

Introduction

a) Objective

The appendix proposed here concerns the development of a data-based descriptive analysis of scientific production in the humanities and social sciences (from now on HSS) for the reference period of the CNRS evaluation 2017-2021. Scientific publications only are taken into account.

This descriptive analysis has been elaborated insofar as the WOS and SCOPUS bibliographic databases are not suitable for documenting and characterising HSS scientific publications.

The issues of the validity and use of bibliometric databases to characterise and evaluate the output of HSS researchers are constantly being discussed in Europe and in France.

The High Committee for the Evaluation of Research and Higher Education (HCERES) has just organised a conference on the evaluation of Humanities and Social Sciences in Europe in May 2022. The Athena alliance published, in October 2022, a report on "*Bibliometric indicators for the SHS, State of the question*".

Already in 2018, the *Observatoire des Sciences et Techniques (OST)*¹ had organised a seminar on this issue bringing together specialists from different non-English speaking countries.

See :

[https://data.consilium.europa.eu/doc/document/ST-9515-2022-INIT/en/pdf item 14](https://data.consilium.europa.eu/doc/document/ST-9515-2022-INIT/en/pdf/item/14)

<http://www.alliance-athena.fr/les-indicateurs-bibliometriques-pour-les-shs-etat-de-la-question-parution-du-rapport-de-lalliance-athena/>

<https://www.hceres.fr/PRESENTATION/Organisation/Observatoire-des-Sciences-et-Techniques>

This appendix therefore aims to provide the CNRS with the means to describe and analyse its HSS' scientific publications during the reference period and to propose some strategic lines for the future on this matter.

Whether it is possible or not to compare the CNR HSS, in terms of scientific publications, at the international level, but in fact also at the national level, is a still-remaining issue. We will come back to this in the conclusion.

b) How we worked?

The work to produce this annex was designed in the following stages:

1. Decision by the CNRS executive board not to characterise HSS scientific publications on the basis of the WOS and SCOPUS bibliographic databases;
2. The Humanities and Social Sciences division of the CNRS (from now on InSHS) sets up internal bimonthly meetings from March to November 2022 with: Michèle Dassa, Head of the Observatory of activities, publications, productions of HSS researchers and research support staff, Lionel Maurel, Deputy Scientific Director for Open science, scientific publishing and research data, Marie Gaille, Director of the InSHS;
3. Meeting with Bernard Larrourou (HCERES), Frédérique Sachwald (Observatoire Sciences Techniques, from now on OST) and InSHS on July 12th 2022 to share expectations, questions and issues;
4. Meetings between Michèle Dassa and the MESR (ministry of research and higher education) Open Science Barometer team;
5. Request to the Institut de l'Information Scientifique et Technique (from now on INIST) for the preparation of the Open Science section presented here.

¹ <https://www.hceres.fr/PRESENTATION/Organisation/Observatoire-des-Sciences-et-Techniques>

c) The topics we covered

Scientific publications are first discussed here from the point of view of their typology. From this perspective, the data presented allow us to characterise these publications both for all of the disciplinary fields to which the CNRS researchers of the InSHS belong and also *according to each of these fields*. The latter dimension allows us to observe a variety, up to a certain point, in practices according to the disciplinary fields (part I).

As it relates to the scientific publications of CNRS researchers, this document does not cover all the fields that are represented in academic research in France as belonging to the HSS. Thus, scientific publications from non-biomedical psychology, education sciences and STAPS (*Sciences et techniques des activités sportives et physiques*) are not considered here insofar as these fields are not part of the scientific communities of the InSHS.

In addition, we have paid particular attention to the issue of open access publishing (Part II) and multilingualism in scientific publications (Part III). Indeed, these two issues are key for the InSHS : because of the open science policy implemented by the CNRS as a whole; and because it is crucial for the CNRS to elaborate scientific results at the best international level. The latter aspect implies we pay a particular attention to the conditions of knowledge production and dissemination, the choice of a language being part of them as is the carrying out an internationalised state of the art survey. Later on, we will speak of "internationalization" to refer to this dimension (even though this word has a broader meaning).

Finally, we wished to highlight forms of pluridisciplinarity within the HSS. Thus, part IV does not focus on scientific publications but on the way researchers relates to pluridisciplinary research practices. This study presents tools that could be used to analyse interdisciplinarity as the CNRS promotes it, which results could be completed by an analysis of interdisciplinary publications that has yet to be done.

We conclude by summarising the salient features of the analysis and the strategic lines we believe it suggests.

d) The methodology we used

The use of the RIBAC tool

Over the past ten years, the InSHS has developed a tool named RIBAC (*Recueil d'Informations pour un oBservatoire des activités de recherche en SHS*) to collect data on the scientific production of CNRS HSS researchers. RIBAC is not a research assessment tool, but a descriptive one. It gives information about their scientific publications, regardless of the medium, journal or book, and on all their activities. Based on the data collected in RIBAC, the InSHS publishes annual analyses of SHS researchers' publications on its website and in the CNRS activity report.

RIBAC is a secure web platform that allows CNRS-SHS researchers to document their scientific productions of various kinds (articles, chapters, websites, media, databases, etc.) every year.

Since 2011, RIBAC has included 100% of the scientific output of these researchers, described in a standardised manner. To our knowledge, there are no other databases that document the HSS scientific production in this way.

The InSHS relies on a scientific committee to develop the tool in line with new research practices and researchers' proposals.

The data, on which the results presented below are based, were extracted from section 2.2 "scientific publications" of the researchers' RIBACs (6425 on average/year between 2011 and 2020).

Researchers index their publications themselves using a closed list of 27 HSS disciplines designed according to the European classification of the ESF. This classification is not without its weaknesses. On the one hand, the categories it uses are not always at the same level (e.g. the category "international relations" could be integrated into "political science"). Music could also be grouped with the arts. On the other hand, other fields that are part of the humanities and social sciences are forgotten, such as

architecture. This classification is therefore to be considered above all as a methodological tool. Its advantage is to allow for an analysis of the HSS fields based on a European framework.

The publication data are declarative and are cleaned by the RIBAC InSHS team. Only the publications of the calendar year are taken into account for the calculations.

Data from the JournalBase platform², updated in 2021, were used to calculate the share of articles published by researchers in the bibliometric databases, WOS and SCOPUS.

To calculate the share of open publications, we worked with the MESR's Open Science Barometer (BSO) team and with the INIST.³ After several exchanges and checks, the files of journal articles, book chapters and books declared in 2020 by HSS CNRS researchers were enriched with some new information such as the presence of open access, the type of open access (open archive and/or publisher site).

It should be noted that the method used by the BSO team and the INIST in order to identify an open access publication is based on the presence of a DOI (Digital Object Identifier) attributed solely by the Crossref agency and the status of publications entered in the UnpayWall tool.

The reference period for this evaluation is 2017-2021. For reasons of feasibility, we have chosen to survey 2017 and 2020 data, and when it was possible, to put the results of the analysis into perspective within a longer timeframe (2011-2020).

I. Typology of HSS scientific publications

a) General typology of publications

In order to contextualise the relevant data for the reference period of the evaluation, we indicate here for information, as shown in Figure 1, the stability of the different types of HSS scientific publications between 2011 and 2020. Over this long period, journal articles and book chapters represent almost 2/3 of the total production for HSS CNRS researchers.

² <https://journalbase.cnrs.fr/>.

³ We warmly thank Eric Jeangirard, as well as Claire François, Director of INIST, and Patricia Mahafaka Ranoarisoa, Head of the INIST Scientific Steering Department.

Figure 1: Share of different types of scientific publications produced by researchers in the Humanities and Social Sciences between 2011 and 2020 (source: RIBAC)

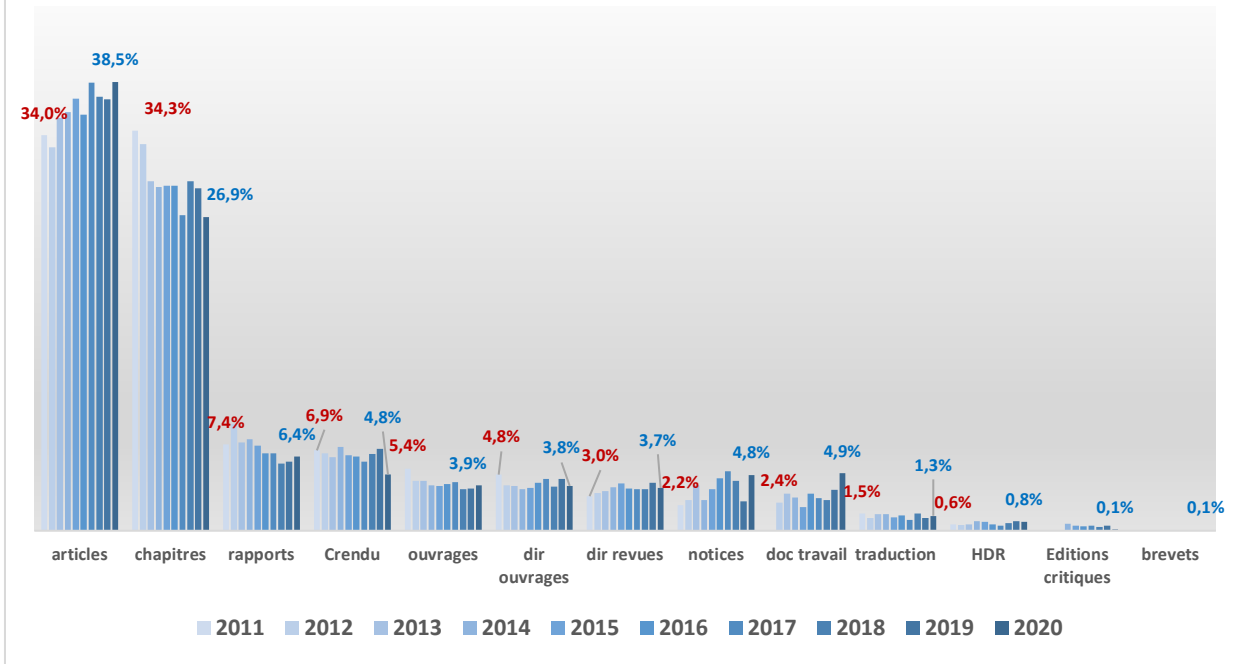
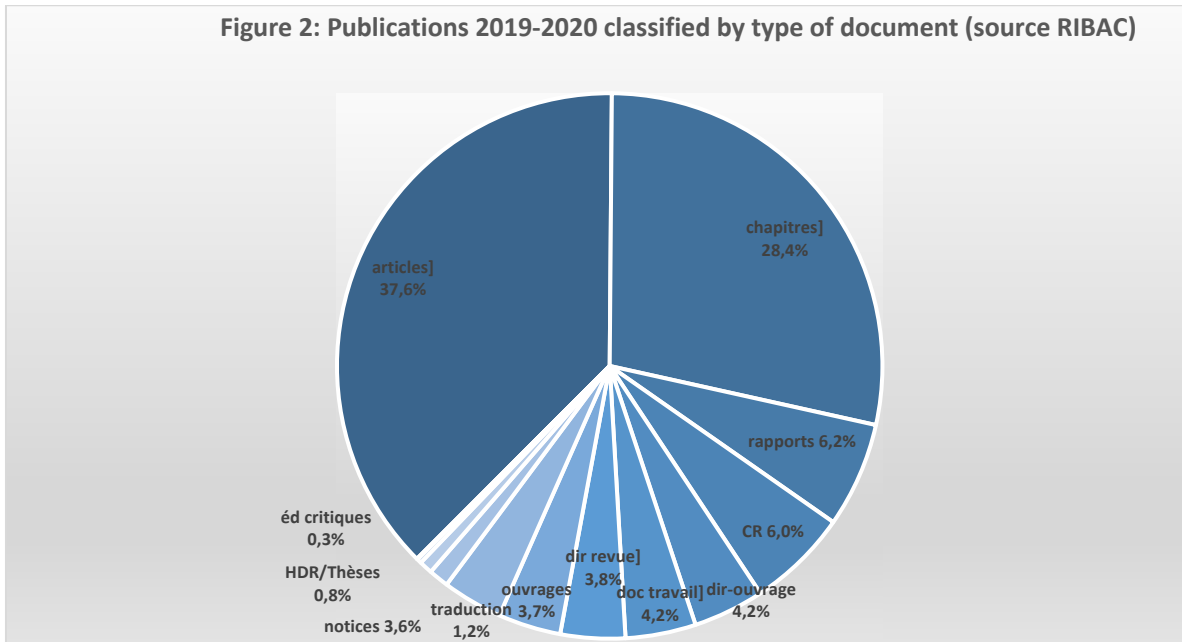


Figure 2 shows the 2019-2020 publications classified by type of document and confirms this distribution for the last years.

Figure 2: Publications 2019-2020 classified by type of document (source RIBAC)



b) Publication practices according to the disciplinary field (as classified according to the CoNRS sections)

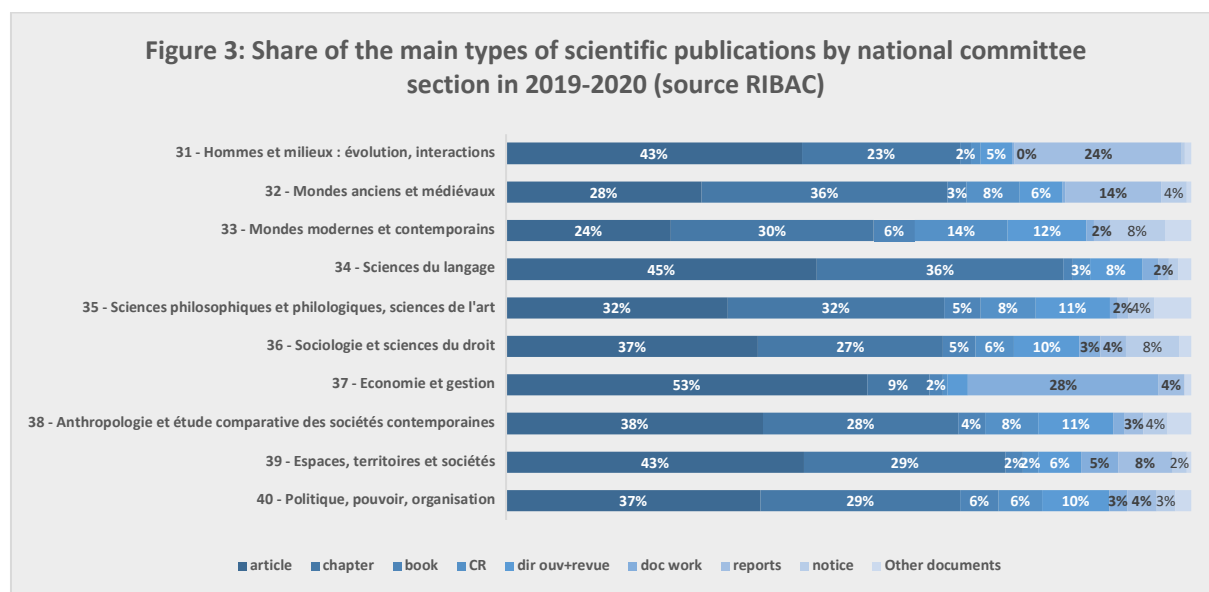
Over the last 10 years, publication practices have remained stable according to the HSS disciplinary fields. Figure 3 shows that in 'economics and management', more than ¾ of the publications correspond to journal articles and working papers.

More than 2/3 of the publications in the field of "Human beings and environments: evolution, interactions" (section 31) are in the form of journal articles and reports.

Linguists (section 34), sociologists, legal experts and political scientists (sections 36 and 40), anthropologists (section 38) and geographers or specialists in territorial and spatial sciences (section 39) also produce more articles in scientific journals than book chapters.

In contrast, there is a predominance of book chapters and books in the output of researchers in the fields of 'Philosophy, literature, arts' (section 35) and of historians of the ancient and medieval (section 32) and modern and contemporary worlds (section 33).

The issue of disciplinary differences in publishing practices therefore calls for a nuanced interpretation. It undeniably exists. However, except for the disciplinary communities relating to sections 32, 33 and 35, researchers publish more in journals than in monographs, whether we consider book chapters or books. Within monographs, the share of book chapters is very high compared to books. If we bring the article closer to the chapter, as opposed to the book in its entirety, the homogeneity of publication practices is stronger than the distinction between journals and monographs suggests. Overall, journal articles represent just under 40% of the total scientific publications declared by researchers and book chapters just under 30%.



c) Differences in the results as compared to HSS publications in WOS and SCOPUS

By comparing the journal articles reported by researchers in their RIBACs with the journals in the WOS and SCOPUS databases, it is possible to obtain a detailed picture of the share of journal articles published by researchers and currently reported by WOS and SCOPUS.

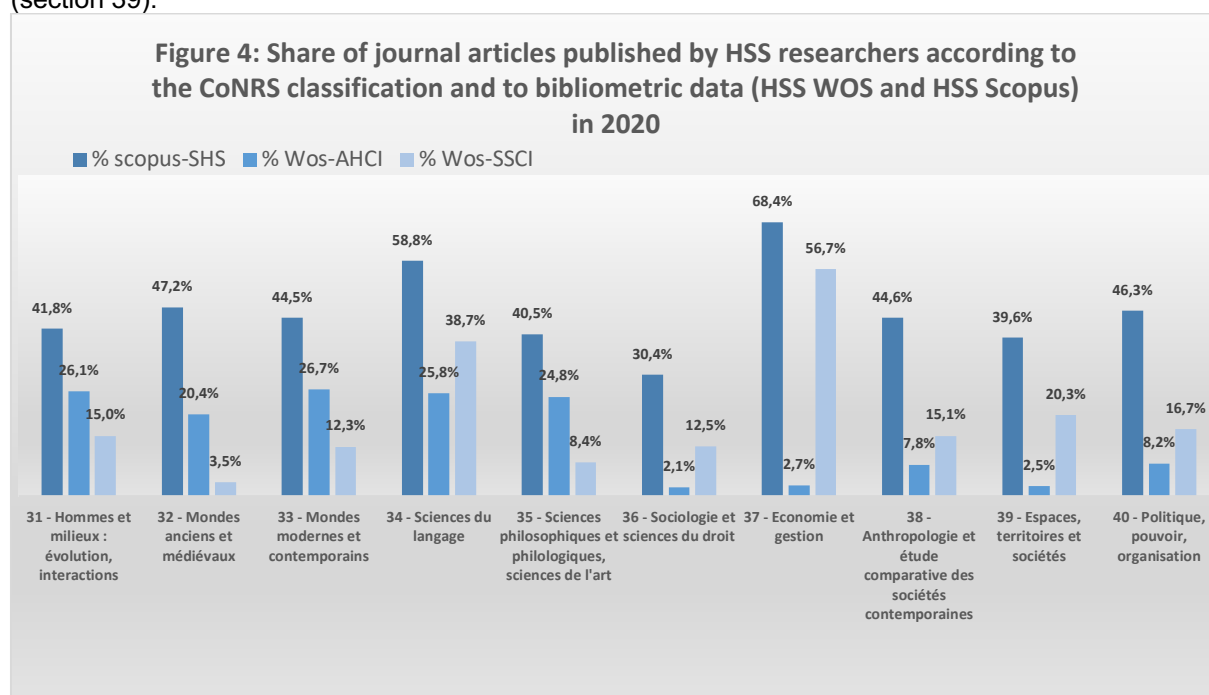
In 2020, an average of 46% (40% in 2017) of the total number of articles published by HSS CNRS researchers was recorded in HSS SCOPUS, 14% (12% in 2017) in the WOS AHCI database (*Art and Humanities*) and 21% (18% in 2017) in the WOS SSCI database (*Social Sciences*).

Compared to the 2017 study⁴, there is thus a slight increase in the number of articles by HSS CNRS researchers listed in all these databases due in large part to the addition of nearly 2,500 new HSS journals since 2017, but the gap remains very large in terms of documentation and description of HSS scientific publications.

Figure 4 shows the share of journal articles published in 2020 by HSS CNRS researchers according to their belonging to one of the Comit e national's sections in these bibliometric databases (WOS-SSCI⁵, WOS-AHCI⁶ and HSS SCOPUS⁷).

There are significant variations according to the disciplinary fields that is considered. While for economists in section 37, more than 2/3 of the journal articles registered in RIBAC are listed in SCOPUS, the figure is between 40% and 47% for historians (sections 32 and 33), literary and philosophical scholars in section 35, anthropologists in section 38, geographers in section 39, sociologists and political scientists in section 40.

The shares of articles in the WOS are lower, ranging from just over 55% for economists (section 37) to about 15-16% for sociologists and lawyers (section 36), anthropologists (section 38) and geographers (section 39).⁸



d) Evolution of publication practices between 2017 and 2020 according to disciplinary fields

If we consider the distribution of publications by major disciplinary field (with a split count because a publication can be indexed by the researcher with several disciplinary fields), we observe the specificities of the publication practices of the different HSS communities that were already present

⁴ 'Comment caract riser les inconduites au niveau des publications des diff rentes communaut s SHS ?  l ments de r flexion', in *L'int grit  scientifique   l'aune du droit*, 2021,  ditions Panth on-Assas, p. 27-36

⁵ <https://clarivate.com/webofsciencelgroup/solutions/webofscience-ssci/>

⁶ <https://clarivate.com/webofsciencelgroup/solutions/webofscience-arts-and-humanities-citation-index/>

⁷ <https://www.scopus.com/home.uri>

⁸ It would be interesting to cross-reference these data with the language criterion and in particular the use of English, as English-language journals are in the majority in WOS and SCOPUS (see <https://journals.openedition.org/cybergeo/22862>).

previously: historians prefer to use the 'book' medium and economists, the 'journal' medium (Figures 5 to 10)

The 4 disciplines with the highest number of articles are archaeology, history, sociology, and economics between 2017 and 2020. There is a slight decrease in journal articles in history between 2017 and 2020 (from 9.4% of total articles to 7.8%) while the number of articles in sociology increases slightly (from 9.3% of total articles to 11.8%).

For book chapters, the 4 main disciplines are history, linguistics, archaeology and sociology. There is a slight increase in book chapters in archaeology between 2017 and 2020 (from 8.3% of total chapters to 10.7%).

For books, the 5 main disciplines are history, sociology, political science, anthropology and philosophy. There is an increase in books in sociology between 2017 and 2020 (from 11.7% of total books to 15.2%) and in philosophy (from 6.2% to 8.4%).

1 - Article - distribution by subject area (total 100%)

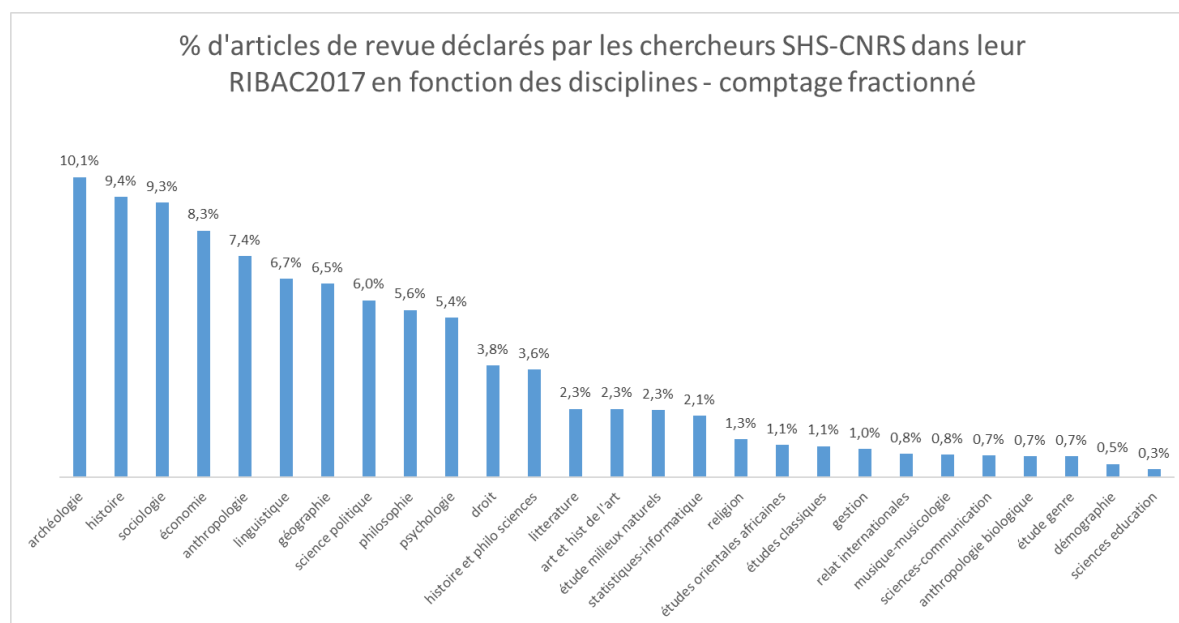


Figure 5: 2017

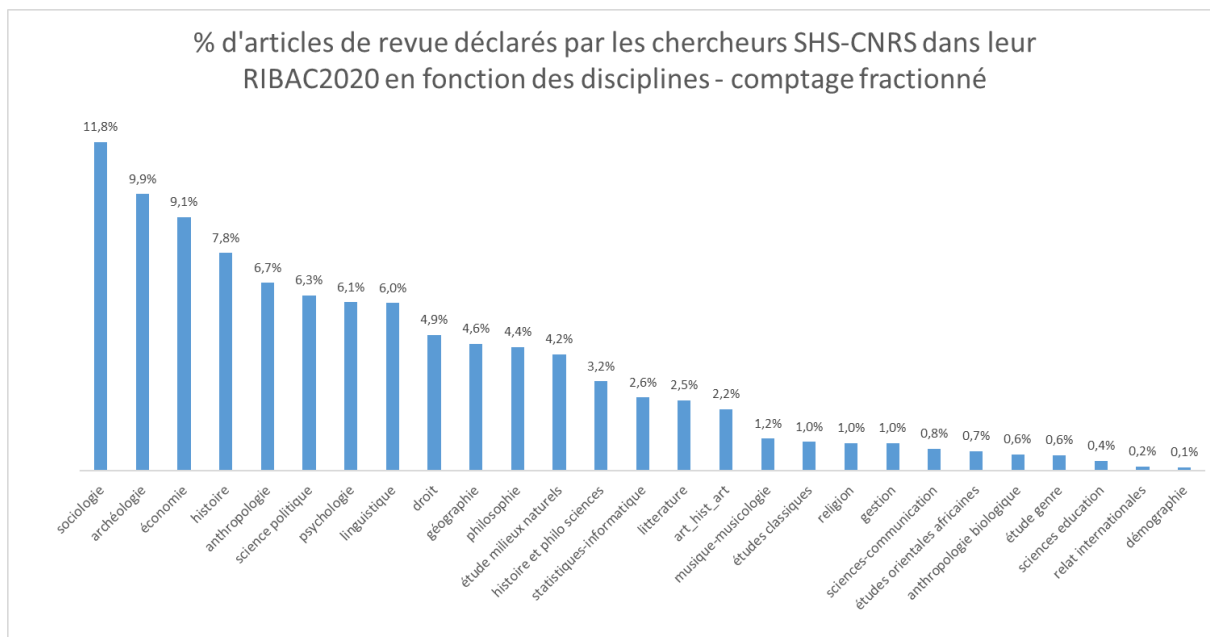


Figure 6: 2020

2 - Chapter - distribution by subject area (total 100%)

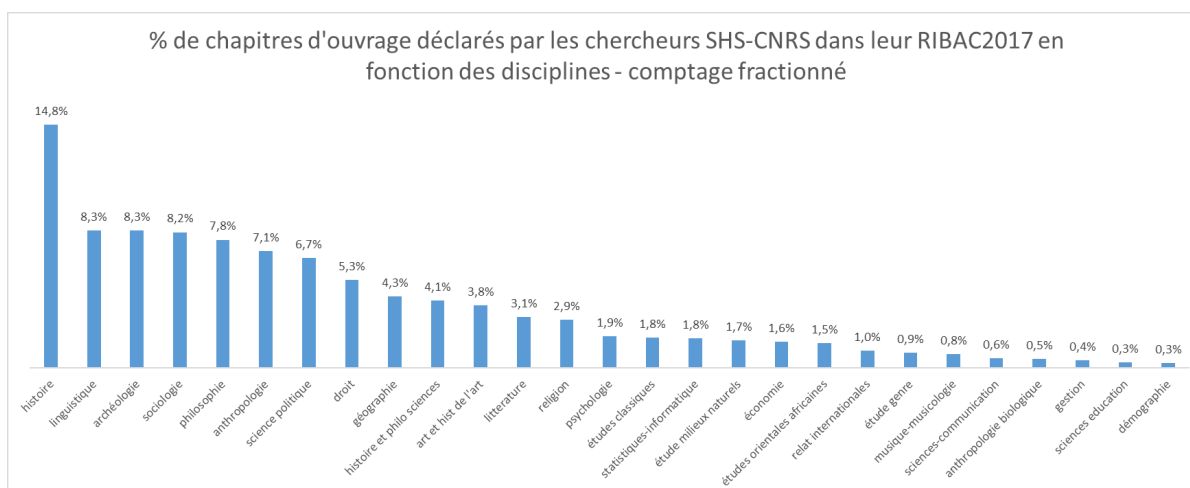


Figure 7: 2017

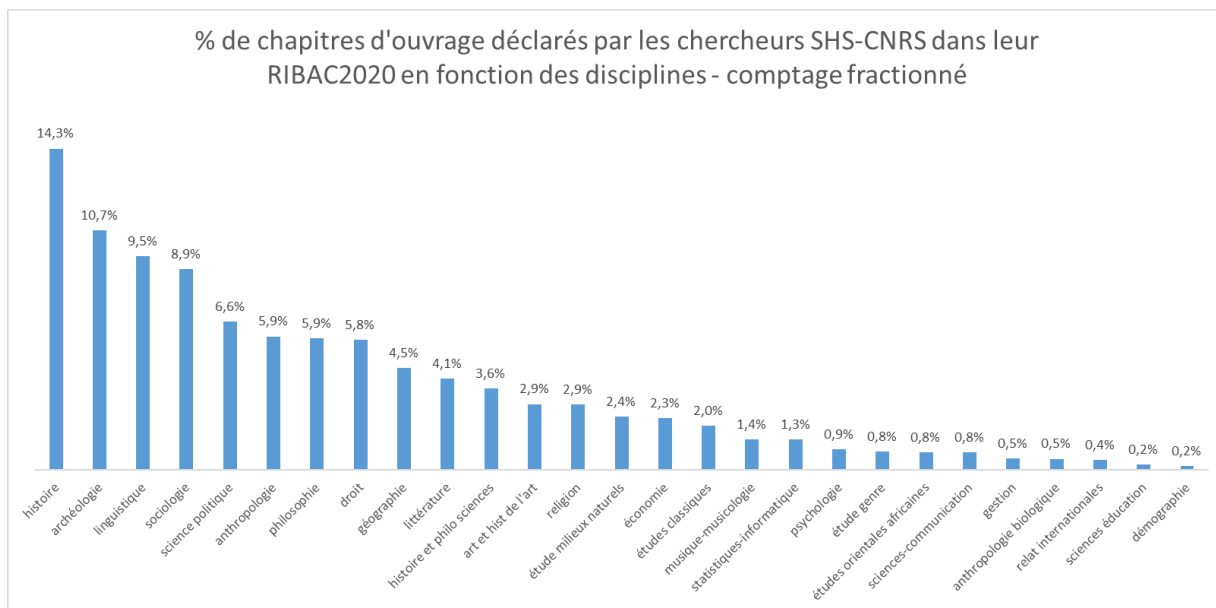


Figure 8: 2020

3 - Books - distribution by subject area (total 100%)

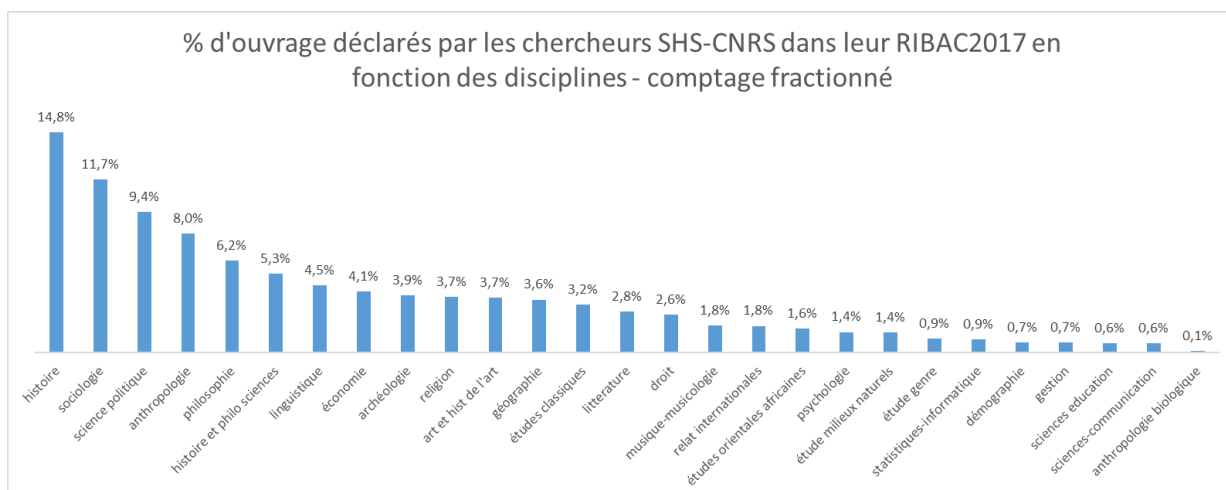


Figure 9: 2017

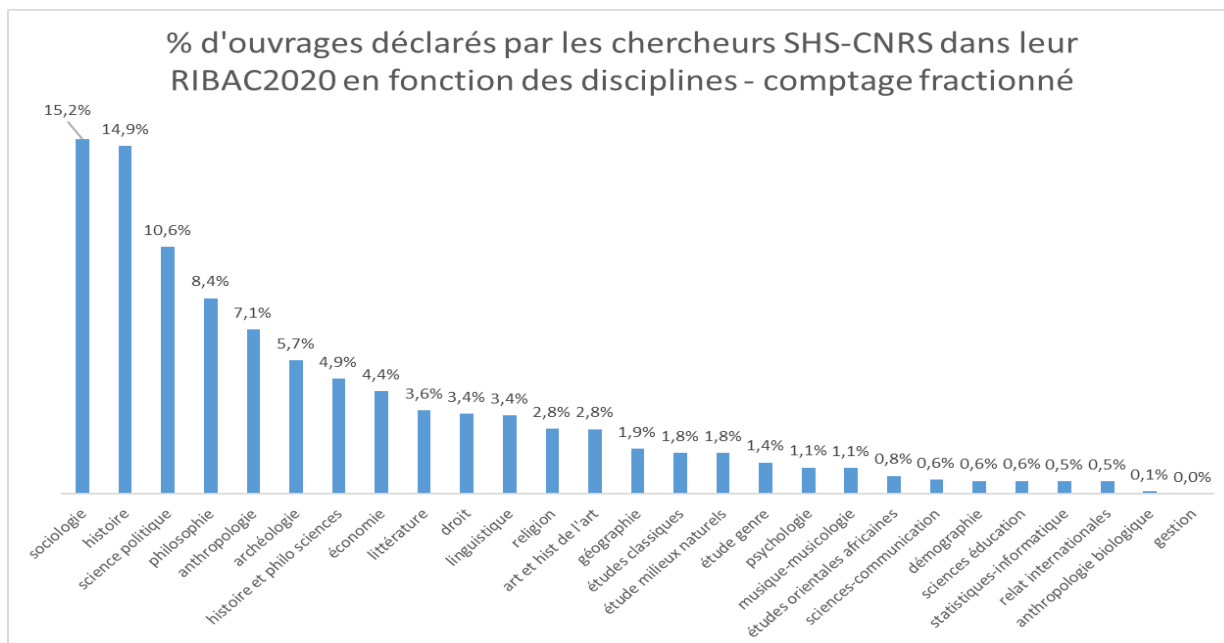


Figure 10: 2020

II. Open access SHS scientific publications

a) Analysis of the rate of open access journal articles for HSS scientific publications in general

We knew from a study conducted in 2017 (see Table 1) that HSS publications have few DOIs. Conducting a study based on DOIs for all types of HSS publications did not make much sense, given the low number of DOIs, particularly for certain types of documents such as book chapters.

However, it seemed interesting to examine whether there has been an increase since 2017 in the number of DOIs awarded to the most important and emblematic productions in HSS, namely articles, chapters and books.

It was then a question of defining for which type of document the results could be interpreted (as sufficiently representative of an output). Thus, conducting analyses on $\frac{1}{4}$ of a production (for example, on book chapters of which only 25% have DOIs in 2020) seems to be unenlightening in terms of a general description.

Therefore, for this study on scientific publications in 2020, we focused on journal articles which have the highest DOI rate among all types of publication.

Table 1: Open Access (OA) publication rate for RIBAC 2017 publications (source RIBAC 2017 and BSO) - BSO analysis conducted in July 2019

Type of publications	total number	number with DOI	% with DOI	number in OA	% in OA
Article	2461	1259	51%	560	23%
Chapter	1725	288	17%	49	3%
book report	377	35	9%	1	0%
management of the project	285	55	19%	5	2%
review direction	226	10	4%	4	2%
working documents	178	46	26%	31	17%
critical edition	28	1	4%		0%

Notice	326	13	4%	3	1%
Work	267	30	11%	3	1%
Report	425	1	0%	1	0%
thesis-HDR	27	0	0%		0%
Translation	60	3	5%		0%
Total	6385	1741	27%	657	10%

HSS CNRS- researchers reported having published 2363 articles, 1653 chapters and 239 books in their RIBAC in 2020.

Where DOIs were not mentioned by the researcher, the RIBAC team searched for them.

Table 2 shows the open access publication rate for 2020 publications.

Table 2: "Open Access (OA) publication rate" for RIBAC 2020 publications (source RIBAC 2020 and BSO) - BSO analysis made on 20/05/2022

Type of publication	article	chapter	book
total number	2363	1653	239
number with a DOI	1823	510	32
% with a DOI	77%	31%	13%
number with a Crossref DOI	1703	417	27
% with DOI Crossref	72%	25%	11%
number in Open Access (OA) with DOI Crossref	1135	170	8
OA BSO method compared to publications with a Crossref DOI	67%	41%	30%
%OA / total publications	48%	10%	3%

Table 2 shows that more than ¾ of journal articles have a DOI compared to just under 1/3 for book chapters and just over 10% for books. It can be noted that the DOI rate has increased since 2017 for all types of documents but more significantly for journal articles: evolution from 2017 to 2020 of the DOI rate: for articles from 51% to 77%, for chapters from 17% to 31%, for books from 11% to 13%.

Concerning the articles, the BSO team added information on the opening of the articles in relation to the Unpaywall database for the 1703 articles which have a Crossref DOI (see table 2). There are therefore only 162 articles, or 9%, which have a DOI assigned by an agency other than Crossref.⁹

As far as chapters and books are concerned, which represent on average 1/3 of the publications of SHS researchers (see Figure 2), given the low DOI rate, it seems very difficult to apply the "BSO method" to find out the opening rate of these publications.

The number of open access journal articles for CNRS-SHS researchers is 67% (see Table 2). This rate is higher than the overall rate for French publications calculated by the BSO every year (<https://barometredelascienceouverte.esr.gouv.fr/>) which was 52% in 2020. This rate is lower than that of the CNRS as a whole, that was evaluated at 76.8% for 2020 publications in the Web of Science, Core collection and enriched in December 2021 by data from the Unpaywall service by INIST (<https://cnrs2020-oang.dboard.inist.fr/>).

In addition, from a methodological level point of view, the opening rate calculated by the BSO method on the basis of publications with a Crossref DOI only, probably leads to an overestimation of the open access rate for total SHS publications extracted from RIBAC. Indeed, if we take into account the total number of publications declared in RIBAC and not only the number of publications with a Crossref DOI, the open

⁹ For information, INIST assigns Datacite DOIs, which are different from Crossref DOIs and are used more for data collections. But Crossref DOIs are the ones most used by the major publishers.

access rate decreases (see Table 2). However, we have no information on the opening of publications that do not have a Crossref DOI.

Given these methodological limitations, we have further investigated only journal articles. As is usual in the HSS community, there are differences in practice between communities. We have therefore analysed the distribution of these open access publications according to the CoNRS sections to which the researchers belong (see Table 3).

b) Analysis of the rate of open access journal articles by disciplinary field

On average, 76% of journal articles published by HSS CNRS researchers have a DOI, but for the historians (sections 32 and 33) and literary and philosophical communities (section 35), this rate is 10 points lower, at around 65% (see Table 3).

Information on the openness of data is therefore less complete and accurate for the latter communities.

Table 3: Distribution of Open Access (OA) publications for each CoNRS section (Source RIBAC 2020 and BSO)

Articles →	total number	number with DOI	% with a DOI	number with a Crossref DOI	% with a Crossref DOI	number OA	% OA- BSO method	% OA / total
Sections ↓								
31 - People and environment: evolution, interactions	153	125	82%	124	81%	82	66%	54%
32 - Ancient and Medieval Worlds	285	177	62%	161	56%	89	55%	31%
33 - Modern and contemporary worlds	146	100	68%	89	61%	41	46%	28%
34 - Language Sciences	194	167	86%	158	81%	114	72%	59%
35 - Philosophy, literature, arts	262	171	65%	150	57%	81	54%	31%
36 - Sociology and legal sciences	280	178	64%	160	57%	94	59%	34%
37 - Economics and management	263	247	94%	238	90%	183	77%	70%
38 - Anthropology and comparative study of contemporary societies	166	139	84%	131	79%	77	59%	46%
39 - Spaces, territories and societies	202	174	86%	170	84%	142	84%	70%
40 - Politics, power, organisation	257	198	77%	177	69%	105	59%	41%
Total	2208	1676	76%*	1558	71%	1008	65%	46%

* The calculations were made on the articles of researchers attached to SHS sections 31 to 40

There are strong differences between communities. The geography community (section 39) is the most advanced, with 84% of their articles in open access, followed by economists (section 37) who have long published *working papers*, a kind of *preprint* published in collections of laboratory journals submitted to the community before publication in reference journals.

c) Analysis of the mode of opening of open access journal articles by field (as classified according to the CoNRS sections)

The analysis of open access modes (open archive or publisher¹⁰) also shows differences between communities (Table 4).

Table 4: Analysis of open access journal articles in each CoNRS' section and according to the mode of opening (open archive and/or publisher)

Sections	Publisher	Publisher and archive	Warehouse	Grand total	Publisher	% publisher	archive	% archive
31 - People and Places	26	41	15	82	67	82%	56	68%
32 - Ancient and Medieval Worlds	30	36	23	89	66	74%	59	66%
33 - Modern and contemporary worlds	22	10	9	41	32	78%	19	46%
34 - Language Sciences	30	44	40	114	74	65%	84	74%
35 - Philosophy, literature, arts	31	21	29	81	52	64%	50	62%
36 - Sociology and legal sciences	35	31	28	94	66	70%	59	63%
37 - Economics and management	22	60	101	183	82	45%	161	88%
38 - Anthropology	38	21	18	77	59	77%	39	51%
39 - Spaces, territories and societies	53	54	35	142	107	75%	89	63%
40 - Politics, power, organisation	34	28	43	105	62	59%	71	68%

For Section 37 economists, 88% of their open access is achieved through the deposit of mainly *preprint* versions of *working papers* in an open archive. Only 45% of their open access articles are available on the publisher's website.

In contrast, for historians in sections 31, 32 and 33, anthropologists (section 38), and geographers (section 39), more than 3/4 of their open access journal articles are available on a publisher's website (cf. table 4).

III. Multilingualism in SHS scientific publications from 2017 to 2020

A first study in 2016¹¹ on the internationalisation of the HSS had shown large differences between the HSS research communities in the use of different languages for publications. The study focused on

¹⁰ **Open archive:** full-text articles are deposited by their authors on an open archive such as HAL as a preprint or postprint or editor's version. **Publisher:** articles are openly accessible on the publisher's website.

¹¹ The internationalisation of the Humanities and Social Sciences (SHS) through the lens of publications and contributions to international conferences by CNRS researchers, Philippe Auvergnon, Michèle Dassa, *La Lettre de l'InSHS*, July 2016, https://archivesic.ccsd.cnrs.fr/sic_01363482/document.

2014 publications. Economists in Section 37 and linguists in Section 34 were the HSS communities for which the main language of communication, both oral and written, is English. For the communities in section 35, but also for the legal experts and sociologists in section 36, the most often used language of communication remained French. On the other hand, researchers related to sections 31, 32, 33, 35 and 38 used a greater diversity of languages, noticeably Spanish, German and Italian, in a small but significant number of publications for these sections.

The present study aims to analyse the changes in the use of different languages in HSS researchers' publications since 2014.

The data on which the results below are based were extracted from section 2.2 "scientific publications" of the RIBACs of HSS CNRS researchers. The publication data are declarative and have been cleaned by the RIBAC InSHS team. Only the publications of the calendar year are taken into account for the calculations. The study covered the years 2017 and 2020. The languages of publication of journal articles, book chapters and books 2017 and 2020 were studied.

a) Articles

Table 1 shows that, overall, the proportion of journal articles published in French decreased between 2017 and 2020 (-8.3%) and that of articles published in English increased in about the same proportion (+7.2%). In 2020, more than half of the articles (54.4%) published by HSS CNRS researchers are in English.

Table 1: Proportion of journal articles by HSS CNRS researchers according to their language of publication (source RIBAC)

languages	2017	2020
French	49,5%	41,2%
English	47,2%	54,4%
Spanish	2,0%	1,4%
German	0,5%	0,6%
Italian	1,2%	1,3%
other language	3,3%	2,3%

Figures 1 and 2 present the proportions of journal articles according to their language of publication and the CoNRS' section of the publishing researcher for the years 2017 and 2020.

Figure 1 - year 2017

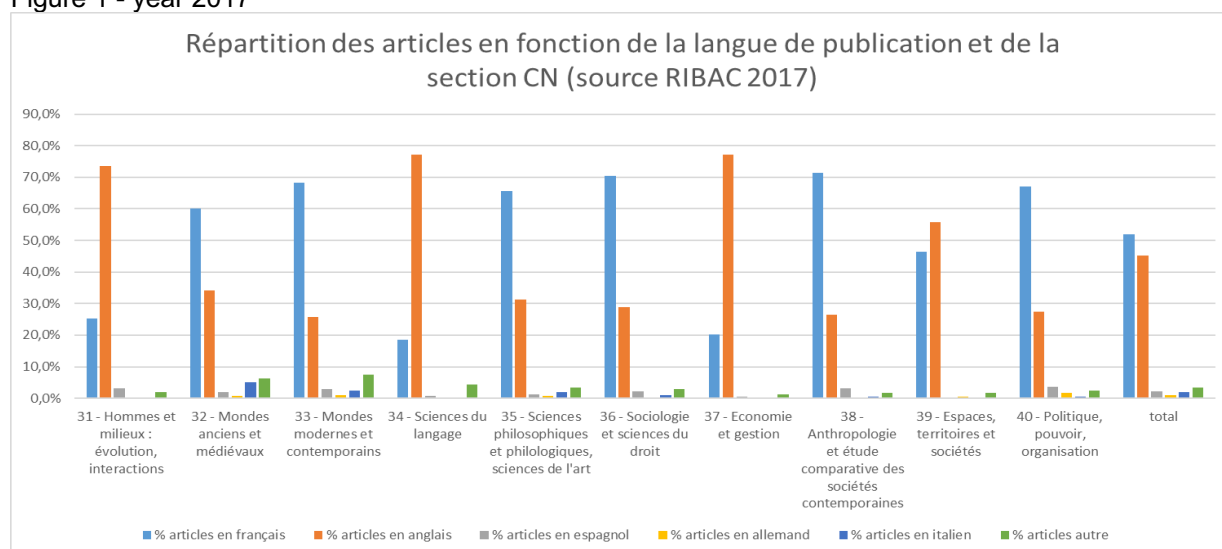
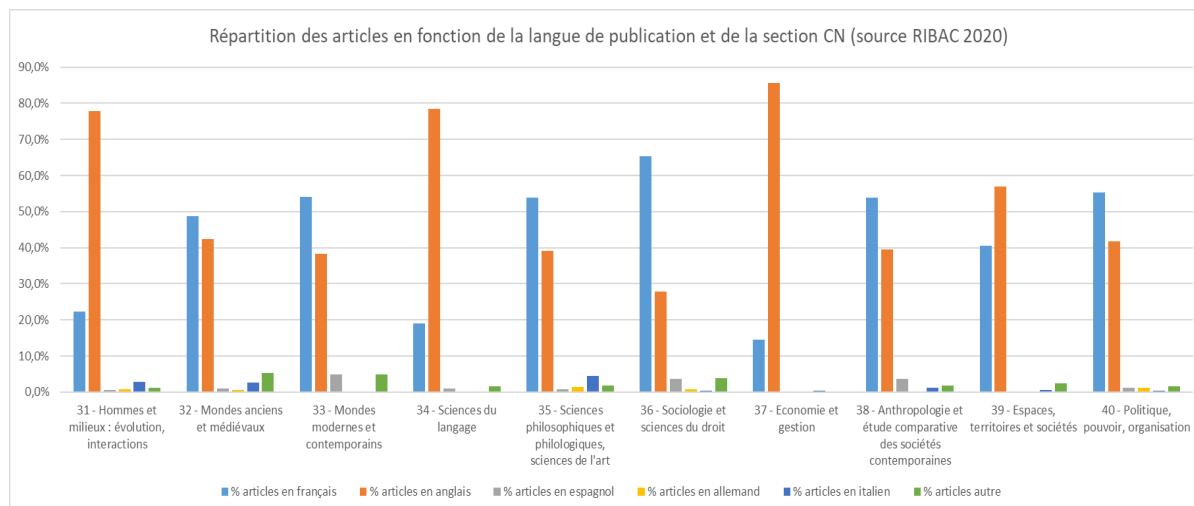


Figure 2 - year 2020



English remained the most often language of journal articles for economists and linguists and it also became the most often language in 2020 for archaeologists/geographers related to the 31st and 39th sections (respectively 78% and 57%).

The analysis for each section shows indeed between 2017 and 2020 a decrease in the proportion of articles in French for all sections except for linguists gathered in section 34. The rate of 78% of articles in English for the linguist community is however one of the highest in the HSS community. At the same time, there is an increase in the proportion of articles in English over the same period for all sections.

For the scientific communities related to sections 32, 33, 35, 36, 38 and 40, the proportion of articles published in French remains higher than that of articles published in English.

As in the 2014 publications survey, members of sections 32, 33, 35, 36 and 38 and 40 use a greater diversity of languages in 2020, noticeably Spanish, German and Italian, in a small but significant number of publications (around 10%).

Sociologists and legal experts in Section 36 publish 65% of their articles in French.

b) Chapters

Table 2 shows that, overall, the proportion of book chapters published in French decreased slightly between 2017 and 2020 (-4%) and that of book chapters published in English increased in the same proportions (+3.7%). However, the rate of chapters published in French remains higher than in English. In 2020, 54.2% of book chapters are published in French and 40.4% in English.

Table 2: Proportion of book chapters according to their language of publication (source RIBAC)

languages/year of publication	2017	2020
French	58,2%	54,2%
English	36,7%	40,4%
Spanish	1,9%	1,5%
German	2,2%	1,9%
Italian	2,3%	1,5%
other language	4,3%	2,5%

Figures 3 and 4 present the proportions of book chapters according to their language of publication and the CoNRS section of the researchers for the years 2017 and 2020.

Figure 3 - year 2017

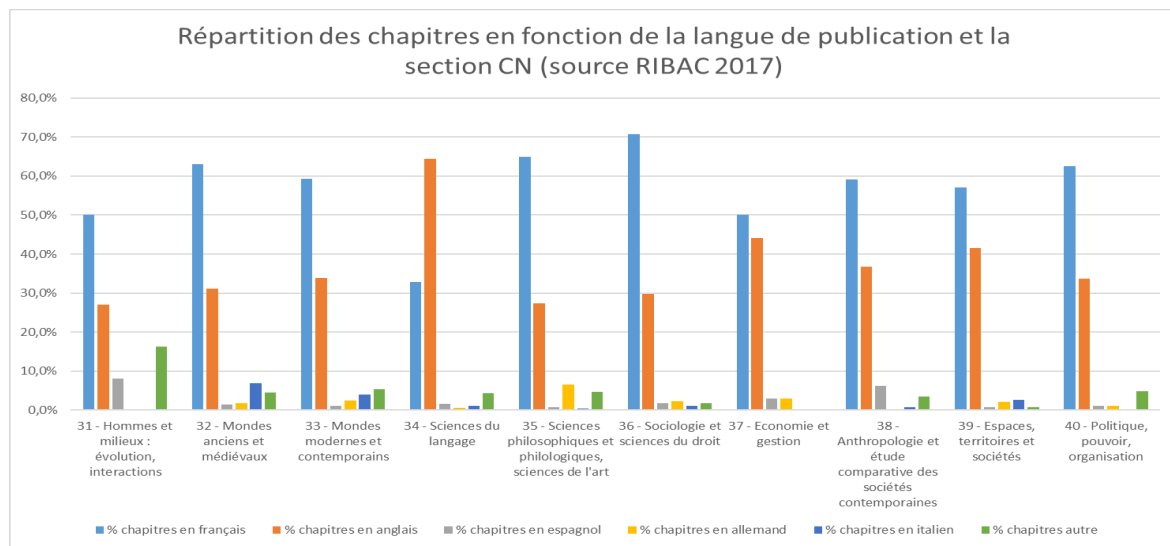
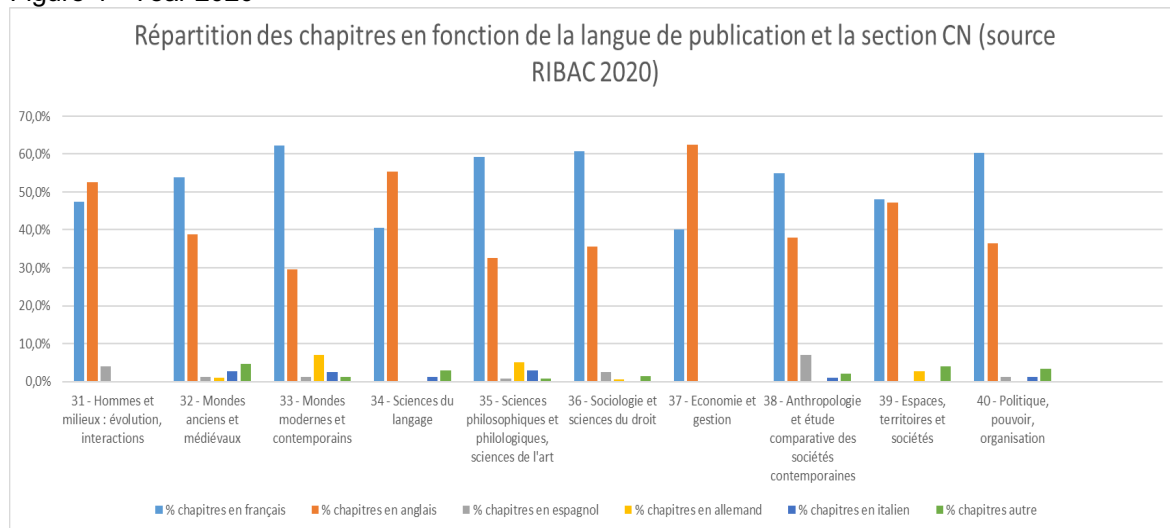


Figure 4 - Year 2020



English remained the most often used language of publication for book chapters for economists and linguists and became slightly more dominant in 2020 for archaeologists in section 31 (53% of chapters published in English).

For Section 39's researchers, there are almost as many book chapters published in English and French (47% in English and 48% in French).

For sections 33, 35, 36 and 40's researchers, about 60% of the chapters are published in French and about 55% for sections 32 and 38.

For the communities of historians (section 33) and linguists (section 34), there is a slight increase in book chapters published in French between 2017 and 2020.

For all other HSS communities, there is a decrease in the proportion of chapters published in French for the same period. As for journal articles, members of sections 32, 33, 35 and 39 use a greater diversity of publication languages, noticeably Spanish, German and Italian and other languages, for about 10% of their chapters in 2020.

c) Books

Table 3 shows that, overall, the proportion of books published in French also decreased slightly between 2017 and 2020 (-2.9%). On the other hand, the proportion of works published in English remained more or less the same (+0.5%). Nevertheless, the proportion of books published in French represents in 2020 70% of the total number of books published by HSS researchers.

Table 3: Proportion of books according to their language of publication (source RIBAC)

languages/year of publication	2017	2020
French	72,4%	69,5%
English	21,3%	21,8%
Spanish	1,5%	1,3%
German	2,2%	0,4%
Italian	2,6%	4,2%
other language	9,0%	7,5%

Figures 5 and 6 present the proportions of published books according to their language of publication and the CoNRS' section of the researcher for the years 2017 and 2020.

Figure 5 - year 2017

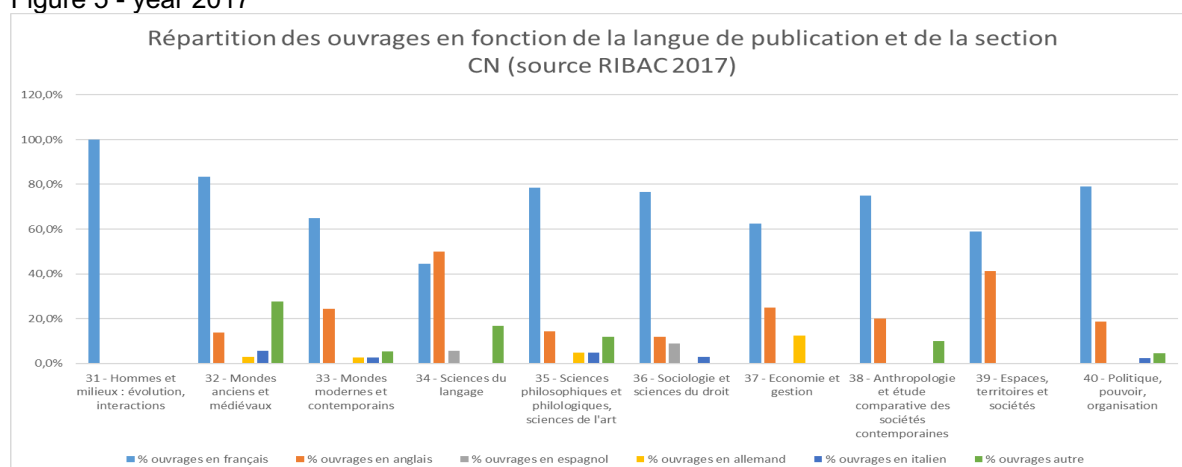
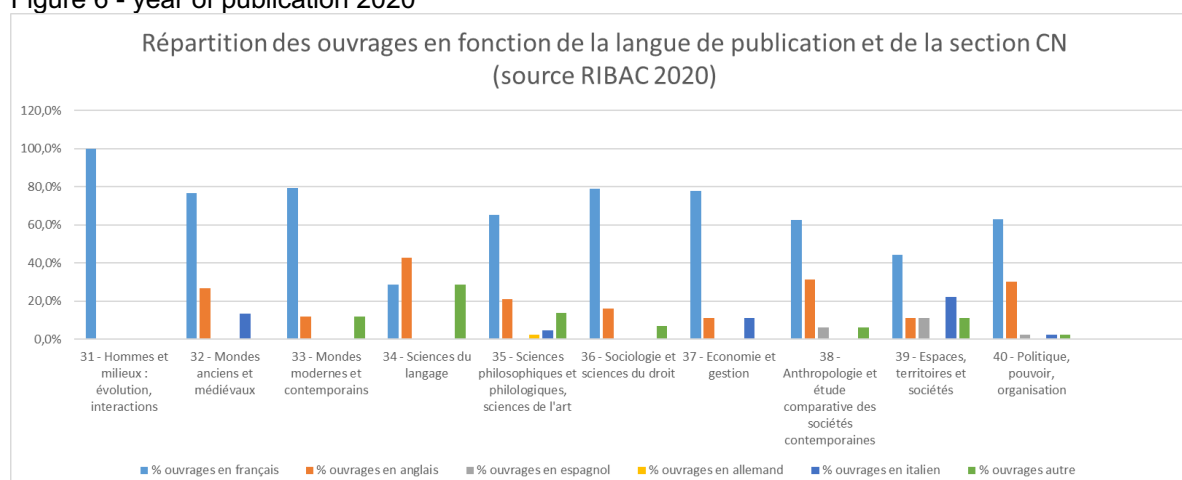


Figure 6 - year of publication 2020



For the communities of historians gathered in section 33, as in the case of book chapters, we observe an increase in the proportion of books published in French between 2017 and 2020 (from 65% to 79%).

For all other HSS communities, there is a decrease in the proportion of books in French over the same period but this is not always compensated by an increase of published books in English.

The proportion of books published in Spanish, German and Italian or in other languages decreased slightly overall between 2017 and 2020 (-1.5%, see Table 3).

In 2020, the rate of publications in languages other than Spanish, German and Italian - e.g. Arabic, Chinese, Russian - is above 10% for the research communities of Sections 33, 34, 35 and 39.

IV. Documentation of multidisciplinary *within* the HSS between 2017 and 2021

As we indicated in the introduction, this part IV presents an approach that could be generalised to interdisciplinarity as undertaken by the CNRS and completed by an analysis of interdisciplinary scientific publications. We will come back to this in the conclusion.

As such, this approach can be useful for analysing the links between the competences of HSS researchers and their scientific effects, for example on the constitution of disciplines and fields.¹²

The data considered here were extracted from item 1.9 "individual competences". Researchers have the possibility of selecting one or two of these scientific domains to qualify their research themes among 27 HSS domains (the 27 categories of the European classification of the ESF, mentioned above, has been used here). Only 20% of researchers chose a single main field, and 80% of HSS researchers indicated two different fields.

This rate has been stable for about ten years. There has been no major change in the period under review on this subject.

The results show (Table 1) that the six main fields chosen by researchers are the following, presented in order of importance in terms of number of researchers in 2021: history, sociology, anthropology, linguistics, archaeology and economics. The percentage of researchers choosing these fields ranges from 12.9% to 8.9%.

Between 2017 and 2021, there was a slight increase in the percentage of researchers who chose anthropology (+0.7%) and a slight decrease in those who chose linguistics (-0.8%). For the other HSS fields, the percentage remained relatively stable between 2017 and 2021.

Table 1: Distribution of researchers by HSS field chosen as main area of competence in 2017 and 2021 in % (source RIBAC 2017 and 2021)

HSS fields	2017	2021
History	13,0%	12,9%
Sociology	11,4%	11,1%
Anthropology, ethnology	10,0%	10,7%
Linguistics	9,4%	8,6%
Archaeology	8,9%	9,1%
Economics	8,5%	8,9%
Geography	6,7%	6,9%
Political Science	6,3%	6,5%
Philosophy, philology, epistemology	6,2%	6,0%
Right	3,2%	3,2%
History and philosophy of science	2,7%	2,3%
Psychology and cognitive sciences	2,4%	2,9%
Literature	2,0%	1,9%
Art and art history	1,8%	1,8%
Music and musicology	1,2%	1,2%
Classical studies	1,2%	1,0%
Oriental and African Studies	1,1%	1,0%
Statistics and IT	0,9%	0,8%
Study of natural and man-made environments	0,8%	0,5%

¹² See on the subject of archaeology, https://www.hceres.fr/sites/default/files/media/downloads/hceres_synthese-archeologie.pdf, report accessed on 11.11. 2022, p. 12.

Religion and theology	0,6%	0,4%
Business and administrative sciences	0,6%	0,6%
Biological anthropology	0,6%	0,6%
Gender Studies	0,3%	0,2%
Demographics	0,2%	0,2%
Communication Sciences	0,2%	0,2%
Education Sciences	0,1%	0,1%
International relations	0,0%	0,1%

The main areas of expertise chosen by the researchers are presented in Tables 2 and 3 according to their section of the national committee.

With regard to the structure of the CoNRS' sections, researchers related to certain sections appear, in the light of these data, to be more multidisciplinary than others, for example those in sections 35 or 32. Conversely, those related to section 37 appear to be less multidisciplinary. There is little change between 2017 and 2021.

However, in relation to the scientific policy developed by the InSHS, which now aims at focusing on research topics rather than developing an exclusively disciplinary-based approach, these differences are of relative significance.

Table 2: Distribution of researchers according to the HSS field selected as their main area of competence in 2017 and according to their section of affiliation in % (source RIBAC 2017)

	31 - Hommes et milieux : évolution, interactions	32 - Mondes anciens et médiévaux	33 - Mondes modernes et contemporains	34 - Sciences du langage	35 - Sciences philosophiques et philologiques, sciences de l'art	36 - Sociologie et sciences du droit	37 - Economie et gestion	38 - Anthropologie et étude comparative des sociétés contemporaines	39 - Espaces, territoires et sociétés	40 - Politique, pouvoir, organisation
Histoire	0%	35%	60%	0%	1%	0%	0%	0%	1%	2%
Sociologie	0%	0%	0%	0%	0%	59%	0%	1%	5%	33%
Anthropologie, ethnologie	0%	0%	2%	1%	1%	2%	0%	89%	4%	1%
Linguistique	0%	0%	0%	99%	1%	0%	0%	1%	0%	0%
Archéologie	40%	59%	1%	0%	0%	0%	0%	0%	0%	0%
Sciences économiques	0%	0%	0%	0%	1%	0%	97%	1%	1%	1%
Géographie	8%	1%	0%	0%	0%	0%	0%	0%	92%	0%
Science politique	0%	0%	0%	0%	0%	2%	0%	0%	2%	96%
Philosophie, philologie, épistémologie	0%	5%	2%	1%	90%	1%	0%	0%	0%	1%
Droit	0%	0%	0%	0%	0%	98%	0%	0%	2%	0%
Histoire et philosophie des sciences	0%	4%	20%	0%	76%	0%	0%	0%	0%	0%
Littérature	0%	6%	0%	0%	94%	0%	0%	0%	0%	0%
Art et histoire de l'art	0%	19%	53%	0%	25%	0%	0%	0%	3%	0%
Psychologie et sciences cognitives	0%	0%	0%	81%	0%	0%	0%	0%	12%	0%
Etudes classiques	0%	81%	0%	0%	19%	0%	0%	0%	0%	0%
Etudes orientales et africaines	0%	35%	35%	0%	5%	0%	0%	0%	20%	5%
Musique et musicologie	0%	5%	0%	0%	95%	0%	0%	0%	0%	0%
Anthropologie biologique	90%	0%	0%	10%	0%	0%	0%	0%	0%	0%
Sciences commerciales et administratives	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%
Etude des milieux naturels et anthropisés	55%	18%	0%	0%	0%	0%	0%	0%	27%	0%
Religion et théologie	0%	56%	44%	0%	22%	0%	0%	0%	0%	0%
Etudes du genre	0%	0%	0%	0%	40%	0%	0%	20%	0%	40%
Statistiques et informatique	0%	0%	0%	20%	20%	0%	0%	0%	60%	0%
Démographie	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%
Sciences de la communication	0%	0%	0%	33%	0%	0%	0%	0%	67%	0%
Sciences de l'éducation	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%
relations internationales	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Table 3: Distribution of researchers by HSS field chosen as their main area of competence in 2020 according to their section of affiliation in % (source RIBAC 2020)

	31 - Hommes et milieux : évolution, interactions	32 - Mondes anciens et médiévaux	33 - Mondes modernes et contemporains	34 - Sciences du langage	35 - Sciences philosophiques et philologiques, sciences de l'art	36 - Sociologie et sciences du droit	37 - Economie et gestion	38 - Anthropologie et étude comparative des sociétés contemporaines	39 - Espaces, territoires et sociétés	40 - Politique, pouvoir, organisation
Histoire	0%	34%	61%	0%	2%	0%	0%	0%	1%	1%
Sociologie	0%	0%	0%	0%	0%	62%	0%	1%	4%	32%
Anthropologie, ethnologie	0%	0%	1%	1%	1%	2%	0%	89%	6%	1%
Archéologie	40%	59%	1%	0%	0%	0%	0%	0%	0%	0%
Sciences économiques	0%	0%	0%	0%	0%	0%	98%	0%	1%	1%
Linguistique	0%	0%	0%	98%	1%	1%	0%	1%	0%	0%
Géographie	7%	0%	0%	0%	0%	0%	0%	0%	93%	0%
Science politique	0%	0%	1%	0%	0%	1%	0%	0%	2%	97%
Philosophie, philologie, épistémologie	0%	5%	1%	1%	92%	0%	0%	0%	0%	1%
Droit	0%	0%	0%	0%	0%	97%	0%	0%	2%	2%
Histoire et philosophie des sciences	0%	2%	20%	0%	78%	0%	0%	0%	0%	0%
Littérature	0%	9%	0%	0%	91%	0%	0%	0%	0%	0%
Art et histoire de l'art	0%	19%	53%	0%	25%	0%	0%	0%	3%	0%
Psychologie et sciences cognitives	0%	0%	0%	85%	4%	0%	0%	0%	12%	0%
Musique et musicologie	0%	5%	0%	0%	95%	0%	0%	0%	0%	0%
Etudes classiques	5%	79%	0%	0%	16%	0%	0%	0%	0%	0%
Etudes orientales et africaines	0%	37%	26%	0%	16%	0%	0%	0%	21%	0%
Anthropologie biologique	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Sciences commerciales et administratives	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%
Religion et théologie	0%	38%	38%	0%	25%	0%	0%	0%	0%	0%
Etude des milieux naturels et anthropisés	43%	29%	0%	0%	0%	0%	0%	0%	29%	0%
Statistiques et informatique	0%	0%	0%	50%	17%	0%	0%	0%	33%	0%
Démographie	0%	0%	25%	0%	0%	75%	0%	0%	0%	0%
Etudes du genre	0%	0%	0%	0%	50%	0%	0%	25%	0%	25%
Sciences de la communication	0%	0%	0%	0%	0%	0%	0%	0%	67%	33%
relations internationales	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Sciences de l'éducation	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%

The co-occurrence graphs (Figures 1 and 2 below) were produced with Gephi software and show the main HSS fields represented at the CNRS as indicated above: history, sociology, anthropology, but also the links between the different HSS fields. Thus, while there are obvious links, such as between history and archaeology or between sociology and political science, there are links between all disciplines. If we focus on anthropology, we see links to the other 26 HSS fields that may not be obvious at first glance, such as law or archaeology.¹³

The changes between 2017 and 2021 are not very obvious with this representation.

Figure 1: Area of expertise of CNRS researchers at InSHS (source RIBAC 2017)

¹³ These graphs represent the 27 major disciplinary fields chosen by CNRS researchers as their main or secondary field of expertise. The diameter of a "node" is proportional to the number of researchers who have chosen this field (either as their main field or as a secondary field) and the thickness of the links is proportional to the number of researchers who have mentioned the two fields at the same time. In order to make the graph more readable, we have represented only the links between 2 fields when at least 2 researchers have mentioned them

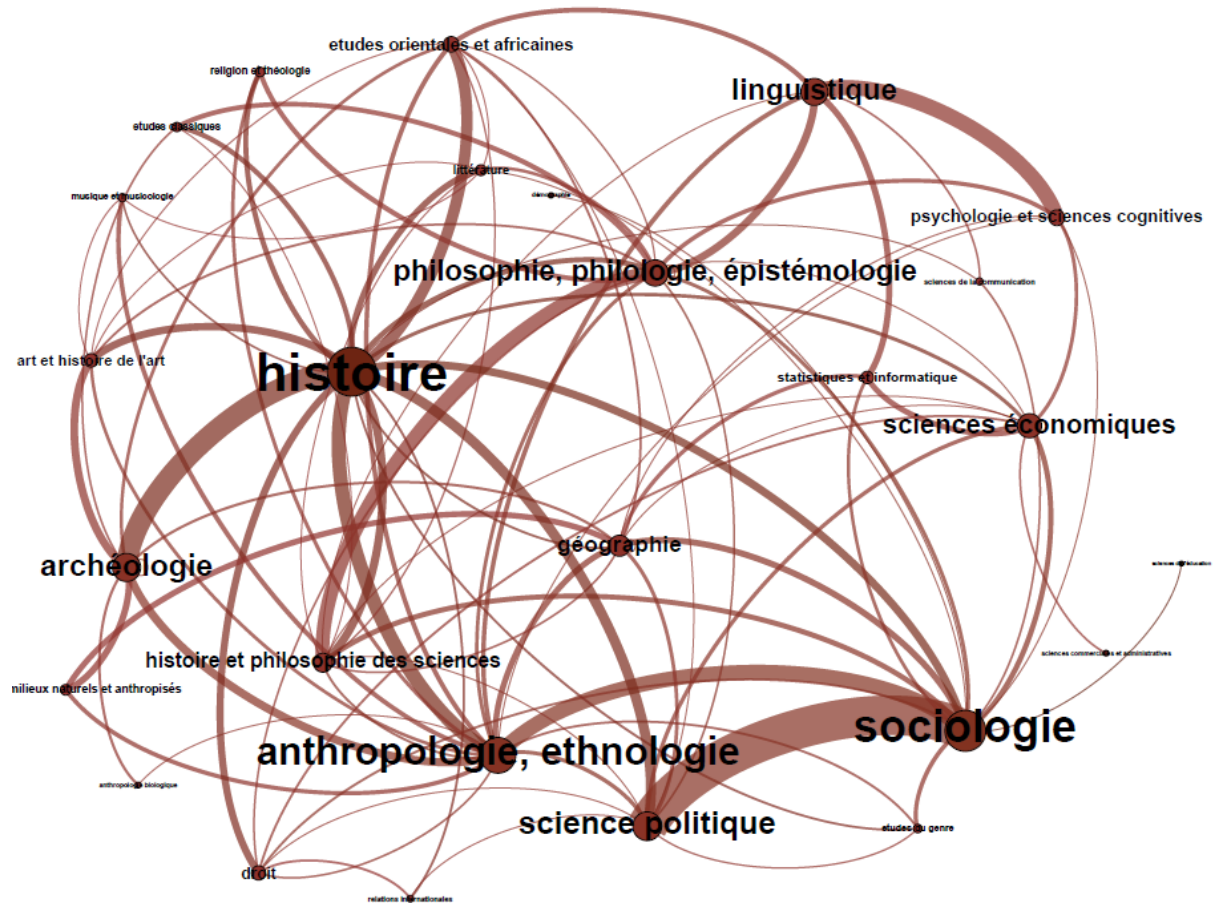
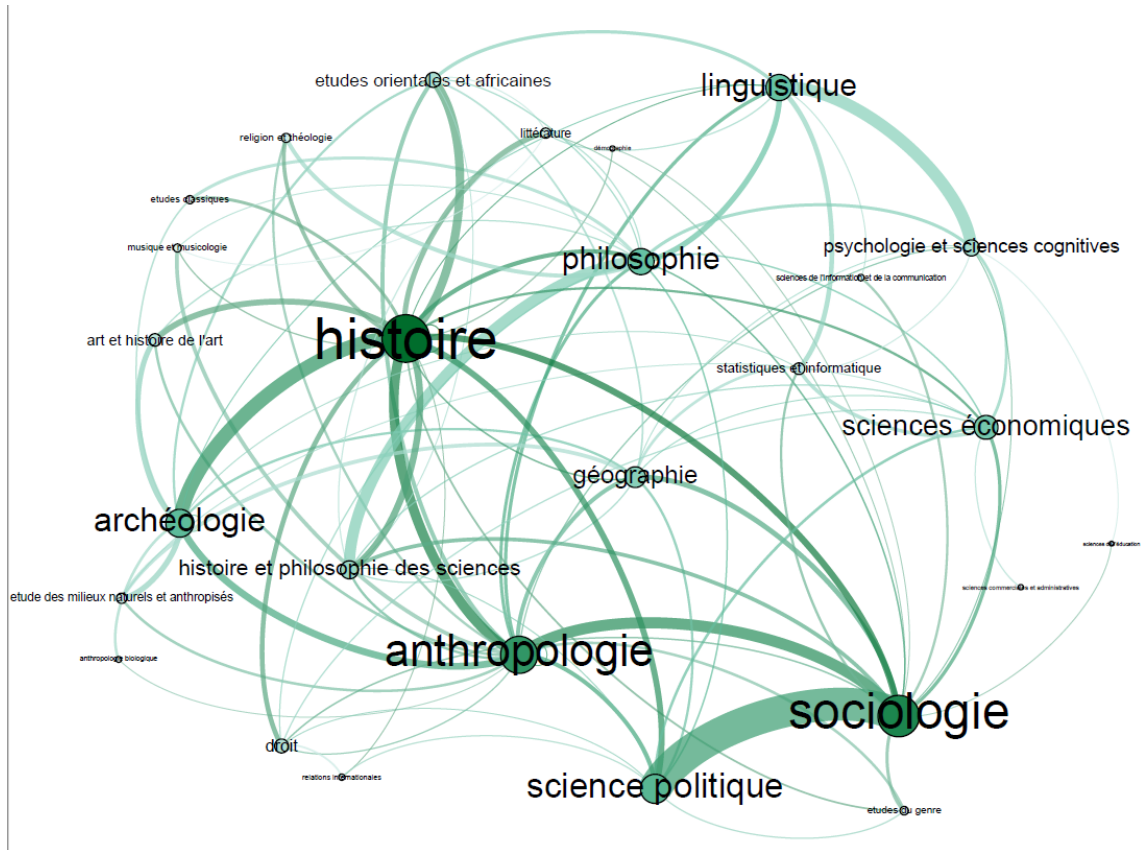


Figure 2: Area of expertise of CNRS researchers at InSHS (source RIBAC 2021)



Conclusion

This work presents some salient characteristics of the scientific publications of CNRS researchers in the humanities and social sciences. It does not aim to document all of their scientific production, or even all of their publications. Thus, it does not consider publications that are disseminated outside the academic sphere.¹⁴

This work, based on descriptive data, focused on: the typology of publications, the language of publication, the place of open science publication. Its aim was to propose indicators that would allow to describe and analyse these scientific publications and their scope in relation to the CNRS's key orientations. In particular, it provides elements concerning the internationalisation of research and open science.

However, for reasons we will come back to, it does not make it possible to assess the interdisciplinarity of the scientific publications of CNRS researchers in the humanities and social sciences, nor to assess the nature and place of their scientific publications at the French national level, notably due to the lack of an instrument equivalent to RIBAC for University professors within and outside UMRs.

The analysis of these salient characteristics was carried out on the basis of data from RIBAC, with a constant concern and highlighting of its methodological framework and of its limits.¹⁵ The choice of using data from RIBAC was made on the basis of the observation that this tool provides a more consolidated view of the scientific publications of CNRS researchers in the humanities and social sciences than WOS or SCOPUS, even if, as we have indicated, an evolution is perceptible between 2017 and 2020: in 2020, an average of 46% (40% in 2017) of the total number of articles published by HSS CNRS researchers is recorded in HSS SCOPUS; 14% (12% in 2017) in the WOS AHCI (*Art and Humanities*) base and 21% (18% in 2017) in the WOS SSCI (Social Sciences) base.

The results of the analysis have been presented both at a general level for all publications and disciplinary fields and at a finer granularity, by field. This level allows us to perceive variations from one disciplinary field to another, but also convergences. In order to interpret these variations, it would be necessary to take into account various factors that are not captured in RIBAC, for example the relationship of a given disciplinary community to private publishers.

Three main findings for the period covered by this report deserve to be highlighted:

- Journal articles and book chapters account for almost 2/3 of the total output of HSS CNRS researchers.
- Furthermore, RIBAC provides an important indicator of the dissemination of HSS research through the use of English: as we have indicated, in 2020, more than half of the articles and book chapters published by HSS CNRS researchers are in English. In addition, to a lesser extent (around 10%), the use of other languages - notably German, Italian and Spanish - also contributes to this dissemination. This point should be seen in the context of the InSHS's scientific policy and its methodological focus on area-based, comparative and transnational approaches.
- Finally, on the issue of open science publications, and taking into account the limitations of the analysis indicated in Part II, the analysis shows that for journal articles published in 2020, 67% of articles are open access. Even if we do not have a tool to compare this rate to that of other

¹⁴ For a first overview of this type of publications, we can refer to the studies made from RIBAC on press articles and radio and television contributions by HSS CNRS researchers, based on the 2019 productions: https://www.inshs.cnrs.fr/sites/institut_inshs/files/download-file/RIBAC%202019-medias-oraus-analyse-vtransmise-v-site-web-inshs.pdf [and https://www.inshs.cnrs.fr/sites/institut_inshs/files/download-file/RIBAC%202019-article%20de%20presse-5-oct-2021-transmis-v-site-web-inshs.pdf](https://www.inshs.cnrs.fr/sites/institut_inshs/files/download-file/RIBAC%202019-article%20de%20presse-5-oct-2021-transmis-v-site-web-inshs.pdf) and also deposited on HAL.

¹⁵ Since 2011, it has been the annual activity file for researchers in the humanities and social sciences and is completed by almost 99% of researchers (<https://www.inshs.cnrs.fr/fr/ribac>).

scientific fields present at the CNRS¹⁶, we consider this rate as an encouraging result, even if it is still lower than the rate assessed for the CNRS as a whole, based on the 2020 publications listed in the WOS - Core collection.

This work makes it possible to identify key issues and orientations for the future:

- *As far as the documentation of the scientific output of CNRS researchers in the HSS is concerned*, the CNRS has tools and expertise that enable it to make a substantiated contribution to this analysis of the scientific publications considered here, but also of the other aspects of their production. Such a contribution is currently more solid and exhaustive than an analysis based on the WOS or SCOPUS.
- To date, such documentation cannot be put into perspective in an examination of all SHS research in France. InSHS recommends the implementation of a national tool to document HSS French scientific production. As highlighted in the Report recently published by the Athena Alliance, *Les indicateurs bibliométriques pour les SHS - Etat de la question (Bibliometric indicators for SHS - State of the question)*, such a tool "would benefit the entire scientific community as well as public research policies, and could be based on the HAL open archive and other means of identification such as RIBAC".¹⁷
- We were not able to document the interdisciplinary dimension of scientific publications by HSS researchers on the basis of the RIBAC tool. Part IV of this work presents a description of the way in which these researchers describe their scientific activity from the point of view of multidisciplinary *within* the SHS. In the future, it might be appropriate to go further on this issue and to think about designing indicators of multidisciplinary (in SHS) and interdisciplinary publications, in the sense of the interdisciplinarity developed by the CNRS.
- On the issue of the internationalisation of HSS research, the question of the language of publication is obviously key. In our opinion, it must be considered in the light of several parameters: the major role of English as a scientific language, the continued use of French as a scientific language or a language of scientific exchange in a certain number of countries or continents, the importance for a part of the HSS communities of being able to publish in languages other than English or French, in connection with their fields of investigation and the fabric of scientific relations that they establish through more or less long-term mobility and missions abroad, which is essential for the proper performance of their work. A form of balance between these three linguistic poles - English, French and a third language - must undoubtedly be found. The increase in the number of publications in English (articles, book chapters) is currently accompanied by a repeated request from the communities for financial support for *editing* (and no longer for translation). This point is important because it indicates both an evolution that probably occurred quietly over the course of the 2010s (demographic renewal of the communities, with young researchers more accustomed to using English, development of translation tools such as DeepL). Thus, the question of granting financial aid for *editing* is raised for the InSHS. It seems to have replaced the question of translation support, which was the one that Patrice Bourdelais, director of the InSHS from 2010 to 2017, had taken up with the initiative to fully translate 3 "major" French HSS journals and a study of its effects. This translation aid was interrupted on the basis of the observation that the translation work did not allow the supported journals to generate additional income, which would have allowed them, linked to a better distribution, to self-finance these translations.
- Finally, given the low number of DOIs attributed to all HSS productions, the analysis method proposed here concerning open access publications is to be considered above all as a methodological tool. And it can probably be estimated that the rate of opening of publications without DOIs must be lower than that of publications with DOIs. Therefore, the overall rate of open access publications must be lower than the 67% identified in Part II. Moreover, this result only concerns journal articles, i.e. about 40% of scientific publications. Despite these limitations, this rate is encouraging and it can be hypothesised that the significant disciplinary variations identified in Part II are partly due to the place occupied by the DIAMANT model and Open Edition journals from one discipline to another. The implementation of the new CNRS policy of

¹⁶ For the CNRS, the known rate is calculated on the basis of the publications listed in the WOS - Core collection for the research centres (therefore, it includes the publications of all statutory members of the units, and therefore not only for CNRS researchers).

¹⁷ file:///Users/mariegaille/Downloads/THE-BIBLIOMETRIC-INDICATORS-IN-SHS_RAPPORT-ATHENA-2022.pdf, p. 56.

depositing full texts in HAL could change things, which it will be possible to verify in the coming year for the scientific articles 2021, for which the deposit of the full text on HAL has been made compulsory by the CNRS. More generally, the study presented in part II draws attention to the issue of DOI attribution and invites the InSHS to continue its efforts to support its communities for open science and open access publication.