of Research Issues in German Newspapers Has Increased Dramatically. Journalism & Mass Communication Quarterly 85(4): 878–93. https://doi.org/10.1177/107769900808500410.

Evans, William (1995) The Mundane and the Arcane: Prestige Media Coverage of Social and Natural Science. Journalism & Mass Communication Quarterly 72(1): 168–77. https://doi.org/10.1177/107769909507200114.

Fähnrich, Birte, and Corinna Lüthje (2017) Roles of Social Scientists in Crisis Media Reporting: The Case of the German Populist Radical Right Movement PEGIDA. Science Communication 39(4): 415–42. https://doi.org/10.1177/1075547017715472.

Fenton, Natalie, Alan Bryman, and David Deacon (1998): Mediating Social Science, London et al.: SAGE Publications.

Fischhoff, Baruch, and Dietram A. Scheufele (2013) The Science of Science Communication. Introduction. Proceedings of the National Academy of Sciences of the United States of America 110(Suppl 3): 14031–32. https://doi.org/10.1073/pnas.1312080110.

Fleck, Christian, Matthias Duller, and Victor Karády (Eds.) (2019) Shaping Human Science Disciplines: Institutional Developments in Europe and Beyond, Cham: Springer International Publishing. https://doi.org/10.1007/978-3-319-92780-0.

Gattone, Charles F. (2012) The Social Scientist as Public Intellectual in an Age of Mass Media. International Journal of Politics, Culture, and Society 25(4): 175–86. https://www.jstor.org/stable/23279955.

Giddens, Anthony (1984) The Constitution of Society: Outline of the Theory of Structuration, Berkeley and Los Angeles: University of California Press.

Greenacre, Michael, and Jorg Blasius (Eds.) (2006) Multiple Correspondence Analysis and Related Methods, New York: Chapman and Hall/CRC. https://doi.org/10.1201/9781420011319.

Groves, Tamar, Carlos G. Figuerola, and Miguel Á Quintanilla (2016) Ten Years of Science News: A Longitudinal Analysis of Scientific Culture in the Spanish Digital Press. Public Understanding of Science 25(6): 691–705. https://doi.org/10.1177/0963662515576864.

Grundmann, Reiner (2021) Using Large Text News Archives for the Analysis of Climate Change Discourse: Some Methodological Observations. Journal of Risk Research 25(3): 1–12. https://doi.org/10.1080/13669877.2021.1894471.

Hallett, Tim, Orla Stapleton, and Michael Sauder (2019) Public Ideas: Their Varieties and Careers. American Sociological Review 84(3): 545–76. https://doi.org/10.1177/0003122419846628.

Hess, Andreas, and Christian Fleck (Eds.) (2016) Knowledge for Whom?: Public Sociology in the Making, London: Routledge. https://doi.org/10.4324/9781315591162.

Hester, Joe Bob, and Rhonda Gibson (2003) The Economy and Second-Level Agenda Setting: A Time-Series Analysis of Economic News and Public Opinion about the Economy. Journalism & Mass Communication Quarterly 80(1): 73–90. https://doi.org/10.1177/107769900308000106.

Korte, Jasper W. (2021) Dauerbeobachtungen der Gesellschaft. Wie Printmedien über Sozialwissenschaften berichten, Weinheim: Beltz Juventa. https://www.beltz.de/fachmedien/soziologie/produkte/details/46472-dauerbeobachtungen-der-gesellschaft.html

Korte, Jasper W., Sabine Bartsch, Rasmus Beckmann, Roxanne El Baff, Andreas Hamm, and Tobias Hecking (2023) From causes to consequences, from chat to crisis. The different climate changes of science and Wikipedia. Environmental Science & Policy 148 (2023), 103553.

Lebaron, Frédéric (2006) Nobel Economists as Public Intellectuals : The Circulation of Symbolic Capital. International Journal of Contemporary Sociology 43(1): 88–101. https://shs.hal.science/halshs-00192299.

Luhmann, Niklas (2012) Theory of Society. Volume 1. Translated by Rhodes Barrett, Stanford, California: Stanford University Press.

Luhmann, Niklas (2013) Theory of Society, Volume 2. Translated by Rhodes Barrett, Stanford: Stanford University Press.

Maesse, Jens (2015) Economic Experts: A Discursive Political Economy of Economics. Journal of Multicultural Discourses 10(3): 279–305. https://doi.org/10.1080/17447143.2015.1050029.

Maesse, Jens (2021) Post-neoliberalism in Europe? How economic discourses have changed through COVID-19 pandemic. Post-filosofie 2021: 119-145. https://doi.org/10.15162/1827-5133/1267.

Maesse, Jens, Stephan Pühringer, Thierry Rossier, and Pierre Benz (Eds.) (2021) Power and Influence of Economists: Contributions to the Social Studies of Economics, London: Routledge. https://doi.org/10.4324/9780367817084.

Maier, Daniel, A. Waldherr, P. Miltner, G. Wiedemann, A. Niekler, A. Keinert, B. Pfetsch, et al. (2018) Applying LDA Topic Modeling in Communication Research: Toward a Valid and Reliable Methodology. Communication Methods and Measures 12(2–3): 93–118. https://doi.org/10.1080/19312458.2018.1430754.

Merton, Robert K., and Alan Wolfe (1995) The Cultural and Social Incorporation of Sociological Knowledge. The American Sociologist 26(3): 15–39. https://doi.org/10.1007/BF02692031.

Moscovici, Serge (2008) Psychoanalysis: Its Image and Its Public, Cambridge: Polity.

Osrecki, Fran (2012) Diagnosing the Present: Towards a Sociology of Medialized Social Science, in: Rödder, Simone Martina Franzen, and Peter Weingart (Eds.): The Sciences' Media Connection – Public Communication and Its Repercussions, Sociology of the Sciences Yearbook. Dordrecht: Springer Netherlands, 307–32. https://doi.org/10.1007/978-94-007-2085-5_16.

Peters, Hans Peter (1988) Sozialwissenschaften in den Massenmedien - Empirische Bestandsaufnahmen: Bundesrepublik Deutschland. Wiebe, Burckhard (Ed.): Zwischen Marktplatz und Elfenbeinturm. Gesellschaft und Sozialwissenschaften, Berlin: Edition Sigma, 71–82.

Plesner, Ursula (2009) Disassembling the Mass Mediation of Research: A Study of the Construction of Texts, Relations and Positions in the Communication of Social Science, Roskilde: Roskilde Universitet.

Revers, Matthias (2009) Sociologists in the Press. The American Sociologist 40(4): 272–88. https://www.jstor.org/stable/20638852.

Schäfer, Mike S. (2012) Taking Stock: A Meta-Analysis of Studies on the Media's Coverage of Science. Public Understanding of Science 21(6): 650–63. https://doi.org/10.1177/0963662510387559.

Schäfer, Mike S., Silje Kristiansen, and Heinz Bonfadelli, (Eds.) (2015) Wissenschaftskommunikation im Wandel, Köln: von Halem.

Scheu, Andreas M., and Anna-Maria Volpers (2017) Sozial- und Geisteswissenschaften im öffentlichen Diskurs, in Bonfadelli, Heinz, Birte Fähnrich, Corinna Lüthje, Jutta Milde, Markus Rhomberg, and Mike S. Schäfer (Eds.) Forschungsfeld Wissenschaftskommunikation, Wiesbaden: Springer Fachmedien, 391–404. https://doi.org/10.1007/978-3-658-12898-2_21.

Schmierbach, Mike (2005) Method Matters: The Influence of Methodology on Journalists' Assessments of Social Science Research. Science Communication 26(3): 269–87. https://doi.org/10.1177/1075547004273025.

Schwartz, Pepper (1998) Stage Fright or Death Wish: Sociology in the Mass Media. Contemporary Sociology 27(5): 439–45. https://doi.org/10.2307/2654472.

Shannon, Jennifer, Claire Quimby, Chip Colwell, and Scott Burg (2021) Anthropology, Empathy, and the Need for Social Science Communication. Science Communication 43(4): 529–37. https://doi.org/10.1177/10755470211018812.

Siebel, Catherine, and Katherine Clegg Smith (2009) How Public Are We? Coverage of Sociology by the Associated Press. The American Sociologist 40(4): 289–308. https://www.jstor.org/stable/20638853.

Stulpe, Alexander, and Matthias Lemke (2016) Blended Reading, in: Lemke, Matthias and Gregor Wiedemann (Eds.) Text Mining in den Sozialwissenschaften, Wiesbaden: Springer Fachmedien Wiesbaden, 17–61. https://doi.org/10.1007/978-3-658-07224-7_2.

Šuljok, Adrijana (2020) Media Coverage of Different Scientific Disciplines in the Croatian Daily Press – Socio-Historical Perspective. Media Studies 11(21): 44–65. https://hrcak.srce.hr/ojs/index.php/medijske-studije/article/view/9794.

Summ, Annika, and Anna-Maria Volpers (2016) What's Science? Where's Science? Science Journalism in German Print Media. Public Understanding of Science 25(7): 775–90. https://doi.org/10.1177/0963662515583419.

Suttles, Gerald D., and Mark D. Jacobs (2011) Front Page Economics, Chicago: University of Chicago Press. https://www.degruyter.com/document/doi/10.7208/9780226782010/html.

Vestergaard, Gunver Lystbaek, and Kristian Hvidtfelt Nielsen (2016) Science News in a Closed and an Open Media Market: A Comparative Content Analysis of Print and Online Science News in Denmark and the United Kingdom. European Journal of Communication 31(6): 661–77. https://doi.org/10.1177/0267323116674110.

Vestergård, Gunver Lystbæk, and Kristian H. Nielsen (2017) From the Preserves of the Educated Elite to Virtually Everywhere: A Content Analysis of Danish Science News in 1999 and 2012. Public Understanding of Science 26(2): 220–34. https://doi.org/10.1177/0963662515603272.

Volpers, Anna-Maria, and Annika Summ (2015) Der Wandel des einst verspäteten Ressorts – Konstanten und Veränderungen der Wissenschaftsberichterstattung in deutschen Printmedien, in: Schäfer, Mike S., Silje Kristiansen, and Heinz Bonfadelli, (Eds.) Wissenschaftskommunikation im Wandel, Köln: von Halem, 233–57.

Weingart, Peter (2015) Die Stunde der Wahrheit? zum Verhältnis der Wissenschaft zu Politik, Wirtschaft und Medien in der Wissensgesellschaft, Weilerswist: Velbrück Wiss.

Weiss, Carol, and Eleanor Singer (1988) Reporting of Social Science in the National Media, New York: Russell Sage Foundation.

Wessler, Hartmut (1995) Die journalistische Verwendung sozialwissenschaftlichen Wissens und ihre Bedeutung für gesellschaftliche Diskurse. Publizistik 40(1): 20–38. https://www.researchgate.net/publication/258051875_Die_journalistische_Verwendung_sozialwissenschaftlichen_Wissens_und_ihre_Bedeutung_fur_gesellschaftliche_Diskurse.

Wessler, Hartmut (1997) Verschlungene Pfade: Wie sozialwissenschaftliches Wissen in die Medienberichterstattung einfließt. Relation: Beiträge zur vergleichenden

Kommunikationsforschung 4(1): 117–48. https://www.oeaw.ac.at/cmc/publications/book-series-relation/prior-editions/vol-4-1-wissenschaft-und-oeffentlichkeit-i/.

Wien, Charlotte (2014) Commentators on Daily News or Communicators of Scholarly Achievements? The Role of Researchers in Danish News Media. Journalism 15(4): 427–45. https://doi.org/10.1177/1464884913490272.

SOFTWARE

Gensim. https://radimrehurek.com/gensim/

Prince. https://github.com/MaxHalford/prince

spaCy. https://spacy.io/

Author biographies

Dr. Jasper W. Korte was awarded his PhD at the University Münster with a study of the reporting of social science in Germany. Korte is a researcher at the German Aerospace Center (DLR) and works in the digital humanities project InsightsNet. His research interests include the sociology of science, science communication, and computational social science.

APPENDIX

Table A1: Periodicals

Title (Abbreviation)	Type	Datasource
Der Spiegel (Spiegel)	Weekly news magazine	Nexis
Die tageszeitung (taz)	Daily newspaper	Nexis
Die Welt (Welt)	Daily newspaper	Nexis
Focus	Weekly news magazine	Nexis
Frankfurter Allgemeine Sonntagszeitung (FAS)	Weekly newspaper	FAZ-Archive
Frankfurter Allgemeine Zeitung (FAZ)	Daily newspaper	FAZ-Archive
Süddeutsche Zeitung (SZ)	Daily newspaper	SZ-Archive
Welt am Sonntag (WamS)	Weekly newspaper	Nexis

Table A2: Sampling method and statistical information per discipline

Discipline	Used search strings (count)	Target constructs (in English)	Articles	Tokens	Topic modelling measures	MCA measures
Anthropology	*ethnolog* (383) *völkerkund* (114) *sozialanthropol* (26) *kulturanthropol* (65)	Ethnologie (anthropology) Völkerkunde (ethnology) Sozialanthropologie (social anthropology) Kulturanthropologie (cultural anthropology)	495	5,563	Perplexity: -8.20 u_mass: -3.52 c_v: 0.36	Component 0: 19.62% Component 1: 15.08%
Sociology	*soziolog* (2,139) *sozialforsch* (338) *sozialtheor* (16) *gesellschaftsforsch* (24) *gesellschaftstheor* (32)	Soziologie (sociology) Sozialforschung (social research) Sozialtheorie (social theory) Gesellschaftsforschung (society research) Gesellschaftstheorie (theory of society)	2,444	5,581	Perplexity: -7.96 u_mass: -1.85 c_v: 0.46	Component 0: 41.06% Component 1: 39.88%
Economics	*ökonom* (4,435) *wirtschaftswis* (814) *wirtschaftsfors* (1,517) *wirtschaftstheor* (58) *wirtschaftsprof* (349)	Ökonomie (economics) Wirtschaftswissenschaft (science of economy) Wirtschaftsforschung (economic research) Wirtschaftstheorie (economic theory) Wirtschaftsprofessor (professor of economics)	5,721	4,445	Perplexity: -7.55 u_mass: -1.88 c_v: 0.54	Component 0: 88.14% Component 1: 71.67%

Table A3: Topics and top keywords

Topic	Top 10 keywords
Anthropology	
pictures of life	mensch, studium, foto, studieren, leben, leute, zigarette, sommer, denken, bild
expedition	Insel, expedition, neuguinea, masse, sprache, papua, volk, einheimische, alte, reise
humboldt	humboldt, berlin, forum, berliner, schloss, alexander, stiftung,, boas, ethnologische, deutsch
work	arbeit,raum, kunde, london, gesprach, verdienen, bekommen, geld, hotel, deutschland
afghanistan	staat, land, gruppe, taliban, ethnisch, afghanistan, konflikt, richter, prasident, bevolkerung
art	kunst, ausstellung, bild, fotografie, schau, film, kultur, werk, kunstler, blick
society	Gesellschaft, mensch, buch, leben, kultur, wert, geschichte, kind, sozial, wissen
tradition	traditionell, tradition, verwenden, erklaren, schwarz, nachst, symbol, verstehen, bunt, kleid
museum	museum, objekt, sammlung, benin, afrika, ausstellung, zeigen, bronzen, deutsch, geschichte
culture & politics	Land, bourdieu, berlin, hamburg, kultur, afrikanisch, pierre, stadt, franzosisch, algerien
journey	Haus, euro, stadt, besucher, million, land, gast, licht, wasser, restaurant
music	Musik, bredekamp, musiker, instrument, brasilien, horst, band, weltmusik, villa, taubes
studying	Labyrinth, universitat, detail, veranstaltung, fach, ikea, koka, stecken, professor, mensch
culture & history	Gewalt, strauss, levi, jude, generation, deutschland, mensch, leben, europa, tabu
skull	Schadel, forschung, bastian, sammlung, museum, ethnologe, volkerkunde, hamburg, deutsch, kannibalismus
islam	Jahrhundert, roma, leben, samad, abdel, deutsch, europaisch, islam, kultur, china
being abroad	straße, mensch, paris, leben, haus, krieg, schriftsteller, stadt, ottinger, erzahlen
culture & nature	Natur, tier, kultur, ethnologie, wissenschaft, modern, ding, mensch, material, disziplin
narrations	leben, deutsch, erzahlen, roman, otto, deutschland, franzen, prozent, mexiko, vater
foreign countrys	mensch, prozent,indien, land, million, grund, euro, mussen, kind, projekt
university	universitat, institut, reinhard, leiten, professor, georg, berufen, gehlen, anfang, kollege
family	Peter, martin, familie, demokratie, kind, leben, buch, korper, vater, richard
Sociology	
global inequality	mensch, million, welt, china, stadt, reich, dorf ,wachsen ,geld ,dollar
society	gesellschaft, sozial, frage, politisch, politik, freiheit, staat, offentlich, mensch, handeln
theory	buch, geschichte, verlag, theorie, sprache, werk, text, jahrhundert, philosoph, roman
housing	stadt, berlin, euro, haus, berliner, wohnung, frankfurt, geld, projekt, raum
social movements	bewegung, protest, polizei, opfer, leute, held, medium, gewalt, gruppe, straße
research	studie, mensch, ergebnis, frage, forscher, gruppe, vertrauen, datum, wissenschaftler, wissenschaft
religion	mensch, religion, religios, gott, kunst, welt, kunstler, ausstellung, glaube, museum
International politics	staat, europa, prasident, regierung, amerika, russland, nation, national, europaisch, politisch
family	kind, familie, prozent, eltern, mutter, schule, jugendliche, vater, deutschland, madchen
germany and war	deutsch, deutschland, krieg, deutsche, turkisch, gewalt, turkei, berlin, ukraine, frage
sports	spiel, sport, arzt, mensch, patient, fußball, krankheit, gesundheit, psychisch, risiko
corona	unternehmen, krise, corona, pandemie, euro, mensch, arbeit, geld, firma, mitarbeiter
media	welt, spiegel, mensch, gesellschaft, internet, kapitalismus, buch, netz, medium, sozial
church	kirche, jude, papst, paul, johannes, judisch, nazi, hitler, welt, israel
france	Frankreich, franzosisch, paris, kultur, identitat, franzosische, bourdieu, integration, migranten, muslim
east germany	prozent, osten, deutschland, generation, deutsch, berlin, unternehmen, westen, stiftung, studie
elections	partei, wahl, politik, prozent, merkel, grune, politiker, wahlen, wahler, politisch
emotions	freund, buch, lieben, mensch, fragen, gefuhl, welt, haus, denken, leute
university	universitat, student, professor, hochschule, soziologie, studium, studieren, institut, wissen, lehre
Economics	
football	deutsche, munchen, spiel, geld, million, deutsch, deutschen, bayer, vorstand, uber
university	universitat, professor, student, hochschule, forschung, foto, studieren, studium, kollege, wissenschaftler
inflation	inflation, zentralbank, zins, notenbank, geldpolitik, euro, bundesbank, prozent, europaische, okonom
growth	prozent, wirtschaft, wachstum, rechnen, quartal, deutsch, prognose, konjunktur, zahl, rezession
euro-crisis	euro, staat, krise, europa, italien, schulde, europaisch, kredit, griechenland, geld
models	modell, frage, ergebnis, verhalten, wissen, mensch, entscheidung, entwickeln, vertrauen, unterschiedlich
society	gesellschaft, politik, sozial, staat, politisch, soziale, marktwirtschaft, wirtschaftlich, burger, kapitalismus
housing	stadt, berlin, wohnung, haus, million, prozent, hamburg, miete, wohnen, immobilie
work	arbeit, million, arbeitnehmer, arbeitsmarkt, gewerkschaft, stelle, arbeitgeber, arbeitsplatze, mitarbeiter, lohne
energy	energie, klimaschutz, ziel, klima, okologisch, tonne, nachhaltig, strom, umwelt, klimawandel
france	regierung, prasident, frankreich, reform, franzosisch, paris, franzosische, bush, protest, parlament
competition	wettbewerb, markt, privat, staatlich, staat, gesetz, offentlich, regel, staatliche, international
corona	corona, pandemie, krise, mensch, arzt, virus, patient, coronavirus, maßnahme, zahl
people	mensch, welt, leute, geld, denken, geschichte, wissen, erzahlen, verstehen, sitzen
abroad	china, dollar, welt, staat, regierung, amerika, vereinigte, million, global, japan
family	kind, studie, familie, prozent, schule, mensch, eltern, mutter, schuler, zahl
elections	partei, merkel, grune, koalition, union, schroder, angela, schmidt, wahl, kanzler
media	zeitung, frankfurt, osterreich, frankfurter, medium, platz, august, foto, fischer, schweiz
europe	deutschland, deutsch, europa, großbritannien, folge, wirtschaftlich, okonomen, london, schaden, britisch
theory	buch, okonom, okonomie, theorie, okonomisch, jahrhundert, geschichte, these, verlag, denken
russia	russland, krieg, ukraine, russisch, putin, sanktion, russische, westen, russlands, moskau
prices	preis, teuer, kosten, prozent, verbraucher, steigend, nachfrage, kaufen, cent, auto
institutes	institut, berlin, bundesregierung, peter, scholz, chef, hans, okonom, kritisieren, warnen
enterprises	unternehmen, firma, deutsch, konzern, deutschland, branche, kunde, mitarbeiter, industrie, ausland
taxes	euro, milliarde, prozent, steuer, geld, kosten, zahlen, million, rente, einkommen
east germany	Osten, region, prozent, westen, deutschland, ostdeutschland, baden, sachsen, west, bundesrepublik
eu	Kommission, vorschlag, europaisch, brussel, europaische, entscheidung, national, union, gesetz, bund
stock exchange	prozent, dollar, anleger, aktie, borse, kurs, euro, gold, rendite, wert
banking crisis	banken, bank, geld, krise, finanzkrise, markt, spiegel, amerikanisch, risiko, okonom