

The Prize is Right? An Analysis of Best Paper Prizes.

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RRH: Coupé: The Prize is Right?

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Abstract

In this paper, I analyze the best paper prizes given by some economics journals to the best article published in their journal in a given year. I compare the citations received by prize-winning papers to citations received by non-winning papers. In this way, I test to what extent decisions that are made under uncertainty turn out to be optimal ex post. It also allows me to find out whether scientific quality is clear from the outset. The data show that the paper that gets most often cited is rarely the paper that gets the ‘best paper’ prize.

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I. INTRODUCTION

In many cases, important decisions are made under a considerable degree of uncertainty. And afterwards one often wonders whether the optimal decision was really made. Take for example a firm's decision to hire an employee. In such a case, the recruiting committee collects several pieces of information (CV, interview) which will allow it to make some inferences about the possible value of the candidates. Of course, many other, unobservable, factors will also determine the candidate's value for the firm so it is not unlikely that the candidate that would be chosen if there was 'full information' would be different from the one who has been chosen. While the success of the firm might be an indicator of whether the recruiting committee is able to pick the better candidates, success doesn't necessarily mean that the best candidates were picked.

The same problem also occurs in the academic world. Editors are often uncertain about the quality of the papers that they consider for publication and senior faculty members are often uncertain about the quality of the junior faculty they want to hire. In this paper, I will analyze a feature of the academic world that is ideal to test whether decisions that were made under uncertainty turn out to be optimal ex post, after a lot of extra information has been revealed. In addition, my analysis will allow me to say to what extent scientific quality is clear from the outset.

Every year, several journals give a prize to the best article published in their journal over a specific period of time. The advantage of these best paper competitions is that I have both information on all contestants for the prize (all the articles published in the journal

during the period under consideration for the prize) and a good indicator of the ex post quality of each paper, its number of citations. I will check whether the papers that have received the 'best' paper prize are indeed those papers that received most citations. Of course, this means that my analysis stands or falls with the acceptance of citations as measure of scientific value. While citation counts are far from a perfect measure, many scientists believe they are the best available measure of scientific quality. They have been used to measure the research productivity of economists and economics departments (Medoff (1996), Coupé (2002)). Moore et al (2001) show the importance of citations in the determination of the salary of economists.

Best paper prizes are not the only prizes that are awarded to economists. There are also a number of prizes for long run achievements such as the Clark-Bates Medal (AEA) or the Yrjö Jahnsson Award (EEA). Van Dalen (1999) analyzes the Nobel Prize. Hamermesh and Schmidt (2001) study the election of fellows of the Econometric society. These prizes differ from the best paper prizes in that the decision about the latter prize is taken very fast after the publication of the article. Indeed, while one can use the output over ten, twenty or thirty years to determine whether an economist has had an important influence on the economics profession, the 'best paper' prize decisions should be based on the quality of just that paper, without the possibility of using the 'revealed' impact of the paper^{1,2}.

II. BEST PAPER PRIZES

Several journals have created such a best paper award (see the appendix for a list). These prizes all have in common that one article is said to be the ‘best’ article among those that have been published during the previous year(s). For example, the Journal of Banking and Finance (JBF) ‘grants the Iddo Sarnat Annual Memorial award to the author(s) of the best paper published in the JBF during the preceding volume (1997, p. 1201)’ or the Journal of Labor Economics (JoLE) ‘is pleased to announce the establishment of the H. Gregg Lewis Prize, to be awarded biennially to the individual(s) publishing the best article in the Journal during the previous 2 years (1996, p. U1)’.

Some journals are more careful and sometimes use the expression ‘an outstanding paper’. For example, ‘The Smith Breeden Prizes are awarded annually for outstanding papers published in the Journal of Finance (1990,1)’. But on the JoF website, ‘best paper’ and ‘top 3 papers’ are used. Similarly, in 1991, the European Economic Association creates the Hicks-Tinbergen medal that should be awarded every other year to ‘the author(s) of the best paper having appeared in the European Economic Review (EER) within the preceding five-year period (1991, p712)’. In 1993, the medal is said to be awarded for an ‘outstanding’ article (1993, p. 642). In 1995 and 1996, the paper is again the ‘best’ paper but since then the term outstanding has been used. This difference is important as several papers can be ‘outstanding’ while only one paper can be the ‘best’.

A monetary prize is attached to most awards. The largest amount is spend by the JoF. Since 1997, the Smith-Breeden prize is worth \$10000 for the winner and \$5000 for each

of the two 'distinguished' papers. Recently, an additional prize has been established to award the best paper on corporate finance. This 'Brattle Prize' is worth \$10000 for the winning paper and \$5000 for the second paper. The Journal of Financial Economics (JFE) is also very generous: both the Jensen Prize and the Fama-DFA prize give \$5000 to the first and \$2500 to the second paper. The "EALE Labour Economics Prize" of Labour Economics in contrast is worth only €1000. But the Hicks-Tinbergen Medal is just that: a medal. And also the Strategic Management Journal notes: 'the recipient receives a \$5000 prize and a commemorative plaque. Perhaps, more importantly, they receive the hearty recognition of the community of strategic management scholars for an important job well done (1996, p. 503)'

Another common characteristic is that a small committees select the winning paper. The Royal Economic Society Prize is awarded by a committee 'consisting of the President of the Royal Economic Society, the Editor of the Economic Journal (EJ) and one member appointed by these two (September 1996, editorial)'. Also the Hicks-Tinbergen committee and the Economic Inquiry (EI) committee has 3 members. The selection committee for the 'H Gregg Lewis' prize is appointed by the JoLE editor and counted 4 persons in 2000. And the 'Smith-Breeden' prize-winner is decided by a somewhat larger committee consisting of the associate editors of the journal (now about 30 people, but smaller before). Exceptions are the Journal of Financial and Quantative Analysis (JFQA) and the JFE that let their subscribers decide.

What are the criteria that these committees use? Unfortunately, most journals do not disclose why a paper is considered to be best. Sometimes an explanation is given: ‘This paper combines new theory (..), an interesting set of data with variables carefully computed by the authors, a good discussion of the theoretical problems of estimation, and some interesting empirical results (EJ, September 1990)’. And ‘This innovative paper... challenges the conventional wisdom...The paper is important in that it should generally help to refocus attention... (EER, 1999, vii)’. As only few prizes are explained it is difficult to give the recipe for a prize-winning paper, however.

One might also wonder what reasons journals have to establish these prizes. A first reason is that, in this way, they hope to attract good papers. In 1990, the editor of the EJ for example writes: ‘I hope that the existence of the prize will encourage high-quality submissions (EJ, 1990, vol. 402, p. I).’ Or more general, they hope to stimulate research in their field like the Smith-Breeden Prize (‘to promote excellence in research in financial economics’ (JoF, 1990, p. 1)) or the Iddo Sarnat Annual Memorial award of the JBF (‘in order to stimulate and honor the work of scholars within the field of banking and finance’ (JBF, 1997, p. 1201)). But most prizes are named after an influential economist. Some of these are still alive (Fama-DFA prize, Jensen Prize) but most of them are named after dead economists and in some cases the death of that person is the direct reason to establish the prize (for example, the Richard Stone Prize of the Journal of Applied Econometrics (JAE) or the H. Gregg Lewis Prize of the JoLE). So many prizes are meant as a tribute to a specific person and in this way they do provide another incentive to

produce a top paper: indeed, a top paper not only increases the chance to get a prize, it also increases the chance to get a prize named after you.

The starting point: the Journal of Finance (JoF)

The basic idea of this paper is to make an ex-post evaluation of the best prize papers, so it is important that I take a certain time lag. Hence, I will only look at those prize papers that have been published before 1998. As I collected the citation data at the end of 2001, this gives me at least a four-year citation time period. Note further that because I look at articles that are published in a given journal, I ‘control’ for differences among subfields³.

I take the JoF as starting point because its prize exists already for quite some time (9 years of observations) and because they distinguish between a ‘first prize’ paper and two ‘distinguished’ papers which provides me with extra test material. First, I will check whether the best prize paper indeed got the most citations. Second, I will compare the citations of ‘first prize’ papers with the citations of the ‘distinguished’ papers.

[INSERT TABLE 1 HERE]

In table 1, I give the number of papers that were candidates in each year (first line), for each prize-winning paper, its place in the ranking of total citations of all papers that were candidate of that years’ prize (line 4 to 6), its number of citations (line 8 to 11) and finally, the top 3 of each citation ranking (line 13 to 15).

As an illustration, look at the Smith Breeden Prizes for 1990. The First Prize was awarded to David A. Hsieh and Merton H. Miller for ‘Margin Regulation and Stock Market Volatility’. With 25 citations, this paper ranks 26 out of 76 papers (the conference issue is always excluded).

Three other articles were named as ‘Distinguished Papers’. First, there is G. William Schwert with ‘Why Does Stock Market Volatility Change over Time?’. With 176 citations, this paper is the most cited paper in the issues under consideration for the 1990 prize. Milton Harris and Artur Raviv’s paper ‘Capital Structure and the Informational Role of Debt’ totaled 53 citations which is sufficient for place 10. Finally, the 36 citations of Deborah J. Lucas and Robert L. McDonald’s ‘Equity Issues and stock Price Dynamics’ are good for an 18th place.

So for that year, the associate editors were able to pick out the most cited paper, but at the same time they give the first prize to another paper that turned out only to be above average cited. And the papers by Morck, Schleifer and Vishny (124) and Carter and Manaster (114) didn’t get a prize while three other papers that got less than half of their number of citations did get a prize.

Some years the judges did even worse: in 1989, not one selected paper made it to the top quartile and in 1993, one distinguished paper turned out to be a less than average cited paper. But other years they did extremely well: in three years, the first prize-winner turned indeed out to be the most cited paper. The 1991 winners are even on place 2, 3 and

4. But even in that year there is something strange: the most cited, but not selected, paper was written by Harris and Raviv. One year earlier, one of these authors' papers was selected even though in citations it now only ranks 10th. Similar, the author of the fourth most cited paper in 1992 did not get a prize in 1992 but got the first prize in 1990, for an article that is only at 26 in the citation ranking of that year. And in 1994, Lawrence Glosten gets a prize for an article that ranks 10th, while he has, that same year, an article that ranks second.

The worst year clearly was 1989, the first year the prize was awarded and the only year in which it was the board of directors rather than the associate editors that chose the winners. As an additional test, I searched in Google for the title of the three best papers and the three most cited papers of that year⁴. This way of measuring impact gives similar results: the three most cited papers all result into considerably more Google-hits⁵.

All in all, results are not too bad:

- In 3 out of 9 years, the best paper prize was awarded to the most cited paper
- 15 out of 29 of the selected papers were in the top 10 of their year
- All but one paper turned out to be above average

At the same time, my results seem to confirm the stories about the initial rejection of what later turned out to be important papers (Shephard and Gans (1994)) as some frequently cited papers did not get a prize.

Robustness Checks

Some Other Economics Journals. To check whether other journals do as well (or as bad), we next turn to the JBF, EI, CJE and the JFE.

[INSERT TABLE 2]

Table 2 gives for each year's prize winner, the place in the citation rank, the number of citations of the winner, the number of citations of the most cited paper of that year and finally the number of articles published that year in the Journal of Banking and Finance.

The JBF prize is much less reliable: twice an article was selected that never has been cited, and several times articles have been selected that turned out to be of below average citation intensity. Only in 1985 and 1992, the committees' judgment seems to be quite consistent with the citation ranking. One caveat here is that for the most recent years, 'preference' was given to junior authors.

Table 3 gives the result for another journal that awards a best paper prize already for a long time, Economic Inquiry.

[INSERT TABLE 3]

The EI jury gets fairly similar results: most elected papers are above average, some are among the most cited but some are far below average. A nice case is 1992: a tie was

declared between two articles: one of the winners is one of the two papers of that year that never have been cited, while the other was fifth with 11 citations compared to 32 for the most cited paper. Something similar happened in 1993.

Also the Canadian Journal of Economics' jury fits the pattern we observed so far. Some winners turned out to be among the most cited of their competition, others fare much worse.

[INSERT TABLE 4]

Finally, we look at the Journal of Financial Economics (table 5), a journal that lets the subscribers vote for the best paper prize. The advantage of this system is that a bigger group decides, moreover it is also this group that will cite the paper. The disadvantage is that this method of voting might be easier to manipulate. So we would expect the variance to be bigger. The 1997 Fama prize-winner is indeed the most cited the paper in 1997 but the second prize went to an article that is only number 43 out of 56 in the citation ranking.

[INSERT TABLE 5]

What about other Disciplines? So far we only looked at how well economics journals were in judging the quality of articles. Next we look at the American Political Science Review. A bit surprising, the Political Sciences seem to be much more prize-minded than

Economics. In 1987, The American Political Science Association writes in its ‘APSA Awards and Recipients’ Section (p. 1077): ‘One of the most important activities of the association is the promotion and recognition of scholarly excellence in political sciences.’ And then follows a long list of different awards. In 1988, the APSA gave 8 dissertation awards (\$250), 6 paper and book awards (ranging between \$250 and \$2000) and 3 career awards (ranging between \$500 and \$1500). One book award was introduced as early as 1947. One of the paper awards, the Heinz Eulau Award, is for the best paper published in the American Political Science Review in a given year. A small committee of 2 to 3 members decides about the winner.

[INSERT TABLE 6]

The results for the APSR are not unlike the results for the economics journals. Twice the jury members succeeded in selecting the most cited but 5 times the selected paper was not in the top 25% and once not in the top half of the citation rankings.

III SOME DISCUSSION

So far, I have showed that the ‘best paper’ prizes are most often not awarded to the articles that are revealed over time to have had the most impact on other scholars work (as measured by citations). But the data also show that in many cases the selected papers were papers that were ranked in the top quartile of the citation distribution. What should we make of these findings?

First, one might claim that causality goes from being awarded the prize to the number of citations. In any case, such a reversed causality critique only confirms my first result: despite the fact that winning papers get extra attention, they do not seem to be best in terms of citations. Moreover, while this reversed causality effect is likely to be real, it is unlikely to be very important, as witnessed by the fact that some prize-winning papers are not cited that much at all. And even more important: most people that read a prized article will not know that it won a prize since this is not mentioned in the paper. The decision is only taken the next year and most journals only publish it then as a one-page note at the beginning or the end of a volume⁶.

Second, rather than concluding that the committees did not do a good job, one might argue that my findings prove that citations are an imperfect measure of scientific quality. As mentioned above, citations is often used to measure scientific performance and many believe that citations are the best available measure of scientific quality. Moreover, citation counts have the advantage that they are statistics that are based on the opinion of a big group of people (in contrast to prize decisions that are now often made by very small committees' decision) which should substantially alleviate the influence of individual preferences or biases⁷.

IV CONCLUSIONS

This paper illustrates how difficult it is to take the 'best' decision, i.e. a decision that is optimal ex post. At the same time, it illustrates the difficulties of determining the exact

quality of scientific papers, even after having read them. I do this by showing that the paper that gets most often cited is rarely the paper that gets the ‘best paper’ prize. So if we accept the use of citations, then, at least in the scientific world, decisions are often not optimal ex-post. But the data also show that in many cases the selected papers are ranked in the top quartile of the citation distribution. Hence, while not optimal, the quality of decisions seems to be reasonably good.

There are also some differences over journals, the Journal of Finance selection committee seems to be quite good in picking the best papers (though it is not faultless either) in contrast to the Journal of Banking and Finance committee that sometimes selected papers that were never cited. Finally, using data from a political science journal leads to similar conclusions.

Should this imply that ‘best paper’ prizes should be abolished? Not at all, it might not be a bad idea, however, to start awarding prizes for ‘outstanding’ articles rather than for ‘best’ articles.

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VI FOOTNOTES

I thank Victor Ginsburgh and Daniel Hamermesh for helpful comments and the Belgian federal government for financial support (PAI 4/28).

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¹ The success of the working paper version might be an indicator however.

² Ginsburgh (2003) gives examples of other competitions to test similar issues. Ginsburgh and Weyers (1999), for example, find a relation between movie awards and box office success. Ginsburgh and Van Ours (2002) relate the rankings in a music contest to the presence of records in music catalogues. Our best prize example is different because the differences in information between committee members and ‘citers’ should be much smaller than the differences in information between for example movie experts and the general public.

³ For example, finance articles might be more cited on average than labor economics articles. Here I look always within the same category, so I compare finance articles to other finance articles and labor articles to labor articles. I never compare the citations to a labor economics article with the citations to a finance article.

⁴ In fact, Google restricts the search to the first 10 words of the title.

⁵ Landes and Posner (2000) study the link between web hits and scholarly reputation.

⁶ In many cases, I had to search really hard before I found these announcements.

⁷ Note that the most cited person is not necessarily the one who gets the Nobel Prize. However, it seems unlikely that one can find a recent Nobel economist who did not belong to the top 10% cited economists of his sub-field.

TABLES

Table 1

Results for the Journal of Finance

	1989	1990	1991	1992	1993	1994	1995	1996	1997
# papers	78	76	75	68	77	68	57	62	73
	Rank in citation ranking								
First	28	26	2	1	9	1	1	5	3
Dist.	25	1	3	3	11	4	3	13	4
Dist.	32	10	4	11	42	10	28	8	13
Dist.		18		21					
	Number of Citations								
First	30	25	133	315	35	126	119	38	42
Dist.	32	176	98	127	32	68	74	23	34
Dist.	34	53	92	49	10	32	18	28	20
Dist.		36		33					
	Number of Citations of 3 Most Cited Papers								
1	111	176	142	315	85	126	119	84	97
2	107	124	133	263	66	117	110	50	59
3	99	114	98	127	54	112	74	39	42

Year is year in which it was published. First stands for the prize-winning paper. Dist. stands for distinguished papers.

Table 2**Results for the Journal of Banking and Finance (JBF)**

JBF	Rank in citation ranking	# times winner is cited	# citations most cited article	# articles
1985	3	22	63	36
1986	28	0	28	43
1987	12	6	21	31
1988	24	2	16	38
1989	38	0	32	54
1990	38	1	42	64
1991	26	3	34	63
1992	5	11	18	64
1993	47	1	73	77
1994	28	2	24	62
1995	44	1	18	88
1996	31	2	18	89

Table 3**Results for Economic Inquiry (EI)**

EI	Rank in citation ranking	# times winner is cited	# citations most cited article	# articles
1984	15	8	65	50
1985	2	45	46	43
1986	15	5	36	50
1987	21	4	51	54
1988	2	49	62	50
1989	4	17	21	44
1990	15	6	26	51
1991	33	3	50	58
1992 tie	51	0	32	52
1992 tie	5	11	32	52
1993 tie	5	15	59	47
1993 tie	32	1	59	47
1994	16	3	16	51
1995	17	4	17	45
1996	4	9	21	48

Table 4

Results for the Canadian Journal of Economics (CJE)

CJE	Rank in citation ranking	# times winner is cited	# citations most cited article	# articles
1987	18	5	43	53
1988	17	6	31	56
1989	9	9	31	60
1990	25	3	18	55
1991	1	20	20	58
1992	20	3	18	58
1993	5	9	16	63
1994	27	2	22	57
1995	3	10	16	59
1996	47	1	21	79

Table 5

Results for the Journal of Financial Economics (JFE)

JFE	Rank in citation ranking	# times winner is cited	# citations most cited article	# articles
1997 Jensen prize winner	17	9	60	56
1997 Jensen prize winner	23	8	60	56
1997 Fama prize winner	1	60	60	56
1997 Fama prize second	43	4	60	56

Table 6

Results for the American Political Science Review (APSR)

APSR	Rank in citation ranking	# times winner is cited	# citations most cited article	# articles
1987	1	176	176	47
1988	16	34	97	52
1989	4	77	98	43
1990	13	21	75	38
1991	6	46	71	43
1992	22	19	123	47
1993	32	15	180	48
1994	17	19	109	46
1995	3	55	161	43
1996	1	47	47	43
1997	9	18	39	50
1997	11	16	39	50

In 1997 there were two prizes

VII ABBREVIATIONS

CJE: Canadian Journal of Economics

EER : European Economic Review

EI: Economic Inquiry

EJ: Economic Journal

JAE: Journal of Applied Econometrics

JBF: Journal of Banking and Finance

JFE: Journal of Financial Economics

JFQA: Journal of Financial and Quantitative Analysis

JoF: Journal of Finance

JoLE: Journal of Labor Economics

SMJ: Strategic Management Journal