

Part III
Bibliometrics in the Humanities

Beyond Coverage: Toward a Bibliometrics for the Humanities

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Abstract In this chapter, the possibility of using bibliometric measures for evaluating research in the humanities is pondered. A review of recent attempts to develop bibliometric methods for studying the humanities shows that organizational, epistemological differences as well as distinct research practices in research fields ought to be considered. The dependence on colleagues, interdisciplinarity and the ‘rural’ nature of research in many humanistic disciplines are identified as factors that influence the possibilities of applying bibliometric methods. A few particularly promising approaches are highlighted, and the possibility of developing a ‘bibliometrics for the humanities’ is examined. Finally, the intellectual characteristics of specific disciplines should be considered when quality indicators are constructed, and the importance of including scholars from the humanities in the process is stressed.

1 Introduction

In this chapter, I argue that bibliometric research on the humanities is now slowly maturing. It appears as if the field is gradually moving from analyzing coverage to a new line of inquiry that tries to understand the humanities on its own terms: looking at specific fields rather than a large heterogeneous collection of disciplines gathered under the label of ‘the humanities’ or ‘the social sciences and the humanities’ (SSH). This new line of research refrains from the familiar, but sometimes unfortunate, distinction between the humanities and the natural sciences, and in doing so abandons the common practices of portraying the social sciences and the humanities as the ‘other’ that does not fit into the bibliometric universe.

The additional focus on the actual characteristics of disciplines has led to attempts to develop bibliometric approaches that are sensitive to the organization of research fields in the humanities. Examples of such attempts include the use of non-source items in established citation databases such as Web of Science (Hammarfelt 2011; Linmans 2010), the use of alternative databases like Google

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Scholar (Kousha and Thelwall 2009; Koshua et al. 2011) and the recent exploration of the possibilities that the new Book Citation Index offer (Gorraiz et al. 2013; Leydesdorff and Felt 2012). These efforts include exploration of local databases (Engels et al. 2012), references in grant applications (Hammarfelt 2012b), book reviews (Zuccala and van Leeuwen 2011) as well as inclusion in library catalogues (White et al. 2009). Recently, the possibilities that altmetrics offer for the humanities have also been investigated (Hammarfelt 2014; Holmberg and Thelwall 2013; Mohammedi and Thelwall 2013).

The broadening of quality criteria as well as the inclusion of many different types of approaches and materials appear promising. However, this chapter highlights aspects other than methods, materials and coverage as it emphasizes the purpose and organization of research. Thus, I claim that coverage is not the only issue, and maybe not even the most problematic one when discussing the use of bibliometrics on research fields gathered under the heading ‘humanities’.

I begin by outlining the background of bibliometric research on the humanities. I do not claim this overview—which is partly adopted from my dissertation (Hammarfelt 2012a)—to be an extensive review of previous research; instead, I sketch out some of the main findings on the topic. Following this short overview, I discuss recent attempts to develop bibliometric methods that are in tune with research practices in the humanities. These include novel databases, new sources and methods as well as already implemented evaluation systems. In the subsequent section, I introduce theoretical concepts for relating the organization of research fields to publication and citation patterns. Whitleys (2000) theory on the intellectual organization of research as well as Becher and Trowlers (2001) characterization of academic tribes are explicated in this context. I then use these concepts to explain the organization of research in the humanities and its implications for bibliometric measures. Finally, I examine the possibilities of establishing a bibliometrics for the humanities and propose a few suggestions for future research.

1.1 *The Humanities*

The definition of research fields as either social science or humanities is governed by institutional and epistemological considerations, which further depend on the organization of research in countries or regions. The lists of fields defined as the humanities differ between contexts and countries. The Organization for Economic Co-operation and Development (OECD) lists history, archaeology, genealogy, literature, languages, philosophy, arts, history of arts, religion and theology (OECD 2002, p. 68) while The European Reference Index for the Humanities (ERIH) distinguishes fifteen fields in the humanities (including educational research as well as gender studies and psychology). In the United States, however, the Humanities Resources Center includes eleven fields (Leydesdorff et al. 2011).¹

¹These fields are English language and literature, foreign languages and literature, history, philosophy, religion, ethnic-, gender- and cultural studies, American studies and area studies, archeology, jurisprudence, selected arts and selected interdisciplinary studies.

Due to the blurry boundaries of the humanities and the ever-changing disciplinary landscape, no definite collection of fields in the humanities can be given. However, a core of fields—that are on all ‘lists’—can be distilled: art, philosophy, music, language, literary studies and religious studies. These fields are also the ones discussed in this chapter with an additional focus on literary studies. The humanities is a heterogeneous collection of disciplines, and major differences exist between journal-based fields such as linguistics and more book-based fields such as literary studies and religious studies. The conclusions drawn in this chapter concern the latter disciplines rather than more journal-oriented fields such as linguistics and philosophy. I take the liberty of using the term ‘the humanities’ as the topic of enquiry, and this is in line with the majority of previous research on this theme. At the same time, I recognize and discuss the problems that such an approach entails.

2 Bibliometric on the Humanities: A Short Recapitulation

Historically, bibliometric research on the humanities has focused mainly on the inadequate coverage of publications by humanities scholars in available citation databases.² Several reasons for the scant coverage are mentioned in the literature on the topic: diverse publication channels, the importance of ‘local’ languages as well as the wide-ranging audience of research.

The heterogeneous audience of research is an often-asserted characteristic of scholarship in the humanities. A basic division is often made between publications directed toward fellow researchers and writings directed to a public audience. Nederhof distinguishes the audience further (2006, p. 96) into three groups: international scholars, researchers on the national or regional level and a non-scholarly audience. Another often-cited division is the one suggested by Hicks (2004), in which she separates journal articles, books, national and non-scholarly literature. Her categorization—although originally used to characterize scholarly literature in the social sciences—is also used for describing the humanities. The main difference between these two schemes for describing the varied publications channels and the heterogeneous audience of research is that Nederhof focuses on the ‘target audience’ while Hicks discusses ‘types of literatures’. I propose that focusing on the audience rather than the publication channel allows for a discussion that places the role and purposes of the humanities at the forefront. The three groups suggested by Nederhof also have the advantage of not being clearly separated, as a publication potentially could target all three groups. The categories proposed by Hicks, on the other hand, demand a separation between scholarly and non-scholarly literature. It is also unclear

²For an orientation in the wider literature on the evaluation of the humanities, the reader can consult the Arts and Humanities Research Assessment *Bibliography* (Peric et al. 2013), which currently has a little over a thousand publications indexed, Nederhof (2006) provides a review of issues regarding bibliometric evaluation, and recently a bibliography of research on the humanities and bibliometrics covering the years 1940–2010 was provided by Ardanuy (2013).

how these groups relate to each other; a book directed to a national and public audience could in theory be categorized as ‘book’, ‘national’ and ‘non-scholarly’ at the same time.

2.1 *Publication Patterns*

Of special interest in the discussion regarding publication practices in the humanities is the role of the monograph (Lindholm-Romantschuk and Warner 1996; Thompson 2002). The monograph reaches all three audiences to a greater extent than the journal article, and has been deemed especially efficient in targeting non-scholarly readers. Publications directed to a popular audience play an important role, and writing monographs can be seen as an effort to target a scholarly and a popular audience.

However, articles in journals and books are the publication channels most frequently used by researchers in the humanities. Kyviks (2003) study of publication practices among Norwegian scholars in the humanities showed that articles—in books or in periodicals—are the most common output. Articles or chapters in books are also frequent in the social science and the humanities, and a small increase in international (English) and co-authored publications was detected. The recent exploration of publication patterns in the social sciences and humanities in Flanders (Belgium) shows that journal publishing is increasing in the social sciences but decreasing in the humanities. A general increase in the production of publications and especially English language publications was also detected, but no major shift toward publishing in journals was discerned (Engels et al. 2012). Similar results—an increase in the number of international publications (including publications in German or French)—were found in a recent study of publication patterns at the faculty of Arts at Uppsala University in Sweden. Notable from this study was that researchers perceived major changes in publication patterns while the actual changes in publication patterns were small (Hammarfelt and de Rijcke 2015).

2.2 *Citing of Sources*

A sweeping generalization is that scholars in the humanities mostly publish journal articles and book chapters but cite monographs. Thus, the overlap between citing and cited documents is small in many fields, and it is often reported that scholars in the humanities use older literature as well as primary sources. However, there are notable differences within the humanities in the citing of sources, and the percentage of references to books and edited books varies from 88% in religion to only 49% in linguistics (Fig. 1).³

³Data collected from several previous studies: religion (Knievel and Kellsey 2005), philosophy (Cullars 1998), music (Knievel and Kellsey 2005), literature (Thompson 2002), arts

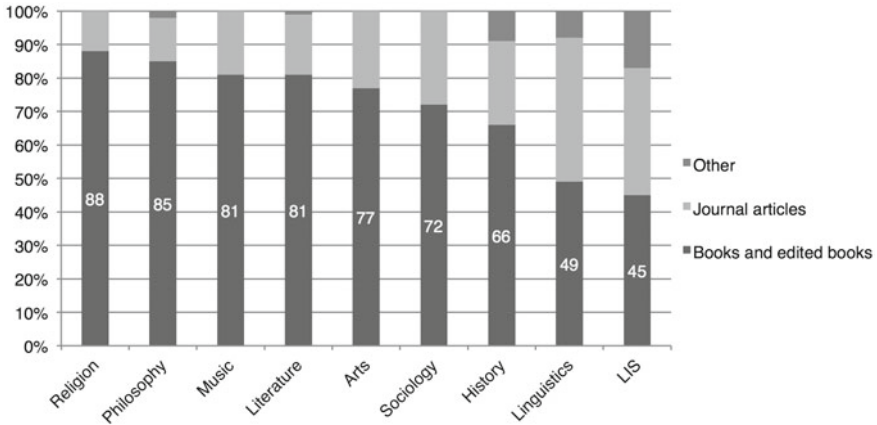


Fig. 1 Percentage of cited books and journal articles in selected fields in the humanities and the social sciences (data from 1995 to 2005). Figure from Hammarfelt (2012a, p. 31)

The earlier findings summarized in the Fig. 1 show that religion, philosophy and literature are book-based disciplines, while journals play an important role in history and linguistics. The overview also shows that books are often cited in social science fields such as sociology and library and information science (LIS). Thus, the problem with counting only citations of journal articles is not restricted to research fields in the humanities.

The extent to which fields in the humanities are adopting referencing practices from the natural sciences has been debated. Larivière et al. (2006) compared the humanities, the social sciences, engineering and the natural sciences in terms of journal publication. The authors found a general increase in journal citations between 1981 and 2000, and this finding applied to the natural sciences and engineering as well as to the social sciences and the humanities. However, when specific fields, such as history, law and literary studies, were examined, a decrease in journal citations during the period was detected.

2.3 The Language and Age of Cited Sources

The language of sources is rarely an issue in the natural sciences since English is the lingua franca. The situation is different in the humanities as many fields in the social sciences and the humanities have a strong regional or national orientation. This is the case especially in fields such as literary studies, sociology and political science (Nederhof 2006 citing Luwel et al. 1999). Databases that predominately

(Footnote 3 continued)
 (Knievel and Kellsey 2005), history (Lowe 2003), sociology (Lindholm-Romantschuk and Warner 1996), LIS (Chung 1995) and linguistics (Georgas and Cullars 2005).

index English-language sources cannot adequately cover these fields, and this is a major issue when using established databases such as Web of Science or Scopus to study research fields in the humanities.

Literary studies are a field in which non-English sources play a major role. The influence of English-language sources is moderate: Less than 15% of the cited sources in German literature and only 9% of the cited sources in French literature are in English (Cullars 1989). Swedish literary studies has a higher percentage of citations of English-language sources (between 43 and 54%), but Swedish as well as German and French sources are frequently cited (Hammarfelt 2012b). Consequently, studies of these fields must incorporate non-English sources, and the same applies to many other countries and research fields.

Scholars in the humanities use sources that cover a wide age span. The age of the sources used in research is related to the search for literature, and the pressure to keep up with current research is less pronounced. Thus, a research front is hard to discern, and long time windows are needed when conducting bibliometric analyses. De Solla Price explained the difference in the 'consumption' of sources by using a metaphor of digestion: 'With a low index one has a humanistic type of metabolism in which the scholar has to digest all that has gone before, let it mature gently in the cellar of wisdom, and then distill forth new words of wisdom about the same sort of questions' (de Solla Price 1970, p. 15). This characterization disregards the diversity of research in the humanities, although the metaphor of digestion is illustrative. Furthermore, Price overlooked that many sources in the humanities are primary sources (for example, historical sources and literary works), which increases the median age of the sources considerably.

Bibliometric studies of the humanities show that the type of publication most frequently cited is the monograph, the age span of the cited references is broad and languages other than English play a significant role in many fields (Hammarfelt 2012a). These characteristics are agreed upon by many, but several matters remain unresolved. One question is whether the publication practices of scholars in the humanities are adapting to the norms that prevail in the natural sciences. A few studies (Butler 2003; Kyvik 2003) suggest that this might be the case, while others emphasize the constancy of cited and published material (Hammarfelt and de Rijcke 2015; Larivière et al. 2006). How the increasing importance of 'research outputs' across research fields will influence publication practices in the humanities has not been determined. However, implementing publication-based performance measures will undoubtedly put further focus on this issue, and perhaps this will lead to in-depth studies of the effect that evaluation systems have on scholarship in the humanities.

3 In Pursuit of a Bibliometric for the Humanities

In this section, I briefly present several recent attempts to apply bibliometric methods to the humanities. In addition to being current, the selected studies also have a further sensitivity to the characteristics of research in the humanities in common.

Thus, these studies are not only examples of bibliometrics applied to the humanities but also to some extent examples of bibliometric methods developed ‘for the humanities’. A general feature of these attempts are an effort to introduce new sources for bibliometric analysis, sources that go beyond journals indexed in citation databases such as Thomson Reuters’ Web of Science or Elsevier’s Scopus.

3.1 Book Citation Index

An obvious solution to the problem of low coverage of non-journal publications in citation indexes is to start indexing books. The launch of the Book Citation Index in 2011 is an attempt to improve the coverage of the humanities, and it could open up for analysis of how the journal literature and the book literature relate to each other. However, the index still has a very limited scope, mainly English-language sources are included (Gorraiz et al. 2013), and problems remain when distinguishing between different types of books. Initial studies have also found that the citation rates of books are low in many research fields (Leydesdorff and Felt 2012). Thus, the current Book Citation Index is of little use for evaluating research but might provide valuable knowledge regarding the relation between journal literature and books.

3.2 Non-source Items

It was possible to track citations of books that are not indexed in citation databases, before the launch of the Book Citation Index. Citation of so-called ‘non-source’ items has been used for studying impact and interdisciplinarity (Hammarfelt 2011; Linmans 2010). However, this method involves limitations on the size of the material used, and considerable data cleaning is needed, since the cited sources are not standardized. Another constraint of this method is that it gathers citations only from a small portion of the literature in many research fields in the humanities. The approach is in principle restricted to English-language publications, and the analysis of ‘non-source’ items is limited to small data sets due to the manual work involved.

3.3 Google Scholar, Google Book Search

An alternative to the use of traditional citation indexes is options such as Google Scholar (GS) or Google Book Search (Kousha and Thelwall 2009; Koshua et al. 2011). The main constraints of GS are that analyses cannot be automatized and the data is hard to process. Every post has to be checked, and new searches for each publication are required. The benefit of Google Scholar is greater coverage—which includes books—and that everyone is free to use the database (with limitations

on what you can do). The reliability of the data is a concern since inflated citation counts as well as ghost authors and ‘phantom authors’ limit the usability of the data for bibliometric analysis (Jacso 2010).

3.4 Ad Hoc Databases

A response to the limits of existing data sources is to build your own citation database. When targeting specific contexts—Catalan literature (Ardanuy et al. 2009) or Swedish literary studies (Hammarfelt 2012b)—this method might be viable. The building of ‘ad hoc databases’ allows analyses of materials that usually are not indexed in citation indices such as grant applications (Hammarfelt 2012b), and small local studies can provide valuable contrast to larger studies of citation patterns. However, the amount of labor involved in harvesting references by hand and then indexing them in a database inherently limits the size of the datasets used.

3.5 Library Catalogues

Several authors have suggested that library catalogues might be a possible data source for evaluating the impact of books (Linmans 2010; Torres-Salinas and Moed 2009; White et al. 2009). The basic idea is simple: The more libraries that stock a book, the more influential it is deemed to be. The inclusion of a book in a catalogue indicates that the book is judged important. However, implementing the model on a larger scale would be difficult: Libraries do not always make informed judgments when buying books; they often buy bundles of books. The model does not include open access or e-books, and an evaluation system based on this approach would put the librarians making the buying decisions in a delicate position. Furthermore, one could imagine that authors and publishers could easily manipulate such a system.

3.6 Book Reviews

Book reviews have an important gatekeeping function in the humanities, and reviews are often seen as an important merit and indicator of influence for the author writing the review. Book reviews have also been proposed as an important unit of analysis when it comes to book-oriented fields. Zuccala and van Leeuwen (2011) proposed that the number of book reviews produced by a researcher can be seen as a measure of success. One problem though is that already established and older researchers often are those invited to review books. Thus, a system that counts written reviews could disadvantage younger and less renowned scholars. Another alternative

is to view book reviews as ‘mega-citations’ that indicate the quality of a book (Zuccala et al. 2014). This approach has many advantages, especially since book reviews play an important function in the humanities; however, many books are never reviewed, and the overall coverage is possibly too low for systematic assessment.

3.7 Counting and Weighing Publications

An alternative of course is to not use citations at all and instead count publications. This system makes it possible to evaluate research in all fields independently of publication channel and language. A qualitative aspect can be introduced in order to circumvent the flourishing of low-quality publications. The idea of weighing publication according to type and channel has been proposed by Finkenstaedt (1990) and Moed et al. (2002). However, the most well-known and influential system for counting and weighing publications is the Norwegian one (Schneider 2009; Sivertsen 2010). This system is used for allocating resources among universities in Norway. The main benefits of the system are the coverage of publications, transparency and the adaptability of the system (Ahlgren et al. 2012). However, many publications in the humanities are still not included due to the definition of ‘scholarly literature’, and monographs at prestigious ‘non-academic’ publishers are seldom counted. The consequence is that a lower share of the total publications by humanities scholars is covered by the system. This disadvantage is partly compensated by publications being fractionalized over authors, which has shown to benefit scholars in the humanities compared to disciplines where co-authorship is common (Piro et al. 2013).

3.8 Altmetric Approaches

Altmetrics—metrics based on data from the social web—is a promising approach in the efforts to find appropriate methods for assessing the humanities (Tang et al. 2012). These new, ‘altmetric’ measures propose not only to solve problems with established methods but also to measure impact beyond citations from academic journals. One of the most popular data sources used for altmetric analysis is Twitter. Holmberg and Thelwall (2013) found that scholars in the history of science were less likely to use Twitter for scholarly purposes compared with other fields, and across all fields, few tweets contained links or mentions of scholarly literature. Another common source of altmetric data is the social reference manager Mendeley, but the coverage for humanities articles was also quite low (28 %) when compared to the social sciences (58 %) (Mohammadi and Thelwall 2013). The inclusion of many different types of sources, the ability to study impact beyond the scholarly realm, as well as the openness of many services appear promising for the humanities. However,

limitations remain with the dominance of English-language journal articles the most significant (Hammarfelt 2014).

There is no shortage of approaches for studying the humanities with bibliometric methods, and the brief orientation given here is not exhaustive. Still, the overview illustrates that bibliometric research depends on the availability of data sources, especially citation indices, and the content, availability and coverage of these data sources dictate how research is conducted. Thus, many of the studies mentioned were influenced by the introduction of new services such as Google Book Search, Google Scholar, or The Book Citation Index. The research field of bibliometrics can be duly criticized for its dependence and focus on available data sources, even more as these services are provided by private companies and, thus, are not easily adapted to the fields needs by scholars themselves. However, the main purpose of bibliometric research is not to study databases or coverage, but to further our understanding of communication structures in science and research. In this effort, we have to go beyond issues of database content and coverage and focus on the organization and characteristics of research in different disciplines. Accordingly, in the following chapter I reflect on publication patterns and referencing practices in relation to the social and intellectual organization of research fields.

4 Intellectual Organization of Research Fields and Its Bibliometric Consequences

In the following section, I describe how publication practices and citation patterns can be understood from a disciplinary perspective where the use of references depends on how a research field is organized. The characterization of research fields in the humanities suggested by Whitley (2000) and Becher and Trowler (2001) is briefly reviewed, and related to publication patterns and referencing practices. However, the vast difference between research fields and subfields gathered under the umbrella of the humanities should be acknowledged, and the generalizations made here apply foremost to literary studies and similar book-based disciplines.

4.1 Fragmented and Rural Research Fields

The majority of disciplines within the humanities are in Whitley's characterization defined as fragmented adhocracies. These fields are intellectually varied as well as heterogenic since research in *fragmented adhocracies* is personal and poorly coordinated, and the degree of specialization is limited. The dominant attribute of these fields is the lack of a stable configuration; tasks are not specialized; co-ordination is weak, and when it occurs, it is based on personal relations (Whitley 2000). Subgroups form around specific topics and discrete methodological approaches. Audiences are

varied, and so are the methods used. There is considerable disagreement on which topics to study as well as on how these topics should be approached, and the lack of standards makes it difficult to resolve disputes.

Another useful characterization for understanding the organization of research fields is the one between rural and urban fields (Becher and Trowler 2001). The distinction between rural and urban concerns the ‘density’ of a discipline or a research area; if many researchers are working on the same problem, then the research area is described as urban, while a less populated discipline is deemed rural. Strong competition for positions and resources can be observed in an urban research area (for example, biomedicine), whereas there are fewer struggles for resources and recognition (as well as fewer rewards) in rural fields.

4.2 Referencing Practices and Citation Patterns

I propose that referencing practices and citation patterns are further understood by the intellectual characteristics of the research field: A less demarcated discipline lacking a central core is heavily influenced by other research fields and therefore more interdisciplinary in referencing practices. Citation patterns are also determined by the number of researchers engaged on a specific topic: In an urban field, it is important to keep up with the ‘research front’ and cite recent literature, while the age of sources plays less of a role in rural fields. This is also connected to the speed of publication, which is considerably faster in an urban field (biomedicine) than in a rural one (literary studies) (Table 1).

Another variable that influences referencing practices is the audience. In fields where a non-academic audience plays an important role, scholars may choose a referencing style—the footnote is an example—that serves a scholarly and a popular audience. The degree of dependence between researchers and the definition of originality also affect the use of references. It is important to cite colleagues in a field where researchers depend on each other for recognition and rewards, but in fields where originality is highly valued, referencing serves other purposes as well (Hellqvist 2010).

Table 1 Characteristics of the humanities and influence on publication and citation patterns

Field characteristics	Publication patterns	Referencing practices
Low dependence on colleagues	Various publication channels; importance of public audience	Interdisciplinary references common
Rural organization	The pace of publications is slow	Citations gather slowly; number of ‘possible citations’ is low

Thus, two main characteristics that influence referencing practice and citation patterns in the humanities can be discerned: *low dependence on colleagues* and the *rural organization of the field*. The varied audience, rural organization and low dependence on colleagues are related. A diverse audience makes it possible for individual researchers to find readers outside their own field, with the consequence that scholars depend less on peers for recognition. The high task uncertainty of many fields in the humanities and the low dependence on colleagues give the individual scholar great freedom in pursuing a unique research profile, which results in researchers being scattered across many different topics with little communication between them. Thus, scholars in the humanities enjoy many possibilities when selecting topics, publication channels and whom to cite, but this in turn limits the potential of receiving ‘rewards’ in the form of citations. The low coverage of publications in citation databases is therefore not the most important reason why citation scores are less applicable as an indicator of impact in the humanities. Instead, I propose that the social and intellectual organization of the humanities is the main reason to why citation-based approaches are less applicable in these fields.

5 Conclusions

The bibliometric community has rightly discouraged the use of conventional bibliometric methods for evaluating the humanities. Especially, citation analysis using journals indexed in citation databases is less applicable in these fields. This conclusion is firmly based on several studies showing that the coverage of the humanities in databases such as Web of Science or Scopus is insufficient for evaluation and not representative of research in the humanities. Research assessment systems, such as the one used in Norway, amend this by including all scholarly publications. The publications are then given points depending on the publication channel (monograph, anthology, or journal) and the ‘quality level’ of the journal or the publisher. However, the definition of what should count as a ‘scholarly publication’ is still a matter of debate. There is no consensus on what an important research output is in the humanities; a peer-reviewed journal article in an international journal, a book chapter in an anthology edited by a renowned scholar, or a monograph at a prestigious non-academic publisher can all be seen as important outputs, and publications directed toward a popular audience are often highly rated. Consequently, the choice of publications that should be valued in assessing research depends on our view of the humanities and its overall purpose in society.

A recurrent problem in evaluating the humanities is the long time span needed for measuring the impact of research. The lifetime, as well as the distribution of citations to a publication over time, must be considered. Research by humanities scholars may be used in twenty, fifty, or even a hundred years, but sustainability is seldom measured in research assessment exercises. Thus, a considerable part of research in

the humanities—such as the preservation and translation of cultural heritage—might be valuable for future generations, but it is invisible in the limited perspective of research evaluation.

The development of bibliometric methods that fairly capture the ‘impact’ of research involves understanding how research is organized in these fields. This is confirmed by the findings recapitulated that point to differences in intellectual organization, and in the actual use of references as major reasons for why citation-based approaches are less applicable to the humanities. Thus, in developing bibliometric methods that accurately depict the humanities, we must go beyond the issue of coverage and focus on the social and intellectual organization of the fields involved. However, there are vast differences in research practices within the humanities, and differences are also evident among specialties within the same discipline. Furthermore, research practices are constantly changing due to technical developments (digitalization), external demands (research evaluation, open access) and internal negotiations on the purpose of research. Research on scholarly communication—including bibliometric approaches—is needed in order to follow these developments. Furthermore, when studying scholarly practices, we must be careful not to be caught in old dichotomies that portray ‘two cultures’, but acknowledge that research across all disciplines shares many similarities. The need for fair and reliable assessment methods cuts across all research fields, and constructing indicators that properly capture the quality and impact of research is challenging for academia at large.

Constructing appropriate indicators involves actively engaging the researchers being evaluated. Recent attempts at identifying quality indicators in the humanities show that the ‘notion’ of quality is not easily captured, and several conflicting norms were found (Ochsner et al. 2013). The construction of general and all-encompassing indicators is hindered by the heterogeneous nature of research as well as differences in how quality is perceived. However, alternatives to the use of peer review, which not only is time-consuming but also prone to reinforce established hierarchies, are needed in the humanities. Here I believe evaluations that use bibliometrics might provide a valuable complement to traditional peer review, but only if the indicators used are carefully constructed in a dialog with the researchers being evaluated.

5.1 Challenges

Bibliometrics may play an important role in future attempts to study the wider impact of research in the humanities, and citation analysis could be used to further our understanding of the organization and development of research in these fields. Approaches such as using citations to ‘non-source items’, introducing new databases and services, and using altmetric measures all appear promising but are far from utilizable on a general level. These and several other innovative techniques for studying the humanities have been identified in this chapter, and one argument made is that bibliometric

research on the humanities has become more attuned to the scholarly tradition of humanistic scholarship. Still, much must be done to study and assess the humanities, and I identify a few areas that are particularly interesting for future research.

First, I suggest that it is time to devote attention to more detailed and restricted areas of research. It is less complicated to define fields and delineate ‘subfields’ in the natural sciences, and this might be one reason for using a broad and inclusive definition when studying the humanities. Extensive interdisciplinary citing might be another reason for adopting ‘the humanities’ as the object of study. However, I propose that focusing further on specific fields and specialties would yield a better understanding of publication and citation patterns in the humanities. I also envision that developing new and more accessible bibliometric tools and approaches will result in further application of bibliometric methods by humanist scholars themselves.

Altmetric methods that are in tune with the organization of the humanities is an additional area for research. Attempts at actually systematically measuring social impact—impact outside academia—are promising. Such measures would be an important contribution not only for assessing the humanities but also for measuring the general influence of research in society. Exploring sources, mainly books and non-English language publications that are seldom covered by traditional bibliometric approaches is another exciting vein of research. Altmetrics is a very novel phenomenon and its ability to measure quality or impact is still debated, but the general ambition of including many different types of sources that measure impact in a manifold of ways is encouraging for the efforts to develop ‘metrics’ for the humanities.

Finally, the meeting of a ‘metric culture’ with scholarship in the humanities is a particularly important area of study. For a long time, the natural sciences have lived with impact factors, and researchers in these fields often calculate their own H-index. However, scholars in the humanities are less familiar with bibliometric measures, and many researchers not only fear unfair rankings and evaluations but also often see them as alien to humanistic scholarship. Thus, a crucial topic is how the organization and character of the humanities will respond to additional measurement and assessment attempts. The answer to this question is important not only for the bibliometric community but also for the future of scholarship in the humanities.

Acknowledgments This chapter builds on findings from my dissertation, *Following the Footnotes: A bibliometric analysis of citation patterns in literary studies* (2012), and segments of the text are redrafted and shortened versions of arguments found there.

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Quotation Statistics and Culture in Literature and in Other Humanist Disciplines

What Citation Indices Measure

Remigius Bunia

Abstract The humanities display a strong skepticism toward bibliometric evaluations of their quotation practices. This is odd, since their citations partly serve the same purpose as they do in the sciences: They can indicate a beneficial influence on one's own work. In Literature, a still-stranger observation asks for an explanation: Even in the most important journals, the articles receive only an astonishingly few citations. This paper presents some facts about the quotation culture, the low levels of citation and the databases involved. It shows that the low numbers are not a product of deficiencies in data, but should be subject to analysis. In the final discussion, this paper offers two explanations: Either Literature is, in fact, no discipline that should be treated as academic; or Literature is a discipline facing its own imminent intellectual death. Yet it is hoped that other explanations will be found; however, this issue requires further research on the practices in Literature and related fields.

1 Introduction

We face a fascinating, yet strange contradiction in the humanities: On the one hand, they disapprove of any bibliometric assessments of academic performance, and, on the other hand, they cherish quotations as a core component of their academic culture. Their dissatisfaction with quantitative bibliometrics may seem to be a mere matter of principle: The humanities are supposed to avoid numbers wherever they can. But this would be an explanation much too simple to account for the intricacies of the quotation culture in the humanities. What is odd is the fact that many disciplines in the humanities quote but do so very rarely. Particularly, Literature¹ shows a strong dislike for a systematic compilation of references. Literature is an

¹I use the term *Literature* (uppercase) for all related disciplines: Literary Studies, German Literature, English Literature, Comparative Literature, and so on.

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extreme case within the spectrum of humanities but, as such, is characteristic of a specific academic condition. Literature's aversion to bibliometrics seems partly legitimate because statistics can be meaningful only if they rely on sufficiently large numbers. But at the same time, this antipathy raises questions about the academic culture itself. The contradiction could be located in the self-perception of certain disciplines—rather than in a conflict between citational practices and quantitative methods.

In the second section, I will bring forth a historical and systematic argument. It follows the epistemic patterns of the humanities. I will outline the traditions of quoting other works in Literature. These may be compared to the practices in the sciences; and these have to be related to the common critique of quantitative methods. In the third section, I will present some statistical data; I do not create new data but simply use existing information. My focus will be on the small numbers involved, that is, I will show how few quotations actually occur in Literature.

Since I need to combine results from both sections, I will only then proceed to the discussion and reserve for it a section of its own. I will consider possible explanations, some that approve of the citational practices in the humanities and others that are in disfavour of their academic culture. After all, if my initial claim about the intrinsic operational contradictions within the humanities proves true, more research must be undertaken to understand the present-day tense situation.

2 Quotation Culture in the Humanities

2.1 *Characteristics of Quotations in the Humanities*

Quotations have always been part of the core techniques in Literature. Let me give a short historic overview (for a more detailed version and for references, see Bunia 2011b). Even before the surge of modern science, all philosophical disciplines quoted the 'authorities' and, thus, worshipped canonized authors. Book titles were even invented because Aristotle needed to quote himself (cf. Schmalzriedt 1970). With the advent of the rationalist and empiric movements in the 17th century and their icons, René Descartes and Francis Bacon, respectively, in all disciplines, novelty became prestigious, and both scholars and scientists started quoting their peers rather than Ancient authorities. Not until the late 19th century did quoting that *completely* covers the field become a moral obligation. Before, it was sufficient to cite what lay at hand; it was not the researcher's task to show *blatantly* that he was up to date. The increase of publications led to new worries and, finally, caused the need for citation analysis as pioneered by Eugene Garfield.

In Literature, it has always been mandatory to quote as much as possible to prove that one is well read. In fact, 'monster footnotes' (Nimis 1984) are particularly popular in the humanities: they consist of lengthy enumerations of papers related to the topic of the citing paper (see also Hellqvist 2010, pp.313–316). As Hüser

(1992) notes, an impressively long list of references is one of the most important prerequisites for a doctoral dissertation to be accepted in Literature. These observations are not in conflict with the (very debatable) claim that humanities, in general, do not aim to convey pieces of ‘positive’ knowledge (MacDonnald 1994), since it does not matter whether one quotes to present knowledge or more obscure forms of excellence. Since the broad usage of references came up in the 19th century, when humanist disciplines tried to become ‘scientific’ (Hellqvist 2010, p. 311), the difference between the humanities and the sciences should not be taken to be very strong. In brief, literary scholars are usually expected to quote one another extensively, not to omit any possible reference, and to provide comprehensive lists of preceding publications.

Many disciplines limit the obligation to quote comprehensively to recent years and choose other forms of worship for their great minds (e.g. name of theorems in mathematics, see Bunia 2013). Contrary to this practice, literary scholars often cite old canonical works, thus evoking the very roots of their approach. Even more frequent is the practice of using quotations to signal the in-group the scholar belongs to (see Bunia and Dembeck 2010). This is why publications in Literature (in fact, in all disciplines in the humanities) tend to include large lists of old texts.

Two practices challenge my short outline. First, literary scholars also quote the objects of their investigation, e.g. literary, philosophical, or other texts. These appear in the references, too, thus complicating the analysis (see Sect. 3.3). Second, in very conservative circles—and, fortunately, such circles are not numerous—highly established professors are no longer expected to quote unknown young scholars; they restrict their open quotations to peers equal in rank and to classic authors such as Aristotle (see Bunia 2013).

Reputation is highly important (see Luhmann 1990 [Reprint 1998], p. 247; Ochsner et al. 2013, pp. 83, 84, in particular, item 14 ‘Research with reception’). As is the case in most disciplines, literary scholars hold intellectual impact on their own community in high esteem (Hug et al. 2013, pp. 374 and 382, for English Literature and German Literature). This is one of the criteria to be used to judge young researchers’ performance. Intellectual influence becomes manifest due to quotations. In sum, citation analysis should be a method adequate to the disciplinary traditions of Literature.

2.2 *Disapproval of Bibliometrics and of ‘Quantities’ Per se*

The most widespread criticism advanced by scholars in the humanities attacks bibliometric analysis for its inability to measure quality. Unfortunately, this attack suffers from a basic misconception. First, it neglects the circumspection that fuels much of the bibliometric debate. For instance, bibliometric research papers are replete with doubts, questionings and reservations about using bibliometric parameters to rate an individual researcher’s intellectual performance (e.g. Bornmann 2013). The central misapprehension, however, is the product of a more fundamental skepticism

that asks: How is it possible that quantitative analysis can account for qualitative evaluations? Consequently, bibliometric analyses are thought to be structurally inadequate to express qualitative judgments.

This deduction is a misconception of citation analysis because it ignores the abstract separation of qualitative judgments and their mapping on quotations. When we look at the impact system prevalent in many disciplines, such as Medicine, we see that the qualitative assessment takes place in peer review. This process is not influenced or even compromised by the impact factor culture (see also Bornmann 2013, p.3). Of course, the impact factor culture produces, stabilizes and usually boosts the differentiation between journals. The effect is that some journals receive the most attention and the best submissions because these journals have the biggest impact. This eventually means that these journals can have the most rigorous selection process. The decisive factors within the selection process remain ‘qualitative’, that is, they are not superseded by mathematical criteria. This is why all peer review systems have been repeatedly demonstrated to be prone to failure (see the editorial by Rennie 2002; see also Bohannon 2013).

For review processes to warrant optimal evaluation, it is mandatory that the review process rely on accepted and mutually intelligible criteria. The problems with peer review result from the imperfections of the process: careless reviewers, practical limits of verifiability, or missing criteria. Slightly neglectful reviewers do not impair the review process to a dramatic degree; the review process must no longer, as has been previously done, be mistaken for a surrogate of replications. The combination of peer review and bibliometrics provides a suitable technique to map qualitative evaluations on quantities.

However, the situation is the inverse if disciplinary standards of assessment are deficient. If shared criteria of evaluation are weak and if parochialism prevails, peer review can have negative effects on the *average* quality of evaluations (Squazzoni and Gandelli 2012, p. 273). As a consequence, the humanist disciplines that oppose bibliometrics might be right in doing so—but for the wrong reasons: The only sensible reason to object to bibliometric assessment is to admit an absence of *qualitative* criteria.

2.3 *The European Reference Index for the Humanities*

The disciplines in the humanities feel increasing pressure from funding agencies and governments to expose their strategies of evaluation (cf. Wiemer 2011). Due to the widespread and virtually unanimous refusal to participate in common ranking systems as those provided by bibliometric analysis, the European Science Foundation (<http://www.esf.org>) initiated the European Reference Index for the Humanities (ERIH) project. The project decisively dismisses all statistical approaches as inadequate for the humanities and replaces them by a survey conducted among highly distinguished scholars who were asked to name the most prestigious journals in their respective fields. The result is a list grouped into three categories: ‘INT1’, ‘INT2’

and 'NAT'. This order indicates the (descending) importance of the journals in the respective category. Again, quite resolutely, the list is meant to be no ranking: '[Question:] Is ERIH a ranking system? [Answer:] ERIH is not a billiometric [*sic*] tool or a reanking [*sic*] system. The aim of ERIH is to enhance the global visibility of high-quality research in the Humanities across all of Europe and to facilitate access to research journals published in all European languages; it is not to rank journals or articles' (European Science Foundation 2014). Compiled by only four to six European scholars per discipline, the list is not undisputedly acknowledged; as far as I know, it is not even widely known.

2.4 Rigor and Quotations

Garfield himself has always pointed out that the citation analysis of journals refers only to the *usage* of a published text; it does not say anything about approval or disapproval, nor does it assess the quality of a paper (Garfield 1979, p. 148). He then notices that the citation network allows its users to know what new developments emerge. It thus enables them to focus on prevalent trends. This idea can be put differently: High quotation rates and dense subnets show a strong *cohesion* of the group.

There may be two main reasons for the cohesion that becomes visible because of the quotation network. (1) First, it can derive from shared convictions about scientific rigor. Only publications that comply with the methodological demands of the respective discipline will have a chance to be cited. Regardless of the quality, originality and importance of the paper, cohesion makes the author belong to the specific group. Anecdotally, Kahneman reports that his success in Economics is due to only one improbable and lucky event: one of his articles being accepted in an important economic (rather than psychological) journal (Kahnemann 2011, p. 271). In this first case, cohesion warrants at least minimal standards of scientific procedure. (2) Then again, cohesion can simply result from a feeling of mutual affection and enthusiasm. In this second case, the cohesion comes first and stabilizes itself. It relies on the well-known in-group bias, i.e. the preference for one's own group. For example, members of pseudoscientific communities will cite one another (such as followers of homeopathy). If such a group is large enough, it will produce high quotation levels.

As a consequence, impressive quotation rates do not say what *kind* of agreement or conformity a respective group chooses as its foundation. It *can* be scientific rigor; but it can *also* be anything else. This conclusion is not new and not important for my argument. However, its reverse is. If a group shows low quotation levels, it necessarily lacks cohesion. It possesses neither clear standards of methodological rigor nor a feeling of community.

3 Low Quotation Frequencies in Literature

3.1 *Materials and Methods*

To analyse citation rates in Literature, I am going to use citation indices provided by commercial services. Among the available databases, only the *Scopus* database (run by Elsevier B.V.) covers a sufficient number of Literature journals to calculate journal rankings. Therefore, this database is my only resource. For its ranking, *Scopus* uses the indicator SJR2, which depicts not only the frequency of its articles being cited but also the prestige of each journal (Guerrero-Botea and Moya-Anegón 2012). Despite certain differences, this database is comparable to the Impact Factor. The indicator, however, will not play a major role in my argument; it will be used only to find journals that are supposed to be cited at an above-average rate.

As of 2012, the *ISI Web of Knowledge*, provided by Thomson Reuters, does not include any journals that belong to the ‘hard-core’ disciplines within the humanities. Although the *Web of Science*—also operated by Thomson Reuters and the company’s main trademark which also includes the *ISI Web of Knowledge*—lists Literature journals, it does not provide any rankings or helpful statistics. Likewise, *Google Scholar*, run by Google Inc., does not allow any inferences from its data. Unlike its competitors (cf. Mikki 2009), *Google Scholar* browses all kinds of research publications (including books) and retrieves quotations by analyzing the raw text material. It thus covers books—this being an advantage over Elsevier and Thomson Reuters. However, *Google Scholar* is so unsystematic that the data contain artifacts and detect fewer quotations than *Google Scholar’s* competitors (as of 2013).

My analysis focuses on two aspects. On the one hand I am interested in the absolute numbers of citations. They are the cause of the methodological difficulties in citation analysis; but, at the same time, they are an important fact that deserves attention of its own. On the other hand, I concentrate on the ratios of cited and uncited articles across different disciplines. For the sake of simplicity, I limit my analysis to Medicine. I choose to compare the aforementioned ratios (despite the problem of validity) because this is the only parameter that at least *can* be examined.

3.2 *Results*

Let us examine the citation analysis provided by *Scopus* for the subject category Literature and Literary Theory and the year 2012 (see Table 1). The absolute numbers of the top five most influential journals are strikingly low. The top journal, *Gema Online Journal of Language Studies*, which, by the way, I had never heard of before, does not appear in the ERIH ranking at all (Sect. 2.3). This journal is ranked first with regard to the SJR2 indicator implemented by *Scopus*. The strange phenomenon is easily explained: The journal focuses on linguistics; in the respective ranking (‘Language and Linguistics’), it holds only position 82. Since it sometimes publishes

Table 1 The five highest ranking publications in the subject category Literature and Literary Theory in 2012 (citation data by Scopus)

Title	SJR	H-index	Total Docs. ^a	Total Docs. ^b	Total Refs.	Total Cites ^b	Citable Docs. ^b	Cites Doc. ^c	Ref. Doc.
Gema Online Journal of Language Studies	0.470	6	72	71	1,870	85	67	1.25	25.97
New Literary History	0.416	9	38	142	1,659	68	132	0.61	43.66
Shakespeare Quarterly	0.366	7	16	68	940	21	61	0.21	58.75
College Composition and Communication	0.353	12	30	160	1,006	59	138	0.42	33.53
Journal of Biblical Literature	0.343	8	38	143	2,762	34	141	0.22	72.68

Note SCImago Journal and Country Rank, JOURNAL RANKING: Subject Area: All, Subject Category: Literature and Literary Theory, Country: All, Year: 2012

^aIn 2012. ^bDuring 3 years. ^cDuring 2 years

articles in Literature, too, it is included in both lists; since the SJR2 indicator does not detect disciplinary boundaries, a comparatively mild impact in Language and Linguistics can make it the most prestigious journal in Literature and Literary Theory. Presumably, this effect must follow from the small numbers involved in quotations in Literature and Literary Theory so as to allow an interdisciplinary journal to move to the first position.

The second journal might be worth a closer look. *New Literary History* belongs to the highest ERIH category ('INT1'); personally, I would have guessed it might be among the top journals. This prestigious periodical, however, does not seem to be quoted very often, if one inspects the numbers provided by *Scopus* (see Table 2). For the 142 articles published between 2009 and 2011, only 68 citations were found. If one takes the small ratios between cited and uncited documents into account, viz. 26% for this time window, the hypothesis seems acceptable that these few citations concentrate on few articles. The only undisputable inference is the mean citation frequency per article: We find two citations per article on average.

It is possible to compare these numbers to those of the most influential journal in Medicine (as ranked by the SJR2 indicator again), the *New England Journal of Medicine*. In the same time window (i.e. 2009–2012), we find 5,479 articles and 65,891 citations; on average, an article garnered 12 citations, and 46% of these articles were cited within the time window.

As for the *New Literary History*, I discuss one of the journals that at least do receive some attention (in terms of citation analysis). Let us turn to *Poetica*, one of the most prestigious German journals. Within the ERIH ranking, *Poetica*, too, belongs to the highest category, 'INT1'. Yet it ranks only 313th in the *Scopus* list. The more detailed numbers are disconcerting (see Table 3). Between 2009 and 2011, the journal published altogether 48 articles, among which only three received at least one citation (within this time window). In the long run, the quotation ratio never exceeds 16%; but the 6%, which can be found in three columns (2006, 2007, 2012), is not an exception. More astonishingly, only four citations were found. This is to say that two articles garnered exactly one citation, and one article can be proud to have been cited twice.

The problems that I mention apply to all entries in the ranking. On the one hand, the absolute numbers are so low that small changes affect the position of journals; on the other hand, interdisciplinary journals automatically move up (this effect could be dubbed 'cross-listing buoyancy'). The ranking does not reflect the 'qualitative' assessment of the European Science Foundation. These figures have significance only as they show that quotations in Literature are rare.

3.3 Possible Objections

My approach may face three major objections. First, absolute numbers have limited value. They are not embedded in a statistical analysis, and, therefore, they cannot characterize the phenomenon in question. I will not deny the cogency of

Table 2 Development of citations between 2004 and 2012 for the high ranking international journal *New Literary History* (data by Scopus)

Indicators	2004	2005	2006	2007	2008	2009	2010	2011	2012
SJR	0.166	0.129	0.236	0.218	0.202	0.112	0.255	0.361	0.416
Total Docs.	39	38	49	41	43	55	47	40	38
Total Docs. (3 years)	76	115	117	126	128	133	139	145	142
Total references	1,359	946	1,360	1,572	1,506	1,642	1,857	1,386	1,659
Total Cites (3 years)	26	21	36	31	29	17	40	62	68
Citable Docs. (3 years)	74	110	110	114	116	120	127	134	132
Cites/Docs. (4 years)	0.35	0.19	0.32	0.30	0.22	0.20	0.31	0.46	0.48
Cites/Doc. (2 years)	0.35	0.15	0.33	0.31	0.24	0.19	0.19	0.57	0.61
References/Doc.	34.85	24.89	27.76	38.34	35.02	29.85	39.51	34.65	43.66
Cited Docs.	22	19	29	25	24	13	29	39	37
United Docs.	54	96	88	101	104	120	110	106	105
<i>Ratio (cited/united docs) (%)</i>	<i>41</i>	<i>20</i>	<i>33</i>	<i>25</i>	<i>23</i>	<i>11</i>	<i>26</i>	<i>37</i>	<i>35</i>

Note SCImago Journal and Country Rank, JOURNAL CLOSE-UP: *New Literary History*, Publisher: Johns Hopkins University Press, ISSN: 00286087, 1080661X. Italics indicate my own calculations

Table 3 Development of citations between 2004 and 2012 for the high ranking German language journal *Poetica* (data by Scopus)

Indicators	2004	2005	2006	2007	2008	2009	2010	2011	2012
SJR	0.101	0.101	0.100	0.151	0.154	0.123	0.111	0.111	0.100
Total Docs.	16	17	16	14	12	19	13	16	0
Total Docs. (3 years)	23	39	48	49	47	42	45	44	48
Total Cites (3 years)	3	2	3	4	5	5	5	8	4
Cites/Doc. (4 years)	0.14	0.05	0.07	0.11	0.11	0.10	0.13	0.19	0.07
Cites/Doc. (2 years)	0.14	0.07	0.00	0.06	0.13	0.15	0.13	0.16	0.03
References/Doc.	55.88	70.71	52.31	110.07	104.08	51.89	63.38	56.56	0.00
Cited Docs.	2	2	3	3	5	4	5	7	3
Uncited Docs.	21	37	45	46	42	38	40	37	45
<i>Ratio (cited/uncited docs) (%)</i>	9	5	6	6	11	10	11	16	6

Note SCImago Journal and Country Rank, JOURNAL CLOSE-UP: *Poetica*, Publisher: Wilhelm Fink Verlag, ISSN: 03034178. Italics indicate my own calculations

this objection. However, the point is that the low numbers themselves are the phenomenon to be explained. My analysis also comprises the comparison of relative quantities. By contrasting the ratios of uncited and cited papers across disciplines, I can increase the plausibility of my claims. I am confident that the synopsis of all data corroborates the hypothesis that literary scholars' quotation rates are altogether marginal.

The second possible objection concerns the available data about research in the humanities. Currently, the most widespread attempt to remedy the tiny absolute numbers is the inclusion of books. The idea is that the databases are deficient—not the citation culture (e.g. see Nederhof 2011, p. 128). The inclusion of monographs is Hammarfelt's (2012, p. 172) precept. In 2011, Thomson Reuters launched its *Book Citation Index* covering books submitted by editors from 2005 onward and continuously has worked on improving the *Book Citation Index* ever since. However, the inclusion of monographs will not provide an easy solution. There are three obstacles:

(1) *Primary versus secondary sources*. In the humanities, some books are *objects* of analysis, and some provide *supporting arguments*. In the first case, we speak of *primary*, in the latter case of *secondary sources*. In many contexts, the distinction between both types is blurry (see Hellqvist 2010, p. 316, for an excellent discussion).² Hammarfelt's (2012) most radiant example, Walter Benjamin's *Illuminationen*, which he states to have spread across disciplines (p. 167), is a compilation of essays from the 1920s and 1930s. The book is cited for very different reasons. The quotations in computer science and physics (Hammarfelt 2012, p. 167) will probably have an ornamental character; Benjamin is a very popular supplier of chic epigraphs. Within the humanities, Benjamin is one of the authors whose works are analysed rather than used, that is, he is a primary source. So are other authors whom (Hammarfelt 2012, p. 166) counts among the canonized: Aristotle, Roland Barthes, Jacques Derrida, etc. Even more, some of his canonized authors wrote just fiction (Ovid and James Joyce). Hence, these monographs must be primary sources.

An algorithm that distinguishes between primary and secondary sources is difficult to implement. The software has to discriminate between different kinds of arguments, which requires semantic analysis. As is well known, we are far away from any sensible linguistic analysis of texts without specific ontology (in the sense of semantics); so even the effort will be futile. The only reliable possibility would be a systematic distinction between primary and secondary sources in the bibliographies, a practice common in many scholarly publications, but far from ubiquitous. With this problem realized, it is difficult to implement an automatic analysis.

Recent publications, of course, can be counted as secondary sources per convention. This would be reasonable and useful, even if we know that the transition from 'secondary scholar' to 'primary author' is what scholars in the humanities dream of and what they admire (cf. Ochsner et al. 2013, pp. 83–85). Quite often this happens late, often after the scholar's death (and his reincarnation as 'author'), as was the case

²This is why Zuccala's (2012) similar—and barely novel—distinction between vocational and epistemic misses the point. This article tends to overlook many problems I discuss here.

with Benjamin, too, who was even refused a university position during his lifetime. The usage of recent publications remains only a possibility.

The inclusion of books would not change the whole picture. The absolute numbers would remain low. In a more or less systematic case analysis, Bauerlein (2011) shows that scholars do not cite books either (p. 12). Quite on the contrary, Bauerlein (himself a professor of English Literature, by the way) concludes that the production of books is an economic waste of resources and should be stopped. *Google Scholar* confirms that literary scholars quote but do so rarely. As stated above, the service includes books. Since Google has scanned and deciphered incredibly many books, including those from the past decade, for its service *Google Books* (prior to the service's restriction on account of massive copyright infringements), it has a pretty good overview of the names dropped in scholarly books. Nonetheless, Google's services show that books are quoted as rarely as articles (if not even less frequently). We thus count the documents cited. Scholars quote numerous sources; at least nothing indicates that lists of references are shorter in the humanities than they are in other disciplines. But all signs point at the possibility that only a few scholars can hope to be quoted by their peers. The fact remains that literary scholars quote each other but do so rarely.

(2) *Reading cycles*. Another remedy being discussed involves larger time windows. Literary scholars are supposed to have 'slower reading cycles', to stumble upon old articles and to unfold their impact much later than the original publication. Unfortunately, there is little evidence for this myth. Of course, there are many 'delayed' quotations in the humanities. But the problem is that they do not change the whole picture. In the vast majority of cases, their distribution is as Poisson-like as the 'instantaneous' quotations, and they are as rare. Again, the sparse data Google provides us with do not indicate any significant increase of citations caused by a need for long-lasting contemplation. Nor does Bauerlein find any hint of boosting the effects of prolonged intellectual incubation periods. Nederhof (1996) claims that in some humanist disciplines, the impact of articles reaches a peak in the third year; hence, the chosen citation window appears adequate and meaningful.

(3) *What quotations stand for*. The third obstacle is different in kind. Since the figures show small numbers, citations that do not refer to the content of the cited articles may distort the results of the statistical analysis to a significant extent. As recently demonstrated by Abbott (2011), a considerable percentage of citations does not relate in any conceivable way to the cited article, which could indicate that this article has never been actually read. Examples are easily at hand. In one of the top journals in Literature, *Poetics Today* ('INT1'), the Web of Science records two citations of an article of mine. Unfortunately, these citations come from scholars who use my article to introduce a notion established by Plato around 400 B.C. With two citations, my text belongs to the very small cohort of highly cited articles, but the actual quotations are disastrously inappropriate. This problem cannot be ruled out in other disciplines either. There is no clue whatsoever indicating that inappropriate quotations occur more often in the humanities than in other disciplines. Nonetheless, we have to consider the possibility that even the small numbers found in the figures

are not the result of attentive reading, but of the need to decorate an article with as many references as possible.

We eventually have to reconcile two apparently contradictory observations. On the one hand, scholars present us with long lists of references and are expected to quote as much as possible. On the other hand, each scholar can expect only little attention and very few (if any) citations by peers. This miracle can be easily resolved: Partly, scholars quote from other disciplines, partly, quotations cluster around certain few 'big names', who are quoted abundantly. There is no contradiction between long lists of references and few citations, that is, between many incidents of citing and only a few of being cited.

4 Discussion

As we have seen, the disciplinary culture of Literature requires scholars to quote one another extensively, but only few citations can be found. How can this be explained? Although I have expressed my doubts about the importance of coverage, first, more data must be obtained: Books must be extensively included in the analysis, and the citation windows must be enlarged, maybe up to decades. Such an improvement of the databases does not add to the bibliometric assessment of individual scholarly performance; instead, it adds to the understanding of the intellectual configuration of Literature and of other related fields in the humanities. Before we start understanding the criteria of excellence and develop a means of mapping qualitative judgments on quantities, we must first understand why citations occur so rarely.

Perhaps publications in Literature do not contain pieces of positive information that can be used to support one's own argument straightforwardly. Publications present the scholar with helpful or dubious opinions, useful theoretical perspectives, or noteworthy criticisms, but, possibly, a publication cannot be reduced to a simple single result. If this is the case, the question is which (societal) task Literature is committed to. If this is not case, the lack of quotations raises the question of why so many papers are written and published that do not attract any attention at all.

I can conceive of two explanations. (1) The first explanation concerns a possible 'archival function' of Literature (and related fields in the humanities). As Fohrmann (2013) recently put it, the disciplines may be responsible for the cultural archive (pp. 616, 617). Indeed, scholars count 'fostering cultural memory' among the most important factors that increase excellence in the humanities (Hug et al. 2013, pp. 373, 382). Teaching and writing in the humanities do aim to increase knowledge and to stabilize our cultural memory. As a consequence, seminars and scholarly publications are costly and ephemeral, but still are necessary byproducts of society's wish to uphold and to update its cultural heritage.

At first glance, this may sound sarcastic, but, in fact, this explanation would imply that the current situation might harm both the humanities and the university's sponsors (in Europe, these are mostly the governments and, therefore, the taxpayers). In the 1980s, the humanities had to choose whether they would adapt to the institutional

logic of the science departments, or to move out of the core of academia and to become cultural institutions, such as operas and museums. The humanities chose to remain at the heart of the university and thus accepted the slow adoption of mechanisms such as the competition for third-party funding and the numerical augmentation of publications. Now, the humanities produce texts that no one reads, that the taxpayer pays for and that distract the scholars from their core task: to foster the cultural archive, to immerse oneself in old books for months and years, to gain erudition and scholarship, and to promote the cultural heritage to young students and to society as a whole. (This is maybe why scholars are reluctant to cherish the scholars' impact on society, as Hug et al. (2013, pp. 373, 382) also show. In the scholars' view, their task is to expose the impact of the cultural heritage on society. In a way, giving too much room to the scholars seems to be a kind of vanity at the expense of the actual object of their duties.) Maybe, releasing the humanities from the evaluations and structures made for modern research disciplines would free the humanities from their bonds, reestablish their own self-confidence and decrease the costs their current embedding in the universities impose on the sponsors. It would be a mere question of labeling whether the remaining and hopefully prosperous institutions could still be called 'academic'.

(2) The second explanation, however, is less flattering. It could also turn out that low citation frequencies indicate the moribund nature of the affected disciplines. When I recall that citations and debates have been core practices in the humanities for centuries, another conclusion pushes itself to the foreground: Scholars in the affected fields feel bored when they have to read other scholars' publications.

In the 1980s and the early 1990s, there were fierce debates, and the questions at stake could be pinpointed (see Hüser 1992). Today, the very questions vanish; scholars have difficulties stating what they are curious about (Bunia 2011a). If no scholar experiences any intellectual stimulation instilled by a peer's publication, she will tend to read less, to turn her attention to other fields and to quote marginally. With regard to cohesion (see Sect. 2.4), such a situation would also imply that the scholars in the affected fields no longer form a community that would identify itself as cohesive; one no longer feels responsible for the other and for the discipline's future. If all debates have ended, the vanishing quotations simply indicate a natural death that no one has to worry about.

Both explanations will easily provoke contestations. As for the first one, one would have to ask why scholars have never realized that they had been cast in the wrong movie. As for the second one, there are only few hints at a considerable change in the past 20 years. Did scholars cite each other more fervently in the 1970s and 1980s than today? I do not know. Therefore, we need more research on the scholars' work. For instance, we need to know why they read their peers' work and if they enjoy it. It is good that researchers, namely, Hug, Ochsner and Daniel, began asking scholars about their criteria to understand how the scholars evaluated their peers' performance. But we also have to take into account the deep unsettledness reigning in Literature and related fields (see Scholes 2011; see again Bauerlein 2011; Bunia 2011b; Lamont 2009; Wiemer 2011). We have to thoroughly discuss a 'criterion', e.g. 'rigor', which is a virtue scholars expect from others (Hug et al. 2013,

pp. 373, 382). But ‘rigor’ is characterized by ‘clear language’, ‘reflection of method’, ‘clear structure’ and ‘stringent argumentation’, which are virtues the humanities are not widely acclaimed for and are qualities that may be assessed differently by different scholars. In brief, these self-reported criteria have to be compared to the actual practice. It may be confirmed that a criterion such as rigor is being consistently applied to new works; but it may equally well turn out that the criterion is a *pass-partout* that conceals a lack of intellectual cohesion in the field. Again, this means that we first must understand what the humanities actually do before we start evaluating the outcome of their efforts by quantitative means.

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