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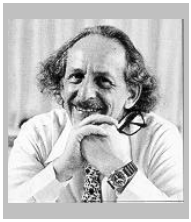

Current Comments

Data from *Arts & Humanities Citation Index* Reveal the Interrelationships of Science and Humanities

Number 46 November 15, 1982

Several months ago we published the 1981 *Arts & Humanities Citation Index*™ (*A&HCI*™). While most readers of *Current Contents*® (*CC*®) are working in the natural sciences, the following brief report reprinted from the preface to that *A&HCI* cumulation will be of considerable interest.[1] In a subsequent study I hope to demonstrate even more persuasively the close relationship between the science literature and the humanities literature. For example, while approximately 25,000 original research or scholarly articles published in *A&HCI* journals were covered, about 4,500 articles were also selected from the journals covered in *Science Citation Index*® (*SCI*®) and *Social Sciences Citation Index*® (*SSCI*®).

Such excursions into the realm of the two-culture gap have always elicited much comment from *CC* readers. That we continue to cover the history of science both in *CC/Life Sciences* and *CC/Arts & Humanities* indicates partially the degree of our concern. There is a lot more interest in the histories of our respective fields than we realize. Consider, for example, that Thomas S. Kuhn's *The Structure of Scientific Revolutions*[2] has now been explicitly cited in over 4,000 publications, mostly scientific. Another example of this kind of quiet or latent interest in the philosophy and sociology of science is reflected in the citation of works by Robert K. Merton.[3]

All of these analyses are part of a prelude to the launching of an online file of *A&HCI* in the next few months. Since scientists rarely consult *A&HCI* or have it easily accessible, you might remember this when thinking about problems that might be illuminated with some perspective from literary or other scholarship.

REFERENCES

1. **Garfield E.** Some comments on the 50 periodicals most cited by *A&HCI* journals in 1980. *Arts & Humanities Citation Index 1981.* Philadelphia: Institute for Scientific Information, 1982. Vol. 5. p. 9-11.
2. **Kuhn T S.** *The structure of scientific revolutions.* Chicago: University of Chicago Press, 1970. 210 p.
3. **Garfield E.** Citation measures of the influence of Robert K. Merton. *Trans. NY Acad. Sci. Ser. II* 39:61-74, 1980.

Some Comments on the 50 Periodicals Most Cited by *A&HCI* Journals in 1980*

by Eugene Garfield, PhD, Chairman and President, Institute for Scientific Information®

At ISI®, we have long used citation analysis[1] to identify the key journals in the sciences and the social sciences for coverage in our data base. When we expanded our coverage four years ago to include the arts and humanities, we applied the same principles to identify the key journals in this area also. Briefly, citation indexing assumes that researchers, practitioners, and academicians in any specialty will themselves identify key journals through the citations they provide in each scholarly article they publish. Experience has shown that journals which consistently publish highly cited articles are widely read, and regarded as important to workers in any given specialty. Citation analysis has proved to be an accurate method for objectively identifying key journals. For example, Michael D. Gordon of the University of Leicester, UK, recently reported on its use in evaluating journals in the social sciences.[2]

Users of *Science Citation Index*® (*SCI*®) and *Social Sciences Citation Index*® (*SSCI*®) can examine the citation record of each covered journal in the *Journal Citation Reports*® (*JCR*™) volumes of those indexes. Although we do, of course, compile such data for the arts and humanities, we have not yet published a *JCR* for *A&HCI*™. This may change in future editions. Such a volume would prove useful because, in addition to identifying key journals, journal citation data also allow one to observe how separate fields are related to one another. From time to time, we select a particular discipline and examine which publications are cited by journals in that field, and which publications cite them. Most recently, we have published studies of dentistry[3] and veterinary journals.[4] Here, we take a brief look at our citation data for *A&HCI* journals. This report is not meant to be an exhaustive study. Rather, it is more of a sneak preview, a precursor of more comprehensive studies to come.

Table 1 presents the 50 periodicals that were most cited in 1980 by all of the 1,200 journals covered in *A&HCI*. Of these, 41 are themselves *A&HCI* journals, representing a wide variety of specialties. Philosophy is most heavily represented, with eight journals on the list. There are seven history journals, and five literature journals. Of the 17 disciplines covered in *A&HCI*, only four, all in the performing arts, do not have journals listed in Table 1: music, film-radio-television, theater, and dance. The most-cited journal in each of these fields respectively is *Musical Quarterly*, with 99 citations; *Sight and Sound*, with 70; *Modern Drama*, with 42; and *Dancemagazine*, with ten.

Of the nine periodicals in Table 1 that are not covered in *A&HCI*, two are newspapers. The *New York Times* is by far the most-cited periodical on the list, receiving more than 1,000 citations in 1980. However, nearly 800 of those citations were to issues published before 1971. As it turns out, the journals that most frequently cited the *New York Times*, as well as the *Times* of London, were history journals. The American journal *Historian* cited the *New York Times* exactly 100 times, more than any *A&HCI* journal. The British *Historical Journal* cited the *Times* of London 44 times—the most for any of the many journals that cited it.

Three journals from the natural sciences appear in Table 1: *Science*, *Nature*, and *Scientific American*. *American Antiquity*, an archaeology journal, cited *Science* 50 times, more than any other *A&HCI* journal. *Journal of American Culture*, a general arts and humanities journal, gave the most citations, 21, to *Scientific American*. The ubiquitous *Nature*, which like *Science* is among the most-cited journals for many disciplines, was in this case most cited by *Isis*. However, of the 29 citations *Isis* gave to *Nature* in 1980, 24 were contained as references within a single article, a study of the history of science in Great Britain.[5]

Two other journals in Table 1 are covered in the *SSCI* data base: *American Anthropologist* and *American Sociological Review*. The former was cited 34 times in 1980 by *Comparative Studies in Society and History*, and 25 times by *American Antiquity*. Other journals citing *American Anthropologist* were, not surprisingly, drawn from a wide variety of disciplines, including folklore, language and linguistics, art, and others. *Review of Religious Research* and *Social Studies of Science* cited *American Sociological Review* 29 and 24 times respectively. The *Journal for the Scientific Study of Religion* gave 17 cita-

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tions, but in general, *American Sociological Review* attracted citations from a broad spectrum of *A&HCI* disciplines.

Table 1 includes two Soviet journals: *Voprosy Istorii* and *Voprosy Filosofii*. But an examination of our data indicates that both journals have a high rate of self-citation for their respective fields. For example, of the 267 citations received by *Voprosy Istorii*, 167 were citations from articles published in that very journal. I have noted that, depending on the discipline involved, a high rate of self-citation is not necessarily a bad thing.[1] Still, *Voprosy Istorii*'s self-cited rate of nearly 62 percent is very high for a history journal. For example, the most-cited history journal, *William and Mary Quarterly*, had a self-cited rate of about 22 percent. The *American Historical Review* had a self-cited rate of less than seven percent.

Similarly, 161 of *Voprosy Filosofii*'s 205 citations, or about 78 percent, were self-citations. By contrast, the *Journal of Philosophy* gave only eight percent of its citations to itself. The *Philosophical Review* had a self-cited rate of less than seven percent. We should not push this point, however, because our coverage of East European journals is less extensive than that of Western journals, which tends to deflate their citation counts.

Over the years, we have used citation analysis to study various aspects of the scientific enterprise, publishing numerous lists of most-cited articles, authors, and journals. We have also applied citation theory to "mapping" the ever-changing discipline structure of science.[6,7] Since the creation of our arts and humanities data base, we have listed the most-cited authors in the arts and humanities,[8] and explored the subject of whether citation data can forecast winners of the Nobel prize in literature.[9] In the future, we will undertake a more comprehensive examination of arts and humanities journals.

Table 1: The 50 periodicals most cited by *A&HCI* ™ journals in 1980.

Title	Number of Times Cited
New York Times	1,032
Language	531
PMLA—Publications of the Modern Language Association	503
Journal of Philosophy	448
Science	362
Linguistic Inquiry	344
Philosophical Review	325
William and Mary Quarterly	324
American Historical Review	301
Burlington Magazine	285
Economic History Review	269
Voprosy Istorii	267
Art Bulletin	258
Past & Present	253
Leonardo	252
American Antiquity	235
Journal of American Folklore	226
Speculum—A Journal of Medieval Studies	223
American Journal of Archaeology	213
American Anthropologist	210
Voprosy Filosofii	205
Journal of Economic History	200
American Literature	197
Times (London)	197
Mind	194
Nature	194
Journal of Biblical Literature	187
New Literary History	185
Poetique	182
Hermes—Zeitschrift fur Klassische Philologie	174
Classical Quarterly	171
Esprit	171
Journal of the History of Ideas	171
Modern Fiction Studies	171
Critical Inquiry	169
Hesperia	169
Journal of Hellenic Studies	165
American Sociological Review	162
Scientific American	160
American Philosophical Quarterly	159
Journal for the Scientific Study of Religion	157
Journal of the Warburg and Courtauld Institutes	157
Atlantic Monthly	156
Deutsche Zeitschrift fur Philosophie	155
Historical Journal	154
Philosophy of Science	153
Encounter	147
American Quarterly	145
ELH—English Literary History	145
Historia	145

REFERENCES

1. **Garfield E.** *Citation indexing—its theory and application in science, technology, and humanities.* New York: John Wiley & Sons, 1979. 274 p.
2. **Gordon M D.** Citation ranking versus subjective evaluation in the determination of journal hierarchies in the social sciences. *J. Amer. Soc. Inform. Sci.* 33(1):55-7, 1982.
3. **Garfield E.** Journal citation studies. 34. The literature of dental science *vs.* the literature used by dental researchers. *Current Contents* (3):5-11, 18 January 1982.
4. ----------. Journal citation studies. 35. Veterinary journals: what they cite and vice versa. *Current Contents* (13):5-13, 29 March 1982.
5. **Turner F M.** Public science in Britain, 1880-1919. *Isis* 71:589-608, 1980.
6. **Garfield E.** ABCs of cluster mapping. Part 1. Most active fields in the life sciences in 1978. *Current Contents* (40):5-12, 6 October 1980.*
7. ----------. ABCs of cluster mapping. Part 2. Most active fields in the physical sciences in 1978. *Current Contents* (41):5-12, 13 October 1980.*
8. ----------. Most-cited authors in the arts and humanities, 1977-1978. *Current Contents* (32):5-10, 6 August 1979.*
9. ----------. The 100 most-cited authors of 20th century literature. Can citation data forecast the Nobel prize in literature? *Current Contents* (4):5-11, 28 January 1980.*

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