

Accountability in context: Effects of research evaluation systems on publication practices, disciplinary norms and individual working routines in the faculty of Arts at Uppsala University

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CWTS Working Paper Series

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| Paper number | CWTS-WP-2014-003 |
| Publication date | June 5, 2014 |
| Number of pages | 21 |
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This is a pre-print version of an article submitted to *Research Evaluation*.
This paper has not been peer-reviewed and does not include the final
publisher proof-corrections or journal pagination.



Accountability in context: Effects of research evaluation systems on publication practices, disciplinary norms and individual working routines in the faculty of Arts at Uppsala University

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Given the increased role of bibliometric measures in research evaluation, it is striking that studies of actual changes in research practice are rare. Most studies and comments on 'a metric culture' in academia focus on the ideological and political level, and there is a clear shortage of empirical studies that analyze how researchers handle demands for accountability *in context*. In adopting a mixed methods approach involving both bibliometric data and answers from questionnaires we provide an in-depth study of how researchers at the faculty of Arts at Uppsala University (Sweden) respond to the implementation of performance based research evaluation systems. Publication patterns from 2006-2013 show that journal publications, especially English-language ones, is increasing, and the proportion of peer-reviewed publications has doubled. These changes are in line with the incentives of the evaluation systems under study. Answers to the survey confirm that scholars are conscious about this development and several respondents articulate a disagreement between disciplinary norms and external demands. However, disciplinary background as well as career stage or academic age appears to have a significant influence on how individual researchers react to the instigation of evaluation systems. Finally, responses to national and local evaluation regimes are complex, localized and dependent on many factors. In-depth contextualized studies of research practices are needed in order to understand how performance based funding systems influence academic research on the ground.

Keywords: Research Evaluation, Humanities, Bibliometrics, Publication Patterns, Research Practices, Mixed-methods, Sweden

1. Introduction

At present we do not know how performance measures shape the production of knowledge. The landscape for producing and evaluating academic knowledge has changed dramatically over the past 60 years. These transformations can be ascribed to a general move towards the formal evaluation of professional work; an increased economic and social role of science and technology; a huge rise in the amount of published scientific literature; and the proliferation of research fields as well as new systems for governing science. Furthermore, actors such as nation states are implementing formal policy measures and incorporating public policy goals into the assessment criteria of funding agencies, in order to more proactively steer the direction of research (Whitley, 2007, p. 3). Further attempts to assess performance and output of public funded research are direct consequences of such efforts to steer research agendas (ibid. p. 5).

The introduction of systematic assessment of publicly funded research is part of a general 'boom' in evaluation processes in an increasingly wide variety of societal sectors and professional fields, described through notions of an 'audit society' and a rampant 'evaluation machine' (Power, 1997; Dahler-Larsen, 2012a). This trend has also resulted in the further development of evaluation systems as opposed to single evaluations. These forms of evaluation are systematic in the sense that they are permanent, routinized and extended across time and space. The systematic approach also involves an 'abstraction' in the sense that professionals conducting the audit are experts on evaluation rather than experts on the evaluated activity. Systematic evaluation also has stronger constitutive effects—e.g. influence on the practices and meaning of the activity being evaluated—compared to single evaluations (Dahler-Larsen, 2012b). Thus, research evaluation systems are enforced, on the national, regional and institutional level but we know very little about their effects on research practices.

Performance-based university research funding systems have been implemented in many European countries over the last years (Hicks, 2012) The most common model is to use peer review procedures, but several countries have implemented metrics-based ex-post funding models, including Sweden. The Swedish model, together with the ones implemented in Poland and the Slovak republic uses citation to articles as one main input while Denmark, Finland, Norway and Flanders (in Belgium) use publication counts. These systems can be defined as 'strong research evaluation systems' in the sense that they are institutionalized, formalized and they follow specific procedures. Further characteristics of strong research evaluation systems are that they directly affect funding of departments or universities and the outcomes are publicly available (Whitley, 2007). The amount of resources reallocated through such systems seems to play a lesser role; the actual existence of a publicly known evaluation is influential enough. Rather, the most powerful incentive within academia is the prestige produced by performance-based research funding systems (Hicks, 2012, p. 260).

Given the increased role of performance measurement in research evaluation, it is quite striking that actual studies of resulting changes in the work conditions of scholars are rare. Most studies and comments on 'a metric culture' in academia focus on the ideological and political level, and the consequences for the individual scholar are often discussed but seldom studied (cf Power, 1997; Burrows, 2012). There is a clear shortage of empirical studies that analyze how researchers handle demands for accountability *in context* (Gläser et. al, 2010; Wouters, 2014).

Scientific quality control is a thoroughly social and organizational phenomenon, and not exclusively cognitive/epistemological (cf. Hemlin and Rasmussen 2006). Hence this paper tries to depict some of the practical and ethical consequences of output and impact measurement. Ethical in the sense that measures provide norms through which scholars are made governable. Thus, we agree with Porter's (1996, p. 45) assertion that the highest purpose of measures '[...] is to instill an ethic.' Our case study puts central the research practices and publication patterns of scholars at the faculty of Arts at Uppsala University, Sweden. Research practices of these scholars were investigated using both publication statistics and responses to questionnaires. Statistics on publications from 2006-2013 were used, as this time frame allows for analyses of two 'moments of metrics' (Burrows 2012): the implementation of the national model for resource allocation in 2009 and the introduction of a system for allocating resources based on performance measures at the faculty of Arts at Uppsala University in 2011.¹ We suggest that this empirical case allows us to analyze if and how researchers respond to the instigation of performance based research evaluation (Cf. Moed 2008; Butler 2005). Furthermore, the development of two evaluation systems; one national and one institutional offers a unique opportunity to compare existing with not-yet-formalized evaluation procedures and effects on publication practices.

The rationale of implementing resource allocation based on output and citation counts is to affect knowledge production/quality of research in positive ways. Both the national system and the local model applied in Uppsala focus on the number of publications and the number of citations, with external research grants being the other main indicator. We therefore adhere to the notion that publication practices are of significant interest for examining the influence of performance based evaluation systems (Butler, 2003a; Ossenblock, Engels and Sivertsen, 2012). Hence, two questions are asked: Can we observe changes in publication practices of humanities scholars after the introduction of national model (2009) and the local system for performance based resource allocation (2011)? And how do scholars themselves reflect on (changes in) publication practices in their discipline? The first question is investigated through a study of publication patterns over time. To answer the second question a survey was sent to all active researchers at the faculty of Arts at Uppsala University. There are of course other factors besides research evaluation systems that have a considerable influence on publication practices, with the continuing digitalization of research and further demands for open access as two of the most topical ones. Thus, the novelty of these systems and the various factors influencing publication patterns limits the possibility of drawing firm and generalizable conclusions regarding the influence of research evaluation systems. Further constraints are the shortage of previous studies on the topic, as well as a lot of unknowns when it comes to underlying dynamics of the humanities in terms of publication and citation cultures. However, given a growing use of bibliometric methods for evaluating the humanities we find it important to give a contextualized, practice-oriented and local account of the consequences that such assessment procedures might have on research practices and disciplinary norms. Thus our focus on a specific setting allows us to provide a thicker, in-depth account of the consequences of implementing performance based research evaluation systems on the institutional level.

Before zooming in on the specific context of this study we frame the setting in which this study takes place. Previous studies are reviewed in a general account of the emergence of bibliometrically infused research evaluation systems. We then describe the indicators used

¹The decision to introduce this model was taken in 2011, it was employed in 2012 and first used to reallocate research funds in 2013 (UFV/2011/134).

and the incentives behind the Swedish and the Norwegian model for research evaluation. Whitley's (2000) theory concerning organizational and intellectual differences across research fields is introduced as a framework for understanding the impact of evaluation systems across disciplines. The mixed method approach, which combines publication data and answers from an online questionnaire, is then explained. The findings are thereafter presented thematically with sections on choice of publication channel and language, use of peer review as well as attitudes towards bibliometrics and emerging 'publication strategies'. The concluding section discusses the specific and localized suppositions of this study in relation to the wider setting of research evaluation at large, and to the organization of research fields in the humanities in particular.

2. Background

The consequences of research evaluation systems have mostly been studied on a macro level, while its consequences for specific fields and practices have thus far received less attention. A comparison of publication patterns between Norway and Flanders found that humanities scholars were influenced by research evaluation systems; researchers in Flanders published more in journals indexed in Web of Science while publications in 'top journals' (level 2) increased in Norway. These results are in line with the incentives given by the indicators used (Ossenblock, Engels and Sivertsen, 2012). Studies of researchers' attitudes towards and perceptions of bibliometrics have focused foremost on the natural sciences. For example Aksnes and Rip (2009) looked at how scientists view citations through a questionnaire directed towards highly cited researchers. A similar study was conducted by Derrick and Gillespie (2013) who analyzed the perceptions on the H-index by researchers in physics and medicine.

Publication practices and changes therein have been studied by several authors. Kyvik (2003) found that articles—in books or in periodicals—are the most common output in the humanities. He also detected a small increase of international (English) and co-authored publications. A general increase in the output, especially of English language publications, could also be seen in a study of publications by researchers in Flanders, but no major shift towards publishing in journals could be detected (Engels, Ossenblock and Spruyt, 2012). These and similar studies provide an important background regarding publication patterns in the humanities on a more general level. Our own local and contextualized approach provides a complementary perspective, and also allows for the use of both quantitative data on publication patterns as well as qualitative reflections on research practices provided by scholars themselves. This mixed-methods approach, paired with an understanding of the specific context, allows for a more in-depth analysis of particular 'moments of metrics'. Burrows places the 'moment of metrics' in the United Kingdom at the beginning of this century, when academics started to feel that they could no longer avoid the consequences of bibliometric evaluation (Burrows, 2012, p. 359). However, due to the heterogeneous landscape of research and differences across nation states the 'moment of metrics' can occur at different points in time (if at all). Thus, we find it important to distinguish particular events—such as the implementation of research evaluation systems—in a specific context. But before we discuss the specificities of bibliometric evaluation at the faculty of Arts at Uppsala University we need to provide a bit more context about the Swedish and Norwegian systems for research evaluation.

2.1 A tip of the Iceberg – The humanities in the Swedish system for research evaluation

The current model for evaluating research in Sweden was introduced in 2009 and can be characterized as a 'strong' research evaluation model (Whitley 2007): Formal, public and

summative in the sense of having direct links to the allocation of resources. The bibliometric part of this model uses normalized citation scores from *Web of Science* (Sandström and Sandström, 2008). The Swedish model for assigning resources across universities stresses that researchers should be encouraged to publish in peer reviewed international publications (SOU 2007:1, p. 394). The aim of changing ‘publication behavior’ is explicit and the architects behind the model argue that the Norwegian system may strengthen rather than challenge traditional publication practices (e.g. book publications and non-English publications).² Interestingly, the Swedish alternative on the other hand provides ‘[...] strong incitements to increase activity on the global publication market’³. (SOU 2007:1 p. 418). The architects behind the model acknowledge that the inadequate coverage of the social sciences and the humanities is a problem. Yet, they claim that coverage can be compared to ‘icebergs’: ‘[...] what we see above the water line makes it possible to compute the total activities whether these are in books or institutional reports.’ (Sandström and Sandström, 2009, p. 246). The overall purpose of the model is to encourage high quality research rather than the production of many low quality publications, with the exception of the humanities and the ‘soft’ social sciences where the incentive to increase output is very apparent (ibid, p. 249). However, this model has been questioned for being too complicated, and other systems—especially the Norwegian one—have been advocated. This has led to the adoption of various local systems that often uses the Norwegian system or ‘mixed’ systems for allocating resources.

2.2 The Norwegian model

The Norwegian model has been developed specifically for performance based funding at the institutional level. The system is built on two important components: 1. A transparent national documentation system; 2. A simple bibliometric indicator (Sivertsen 2008; Schneider 2009). The incentive is to publish more and in ‘prestigious’ publication channels. A prestigious publication channel is deemed to have a tough peer review process, competition for publication and visibility to the ‘widest relevant audience’ (Sivertsen, 2008). In other words, the Norwegian model also emphasizes international and peer reviewed publications, but prestigious publications must not always be written in English in order to reach ‘the widest relevant audience’. The model is based on the ‘total’ output of publications, but a qualitative factor is introduced as publication channels are rated as level one or level two (table 1).

Table 1. *Norwegian system for research evaluation*

| | <i>Level 1</i> | <i>Level 2</i> |
|-----------------|----------------|----------------|
| Monograph | 5 | 8 |
| Book chapter | 0.7 | 1 |
| Journal article | 1 | 3 |

The Norwegian system, used also in Denmark, Flanders and locally at several universities in Sweden, has an advantage when it comes to coverage and transparency. A substantially larger share of all publications, especially in the social sciences and the humanities, are included and the counting of points is comprehensible also for researchers inexperienced in statistical methods. Furthermore, the legitimacy of the system is enhanced by scholars being part in the process of classifying channels as level one or two (Ahlgren, Colliander and Persson, 2012). A major drawback is of course that a two-level rating of channels is a crude measure of the

² ‘Sammantaget riskerar det norska systemet att snarare låsa fast forskningen i dess nuvarande publikationstraditioner.’ (SOU 2007:81, p. 395)

³ ‘Med den föreslagna metoden får således humaniora och samhällsvetenskap kraftfulla incitament att öka aktiviteten på den internationella publiceringsmarknaden.’ (SOU 2007:81, p. 418)

quality of an individual publication. The definition of what counts as a ‘scholarly publication’ could also be questioned as monographs from non-academic publishers may have a high reputation in certain fields but they are often not rewarded points in the model. This affects the humanities where many publications are categorized as ‘non-scholarly’ and therefore not awarded any points (Hammarfelt, 2012). Yet, a recent study indicates that the humanities and the social sciences might have an advantage when a system using fractionalized counts is applied (Piro, Aksnes & Rørstad 2013).

2.3 The composite model at the faculty of Arts at Uppsala University

The decision to implement a local model at Uppsala University (UU) was taken in September 2011 by the faculty boards (‘områdenämnderna’) on the basis of a report commissioned by the vice-Chancellor of the university. The model reallocates ten percent of the total resources for research, with the aim of enhancing quality and increasing the share of government funds allocated to UU.⁴ Before the implementation of this new model resources were allocated based on government subsidies for each ‘domain’ (‘vetenskapsområde’) but the implementation of a new ‘quality driven’ system for allocating resources on the national level also encouraged changes at UU. All three main domains within the university—Medical-Pharmaceutical, Humanities and Social sciences, and Natural sciences and Technology—agreed on the general features of the model, but some diverging views could also be discerned in their comments. The social sciences and humanities advocated using the Norwegian model only, and instead of using data from *Web of Science* the establishment of a joint Nordic database—containing both publications and citations—was proposed; ‘a Nordic Web of Science’. A concern regarding the effects of the model was also voiced: ‘The effects on publication patterns should be discussed.’ (UFV/2011/134).⁵

The model used at the faculty of Arts at Uppsala University (UU) is especially interesting as it utilizes components from both the Swedish and the Norwegian model. The system for allocating resources at the faculty of Uppsala University is complex; it utilizes four different factors for allocating resources: External grants, publications and citations, grants from the Swedish Research Council and strategic considerations (Table 2).

Table 2. Overview of the model used at the faculty of Arts

| <i>Source</i> | <i>Input</i> | <i>Calculations</i> | <i>Share</i> |
|--------------------------|--------------------------|-------------------------|--------------|
| Self-reported | External Grants | Weighted | 25% |
| Swedish Research Council | SRC Grants | Weighted | 25 % |
| DiVA / WoS | Publications | Fractionalised/weighted | 25 % |
| | Citations | | |
| Board of directors | Strategic considerations | - | 25% |

The addition of the Norwegian model as a complement to the Swedish system was motivated by an effort to better cover the social sciences and the humanities. It is important to note that domains are primarily compared to their own prior results rather than to each other. Hence, domains are assessed based upon improvement from a previous period. This approach also limits the need of field normalization. The Uppsala model illustrates how bibliometric

⁴ ‘Modell för fördelning av statsanslag från konsistoriet till områdesnämnderna vid Uppsala universitet’, (2011-09-28)

⁵ ‘Diskussioner bör också föras om vilka effekter som därmed kan uppstå i forskarnas val av publiceringsmönster’ *Modell för fördelning av statsanslag från konsistoriet till områdesnämnderna vid Uppsala universitet*, appendix 2.

measures on the national level influences systems for allocating resources within the university. Hence, bibliometric measures on different levels—for individuals, departments, universities and countries, as well as for journals or research fields—are ‘[...] all are nested or folded into each other to form a complex assemblage that confronts the individual academic.’ (Burrows 2012, p. 359).

2. 4 Research fields and systems of evaluation

In this paper we take a closer look at fields often gathered under the heading ‘the humanities’. Our rationale for doing so is an assumption that how scholars react to assessment is dependent on the organization of research fields. Thus, we adopt the conceptual categorization of research fields developed by Whitley (2000; 2007) in order to gain a further understanding of how an emphasis on resource allocation based on output measures could influence norms and practices in specific research fields. Until recently, the humanities have been less affected by bibliometric measures and regular formal assessments. Whitley suggest that the effects of introducing systematic evaluation in such fields ‘[...] are likely to be much more visible, resulting in qualitative increase in reputational competition and in the level of intellectual coordination of goals and approaches across research sites’. (Whitley, 2007, p. 21). These effects will be especially apparent in fields, such as philosophy, where local traditions have resulted in intellectual variation. In such cases systematic and public evaluations is expected to enforce standardization of research practices and approaches (Whitley 2007). A further likely consequence of the implementation of research evaluation systems is that less prestigious fields will imitate procedures (such as publication practices) from high-status fields (Whitley, 2007, p. 23). This development is illustrated by the establishment of hierarchies of journals, devaluation of alternative publication channels, and a further focus on international standards as opposed to local traditions.

A development towards less diverse publication practices could have major implications for research fields in the humanities as these often target a heterogeneous audience. At least three important audiences for humanities research have been identified: scholars on the international ‘research frontier,’ scholars on the national or regional level, and a non-scholarly public (Nederhof, 2006, p. 96). A further focus on international standards to the discernment of alternative dissemination channels appears as a common feature of research evaluation systems and to further internationalization is often an explicit goal in many models. Hence, if the theoretical assumptions in Whitley’s model are correct we would expect that the diversity of publication practices in the humanities would be reduced when strong research evaluation systems are applied, which in turn could lead to a more narrow focus on a purely scholarly and increasingly international audience.

3. Methodology

As stated above, we make an effort in this paper to combine bibliometric data with quantitative and qualitative data collected through a questionnaire. A mix of quantitative and qualitative methods will provide a richer account of changes in scholarly practices. Using such data we can compare actual publication patterns to disciplinary norms and attitudes as expressed by the respondents. This will enable us to check empirically how researchers in our study experience composite, multi-level ‘assemblages’ (Burrows 2012, p. 359) of evaluation criteria and metrics. Pressure to meet certain measures and to change production dynamics is clearly an intended effect in both the Swedish and the Norwegian system. However, researchers may respond strategically and this might lead to unintended effects. One example is task reduction; Researchers are encouraged to do A (e.g. publish in international peer-reviewed articles) and not B (e.g. publish book chapters or monographs) (Laudel and Gläser,

2006). If publication types used in evaluations do not match the publication types that researchers themselves find most important, certain types of work may be abandoned. More structural shifts in publication activities, research priorities or organization may also take place (cf. Butler, 2003b; Colwell et al., 2012; Wouters, 2014). The free text answers from our questionnaire permit us to go beyond mere numbers, and it also allows the individual scholar to emerge, not only as a number in a graph but also as a voice in an ongoing discourse.

3.1 Bibliometric data

The publication database DiVA (*Digital Archive Online*) was used to extract data on publication patterns of scholars at the faculty of Arts at Uppsala University. We chose this database as it provides full coverage of all types of publications as opposed to the narrow selection of English language publications provided by *Web of Science* and *Scopus*. DiVA is used by the local system for evaluation and it delivered data for two recent assessment reports commissioned by the university.⁶ Registration of bibliographic data concerning publications from researchers at Uppsala University started in 2000 and DiVA covers publications from 1995 onwards. The database, which is freely available through the Web, now covers 34 universities and research institutes from Sweden and Norway. The main purpose of the database is to make publications accessible and visible, but an additional purpose is '[t]o facilitate annual reports and statistical analyses of publications by researchers active at Uppsala University'⁷. Bibliographic data in DiVA is self-reported and the accuracy of metadata can be questioned - even though librarians manually check registered posts. Obvious errors, such as Swedish language publications indexed as English ones or book chapters indexed as articles, have been corrected in this study. However, detailed inquiries into the characteristics of publications—such as if they are peer reviewed or not—was not feasible in the scope of this paper. The collection of data was quite straightforward as the interface of the database allows for the creation of 'feeds' that can be downloaded to *Excel* or other software for further analysis. Bibliographic data on all publications from 2006 until 2013 was downloaded and analyzed. The database is updated every third week and the data was collected on the 18th of February 2014. Statistics used for the allocation of resources is usually gathered in January and employees are reminded to register their publications in December the previous year.

3.2 Survey on publication practices

The online questionnaire we used to complement and enrich the bibliometric approach consisted of both graded (check-box) questions as well as questions answered in free text. The purpose of the survey was to allow scholars to reflect on their own practices.⁸ The survey was then distributed among all active researchers at the faculty of Arts at Uppsala University. The entire population of selected groups was targeted in order to avoid 'sampling errors' (cf. Sills and Song 2002).

In order to promote a high response rate the questionnaire was sent from the faculty via the heads of department to individual researchers. The electronic questionnaire was partly based on questions developed for an evaluation of research assessment exercises in the UK, and was

⁶ *Quality and Renewal 2007; Quality and Renewal 2011*

⁷ (<http://www.uu.se/en/Service/Publish-and-register-in-DiVA/About-DiVA> accessed 20 feb, 2014)

⁸ The open-ended questions serve an important function in the survey. Research indicates that respondents are more willing to answer open-ended questions in Web-based questionnaires compared to paper-based surveys. In addition, text-box entries increase the quality of responses (Van Selm and Jankowski 2006, p. 442).

designed in *Google Drive* in cooperation with two master's students.⁹ The questionnaire was first tested on a small population. After a few revisions it was distributed to all departments at the faculty of Arts in early February 2013. Three weeks later the questionnaire was closed, and had a response rate of 26 percent (89 out of 334 respondents). These 334 included PhD-students, teachers, lecturers and professors, but not technical and administrative personnel. Some scholars did not answer all questions and this explains some variation in the number of respondents to each query. It is also important to note that the number of respondents varies considerably across departments: history and history of ideas have a high response rate—35 percent and 27 percent respectively—while only one respondent has answered the questionnaire at the department of Art. A significant part of the respondents are from four large departments within the faculty: History (32), History of Ideas (12), Literature (12) and Philosophy (10). The remaining are from *Hugo Valentin Center*¹⁰ (8), Cultural anthropology and ethnology (5), Gender Studies (3), Department of ALM¹¹(3) and Art history (1). Two respondents did not answer the question regarding department affiliation. The low response rate from some departments could be due to lack of information regarding the questionnaire, although a reminder was sent out before the survey closed. The scope of the study does not allow for larger statistical analyses of particular disciplines, but departmental origin along with 'academic age' has been specified in order to contextualize the free-text answers. We defined 'academic age' as the number of years since the publication of the respondents' first proper academic publication (not student paper/thesis). The academic age of respondents was quite evenly distributed across our five categories: *Novice* 0-5 years (24 respondents), *Junior* 6-10 years (17 respondents), *Experienced* 11-15 years (23 respondents), *Established* 16-20 (7 respondents) and *Senior* 21 years or more (16 respondents).

The survey was conducted in Swedish and the first-author of this paper has translated the free-text answers.

4. Findings

The findings are thematically arranged in order to take advantage of the combination of publication data with qualitative accounts. Thus, actual data on publication patterns are accompanied by answers from the survey. Where possible, results from previous studies are also recalled in order to contextualize the results.

4.1 Publication channels used by scholars in the humanities

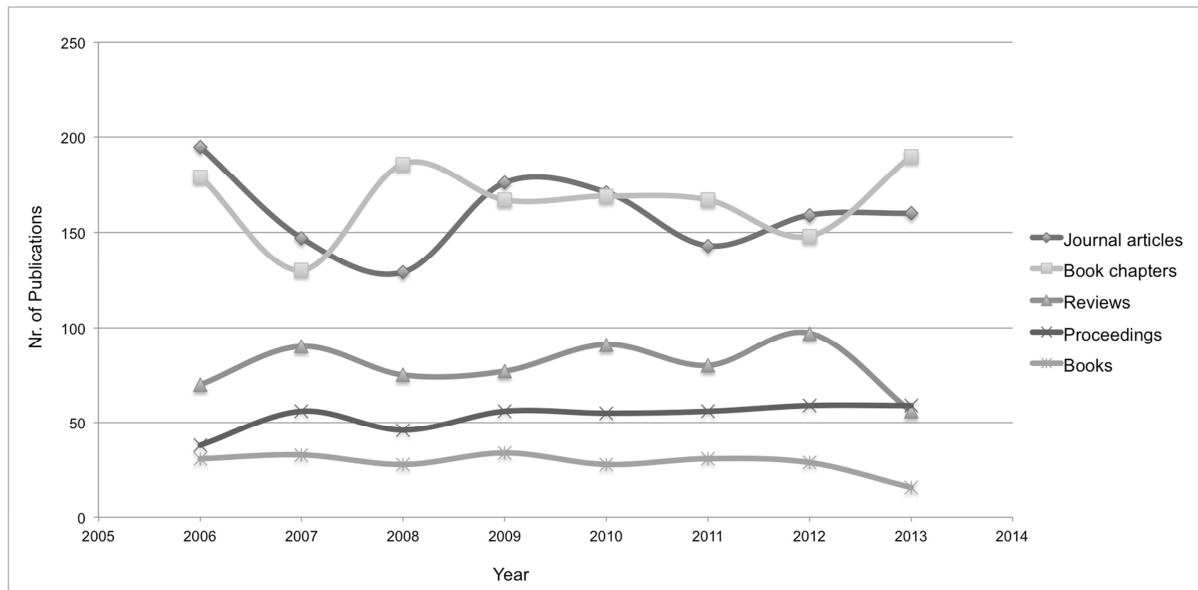
The analysis of the most common publication channels shows few changes over the studied period (fig. 1). Throughout the period about forty percent of the publications are journal articles, forty percent book chapters, seven percent monographs and thirteen percent proceedings. It has not been possible to find any explanation for the increase in book chapters and decrease in journal articles for 2008. This might be an artifact of the indexing procedures of the database used. In interpreting these results one also needs to be aware that the quality of the local publication database at Uppsala University is much poorer for the early period. This is also the reason why we decided to collect data from 2006 and onwards.

⁹ Research Information Network (2009), *Communicating knowledge: how and why UK researchers publish and disseminate their findings: a Research Information Network report*. London: Research Information Network.

¹⁰ The research center focuses on Minority-, Holocaust- and Genocide Studies

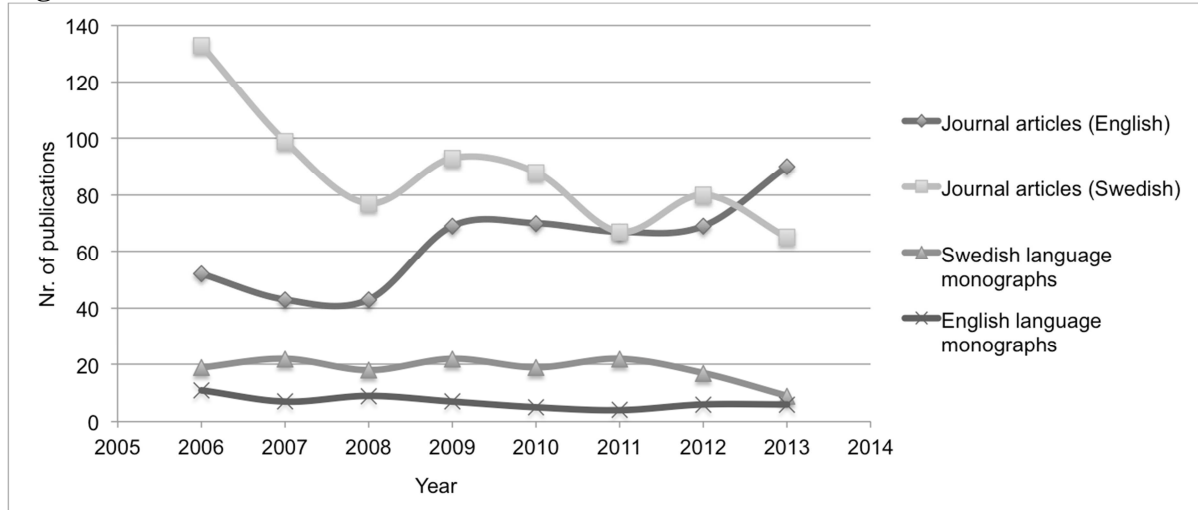
¹¹ Archival science, Library and information Science and Museum and Heritage Studies

Fig 1. Publication channels used by scholars at the faculty of arts, 2006-2013



The share of output over articles, chapters, monographs and proceedings in the period under analysis corresponds well with previous research on publication patterns in Norway and Flanders (Kyvik 2003; Sivertsen 2009; Engels, Ossenblock & Spruyt, 2012). However, another pattern emerges if we look in more depth at journal articles and monographs divided according to language (fig. 2).

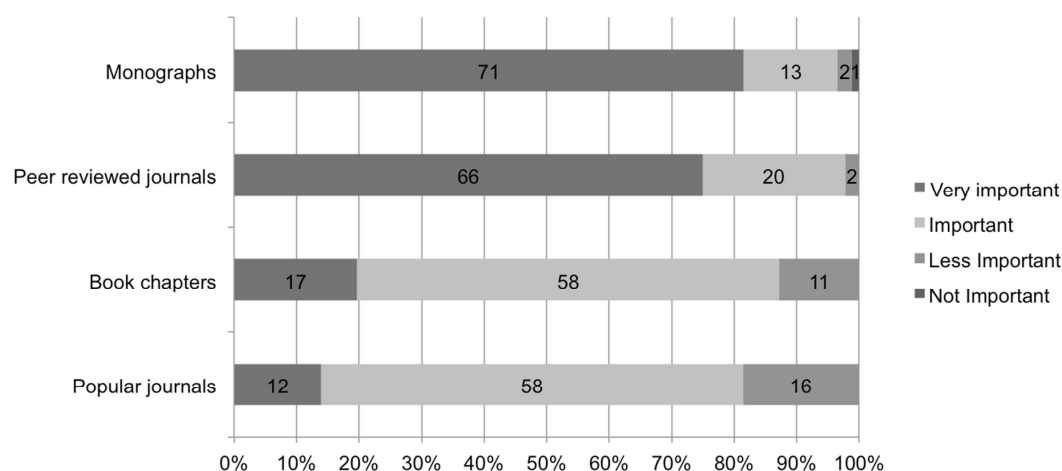
Fig. 2 Publication channels in detail



Thus, although the general share of monographs and articles remains the same, a considerable increase of English language journal articles and decrease in Swedish language journals can be detected. While only a little more than one out of four journal articles (28 per cent) were written in English in 2006, almost three out of five articles (58 per cent) was in English language in 2013. The rapid increase in English language publications is evident also when looking at all publications (fig 4).

These findings can be compared to the relative importance of different publication channels as judged by scholars themselves. Here respondents were asked to rank the significance of publication channels from *very important* to *not important* (fig. 3).

Fig 3. The importance attributed to different publication channels by scholars in the humanities



Monographs are seen as very important by a vast majority of researchers, and this is in line with previous findings. In this respect little has changed since Finkenstaedt (1990) study of research quality in the humanities. The status of the monograph is indisputable in many fields—all respondents in literary studies and in history of ideas regard it as the most important publication type—but four (out of ten) researchers in philosophy and a few historians (5 out of 32) view the journal article as the central publication channel within their discipline. Thus, a distinctive feature of many research fields in the humanities is that the most ‘important channel’ is not by far the most common one. However, the journal article is also deemed as very important by two-thirds of the respondents, and several researchers remarks that the monograph might be on the way out:

As everybody knows, and as all answers will confirm, we are moving from publishing monographs to publishing articles, and this is not always beneficial for the humanities [R 68, Established historian]

This is not an unusual account and often a conflict between journal articles and monographs is evoked, although in total output numbers, even when looking historically, articles always have had a larger share. Yet in many fields—and this is confirmed by citation counts in fields such as literature (Hammarfelt, 2011)—the importance of the monograph for the career and reputation of scholars is great. The function of the monograph as merit is also touched upon by researchers who see a discrepancy between how the monograph is valued within and outside of their own field:

It's a problem that the status of monographs is very uneven - they definitely count as an advantage in my field, but not in funding and general academia. Thus, I have focused on writing articles to be on the safe side [...] [R 71 Novice literary scholar]

Thus, a conflict between disciplinary norms (epistemic factors) and general (non-epistemic factors) from funding agencies and evaluation models is present in this account. As illustrated by these comments some scholars see the ‘devaluation’ of the monograph as a threat to the

epistemological foundation of their field. The lengthy in-depth study of a specific phenomenon is the hallmark of quality that is threatened by outside pressure.

The monograph is often taken to be emblematic for the humanities, but they account for a quite small percent of their total output. In fact, journal articles and book chapters are the most common output. However, book chapters are little discussed in terms of the role they play in scholarly communication, or in bibliometric measurement of research fields. In our survey book chapters were seldom explicitly discussed. However, among those that commented on the issue of book chapters many voiced concerns about the common practice of publishing in anthologies:

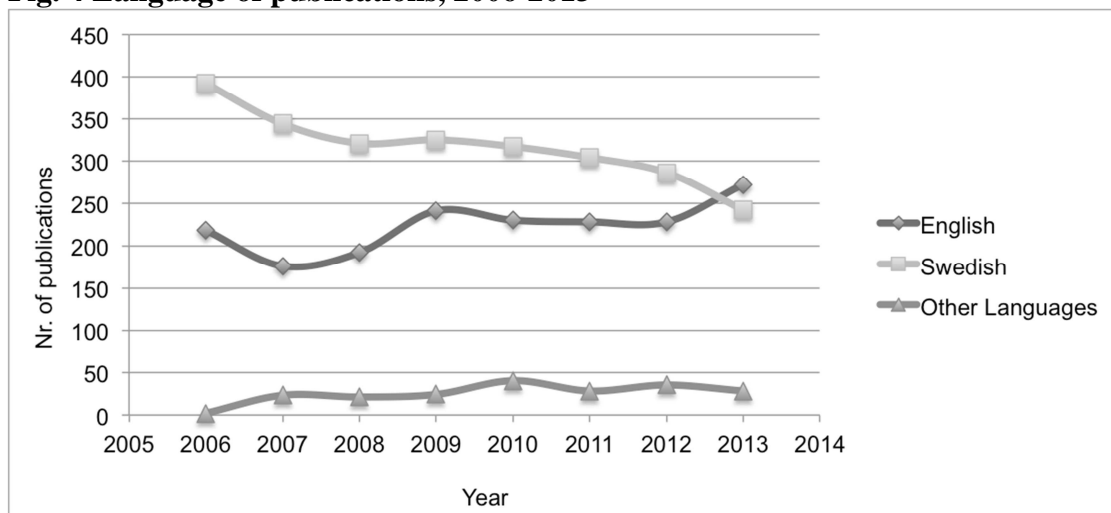
Never throw away good ideas or research in book chapters. Everything that requires work should be published in international peer reviewed journals, otherwise it's a waste of time (both for authors and readers)... (R 83, Novice historian)

It is notable that book chapters (also called book articles) are ranked quite low: Although they make up a considerable part of all publications, only seventeen percent rate them as 'Very important'. Thus, for an outsider it could appear as contradictory that such a large share of scholarship at the faculty of Arts is published in a channel that scholars themselves regard as rather unimportant compared to monographs and journal articles.

4.2 The language issue

A further demand for internationalization is also reflected in the language of publications; from a situation in 2006 where English publications amounted to only half of the Swedish publications to the current situation, in which English publications are now in the majority (fig 4). Such an increase, over just a few years, must be considered as quite remarkable.

Fig. 4 Language of publications, 2006-2013



The development towards English language publications has been identified in several studies, but changes have been less dramatic than the ones found here (cf. Ossenblock, Engels & Sivertsen 2012; Kyvik 2003). One reason for the considerable increase could be the relatively low share of English language publications at the outset of this study, as well as the restricted inclusion of fields in comparison with studies looking at both the social sciences and the humanities (SSH).

A further emphasis on English language has been seen as a ‘threat’ to Swedish as an academic language, especially among scholars in the humanities (Bolton and Kuteeva, 2012). This opinion was also voiced in our study:

The general trend during the last decades is shorter and sloppy research papers in incomprehensibly bad English. [R 50 Senior literature scholar]

While others, to the contrary, see it as important that researchers reach out to an international audience:

More researchers have to publish in key international journals. Research published in Swedish, regardless of how good it is, does not contribute to the advancement of the research field. (R 83, Novice historian)

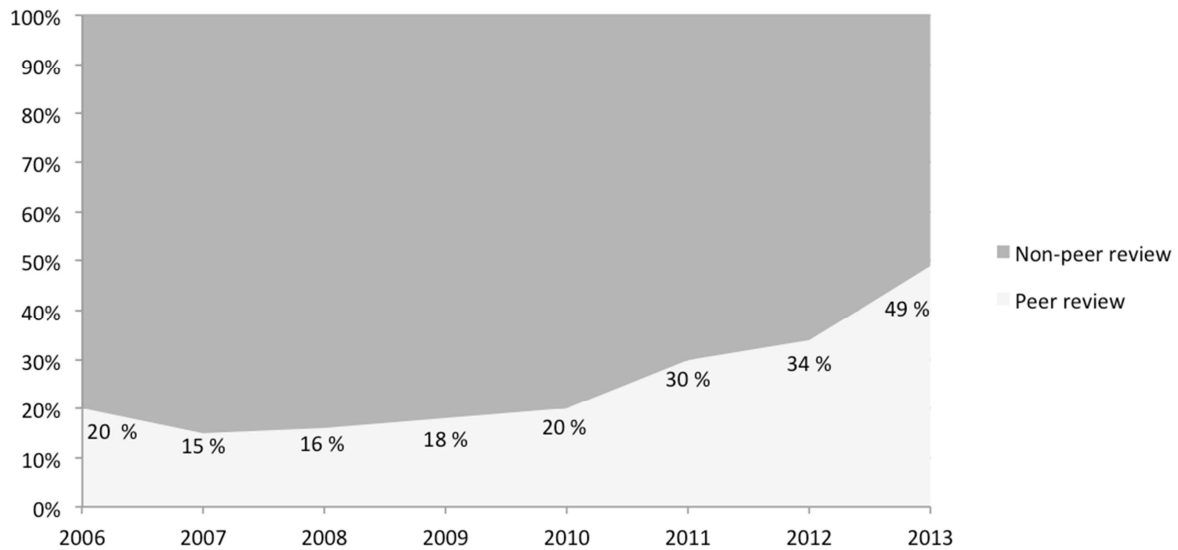
In the opinion of this researcher the problem is that too many colleagues publish in Swedish and thus are not contributing to the ‘research field’ as a whole. So changes in publication practices are welcomed by some while others regard them as a threat to the progress of research. Contrary to several comments stating the further dominance of English publications the use of other foreign languages (such as German and French) was also increasing. However, the favored language of publication differs considerably between departments, which is illustrated by the fact that all ten philosophers answering our questionnaire regard English as the leading language of communication while only three out of twelve literary scholars view English as the main choice within their discipline.

If the local and small sample used here is indicative of larger trends then we could draw the conclusion that many fields in the humanities are rapidly changing their focus from Swedish to English. This development is not unique for the faculty of Arts at Uppsala University and it can be viewed in the light of a general trend towards internationalization (Kyvik, 2013). It is reinforced by research evaluation systems that stress the importance of international publications.

4.3 Peer review

Peer review is one of the most important factors emphasized in evaluation schemes. The Norwegian system explicitly states that (tough) peer review is a part of the definition of a prestigious publication channel, while the demand for peer review is more implicit in the Swedish system as almost all journals included in *Web of Science* are peer reviewed. The figure below shows the percentage of peer reviewed publications—as reported by scholars in the faculty of Arts—in DivA (fig. 5).

Fig. 5. *Peer reviewed and non-peer reviewed publications, 2006-2013*



To give a definition of peer review is impossible: Depending on publication channel and discipline a peer review process could stretch from a highly structured double blind procedure to a quick look by an editor. It is also evident that researchers may be inclined to mark non-peer reviewed material as peer reviewed, as there is no formal definition or control. Thus, further studies would be needed to determine the actual share of peer reviewed publications. Yet, the increase from around 20 per cent or less in the years 2006-2010 to almost half the publications is indicative of a growing awareness regarding the importance of peer review. This is also expressed by researchers themselves in the questionnaire. Several respondents point to an increasing focus on peer reviewed publications as one of the main changes in publication practices. The significance of peer review is further accentuated by it being ranked second of all factors influencing the choice of publication channel (table 3).

A first, shallow, scrutiny of publication patterns reveals quite modest changes; the number of journal articles, book chapters and books remains quite stable over the period. But a more detailed analysis of specific aspects such as language and peer review gives another picture. Here quite rapid changes can be detected; and these developments are in line with the demands of research evaluation systems both on a local and a national level. Overall, the changes discerned in the findings above indicate a further focus on an international audience of researchers. In this regard—a further focus on English language journals—it appears as the humanities are indeed mimicking scholarly practices in the natural sciences. Some scholars also discuss such a development in relation to applications for academic positions:

A tendency to adopt the same practices for hiring as in the natural sciences where applicants are judged not on the quality of publications as judged by reviewers, but on the international scholarly status of the journals and the publishers where the applicant has published. (Senior scholar in Philosophy, R53)

Yet, the findings are far from uniform across disciplines, which strengthen the conclusion that differences in the organization of research fields are an important factor to consider. It is also

hard to separate different influences—open access, demands from research councils, bibliometric evaluation—and measure their relative effect on publication practices.

4.4 Factors influencing the choice of publication channel

In our survey we asked scholars about the factors that influence their choice of publication channel. That the publication channel was highly regarded within the discipline, that it had peer review procedures as well as the quality of peer review was ranked as the most important factors (table 3).

Table 3. Factors influencing the choice of publication channel. Factors ordered in relation to attributed importance (descending)

| |
|--|
| 1. Highly regarded within the discipline |
| 2. Peer reviewed |
| 3. Quality of peer review |
| 4. International reach/visibility |
| 5. Suggestions from co-authors/colleagues |
| 6. Demands from funding agency |
| 7. Counts in evaluation schemes |
| 8. Speed of publication |
| 9. Open Access |
| 10. Indexed in international databases (WoS, Scopus) |

Thus, disciplinary norms and practices were judged as most important when choosing publication channels. Outside pressures such as demands from funding agencies and evaluation schemes play less of a role, and being indexed in citation indices is not regarded as a key issue for scholars in the humanities. Thus, external factors such as those related to bibliometrics were of less importance for researchers when deciding on a possible publication venue.

Open access was not deemed as an important factor when choosing publication channels, and many scholars were highly critical towards funding agencies demanding open access (OA):

*The large, in my opinion, completely insane decision came recently when RJ and VR decided that research funded by them must be published OA. This decision affects young scientists, who are dependent on external funding, while under the pressure to qualify themselves.*¹² [Junior Scholar, Hugo Valentin Center, R82]

This scholar highlights the conflict between demands for publishing in open access, while evaluation schemes, such as the Norwegian model used in Uppsala, favours top international journals that seldom are open access.

¹² VR: *Vetenskapsrådet* (The Swedish Research Council) and RJ: *Riksbankens Jubileumsfond* (The Swedish foundation for Humanities and Social Sciences)

4.5 Bibliometrics and publication strategy

Respondents were not explicitly asked about their opinions regarding bibliometrics. Nonetheless, issues concerning evaluation and the surfacing of explicit ‘publication strategies’ were mentioned by several scholars. It was obvious from the questionnaire that most researchers knew about bibliometrics as a method to assist in research assessment, and the growing importance of these measures was also expressed:

Researchers have become increasingly aware of bibliometric measures, and they select publishing channels based on that knowledge.

[Experienced scholar in History of Ideas, R72]

Several respondents also mentioned that researchers increasingly aim for international and highly ranked journals. This development is reinforced by the research councils who exclusively focus on publication in prestige journals.

Not surprisingly critical remarks about bibliometrics were uttered by several of the researchers, as in this example below:

I know quite a lot about bibliometric evaluation but I ignore it. It is a crazy system developed for other disciplines than my own. [Young Historian R75]

Many researchers also voice a concern regarding the increased awareness of ‘publication strategies’:

More and more scholars adapt to new publication strategies to have any chance in the tough competition for permanent positions within the field [Novice literary scholar, R89]

Young researchers appear to be more inclined to adapt to the pressures of financiers and models for allocation of resources. This is understandable but regrettable.

[Established historian, R20]

These responses point to young researchers being especially vulnerable to outside pressures as they compete for positions and resources. Though many respondents in our study listed epistemic and disciplinary factors as most important to their choice of publication channel, we also have signs of an apparent ‘generation gap’: The younger scholars seemed slightly more inclined to follow externally driven publishing strategies (ie focus on international peer reviewed journals).

5. Discussion

The study of publication patterns over time reveals two main changes; a further emphasis on English language publications and a large increase in the proportion of peer-reviewed publications. The increase of international publications can be explained by a general trend also visible at other institutions and countries, although the change is more rapid in our findings. Changes in the proportion of peer-reviewed publications have not gained the same attention as issues pertaining to language, which makes it hard to find comparable data. We cannot make the causal claim that the implementation of evaluation models at the national and local level is solely or even mainly responsible for these changes, It is however hard to ignore

that these developments are perfectly in line with the incentives in both the local allocation model at Uppsala University and in the national model: To publish for an ‘international and scholarly audience’. It is still too early to talk about a ‘metric culture’ in the humanities, and our case study is too small for such a big claim. Nonetheless many scholars in the faculty of arts feel pressured (by the university and research councils) to publish more in international journals. Bibliometric measurements play a role in this development as both the national model and the local model seem to be able to influence publication practices, but the extent of their influence is difficult to estimate.

Opposition against the use of bibliometric evaluation and other ‘non-epistemic’ pressures on publication practices is evident in our study, and external pressures, such as if publications are counted in evaluation models, indexed in WoS or available as open access demands, is still ranked low when researchers assess the importance of factors when choosing publication channels. Not surprisingly direct critique of bibliometric evaluation is also articulated in our study and it is pointed out that bibliometrics does not fit with the purpose and rationale of research in the humanities. A clash between disciplinary traditions and incentives in evaluation models is evoked, and this is especially the case when the most prestigious publication channel, the monograph, is discussed. Thus, although researchers are aware of external pressures these might, especially in fields with strong traditions when it comes to publishing, have little effect on actual practice.

Hence, we must be careful not to overstate the consequences of implementing research evaluation systems. In fact previous studies show that evaluation often has negligible or no effect on actual decisions and practice (Dahler-Larsen, 2012a, p. 20). A finding that is somewhat surprising given the current preoccupation with assessment across all types of activities. That the actual amount of resources re-allocated in research evaluation has little influence on how it is received is also in line with these results (Hicks, 2012). The impact of evaluation systems should thus not only be viewed in the light of resource allocation, or in the actual practice of evaluation but as a cultural, social and even ‘ritual affair’ (Dahler-Larsen, 2012a, p. 21). Hence, research evaluation systems and their consequences can only fully be understood against the social and cultural context in which they take place.

The ambition of this study has not been to describe all possible contextual factors that might influence the development, application and consequences of a performance based evaluation system at the faculty of Arts at Uppsala University. We did however distinguish one factor, the social and intellectual organization of research fields, as particularly interesting for understanding how research practices in the humanities might be influenced by the further use of bibliometric measures in assessing research. It has been suggested that the implementation of systematic evaluation may have greater effects in the humanities compared to other fields, resulting in further co-ordination of research, increased competition and a mimicking of research practices (including research practices) of more prestigious fields (Whitley, 2007). A development towards publishing in English-language journals is evident in the study, and several respondents comment on harsh competition within their discipline. Hence, these hypotheses are to some extent confirmed. However, a change towards international publishing in the social sciences and humanities has been going on for some time, and tough competition in academia is due to many other factors than bibliometric measures. Nonetheless, bibliometric evaluation might accelerate and highlight these developments, and differences between research fields are an important factor for understanding how researchers respond to evaluation systems.

An issue related to bibliometric evaluation of research both on the institutional as well as on the individual level is a further focus on ‘publication strategies’. Many scholars in our sample discuss publication strategies as novel phenomena and several are concerned that such strategies could have negative effects on the development of research. However, our study shows that a majority of respondents are very aware of the most prestigious publication channels in their field and many answers indicate that researchers possess in-depth knowledge about publication channels and their value. Thus, it would be naïve to think that ‘publication strategies’ did not exist before the implementation of various bibliometric measures and evaluations, although this might have led to a surfacing of such strategies. Rather, the critique against ‘publication strategies’ could be seen as a conflict between older mostly disciplinary and national traditions of publishing, and new more internationally oriented practices. This interpretation is supported by an apparent generation gap when it comes to publication strategies; the most critical voices towards the adoption of publication strategies is coming from a older generation, while a younger generation is more positive, at least towards publishing in international journals. Thus, academic age seems to be an important factor, but it is also important to note that there are major differences between disciplines.

Obviously we should be cautious to assume generalizability of these findings, as the study only covers a selection of departments in one specific university over a short period of time. It would be of value to conduct similar studies involving other universities and countries. The small scope of this study does not allow for detailed comparisons between disciplines, and a larger sample could for instance provide further knowledge about disciplinary varieties within the humanities. A larger sample would also admit systematic analyzes of other factors, such as academic age and gender, which may influence the constitutive effects of research evaluation systems.

The issue of how the humanities should be evaluated is beyond our study (but see Oschner, Hug & Daniel 2012; Hug, Oschner & Daniel 2013). Nonetheless we find it appropriate to discuss some of the implications of our analysis and the results of previous studies for the development of sensible evaluation schemes. Our findings suggest that the actual reallocation of resources may not be the decisive factor for the effects such systems might have. It is therefore equally important to look at the incentives—or in the words of Porter; ‘the ethics’—that an evaluation scheme induces. Thus, although the current Swedish model compensates for the low coverage of publications in Web of Science (the ‘tip of the iceberg’) the incentive remains the same: publish more in international journals published in WoS. Hence, the ethics of an evaluation scheme might very well be more important than the actual re-allocation of resources or the particular methods and indicators used.

Acknowledgments

We would like to thank master students Daniel Albertsson and Erik Åkesson Kågedal for much appreciated assistance in constructing the online questionnaire

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