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**Influence and reputation in the social sciences - how much do researchers agree?**

by
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The existence of hierarchies based on reputation in modern science is indisputable. A set of common scientific journals is often assumed to be instrumental in the formation of these hierarchies. However, the character of the hierarchies, how monolithic/ pluralistic they are, and the functions of this differentiation have been discussed and caused controversy. The article brings together results from a survey of 788 Danish researchers, mainly from the social sciences, concerning their assessments of the most influential researchers and most important journals. The rankings indicate a rather pluralistic picture and only a moderate degree of consensus among researchers. Comparisons with (the few) other surveys and with citation data do not suggest this to be a peculiarity of Danish social scientists, however.

# Influence and reputation in the social sciences - how much do researchers agree?

## Introduction

The existence of hierarchies based on reputation in modern science is indisputable. However, the character of these hierarchies, the degree to which they are monolithic or pluralistic, and the functions of the prestige differentiation have been the topic of discussions and controversy. According to the functionalist tradition of Robert K. Merton [1], and in accord with a rationalist, cumulative understanding of science, prestige is allocated to scientists according to the scientific value of their contributions (i.e., what is valued as progression of science by the production of solutions to scientific problems). Merton's theories about the reward system and social norms of modern science became influential in the sociology of science starting in the 1960s [2; 3, p. 8-50; 4]. Moreover, prestige stratification in science has been a central focus in this tradition, because of its supposed functional importance for scientific growth. One proposed function of prestige stratification is its importance for motivating scientists (i.e., it functions as a reward system). Irrespective of the intrinsic pleasure of doing scientific work, recognition from competent peers is important for most researchers as the visible demonstration of the value and quality of their contributions to the advancement of science. Further, visible prestige stratification is functional because it shapes a hierarchy of influence. This hierarchy helps to organise activities in the research community by setting agenda, and by facilitating certification, selection, storage, and retrieval of the most important results and assessments.

The scientific communication system plays an important role in the allocation of prestige. Scientific communication not only disseminates new results, but also provides an arena for organised criticism and the collective assessment of the scientific value of results, thereby creating a visible prestige hierarchy. In particular, scientific journals have been prominent because of their certifying functions via the peer review process, thus securing scientific quality (concerning historical origin and the role of scientific journals in modern science, see [5]).

The Mertonian approach has been criticised, mainly because of its alleged underlying rationalist and positivist epistemology, and its negligence of irrational, non-epistemic elements in the establishment and assessment of new claims of knowledge [6, p. 51-64; 7]. However, newer more relativistic approaches (e.g., constructivism, B. Latour, S. Woolgar, K. Knorr-Cetina [8]; rhetorical and conversational approaches [9]) also presuppose the existence of an elite, and that hierarchies of reputation and influence (or cycles of credit, as named by Latour and Woolgar [10, chapter 5]) are essential characteristics of science as a social institution, although they are open to more pluralistic pictures of science. Richard Whitley [11] presents a somewhat different picture of the social sciences in his typology of work organisation in scientific fields, based on "reputational hierarchies". In his typology, most social sciences are characterised as "fragmented ad hocracies" or "polycentric oligarchies" with pluralities of prestige hierarchies. Economics, which he calls a "partitioned bureaucracy", is an exception among the social sciences. According to him, economics is characterised by a common, high prestige theoretical core, surrounded by more fragmented empirical or applied subfields.

Additionally, the newer approaches in the economics of science draw heavily on the Mertonian idea of prestige stratification in science as a motivating and coordinating mechanism, as can be seen from Paula E. Stephan's review article on "the economic of science" [12, p. 1201-1206]. In a recent article in *Science,* Georg Franck [13] presents a view of science as a system of competition for recognition, analogous to an economic market, very akin to Merton (without any reference to Merton, however). Thus, the competition for prestige and recognition, and the establishment of reputational hierarchies are still considered important variables in studies of science.

The aim of this article is to report the results of an empirical survey of Danish researchers. The survey focused on the social sciences, and thus the majority of respondents were social science researchers. However, researchers from the natural sciences, computer science and medicine were included for comparative purposes. The general topic of the survey was "researcher perceptions of quality in research". The questionnaire included, besides background information, a range of questions related to research quality, researcher activities and research conditions. Among these were questions about the most influential researchers in the world and the most important journals. In addition, questions about the importance of journals compared to other types of literature were included. The results of this survey are not sufficient to resolve the theoretical disputes mentioned, but they can provide further empirical evidence concerning the degree to which

there is consensus in the social science disciplines regarding the most influential authors and the most important journals.

Very few recent studies have been conducted on prestige stratification, communication system and consensus formation in scientific fields that use survey methodology and that are suitable for comparison [14; 15; 16]. Much more common are studies that use citation data, which are based on the (much-disputed) assumption that citation numbers express the quality of the authors' contributions. I will draw on some of these studies in the following, and compare my own survey results to data from the *Social Science Citation Index*.

**The data**

A stratified sample of 876 researchers was drawn from Danish university departments and government research institutes and consisted of three sub-samples: 680 participants from social science (as the main focus was on the social sciences); 99 participants from computer science; and 97 participants from natural science/ medicine. Interviews were conducted between December 1995 and April 1996 by professional interviewers from *The Danish National Institute of Social Research*. The response rate was very high, 90%, resulting in an interview population of 788 researchers (618 from the social sciences, 83 from computer science, and 87 from natural science/ medicine). The following results, with a few exceptions, include only responses from the social sciences, i.e. economics, business administration, law, sociology, political science, anthropology and interdisciplinary social research (but not psychology). The sample of 618 respondents from the social sciences amounts to one third of all social science researchers in Denmark.

**Most influential researchers, all fields**

To measure the researchers' beliefs about the most influential researchers in their disciplines, the following question was asked:

> In your opinion, who are the *three* researchers in the whole world who have had the greatest influence during this century in the research discipline you know best?

Thus, reference was made to the discipline researchers know best, to researchers from all countries in the world, and to their influence in this century. Respondents were not asked to rank the three researchers they chose. This question was one of very few in the interview with a rather high "no

answer"-rate, 18%, and only 63% took the opportunity to provide three names. In total, 1355 votes (out of 1854 possible = 3 x 618) were cast on 578 names. The top-25 researchers ranked on this list, based on votes from all respondents, are shown in Table 1. The SSCI-citation numbers from 1992-96 are also included in the table for comparative purposes (except for cases where numbers are unreliable due to namesakes in the SSCI).

Table 1.
Most influential researcher in the world according to Danish social science researchers (n = 618, no answer: 113 = 18%). Citations in SSCI 1992-96

| Most influential researcher in the world (year of birth in brackets) | Votes | % of n | Citations |
|---|---|---|---|
| Weber M (1864) | 78 | 13% | 2598 |
| Keynes J M (1883) | 69 | 11% | 1010 |
| Marx K (1818) | 66 | 11% | 1716 |
| Simon H A (1916) | 28 | 5% | 2392 |
| Habermas J (1929) | 22 | 4% | 2326 |
| Schumpeter J A (1883) | 22 | 4% | 1156 |
| Smith A (1723) | 19 | 3% | ? |
| March J G (1928) | 18 | 3% | 1244 |
| Friedman M (1912) | 17 | 3% | 2325 |
| Williamson O E (1932) | 14 | 2% | 2330 |
| Giddens A (1938) | 13 | 2% | 2181 |
| Lucas R E (1937) | 13 | 2% | 1647 |
| Foucault M (1926) | 12 | 2% | 3128 |
| Ross A (1899) | 12 | 2% | ? |
| Coase R H (1910) | 12 | 2% | 1270 |
| Arrow K J (1921) | 11 | 2% | 2022 |
| Samuelson P A (1915) | 11 | 2% | 1172 |
| Durkheim E (1858) | 10 | 2% | 1652 |
| Levi-Strauss C (1908) | 10 | 2% | 868 |
| Easton D (1917) | 9 | 1% | 219 |
| Aristotle (428 BC) | 8 | 1% | 39 |
| Porter M E(1947) | 8 | 1% | 2067 |
| Becker G S (1930) | 7 | 1% | 2611 |
| Freud S (1856) | 7 | 1% | 4954 |
| Marshall A (1842) | 7 | 1% | 539 |
| 553 other names | 852 | | |

Because respondents were asked about the most influential person in the field they knew best, there are a very wide variety of names in this overall table. Three persons, all born in the 19th Century, obviously stand out as the most influential among the total number of 578 researchers mentioned: the sociologist Max Weber (1864-1920) (13%), the economist John Meynard Keynes (1883-1946) (11%), and Karl Marx (1818-83) (11%). It is remarkable that Max Weber held the top position, in so far as the number of sociologists in Denmark is rather small. Only 9% of the respondents were

trained as sociologists - thus showing the scope of Max Weber's influence (Weber also got votes from researchers in political science and business administration, see below). Additionally, Marx's influence of course transcends disciplinary boundaries. The top position held by Keynes is mainly due to votes from economists, but political scientists also mentioned him. The rest of the top-25 names got only a small percentage of the votes. Except for Aristotle, the researcher dating the farthest back was the economist (and philosopher) Adam Smith (b. 1723) and the most recent was Michael E. Porter (b. 1947) (management studies). Ten authors were born before 1900, ten between 1900 and 1930, and five after 1930.

Several earlier studies have shown fairly strong correlations between citation frequencies and other indicators of quality or influence (e.g. awards, peer assessment, prestige of department; see reviews by Hemlin [17, p. 2.13-2.20] and Baird and Oppenheim [18]). Further, rather strong correlations were reported by Charles Oppenheim in his studies of the association between citation counts and the ratings in the 1992 British research assessment exercise in genetics, anatomy, and archaeology [19] and library and information science [20]. On the other hand, critics have pointed to the limitations and invalidating factors of a technical nature regarding citation data, as well as regarding the very validity of citation counts as a measure of research quality [17; 18; 21].

In the current study, the correlation actually is very low (Spearman's rho = .17). This weak association could partly be due to the fact that the question was about the most influential person in the respondents' own discipline, while citation data covers all disciplines, but actually one should expect researchers to cite authors from their own discipline. Another, more obvious reason of course could be the difference concerning time perspective. The interview question was about influence in the whole of the 20$^{th}$ century, while citation numbers are supposed to reflect utility for current research. Also, the well-known "obliteration by incorporation effect" [21, p. 1050; 18, p. 6] concerning citation behaviour undoubtedly plays a part. Nevertheless, the results from the current study thus raise some doubt on the validity of citation counts as a measure of researchers' overall influence over longer time spans.

Another reason for the low correlation might be the limited coverage of the SSCI. The SSCI is mainly a journal-based index, and it is well known that journals play a smaller part in communication in the social sciences (and humanities) than in the natural sciences and medicine. Conversely, books, anthologies and other, less formal types of literature play a greater part in most social sciences. Results from my own survey of Danish researchers (concurring with other studies,

cf. Diana Hicks review [22, p. 195]) show that only one fourth of the publications (all types, including conference papers, etc.) disseminated by Danish social scientists are journal articles, compared to 66% in the natural science and medicine. Further, it has been shown that citation patterns in journal articles, at least in some disciplines, differ from that found in books [23, p. 201; 22, p. 198]. It is likely that journal articles typically have a narrower time span for their references than books have.

An additional factor in the weak association might be the strong Anglo-American bias of the SSCI. 60% of the journals included in the SSCI are from the U.S. However, according to UNESCO's *World List of Social Science Periodicals,* the U.S. account for only a 17% share of the social science journals in the world. 18% of the SSCI journals are from the U.K., compared to 10% of all journals [22, p. 204]. Correspondingly, 60% of all articles in the SSCI have authors with American addresses, and 20% with U.K. addresses [24]. Looking at Danish social science researchers in particular (circa 1,900), these researchers had approximately 6,000 publications (all types) in 1995, but only about 350 (6%) of articles were in the SSCI journals. This means that only 0.29% of the articles in the SSCI (1986-1996) are from Denmark and only 1.44% from Scandinavian countries [25, p. 51]. The Danish researchers' ranking, however, seems not to show any sign of parochialism, either in the sense of preference for Scandinavian or Continental European names. Only one name is Danish, the internationally known Danish jurist and philosopher Alf Ross (1899-1979). (Unfortunately he is among the authors with several namesakes in the SSCI, making citation numbers unreliable. Probably the number is below 50.) Most Continental European names on the list have very high citation scores on the SSCI (Weber, Marx, Habermas, Foucault, Durkheim, Levi-Strauss, and Freud). Unfortunately, I have not found any comparable interview-based studies of reputation that include the same broad coverage of fields. However, below I will mention one study from economics and one from sociology to provide some further evidence.

Finally, regarding this comparison we of course should remember that the list only includes a very small selection of the upper part of the total number of citations - most researchers in the world are not cited at all in a five-year window [26, p. 19]. And except for Aristotle, David Easton (the political scientist), and Alfred Marshall (the economist), all names on the list are fairly frequently cited authors. Conversely, only a few names with very high citation numbers in the SSCI are not on the list provided by Danish researchers. Among them are the most observable, I think, the sociologist Erving Goffman, with 2,493 citations in the five-year interval. This absence is an

indicator of the low interest in micro sociology among Danish sociologists. (Other examples will be mentioned below.)

The list clearly demonstrates, however, that aggregate citation scores from the SSCI are very imprecise for ranking authors according to "general scientific importance in the long run" as perceived by peers. I would guess, for example, that most economists would agree that the rather low citation numbers for Keynes and Paul Samuelson clearly underestimate their significance in modern economics. The low figures in these cases probably are due to an obliteration effect.

**Most influential researchers within the fields of the social sciences**

The overall list, of course, is strongly dependent on the composition of the academic disciplines of the interview population. Thus, Table 2 presents the rankings for the individual social science disciplines.

Table 2.
Most influential researcher in the world according to Danish social science researchers, by researchers' academic discipline. Citations in SSCI 1992-96

| Most influential researcher in the world | Votes | % of n | Cita-tions | Most influential researcher in the world | Votes | % of n | Cita-tions |
|---|---|---|---|---|---|---|---|
| *Economics. n = 172 (no answer: 25)* | | | | *Business administration. n = 80 (no answer: 11)* | | | |
| Keynes J M | 59 | 34% | 1010 | March J G | 11 | 14% | 1244 |
| Friedman M | 17 | 10% | 2325 | Simon H A | 9 | 11% | 2392 |
| Smith A | 16 | 9% | ? | Weber M | 9 | 11% | 2325 |
| Lucas R E | 13 | 8% | 1647 | Williamson O E | 5 | 6% | 2330 |
| Coase R H | 11 | 6% | 1270 | Kotler P | 4 | 5% | 632 |
| Samuelson P A | 11 | 6% | 1172 | Ackoff R L | 3 | 4% | 338 |
| Simon H A | 11 | 6% | 2392 | Olson J C | 3 | 4% | 94 |
| Arrow K J | 9 | 5% | 2022 | Porter M E | 3 | 4% | 2067 |
| Marx K | 9 | 5% | 1716 | Scott W R | 3 | 4% | 596 |
| Schumpeter J A | 9 | 5% | 1156 | 120 other names | 136 | | |
| 159 other names | 242 | | | | | | |
| *Political science. n = 77 (no answer: 9)* | | | | *Sociology. n = 53 (no answer: 5)* | | | |
| Weber M | 24 | 31% | 2325 | Weber M | 21 | 40% | 2325 |
| Marx K | 15 | 19% | 1716 | Marx K | 14 | 26% | 1716 |
| Habermas J | 7 | 9% | 2326 | Durkheim E | 6 | 11% | 1652 |
| Easton D | 6 | 8% | 219 | Foucault M | 6 | 11% | 3128 |
| Dahl R A | 5 | 6% | 565 | Giddens A | 5 | 9% | 2181 |
| Keynes J M | 4 | 5% | 1010 | Habermas J | 4 | 8% | 2326 |
| Simon H A | 4 | 5% | 2392 | 69 other names | 77 | | |
| 103 other names | 127 | | | | | | |
| *Legal science. n = 80 (no answer: 36)* | | | | | | | |
| Ross A | 12 | 15% | ? | | | | |
| Ussing H | 5 | 6% | 0 | | | | |
| Kruse F V | 4 | 5% | 0 | | | | |
| Nielsen T | 4 | 5% | 0 | | | | |
| Illum K | 3 | 4% | 0 | | | | |
| Kelsen H | 3 | 4% | 153 | | | | |
| 69 other names | 77 | | | | | | |

The table includes only the five biggest disciplines, and the criterion for classification of respondents is the academic discipline in which they got their basic education: economics (*n* = 172), business administration (*n* = 80), political science (*n* = 77), sociology (*n* = 53), and legal science (*n* = 80). The total number of respondents included in this table is 462, due to the exclusion of the smaller disciplines (a.o. anthropology) and respondents with an education in fields other than the social sciences (e.g., engineering, humanities. 15% of researchers from Danish social science

departments do not have an education in social science). I have included names that were mentioned by at least 5% of the respondents (legal science and business administration: 4%).

As expected, we now get a picture with a greater concentration on a few important researchers. On the other hand, when we remember that each respondent was allowed to mention up to three names, the agreement cannot be characterized as impressive. Karl Marx and Max Weber are at the top of the lists in sociology and political science, which also both include Jürgen Habermas. Keynes is incontestably the most prominent figure among Danish economists. In addition to appearing on the lists for sociology and political science, Weber appears also on the lists for business administration, and Marx is on the list for economics.

As a measure of the degree of consensus, I have calculated the percentage of total votes cast for the three most frequently named scientists in each of the five fields (table 3).

Table 3.
Degree of consensus on the scientists who have been most influential in the 20th century, by field

| Field | Votes received by 3 most mentioned names | Total votes | Number of respondents |
|---|---|---|---|
| Economics | 23% | 407 | 172 |
| Business administration | 16% | 186 | 80 |
| Political science | 24% | 192 | 77 |
| Sociology | 31% | 133 | 53 |
| Legal science | 19% | 108 | 80 |

It is somewhat surprising, perhaps to some readers, that when degree of consensus is measured in this way, sociology actually has the highest consensus on the top names in its list, closely followed by economics and political science. Legal science and business administration have a very low consensus. This high consensus in sociology, however, is in agreement with Cole's observations [14, p. 120]. Using a similar method (he asked about the *five* most important researchers, however), he found a slightly higher consensus in sociology (36% of votes to the five most mentioned names) than in psychology (32%) and chemistry (34%). In his study, consensus was highest in physics (47% of all votes to the five most mentioned names). Other studies reviewed by Cole [27, chapter 5], however, do not show big differences between the social sciences and the natural sciences or medicine. In my study, consensus in physics only slightly exceeded sociology, and in medicine it

did not. Of the 58 votes from 20 respondents trained in physics, 35% went to the most frequently mentioned names (N. Bohr, A. Einstein, and I. Newton). Of the 80 votes from 34 respondents trained in medicine, 28% were received by the three most frequently mentioned names (J. Watson, F. Crick, and M. Brown).

The picture changes somewhat, however, when we take a closer look at the lists and introduce some international comparisons.

*Sociology*

Obviously, the lists from the different disciplines all have their peculiarities. The sociology list has two obvious characteristics: all names on the list are European and there are no names from the middle, expansive, growth phase of sociology (i.e., the "second golden era" in the first decades after W.W.II). Both characteristics should be interpreted based on the historical background of sociology as an academic discipline. In Denmark, a chair in sociology was established in Aarhus in 1938 (Theodor Geiger, 1891 - 1952), but as in most other small countries, expansion of sociology as a distinctive university discipline with its own chairs, departments and university degrees only came later, in the 1950s and the 1960s. In these founding decades, Danish sociology imported heavily from American sociology, most of the empiricist brand of George Lundberg and Paul Lazarsfeld. The student revolt in the late 1960s, however, caused a break with mainstream empiricist American sociology, and a revival of Marxism and classical sociology, followed by an outgrowth of a post-positivist European sociology [28]. The citation numbers suggest that also Anglo-American sociology pay much attention to the same Europeans, however. Nevertheless, it could seem peculiar that influential American sociologists from the flourishing post-war decades are absent from the list. But actually, except for Goffman with 2,493 citations between 1992-96, none of the main figures from that time get higher citation numbers either: Talcott Parsons (1,461 citations), Robert K. Merton (1,388 citations), James Coleman (1,353 citations), Peter M. Blau (1,103 citations), or Paul Lazarsfeld (319 citations).

Regarding sociology, however, it is possible to get an impression of the degree of consensus internationally by considering two earlier studies. Table 4 includes lists of the top-five researchers from two earlier investigations, compared with my own. The left column is based on citation numbers, 1985-93, in top-ranked sociology journals (all Anglo-American). The second column is also based on citation numbers, but these are from ninety important sociology monographs [23]. And the third column includes results from a Finnish survey from 1983 of a

sample of 95 Finnish sociologists, which included a question about the most influential sociologist for the respondents' own career [15].

Table 4.
Most influential sociologists 1. According to citations in top-ranked sociology journals, 2. According to citations in important sociology monographs [23], and 3. In a survey of 95 Finnish sociologists [15], and in the Danish survey

| 1. Journals, 1985-93 (selection) | 2. Monographs, 1985-93 (selection) | 3. 95 Finnish sociologists, 1983 (selection) | 4. 53 Danish sociologists, 1995 |
|---|---|---|---|
| 1. Blau P M | 1. Durkheim E | 1. Marx K | 1. Weber M |
| 2. Duncan O D | 2. Janowitz M | 2. Allardt E | 2. Marx K |
| 3. Weber M | 3. Weber M | 3. Durkheim E | 3. Durkheim E |
| 4. Parsons T | 4. Freud S | 4. Mills C W | 4. Foucault M |
| 5. Durkheim E | 5. Portes A | 5. Weber M | 5. Giddens A |
| 6. Coleman J S | 6. Parsons T | 6. Ottomeyer P | 6. Habermas J |
| 7. Becker G S | 7. Marx K | 7. Lenin V I | |
| 8. Giddens A | 8. Lipset S | 8. Eskola A | |
| 9. Glenn N D | 9. Goffman E | 9. Foucault M | |
| 10. Goffman E | 10. Habermas J | 10. Habermas J | |

Apparently, the only common denominators are the classical sociologists, Marx, Weber, and Durkheim. (Although Marx is not on the selected part of the journal-top-list, he is here ranked number 17.) Foucault and Habermas, ranked 3-6 on the Danish list, also appear on the Finnish list, but only Habermas is on the book-citation list (Foucault is here number 15 and Giddens number 17 [23, p. 268]), and only Giddens is on the journal list. Some differences probably are due to the different collection methods (citation counts versus interviews) and others to period-effects. This can explain the high popularity of Wright Mills in Finland, and the lower ranking/ absence of Giddens and Habermas on the lists in the three columns to the left. Thus, the widespread perception that the only thing sociologists have in common is their classics is not totally confirmed, although agreement regarding contemporary names is modest.

*Economics*

Economics is the biggest research discipline in Danish social sciences, with 172 respondents in the sample (some of these are in business schools or government research institutes). Looking at their list, we first notice that all the authors on the list still alive when the Nobel Prize for Economic was

set up in 1969 by the Bank of Sweden have received the Nobel Prize. Another feature, very distinctive from the sociology list, is the Anglo-American dominance. Only two older figures - Karl Marx and – partly - Joseph A. Schumpeter - are from a Continental-European tradition. The relatively low citation numbers for John M. Keynes (in fact the smallest on this top-ten list) clearly demonstrates one of the well-known weaknesses of citation numbers as a measure of an author's importance. Also, Samuelson's citation numbers are relatively low, but with these exceptions agreement with citation ranking is fairly good. None of the founders of the neo-classical paradigm from the late 19th Century (A. Marshall, W. S. Jevons, C. Menger, L. Walras) are on the top list, but neither do they get many citations in the SSCI. Hence, economists do not pay as much attention to their classics as do sociologists. An indicator of the stronger borders of economics, compared to sociology (and political science), is the fact that all researchers on the list are educated as economists (except Smith and Marx, who are from the time before economics became a distinct university discipline).

Also in this case, it is possible to compare with another survey, namely of 212 graduate students from six leading U.S. universities in 1985 (question: "which economist (dead or alive) do you respect most.") [16, pp. 41-42], cf. table 5.

Table 5.
Most influential economist 1. From a survey of 212 graduate students from U.S. universities [16] compared to 2. Danish economists

| 1. 212 graduate students in economics, U.S., 1985 | 2. 172 Danish economists, 1995 |
|---|---|
| 1. Keynes J M | 1. Keynes J M |
| 2. Arrow K | 2. Friedman M |
| 3. Samuelson P | 3. Smith A |
| 4. Marx K | 4. Lucas R E |
| 5. Smith A | 5. Coase R H |
| 6. Friedman M | 6. Samuelson P A |
| 7. Lucas R E | 7. Simon H A |
| 8. Schumpeter J A | 8. Arrow K J |
| | 9. Marx K |
| | 10. Schumpeter J A |

In spite of the ten years difference between the two surveys, and differences concerning sample, agreement is good, actually outstanding, also regarding contemporary names, and compared to the

sociology lists. The ranking of Herbert Simon on the Danish list undoubtedly is due to the inclusion of economists from business schools in the Danish sample, and the higher ranking of Ronald Coase probably is influenced by his winning the Nobel Prize in 1991. In fact, it is likely that the very existence of this prestigious award contributes to the formation of a more internationally integrated reputational hierarchy. The ranking lists also show, I believe, a greater stability in economics compared to sociology and business administration, where fashions play a larger part.

*Political science*

The most striking characteristic of the political science list is the small number of names belonging specifically to political science. Of the seven names on the list, only David Easton and Robert A. Dahl can be considered as belonging to the political science discipline. Three names are repetitions from the sociology list (Marx, Weber, and Habermas) and two from the economics list (Keynes and Simon). This feature probably is peculiar to Danish political science, which was established as a separate academic discipline with its own education in the 1950s. From the beginning, it was designed as a rather broad multidisciplinary discipline with large elements of sociology and economics, with the double aim of training high school teachers and civil servants. Names which might hold a position as classics from the discipline's formation period (e.g., Walter Lipmann (1889-1974), Harold Lasswell (1902-78), or Harold Laski (1893-1950)) are not mentioned at all (these authors, however, are not highly cited in SSCI neither), and neither are political philosophical thinkers from Plato (428-348 b. C.) to Jean-Jacques Rousseau (1712-78). This absence of political philosophers is probably due to the strong breach with normative political theory after W.W.II, when behavioralism became a leading school.

*Business administration*

Business administration researchers are rather numerous. In this survey, the field is defined in a broad sense and therefore is rather heterogeneous, including all subfields from finance, accounting, management, marketing, organization, and industrial sociology to business law. Consequently, we observe a wide variety of answers, where the top name, James G. March, gets only 13% of the votes, followed by Herbert Simon and Max Weber with 11%. So, within this field as a whole there is very little agreement concerning who is the most influential researcher. Agreement with the SSCI in this case is less than in economics and sociology.

*Legal science*

Legal science researchers also do not agree very much on this topic, but in addition this discipline is extreme compared to the other disciplines in two ways. First, it is the only discipline where respondents almost exclusively mentioned Danish names. Second, a high proportion of respondents chose the "no answer" option. Of the six top-ranked names, only one is *not* Danish, namely the Austrian-American legal philosopher Hans Kelsen (1881-1973). Except for Hans Kelsen, only the number one choice, the Danish jurist and legal philosopher Alf Ross, has citations in the SSCI. Danish legal scientists publish primarily in Danish journals not indexed in SSCI, and the reason of course is the character of the law discipline, the subject matter of study being mainly nationally defined and, consequently, the research community being constituted mainly on a national basis. The knowledge body is still strongly linked to national law and the nation state, making formation of an internationally integrated discipline less relevant and useful. Obviously, in this case, citation data has no value as an indicator of influence.

To sum up this section, the degree of consensus in the social sciences is only moderate, although probably not smaller than in the natural sciences. In sociology and political science, agreement concerns primarily a few classical European thinkers who, however, also have high scores based on the SSCI. Economists give more importance to contemporary researchers, mainly Anglo-American and from their own discipline. Economics also looks more integrated internationally than the other social science fields. Business administration appears to be rather fragmented, and legal science is peculiar by being very nationally oriented.

**Most important journals**

Another measure of the integration of a scientific community is the communication system, for which scientific journals commonly are considered to play the most important role. Besides being a media for publication of new results, journals are supposed to accomplish important functions regarding the review and certification of new findings. Further, scientific journals make the assessments of contributions visible, and thus facilitate the formation of a prestige hierarchy. So, utilisation of a common set of journals is one indicator of the integration of a scientific discipline.

However, as mentioned above, in the social sciences (and the humanities) journals do not have the same dominant position as the medium for communication as in the natural sciences (and medical science) compared to books, anthologies and other, less formal, types of literature. Results from my own survey of Danish researchers (concurring with other studies) show that only

one fourth of the publications (all types, including conference papers, etc.) disseminated by social scientists are journal articles, compared to 66% in natural science and medicine. Besides registration of respondents' publication habits, they were asked some further questions related to the topic. When asked about the importance of different types of literature as a source for keeping researchers abreast of their field, social scientists in this survey ranked books equal to journals, while natural and medical scientists ranked books much lower. The same result appeared regarding respondents' assessment of the importance for reputation and career of getting publications in books compared to journals. Social scientists ranked journals and books almost equally, while natural scientists placed much less importance on publishing in books. Further, we also know that the journal capacity is much smaller in the social sciences than in the natural sciences [27, p. 112]. Regarding reading customs, most respondents in the survey from the social sciences reported that they regularly read 5-9 journals (mean: 8.5), while researchers from the natural sciences and medicine on average read a couple of journals more. Overall, this suggests that we should not expect a very high degree of concentration on the same journals.

In the survey, respondents were asked to list the journals that had the greatest importance for their own research (up to three) (in this case response rate was close to 100%). Results are shown in Table 6. Impact factor data from the SSCI (1995 [29]) are provided also, although I think the impact factor is a rather poor measure of the importance of social science journals. Disregarding the many general problems with the validity and reliability of impact measurement [30] and the Anglo-American bias, the simple fact is that impact factors of social science journals generally are rather low (compared to natural science and medicine). If we disregard the SSCI journals from medicine and psychiatry, only eight of the ca. 1,500 journals in the SSCI have impact factors above 4.0, and the bulk of the list below 1. This indicates that differences are rather small between journals regarding impact, as measured by the SSCI data.

Table 6.
Most important journals for Danish social science researchers, by researchers' academic discipline. Impact-factor SSCI 1995 [29]

| Most important journal | Votes | % of n | Impact 1995 | Most important journal | Votes | % of N | Impact 1995 |
|---|---|---|---|---|---|---|---|
| *Economics (n: 172)* | | | | *Business administration (n: 80)* | | | |
| American Economic Rev. | 43 | 25% | 1.73 | J of Marketing | 15 | 19% | 2.43 |
| Econometrica | 19 | 11% | 3.23 | Organization Studies | 14 | 18% | 1.13 |
| Economic Journal | 11 | 6% | .93 | Strategic Management J | 9 | 11% | 1.79 |
| J of Economic Literature | 11 | 6% | 4.80 | Adm Science Quarterly | 7 | 9% | 2.66 |
| Quart. J of Economics | 11 | 6% | 2.32 | Harvard Business Rev | 6 | 8% | 2.23 |
| J of Econometrics | 10 | 6% | 1.15 | J of Marketing Research | 5 | 6% | 1.72 |
| J of Labor Economics | 10 | 6% | 1.32 | Revision og Regnskabsv | 5 | 6% | - |
| J of Public Economics | 10 | 6% | .78 | J of Consumer Research | 4 | 5% | 1.37 |
| Nationaløk. Tidsskrift | 10 | 6% | .25 | Management Science | 4 | 5% | .91 |
| J of Finance | 9 | 5% | 1.89 | 110 other journals | 138 | | |
| J of Political Economy | 9 | 5% | 1.93 | | | | |
| 172 other journals | 293 | | | | | | |
| *Political science (n: 77)* | | | | *Sociology (n: 53)* | | | |
| Politica | 10 | 13% | - | Dansk Sociologi | 9 | 17% | - |
| Am Pol Science Rev | 9 | 12% | 2.92 | Theory Culture & Society | 8 | 15% | .41 |
| Dansk Sociologi | 7 | 9% | - | Sociology | 4 | 8% | 1.23 |
| Internat Organization | 7 | 9% | 3.69 | Adm Science Quarterly | 3 | 6% | 2.66 |
| Europ. J of Pol Research | 6 | 8% | .50 | Theory and Society | 3 | 6% | 1.00 |
| J of Com Market Stud | 5 | 6% | .74 | 101 other journals | 112 | | |
| Organization Studies | 5 | 6% | 1.13 | | | | |
| Adm Science Quarterly | 4 | 5% | 2.66 | | | | |
| World Development | 4 | 5% | .81 | | | | |
| 68 other journals | 142 | | | | | | |
| Legal science (n: 80) | | | | | | | |
| Ugeskrift for Retsvæsen | 50 | 63% | - | | | | |
| Juristen | 24 | 30% | - | | | | |
| Tidsskrift for Rettsvitenskap | 8 | 10% | - | | | | |
| Comm Market Law Rev | 4 | 5% | .40 | | | | |
| European Law Review | 4 | 5% | - | | | | |
| Revision og Regnskabsv | 4 | 5% | - | | | | |
| 56 other journals | 80 | | | | | | |

"-" : not in SSCI

The table actually reveals a rather high variety concerning the respondents' journal reading habits. Except for the rather exceptional case of legal science, the percentage of researchers mentioning the same journal as one of the three most important is 25% or below. As a comparison, of the 20

physicists in the sample, 60% mentioned *Physical Review* as one of their three most important journals.

The distinctive character of *legal science* regarding consensus on most important journal of course is due to the traditional status of this discipline as a profession. Again it is very peculiar by the much stronger national orientation. Number 1, 2 and 6 on their list are Danish, number 3 Swedish, and 4 and 5 European. Only one is indexed in the SSCI, and with a very low impact factor. (Anglo-American bias in the SSCI is very strong concerning law-journals.)

Among the other disciplines, concentration is biggest in *economics* and smallest in political science. Further, the economics list once more reflects a very heavy Anglo-American dominance. The most popular journal for Danish economists is *American Economic Review*, a journal that includes almost exclusively articles by American authors (89%) [31]. Of the total 183 journals mentioned by economists, 92% are in English, and only one Danish journal is on the list. All journals on the list are in the SSCI, and when comparing with impact factors, one should keep in mind that generally impact factors for social science journals are not very high. Only one journal from economics has impact above 4, the review journal *Journal of Economic Literature*, number 4 on the Danish list. Except for the Danish journal *Nationaløkonomisk Tidsskrift* (number 79 among SSCI-journal in economics ranked by impact factor), the British *Economic Journal* (number 19), and *Journal of Public Economics* (number 24), all journals on the Danish list can be characterised as core journals [32; 33].

*Business administration* also is heavily dominated by American journals. Six of the nine top journals are American, and 90% of the total of 119 journals mentioned are written in English. Correspondence with impact figures is weaker in this case, and one (the Danish *Revision og Regnskabsvæsen*) is not in the SSCI. Several high-impact journals are not on the Danish list (*Research in Organizational behavior*, impact 4.0, *Academy of Management Journal*, impact 2.31, *Journal of Accounting & Economics*, impact 2.33, and *Journal of Financial Economics*, impact 2.14).

The largest variety is observed in *political science*. In this case, only three of nine top journals on the list are American, and two (numbers 1 and 3) are Danish (and not indexed in the SSCI). Correspondence with impact factor ranking is lower than in economics. Only three of the top journals on the Danish list can be labelled high-impact journals according to SSCI data, and several high-impact SSCI journals are not on the Danish list (among these the Harvard journal *International Security*, impact factor 2.94, the Princeton journal *World Politics*, impact factor 2.94,

and *Foreign Affairs*, impact factor 2.44). Large national differences in evaluations of political science journals were also found in a study of British political scientists compared to American, so this higher degree of European/ national orientation does not seem to be a peculiarity of Danish researchers [34].

American dominance is even weaker on the *sociology* list. Number 1 is the Danish *Dansk Sociologi* (not in the SSCI), and only two of the five on the list are American (ranked numbers 4 and 5). The list does not include sociological high-impact factor journals, of which there are very few, however, in the SSCI (the review journal *Contemporary Sociology*, impact factor 9.50, *American Journal of Sociology*, impact factor 3.34, and *American Sociological Review*, impact factor 2.78). Out of a total of 106 journals, only 75% are in English, 15% are in Danish, and 5% in other Scandinavian language.

In assessing these results, one should remember that respondents were asked to name only the *three* most important journals, i.e. not all the journals they read regularly (generally between 5-10 journals). Therefore, the percentage of researchers in each discipline that actually read the top journals probably is larger than the figures in table 6. Nevertheless, on the whole these results show that although a set of common journals can function as a media of communication, thus making visible reputation of research results and researchers, this function is rather weak, at least in the Danish social sciences. National peculiarities are more visible than concerning the question on ranking most important researchers in the world. No journals in social sciences have the prestige and authority of top journals in natural science and medicine, I believe.

**Discussion**

In sum, the results show only a modest degree of consensus among social science researchers in their assessment of the most influential scientists in their discipline in this century. Further, comparisons with (the few) other surveys and with citation data do not suggest this to be a peculiarity of Danish social scientists. Here we should keep in mind that the question was about retrospective assessments, where consensus commonly is assumed to be greater than at a research frontier. Further, concerning journals, even the most prominent are assessed to be one of three most important by only one fourth or less of the members in a single discipline, except for the special case of legal science. Thus, the perception of the social sciences as integrated scientific communities, organised by prestige hierarchies, where prestige is earned according to importance and quality of research contributions, made visible in common journals, is not confirmed in this

survey. The results seem to be more in accordance with Whitley's more pluralistic picture [11]. There are rather large differences between fields however, especially regarding integration internationally, where economics seems to be much more Anglo-American dominated than political science and sociology, and certainly than legal science. But Whitley's picture of economics as an exception among the social sciences, by its greater integration due to a common theoretical core, is not unambiguously supported by the results. The question is left unanswered; how different are these characteristics from the natural sciences.

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