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Are Humanities Scholars More Productive?

Introduction

Productivity in its economic sense refers to the output from a production process per unit of input, or put differently, the amount of output produced relative to the resources (time, money) that go into production. In many professions, the level of output is used both as a performance measure of actual work completed, and is linked to pay or promotions for those who are producing.

Academic work has long been understood along much broader lines than this. It finds its "expression in production and achievement… Scholarship is of worth chiefly when it is productive, when the scholar not merely receives or acquires, but gives… In its most perfect expression, scholarship must utter itself with literary charm and distinction" (Roosevelt 1913). In that context, 'production' meant published books – the quote is from an era long before the current explosion in the number of professional journals – and the clear sense is of scholars enlightening society through what they give back, best when at high levels of literary quality.

As research, particularly in the natural sciences and under the impact of WWII and the Cold War, came to take on greater importance, and material and professional rewards for engaging in it increased, the focus of academic work narrowed and shifted. Teaching and service came to count for less, and with increasing professionalization, academic endeavors became increasingly inward-looking. Eugene Rice (1996: 8) argued that by the mid-1970s, seven fixed assumptions guided academics and academic life:

1. Research is the central professional endeavor and focus of academic life.
2. Quality in the profession is maintained by peer review and professional autonomy.
3. Knowledge is pursued for its own sake.
4. The pursuit of knowledge is best organized by discipline (i.e., by discipline-based departments).
5. Reputations are established in national and international professional associations.
6. Professional rewards and mobility accrue to those who persistently accentuate their specializations.
7. The distinctive task of the academic professional is the pursuit of cognitive truth.

Even at that time, universities were not viewed as enterprises with clearly defined production processes and units of input and output, nor was academic 'performance' quantified. Indeed,

academics themselves typically resisted (and continue to resist) thinking of 'productivity,' especially their own, in purely economic or industrial terms (Tierney 1999).

However, 'numbers of degrees granted' (output) or 'third-party funding' (input) or 'total publications per professor' (output per unit of input) are beginning to serve as proxies for economic 'productivity' measures. The *Leistungsvereinbarungen* German universities use are explicit performance-based agreements, with the same kind of informational purposes and feedback mechanisms as performance agreements in industry.

A Few Propositions – and the Scope of this Paper

Historically, basic information has been lacking about levels of academic output, especially in forms that permit cross-sectional or longitudinal comparison. What is presented below discusses some efforts to correct this lack.

The consequence of the lack of such information has to be raise suspicions not just among public authorities in various countries who allocate money to higher education but also among other social actors that academic productivity is not, in fact, all that high. The codicil is that one should be getting more (visible) 'value' or return on the investments made in universities and research.

Academics themselves have answered that good products – in any endeavor – take time to craft. 'Value' or 'worth' can be understood in non-monetary and non-utilitarian terms as well. Still another argument has been that the payoff, materially or immaterially, of the investment in research may well not be immediate, and that this is as true of research carried out by private firms as it is of research at public universities. Perhaps that 'return on investment' should be understood more broadly, with the benefit more abstract – a better understanding of human existence, a more educated and sophisticated group of citizens, say.

The discussion that follows is organized around a set of propositions, with an effort to present the evidence for or against, with particular attention devoted to information about the humanities. Many factors are at play, including discipline-specific patterns of 'products,' differing definitions in the various studies cited of what counts as a 'product,' the age or position of the 'producer,' and the vexed question of the quantity versus the quality of outputs. The final discussion incudes two efforts, one European, the other from the U.S., to state both what humanities research has done or tries to do, and why it is so necessary. Such answers as can be found are suggestive rather than definitive. The propositions are:

Proposition 1*: Most scholars publish little and publish infrequently*

Proposition 2*: The nature of the broader endeavor explains productivity differences*

Proposition 3*: Productivity differences can be explained best at the disciplinary level*

Proposition 4*: Age and rank explain productivity differences*

Proposition 5*: Nowadays, it's all about appearances, not quality*

Discussion of, and Evidence for, the Propositions

Proposition 1*: Most scholars publish little and publish infrequently*

A National Study of Postsecondary Faculty (NSOPF) has been carried out several times in the U.S. One part asks faculty to report their productivity, in a number of discrete categories, over the two years before the survey was held (see Table 3). There is survey data for 1985-87, 1990-1992, and 2003-2004, and one conclusion drawn from an analysis of the first two surveys was that:

> the American faculty member, on average, writes about two articles over a 24-month period, as well as a book review, perhaps a book chapter, and a monograph; he or she might make four presentations at professional meetings (Middaugh 2001: 22).

In these surveys, faculty members reported spending about 50% of their 50-hour work weeks in activities related to teaching and only 20% on research-related activities. Publication 'productivity' (in the economic sense) might be higher were faculty devoting more time to conducting research. Productivity numbers then are partly a function of how much time faculty need to devote to other pursuits, and reflect the fact that many faculty members are hired primarily as teachers rather than as researchers. A further factor that hold numbers low is the amount of time needed to produce various kinds of 'outputs' and to have them appear in print. A book takes far longer to write than a book review, and the peer review process (and the increasing difficulty in getting published in 'top' journals) militates against high productivity. Of course, there is some fuzziness here about what 'little' or 'much' productivity really means, or when one moves from one category to the other, as well as the sense that productivity differences are related to differences in the type of underlying endeavor, as the difference between what the natural sciences and the humanities produce.

Proposition 2*: The nature of the general endeavor explains productivity differences*

If the 'standard' length of a research article devoted to reporting the latest research lab results in medicine is 7-8 pages (Seglen 1996; he examined 143 articles in biomedicine), while a comparable article in the humanities analyzing a newly discovered literary work previously buried in an archive is 15-25 pages, one could argue that different types of endeavor explain productivity differences. Humanities would produce less in the same amount of time, and medicine more. Yet does this contrast what is not really comparable?

Two Norwegian studies tried to address this comparability argument. Kyvik (1989), surveying all tenured academics at Norway's four universities, looked at scientific publications produced from 1979 to 1981. These were defined as articles both refereed and non-refereed, books and reports. Encyclopedia articles, book reviews, and scientific reports, unless part of a series, were excluded. In terms of raw counts, he found the number of publications in medicine (8.2 over these 3 years) vastly exceeded that in the humanities (3.5). However, to "facilitate relevant comparisons across fields of learning" and the fact that humanities and social sciences produce more books (often single-authored) while natural and medical sciences produce more articles (often multiple-authored), he constructed an index of 'article equivalents' to compensate for these differences.

He weighted all publications: an article in a journal or a book received 1 point; all books received at least 2 points (edited books or translations up to 3, textbooks up to 4, and research books up to 6 points); scientific reports were given 1-6 points, while collaborations received points by number of co-authors, so if three, each received one-third (Kyvik 1989: 206). When calculated in terms of these "article equivalents," the differences between broad areas of endeavor vanished. Medicine (5.2 publications) was no longer all that different from the humanities (4.7). Kyvik concluded "there are no essential differences in publication inequality" (1989: 210) across these broad areas.

Aksnes et al. (2010), using data from a national documentation system Norway has introduced (it covers all scholarly publications by nearly 12,000 researchers), examined the has looked at the data from the four major Norwegian universities for 2005 to 2008. Three publication indicators for the humanities, social sciences, natural sciences, medicine and engineering were calculated. One was the average number of publications per person, another the average number of fractionalized (each publication, divided by its number of authors) publications per person, and the third the average number of article equivalents (fractionalized

counts combined with a weighting that counts a monograph as equal to 5 articles in journals or books).

A comparison between the Kyvik and Aksnes figures (Table 1) shows humanities in the later period publishing at rates considerably *higher* than in other areas of academic endeavor. The discrepancy between the eras and studies could be due to the different weightings used, the publications included, genuine changes in productivity between 1980 and 2005, or to other factors. However, the comprehensive Norwegian data available after 2000 does show that in absolute terms, the humanities published more (over 3000) in 2005-06 than did the clinical sciences, social sciences or natural sciences, each of which published from 2000-3000 works. One conclusion is that by either measure, the humanities in Norway are not markedly less productive than other, comparable, academic endeavors.

Table 1

Norwegian publication rates

	Humanities	Social Sciences	Natural Sciences	Medicine	
Norway (1979-81: 3 yrs.)	1.56	1.96	1.30	1.73	Kyvik article equiv.
Norway (2005-08: 4 yrs.)	3.20	2.70	1.70	1.10	Aksnes fract. counts
Norway (2005-08: 4 yrs.)	4.00	3.20	1.70	1.10	Aksnes fract. art. equ.

Note: Kyvik (1989) categories are articles, books, and reports only. Aksnes et al. (2010) categories are journal articles, articles in edited works, and books or monographs bearing ISSN or ISBN numbers – though it is unclear whether or not these are annualized figures.

Comparison with U.S. statistics may shed some light here. Using data from the comprehensive 1992-93 NSOPF, Fairweather (2002) asked "What percentage of the faculty are productive in teaching or research?" His analysis was based on a sample of 25,780 full-time and part-time faculty in 817 U.S. institutions, ranging from the research universities that train most U.S. doctoral students down to two-year colleges. He looked only at full-time, tenure track faculty from 4-year institutions, excluding departmental chairs due to their different work patterns. While these faculty themselves often defined their productivity solely in terms of refereed publications and research grants, Fairweather used a more expansive definition that included the "number of refereed publications during the previous two years, where publication includes articles in refereed journals, published reviews of books, articles or creative works; books; textbooks; monographs; and chapters in edited volumes" (Fairweather 2002: 33).

One interesting finding was that the type of institution correlated strongly with research productivity. Faculty at research universities produced six publications over these two years while those at teaching-oriented liberal arts colleges produced two. Fairweather thereupon formulated definitions of what he labelled a "highly productive scholar" as opposed to a "highly productive teacher". He found a clear trade-off. Either one could be a highly productive scholar or a highly productive teacher, but it was the rare faculty member – only about 1 in 5 – who was both at once.

Looking just at those most likely to be publishing, in the publication categories Fairweather defined, there was a considerable range by disciplinary area:

Table 2

Full-time tenure-track faculty publications, 4-year U.S. institutions

2 year period (1992-93)

Above mean	>3.67	Below mean	<3.67
Health Sciences	5.08	Humanities	3.49
Natural Sciences	4.89	Business	2.80
Agriculture	4.74	Other	2.79
Engineering	4.63	Education	2.75
Social Sciences	4.09	Fine Arts	1.49

Source: Fairweather (2002), Table 2 - Productivity Measures by Program Area.

Neither humanities nor social sciences were outliers, likely reflecting the fact that these are conglomerations of disciplines, some of which are more likely to have refereed publications than are others. One reason for the differences comes from the differing patterns of *what* is produced. Fairweather confines himself to refereed publications, and this works to the disadvantage of scholarly areas whose production is broader than this single category.

The 2003-04 NSOPF survey in fact looked at such broader categories (Table 3). Those in the fine arts organized four times as many presentations and exhibits as did those in business, for example, while those in business produced half as many peer-reviewed articles as did those in the natural sciences. Were the question focused just on total productivity, then – due to their large number of presentations and exhibits – agriculture and fine arts would have to be judged as far more 'productive' than any other. In fact, the last column of Table 3

shows just how large the effect is when presentations and exhibits are excluded from a total productivity count - presentations laone make up half or more of the total productivity in all but engineering and the natural sciences. At the same time, the humanities are clearly below average in production in every category other than published reviews.

Table 3

Average number of publications and presentations during 2 years, full-time instructional faculty and staff, by program area, all public and private Title IV degree-granting institutions, U.S., 2003-04

	Refereed or or juried	Non-refereed or non-juried	Published reviews	Books, reports, monographs	Presentations and exhibits	Total	Total less presentation
Engineering	4.4	2.5	0.7	0.9	5.9	14.4	8.5
Natural Sciences	4.1	1.0	0.7	0.4	5.0	11.2	6.2
Agriculture	3.4	3.9	0.8	0.9	8.7	17.7	9.0
Health Sciences	3.1	1.2	1.0	0.5	6.6	12.4	5.8
means	***2.6***	***1.3***	***0.9***	***0.5***	***5.9***	***11.2***	***5.3***
Social Sciences	2.3	1.1	1.1	0.7	5.1	10.3	5.2
Business	2.0	0.9	0.5	0.4	3.6	7.4	3.8
Humanities	1.7	1.0	1.6	0.5	4.2	9.0	4.8
Education	1.4	1.2	0.6	0.6	6.4	10.2	3.8
Other	1.2	1.3	0.8	0.6	4.4	8.3	3.9
Fine Arts	1.1	1.0	0.8	0.4	14.7	18.0	3.3

Source: NSOPF (2004: 33, Table 23).

Propositions 1 and 2 revisited

Proposition 1 should thus be modified. If one looks at the means, Middaugh is correct to observe that productivity *in general* is low. An average of 5.3 total publications over two years works out to a little more than one publication per semester. It is in the specific fields and types of publications that differences appear. Some scholars in some fields publish more and do so more frequently – an issue that will be returned to below.

Proposition 2 might need to be reversed. Productivity differences overall seem related to whether the energy goes into presentations or into writing articles. Ignored here is that the

effort that goes into a multi-authored, team-produced, 8-page report of a recent experiment in a chemistry lab may well be different than the energy needed to write and publish a single-authored 25-page literary studies article. The broader categories seen for the U.S. encompass fundamentally different products; unlike in Norway, no effort was made in these statistics to compensate for the discrepancies.

***Proposition 3**: Productivity differences can be explained best at the disciplinary level*

Both the humanities and the social sciences are a heterogeneous assembly of disciplines, with a broad range of publication practices which do vary by field. A proper understanding of publication rates hence needs to be done with reference to the distribution of publications by discipline (Najman and Hewitt 2003; for a dissenting view, see Baird 1991). Unfortunately, this is both difficult to establish and difficult to generalize about. One of the few quantitative efforts to try to do so was launched by a private firm, Academic Analytics (2007), in the U.S. It created a "Faculty Scholarly Productivity Index" by discipline and university in the U.S., and its figures covered 165,000 faculty in U.S. Ph.D. programs. This is a more restricted universe than that of the 2003-04 NSOPF.

Five factors, depending on discipline, were used in this index to judge faculty on a 100-point scale: books published, journal publications, journal citations (together, these three accounted for 60 points), federal grant dollars awarded (30 points), and honors and awards (10 points). Books were counted for the previous five years (so for 2007, this was from 2002-2006, using the Baker & Taylor database), journal articles for the previous three (from 2004-2006, using Scopus) and citation counts for the previous four years (2003-2006, using Scopus). Books were included in some fields (business, education, humanities, social sciences) but not others (agriculture, biology, engineering, physical and mathematical sciences), and were more heavily weighted in the humanities than in other fields, following a similar reasoning as used in the Norwegian studies noted above.

However, there are some serious caveats about this data. A worrisome comment in the description of the methodology noted that "institutions that pay for the data have an ability to re-weight the variables in any category, according to their preferences," suggesting that the interests of certain clients outweighed the objectivity of the information they provided. The online reporting also only listed the top universities in a given field, and was therefore not

representative of the 395 institutions Academic Analytics says it surveyed. The data was also not complete in all categories, the underlying databases did not provide complete coverage of all publications, and disciplines were not represented at every institution. Given that 40% of the productivity index was devoted to grants and awards, reliance on the overall number given as the "Scholarly Productivity Index" for a particular discipline at a particular institution is no more helpful than any of the many other existing efforts to rank programs and institutions.

Bearing all these caveats in mind, this source does contain two useful categories: books per faculty and journal publications per faculty. I have selected ten disciplines in the humanities, based on how complete the available information online was, and the top ten universities listed, and analyzed the data presented. The first summary and analysis is of the journal publication rates in these fields:

Table 4

Top Ph.D. Programs, Selected Humanities Fields, Journal Publications over 3 years

	% faculty w. journal publ.	journal publ. per faculty	% faculty w. citation	citations per faculty	citations per paper
	Range	Range	Range	Range	Range
American Studies	7 – 27	.07 – 1.07	22	0.07 – 12.3	0.33 – 9.7
Area Studies	9 – 46	.09 – 1.60	41	1.00 – 10.1	1.30 – 5.5
Art History	4 – 33	.04 – 2.30	25	0.06 – 18.4	0.25 – 9.9
Classics	0 – 22	.13 – 2.90	22	0.07 – 38.9	0.33 – 14.9
Comparative Literature	7 – 27	.30 – 2.30	20	0.90 – 17.1	1.90 – 19.7
Engl. Lang. & Literature	6 – 25	.06 – 2.23	21	0.06 – 33.5	1.00 – 10.8
History	15 – 37	.25 – 1.06	29	0.13 – 10.9	0.36 – 8.8
Philosophy	28 – 100	.63 – 8.40	77	1.30 – 40.3	1.00 – 5.4
Religion	3 – 23	.06 – 2.00	16	0.03 – 33.6	0.20 – 16.2
Theater	0 – 12	.08 – 0.30	20	0.15 – 3.6	0.75 – 6.0
Means	8 – 35	.17 – 2.42	29	0.37 – 21.8	0.74 – 10.7
(minus Philosophy)	6 – 28	.12 – 1.72	24	0.27 – 19.8	0.71 – 11.2

Source: Academic Analytics (2007); own summaries and calculations

First, it is noteworthy how few humanities faculty publish journal articles. Excluding philosophy, at best only about *one-quarter* of the faculty in these ten humanities disciplines had a journal publication in the 2004-2006 period – and bear in mind that these are faculty at the top-ranked institutions in the U.S. Furthermore, on a per faculty basis, the average is under two articles, for which they seem to receive a surprisingly high number of citations. Journal publication stagnated during the 1980s and 1990s in the humanities (Larivière et al. 2006), which should be seen in conjunction with the fact that the percentage of citations to

journal articles in the SSCI and AHCI (1996-2006) was also only 33% in History, 28% in other humanities and 22% in Literature at a time when the SSCI/AHCI average was 48% (Archambault and Gagné 2004: 54). To put it bluntly, top U.S. humanities scholars – other than philosophers – infrequently write articles and rarely cite the articles indexed in the SSCI or AHCI.

The situation is different when we turn to book production; it is appropriate to speak here of "book-based disciplines" in the humanities. Comparison of the second and third columns (Table 5) for most of these disciplines shows that while only 2 in 12 faculty members might have published an article, 8 of 12 will have published 1 to 2 books.

Table 5

Top Ph.D. Programs, Selected Humanities Fields, Book and Journal Publications

	Mean Number of faculty	Faculty mean w. book	Faculty mean w. art.	Books per faculty	Ratio article to book
Philosophy	21	66%	46%	2.0	.69
Religion	36	68%	13%	1.9	.19
History	58	75%	25%	1.7	.33
Comparative Literature	31	62%	17%	1.7	.27
Engl. Lang. & Literature	37	64%	16%	1.6	.25
mean of 5 fields	*37*	*67%*	*23%*		*.35*
Classics	15	61%	16%*	1.4	.26
Art History	20	52%	17%	1.3	.33
Theater	17	49%	9%	1.2	.18
Area Studies	36	47%	26%	1.0	.55
American Studies	37	41%	17%	1.0	.41
mean of 5 fields	*25*	*51%*	*17%*		*.35*

*only 6 cases; 4 had no articles reported

Source: Academic Analytics (2007), own calculations

In addition, a number of studies have hypothesized a correlation between size of department and productivity. One finds humanities disciplines falling into two broad groups when one looks at the mean size of the 10 top departments nationally in these fields. One, which includes philosophy, religion, history, and literature departments, has somewhat larger faculties (37, on average) and seems to place a somewhat greater importance on faculty having a book or two published (67% of their faculty). The other, which is comprised of classics, art history, theater, American studies and area studies, has somewhat smaller faculties (25, on average) and lower book publication rates (51% of their faculty).

Here one sees discipline-based differences. Those in theater are evidently not really expected to publish articles, but they should have at least a book. Philosophers, by contrast, are expected to both to have published one or two books *and* be engaged in writing articles. Book publication seems to be even more expected of historians than of philosophers; historians also have the largest departments, on average. Area Studies, though it began almost purely in the humanities in the U.S., has become increasingly social scientific in orientation (Bendix 2003), which could explain their somewhat higher article production rates.

These differences, even using such an imperfect tool, do suggest *productivity differences are related to discipline*, or suggest something about the expectations for being hired in these particular humanities disciplines in these particular (top-ranked) universities in the U.S. On the other hand, the data limitations do not allow for insight into what else might be considered productivity in these disciplines, nor is the information fine-tuned enough to establish whether other factors, notably age and rank, might play a role in productivity.

Proposition 4*: Age and rank explain productivity differences*

Debates about productivity, or genius and creativity, go back to the observation that though many natural science Nobel laureates receive their prizes when they are older, they typically do so for work done when they were in their 30s (Lehmann 1953). Humanities counters this by observing that a Picasso, Michelangelo, or Da Vinci remained creative well into old age (Galenson 2006; Gladwell 2008a; Over 1989). The idea that it takes a good ten years (or 10,000 hours) to become a true master of one's craft (Mozart in music, Bill Gates in computers) has also been popularized, especially by Malcolm Gladwell (2008b).

In different language, this, in an extensive demographic study of authorship, is what Price also concluded: "authors differ not so much in their *rate* of publication of papers, but in the span of *time* they spend at the publication front" (1976: 304). He distinguished between the one-third who continued to publish, and the two-thirds who were 'transients' who "emit only their initial publications" and who had only a one-in-four chance of being cited. A study of publication in psychology came to a similar conclusion. When one controls for rate and place of publication, "scholarly impact is independent of [chronological] age" (Over 1989: 225), for what mattered more was "professional age," defined as the years between Ph.D. graduation and publication.

Price's 'transients' include those in doctoral programs who are encouraged to publish, though they have not yet completed their Ph.Ds., just so they will be competitive on the job market. Many will never finish their doctorates. A survey of 30 U.S. universities conducted by the Council of Graduate Schools found that for those who entered graduate study in 1992-94, Ph.D. completion rates after 10 years ranged from 64% for engineers to 49% for humanities fields (Jaschik 2007). With an attrition rate this high among Ph.D. students, there will be many 'transients' moving through the system, some of whom will publish, even if very little. This might introduce a skew to productivity statistics, but it also underscores that in hierarchically organized academic systems, lower-ranking newcomers (Ph.D. students, lecturers, instructors) will have less output, or publish at lower rates, than those who have been around longer (such as tenured associate and full professors). Plausible though this sounds, it is difficult to find evidence to support it – though data from Norway certainly seem to support Price:

Table 6

Average publications per person by academic position (Norway, 2005-2008), humanities only

Position	Number of persons	Whole counts	Fractionalized counts	Fractionalized article equivalents
Professor	402	5.6	4.9	6.1
Assoc. Prof.	337	3.9	3.4	4.4
Post-Doc.	138	3.6	3.0	3.7
Ph.D. Students	239	1.9	1.6	1.8

Source: Aksnes et al. (2010: 16)

Still, the opposite argument, that those who are trying to join the club, especially assistant or tenure-track professors, need to publish at rates equal or above those of existing faculty members, also sounds plausible.

One of the few large-scale, quantitative studies of academic stratification, conducted in the 1970s and focused specifically on European research laboratories in the natural sciences (the data was drawn from 1,222 research units and 4,057 scientists working in six European countries), concluded that "position within a research organization" was the major explanatory variable accounting for publication productivity differences (Knorr et al. 1976; Knorr and Mittermeir 1980). Higher productivity was not a function just of higher status, but was a consequence of higher position in the internal hierarchy. The association of a senior

scientist with particular research results was far less dependent on that scientist actually conducting the research himself (goal-executing), because high rank meant being associated with larger research agendas (goal-setting), which in turn permitted him to be associated with more research tasks than before.

That association, in European contexts, has a nasty underside to it, as it can mean taking credit where it is not warranted. In one particularly striking finding, "productivity seemed to be more or less independent of how much research a scientist was actually doing." Those in supervisory positions reap the publishing rewards of the research of others, and publish at rates four times higher (7-8 articles) than the researchers in the laboratories (1-2 papers) (Knorr et al. 1976: 25-26), likely reflecting the (bad) habit of putting the name of the senior scientist on an article regardless of his actual contribution. Cases of not giving credit where credit is due have been more frequent than they should be, were the standards of authorship and attribution better upheld.

This is not directly comparable to situations in the social sciences or humanities. However, Knorr's work draws attention to the fact that structural circumstances have an influence on 'productivity' figures. One needs to take care in disentangling age effects from those of cohort and period, because "identifying an age-related productivity effect…relies crucially on what we are willing to assume about the variation in the other two dimensions" (Hall, Mairesse and Turner 2005: 19). Some studies also found a relationship between rank (or tenure) and research productivity (Blackburn, Behymer and Hall 1978), while others (Wanner, Lewis and Gregorio 1981) found academic rank strongly affected article count in the natural and social sciences – perhaps for precisely the reasons Knorr suggests? – but not in the humanities where, unsurprisingly, book count was higher.

The argument of 'cumulative advantage' posits that early opportunities received (mentoring, early publication, training at prestigious institutions, formal and informal recognition) pay out in higher publication rates later on (Zainab 1999: 88). It suggests the playing field is not even to begin with and remains uneven later on. However, there is disagreement about whether academic rank leads to high productivity or whether it is the other way around; this theory has been tested with respect to productivity and prestige in sociology departments (Keith and Babchuk 1994). Bland (2005), in a study of research productivity at a particular medical faculty found that two factors significantly predicted research productivity: rank and appointment type (tenure-track faculty were more productive

than those on other appointments). Tien and Blackburn (1996), finally, found assistant and associate professors did not differ in productivity, but were overall lower in productivity than full professors, who in turn had significantly greater variance in their productivity than did those at the lower ranks. Those at the lower ranks, especially at the assistant professor level, who had less publications stayed longer in their ranks.

Whatever the 'correct' connection is in a causal sense, productivity is related both to the amount of time actively spent working in the field – whether analyzed as total hours or years in training. or number of years spent publishing (e.g., 'professional age') – and rank, even if some 'productivity' figures related to rank reflect insalubrious practices of taking (at least some) credit for the work of others. Rank might prove less significant in the end, however, than the favorable opportunity structure of cumulative advantage. That would make productivity in part a function of the (cumulative?) opportunities one has had.

Proposition 5*: Nowadays, it's all about appearances, not quality*

Herewith, a recent anecdote from the U.S.:

> A friend who teaches at a large Midwestern school says that salary increases correlate with book and article publication to the dollar, and he hopes that his next book comes out before year-end recommendations are due. "What if your book isn't any good?" I ask with a half-smile. "Doesn't matter," he replies. "When I returned to my own institution after two and a half years of government work and wondered how much credit I would get for pieces appearing during my time away, a dean skipped the quality question and replied, 'Well, you have lots of titles, but how many pages do they amount to?'" (Bauerlein 2008).

Bauerlein goes on to note that the number of publications in the Modern Language Association's International Bibliography has increased six-fold in the last 20 years, and puts the blame for sinking quality squarely on career pressures, noting that "we cannot blame graduate students and young scholars for rushing manuscripts into submission and cutting corners on research when the hustle for jobs and tenure urges them to *produce, produce!*" This, one might say, is a revision of Rice's list. It is no longer knowledge being pursued for its own sake, but production (and publication) being pursued for career's sake…

There is certainly pressure on those competing for an ever-scarcer commodity – full-time faculty positions – to try to convince hiring committees not by their potential shown in the prestigious universities they've attended, their glowing recommendations or even their grades, but by the evidence of their publications. While this feeds in to the kind of deanly response Bauerlein notes with some dismay, the main issue lies elsewhere: the overall increase in the number of institutions and of faculty.

A very rough guide (see Table 7) shows the increase in the number of U.S. institutions of higher education and the number of faculty, and compares it to the total number of papers indexed in the SCI. The numbers are gross approximations, the categories (for example, of who is counted as 'faculty') not wholly consistent over time, and the SCI figures approximations. Nevertheless, the message is clear: the ratio of faculty to publication keeps rising each decade. Each faculty member in the sciences is increasingly expected to be producing, and that production pressure spills over onto faculty members in other areas.

Table 7

Increase in U.S. Institutions, Faculty, and SCI papers

Year	Institutions	Faculty	SCI papers	Faculty to SCI ratio
1960	2,021	380,554	100,000	0.26
1970	2,556	450,000	350,000	0.77
1980	3,231	675,000	550,000	0.81
1995	3,706	931,706	800,000	0.85
2005	4,236	1.2 million	1.2 million	1.00

Institutions: before 1980, branch campuses were excluded, and figures after 1980 include 2-year colleges, which constitute 40% each of the number given in 1980, 1995, and 2005. Faculty: for 1960 and 1970, measured as 'different individuals' rather than full-time equivalents; for 1980, as 'instructional faculty with rank of instructor or above', for 1995 and 2005 as 'faculty (instruction and research). For SCI papers, these figures are drawn from Garfield (2007a and 2007c). Sources: Historical Summary of Faculty, 1870-1988 (Table 156), Digest of Educational Statistics 1990, available at http://nces.ed.gov/pubs91/91662.pdf; Total and full-time equivalent staff in degree granting institutions, fall 1976, fall 1995 and fall 2005 (Table 234) and Number of Educational Institutions (Table 5). Digest of Education Statistics 2007, available at http://nces.ed.gov/programs/digest/d07/tables/dt07_234.asp and ...dt07_005.asp. Accessed 8 March 2009.

Another rough guide to this increase was the effort by Bieber and Blackburn (1993) to assess the publication "opportunity structure" faculty face. Using bibliographies, periodical directories, journal issues, national faculty surveys, and information on total faculty, they tried to establish whether there was more or less space in which faculty in biology, psychology and

English could publish in 1988 than in 1972. They concluded that in real terms, faculty in these fields had to produce 14.6, 5.1, and 1.2 articles, respectively, in the two years before 1988 to have been as productive as in the two years before 1972. Rising expectations of productivity hence are most heavily felt in the natural sciences, less so in the more quantitative social sciences, and – at least in the late 1980s – barely felt at all in the humanities.

Current faculty are not being expected to produce *less* than their predecessors, but how *much* more they are expected to do than in the past varies by discipline, and disciplines themselves, to judge by the Academic Analytics figures, send differing signals as to what is expected. Some are crossed signals, for if the answer to low productivity is higher productivity, hence higher quantity, then that is immediately qualified by saying one wants higher *quality*. As Bauerlein points out, and as research assessment exercises both in the UK and in New Zealand have practiced, that demand for quality would be better served by focusing on ***fewer*** – but then better – works. Seen in economic terms, if the older demand (for more output) is creating an increased supply (of published pages) regarded as too large, one alternative is a different demand (for more quality), which would lead to a reduced supply.

That means the problem isn't low productivity; the problem is assuring quality. But who will still supply it? As Bauerlein (2008) notes,

> we cannot blame senior professors who recognize that invoking old-school quality controls too diligently earns them only resentment from colleagues who regard criteria such as handling of evidence, validity of inference, and clarity of prose as constricting—or who are just plain uncomfortable with judgment. Besides, everybody is too focused on their own productivity to question that of others.

And even Garfield (2007b: 69) rather dispiritedly observes that

> Obviously, a better evaluation system would involve actually reading each article for quality, but … when it comes to evaluating faculty, most people do not have or care to take the time any more.

The Propositions: a discussion

So are humanities scholars more productive? Well, productive as compared to what? Or when? And what is being counted as being productive?

It does certainly seems that in terms of output, on average scholars aren't publishing much. Instead, they are typically deeply engaged in what they were hired to do: teach. The proliferation of institutions as well as of publication outlets provides dubious and contradictory incentives – activities which carry few rewards but are nonetheless expected, the ability to publish enhanced by low-quality jouirnals, careerist pressures encouraging taking shortcuts… The very focus on 'productivity' – as in the anecdote about the sheer number of pages and not their content – is particularly worrisome.

A judgment of 'low' productivity also actively ignores the time spent trying to find appropriate material or sources, analyze it, write up the results and then try to get them published. Neither the process of creation nor the end output can go at the speed an industrial assembly line can. Bauerlein's comments indicate what detrimental effects on quality result from trying to rush productivity in the humanities – and national evaluation systems (as in New Zealand or the UK) that have asked for the *best* work to evaluate, rather than all the work produced by a scholar, recognize this.

The evidence for the second proposition is more complicated to evaluate, not least because of the difficulty in trying to create equivalencies in what are not equivalent outputs, or to compare endeavors whose nature is different. Humanities, to judge by Norwegian studies, produce no less, if not more, than the natural sciences or medicine overall. And yet humanities, to judge by the NSOPF data from the U.S, seem to produce less than the average, if one compares categories of output by discipline. The second proposition may simply suffer from too high a level of generalization, even if one agrees, based on the NSOPF findings, that something like a "productivity or publication profile" exists, one that is different in the natural sciences than in the humanities.

A more interesting, if methodologically no less frustrating, approach is to examine individual disciplines. Despite the limitations of the Academic Analytics data and methodology, it does provide clear evidence that journal article publication even at top departments in the U.S. is a decidedly minority phenomenon across many humanities fields. The corollary? Any evaluations, whether using citations, or of productivity, or assessing

journal coverage, and so forth, that are based on article production in the humanities in the U.S. will simply not reflect reality. Conversely, there is a continued, strong emphasis on book production. One can even assert it is quite a bit more important to have published a book or two in history (1.7 books per faculty, 75% in the top departments have published books) than it is in art history (1.3 books per faculty, 52% in the top departments have published books).

Further factors that could have an impact on productivity, most notably age and rank, are ambivalent. Price was probably correct to speak of "time spent at the publication front" as significant, and to note the correlation between rank and output; the Norwegian data tend to support him. At the same time, rank has its privilege(s), one of which is to enjoy opportunities those lower down don't have. Those who have attained a given rank could have particularly benefitted from prior privileges, including easier access to publication outlets, which served them well later.

The last proposition changes the question in the title, asking whether scholars in the humanities aren't perhaps being *too* productive. There is evidence, both from Bauerlein and from the overall increase in institutions, faculty, and amount being published, that it is not just in the humanities one finds over-production. How to replace a situation of high productivity and low quality with one of low productivity and high quality is an ongoin dilemma.

Wider Considerations

Behind the question of productivity lies a simpler question: what are scholars doing? Unlike in many employment situations, what actually goes on in a university, in the interactions between those there, not to speak of inside the heads of professors and researchers, is effectively invisible to outsiders. The demand to have output measures (graduation rates, test scores, grades, numbers admitted to the next level) that reflect the input (the money spent on education, on personnel, on researchers and instructors) reflects an unease at not knowing what that input is creating (and the fear that it is being wasted). It also reflects a desire for accountability, to have some assurance that what one has established suits the purpose for which it was established, and that the money is well spent.

Looking only at productivity is a blunt tool for doing so, not least because much of what is produced is generated, as Rice suggested, for fellow professionals. Furthermore, to argue one is in pursuit of cognitive truth is not likely to convince those who are responsible

for deciding over trade-offs, either at a more general level (such as whether the state should give the universities more money or invest instead in better flood control), or at the level of inner-university allocation.

One can turn the question around and ask whether questions about productivity aren't actually a function of what the humanities produce and what they are. Below is a formulation a group of scholars in the humanities and social sciences came up with in 2007 in the context of trying to define the place of the humanities for the EU's 8th Framework Programme for Research:

> Humanities research and its methods seek to enrich society's understanding of the human condition. It does this by improving its cognitive capacity through [its] ability to articulate aspects of cultural formation and development in the broadest sense…Humanities research seeks to document, understand, enhance and enrich the quality and content of creative human thought and its expression, while seeking to analyze and document the progression and development of society through its disciplines…Humanities also have a history of being used in the past to inform societal trends, provide explanation for social phenomena and to achieve forms of societal validation.
>
> However…humanities research does not have a tradition of societal problem-orientation or of specific research links with the socio-economic sciences…Without a concerted focus on return of research results through dissemination to society as a whole, it can appear that modern society derives limited benefit from humanities research (this can certainly be said of social policy formulation in the past). It is clear, however, that the results of the whole range of humanities studies in literature, language, history, philosophy, cultural heritage, sociology and other disciplines can and do filter into the public domain (EGH 2007: 22-23).

And here is more pointed formulation, both in personal and political terms, from the 2008 President of the American Historical Association:

> When I accepted a position as dean of humanities at UCLA, I was contacted by an interviewer for the student newspaper who immediately challenged me by asking me to respond to the statement: "In the modern world, studying the humanities is a waste of time"… These sorts of queries are symptomatic of a broader, and I believe deepening, attitude on the part of the public, some university administrators, and doubtless many parents of our students, who would prefer their children to study what in the Middle Ages were called "the lucrative professions": law and medicine, to which today we should probably add business, not something particularly valued back then. The excitement of scientific discovery, especially in domains related to molecular biology, biophysics, medicine, stem cell research, and other potentially lifesaving and life-enhancing research, combined with the high costs entailed in promoting it, has increasingly led universities to focus their efforts in the natural and physical sciences, allowing disciplines like history and the humanities to carry on

> more or less in their usual fashion, without being the focus of particular concern or undue cost...
>
> My response tried to recast the importance of grasping the notion of "humanity" on a new basis. "We are heirs to a world," I stated, "that of World War II and its aftermath, when states like Nazi Germany claimed that there was such a thing as ‘a life unworthy of life,' the basis on which Germans claimed the right to terminate the lives of the mentally ill, those with birth defects, and those they simply scorned and hated, like gypsies, Jews, and communists." I added: Anyone who says "no one ever died of the humanities" has not thought much about what happens when states claim the right to define what humanity is, or who is good and who is evil, and therefore justify movements like ethnic cleansing. Given the current situation of the world, I can't think of anything more important than reaffirming the intrinsic humanity of all peoples, however different ethnically, religiously, politically, or even medically. The great and abiding task of the humanities is to cultivate appreciation for the immense variety of the ways that peoples and societies live and think (Spiegel 2008).

The “value” of what humanities scholarship produces, therefore, is ill-suited to be assessed using a yardstick applicable to medical research. Humanities research can’t save lives directly through new procedures the way medical researchers might. The hope instead, to extend Spiegel, is that the knowledge of old procedures can help keep lives from being unnecessarily lost for wholly non-medical reasons.

It is not just ethics that ties medicine to the humanities, though: it is the sense of what research and scholarship does to enhance the world. That can be done, as Ernst Boyer pleaded for many years, by thinking of scholarship in much more expanded terms and recognizing and rewarding its four dimensions: the scholarship of discovery, the scholarship of integration, the scholarship of application, and the scholarship of teaching (Glassick, Huber and Maeroff 1997: 9). This perspective would go a long way toward transcending disciplinary differences by emphasizing categories all scholars engage in, and more importantly, recognize that research and publication is only one of a variety of tasks scholars engage in and should be rewarded for. There are many others (teaching, administrating, counseling and advising, mentoring, outreach, work for the profession, public speaking and engagement, and so on) that deserve acknowledgement.

The humanities have traditionally helped us understand ourselves. That is not a luxury we can dispense with.

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