Academic in-group bias in economics

Lutmar, Carmela and Reingewertz, Yaniv

University of Haifa, University of Haifa

14 December 2020

Academic in-group bias in economics

Carmela Lutmar^, Yaniv Reingewertz^

Abstract

This paper studies academic in-group bias in the top five economics journals. We examine citation counts for articles published in these journals during the years 2006–2015, and compare counts for articles written by in-group members versus out-group members, where in-group status is defined based on whether at least one author shares the journal's institutional affiliation. Our results suggest that in-group bias exists in the QJE, but not in the JPE or REStud (the AER and Econometrica are the control group). We thus confirm the existence of academic in-group bias in some, but not all, top five economics journals.

Keywords: Academic in-group bias, top five, economics journals, editorial favoritism

JEL classifications: A14, I23, O34

^ School of Political Science, University of Haifa, 199 Aba Khoushy Blvd. Haifa. Corresponding author: Yaniv Reingewertz (yanivrein@poli.haifa.ac.il). Both authors contributed equally to this study. Declarations of interest: none. I certify that I have the right to deposit the contribution with MPRA.

1. Introduction and related literature

This paper explores whether the top five economics journals favor authors who share the journal's institutional affiliation. Previous research has documented such academic in-group bias in other disciplines, with evidence that articles by in-group authors tend to be of lesser impact than articles by authors not affiliated with the journal's publishing institution (Yoon 2013; Reingewertz & Lutmar 2018). However, prior results for economics suggest that authors connected to the journal's editor publish papers of *higher* quality than non-connected authors (Laband & Piette 1994; Medoff 2003, 2007).

The scholarly literature on academic in-group bias is limited, despite a vast literature exploring in-group bias, group identity and discrimination more generally (Becker 1957; Brewer 1979, 1999; Mullen, Brown, & Smith 1992; Shayo & Zussman 2011). Yoon (2013) and Reingewertz and Lutmar (2018) showed the existence of in-group bias in law and international relations journals. Using citations as a proxy for article quality, those studies show that articles published by in-group authors (affiliated with the journal's publishing institution) receive fewer citations when publishing in their home journal versus an unaffiliated journal, compared to out-group members. Three papers dealing specifically with top economics journals focus on institutional ties between authors and journal editors (as opposed to the publishing institution). All three papers show that articles by authors who are professionally linked to the editor receive *higher* citation counts in the in-group journal compared to authors without such links (Laband & Piette 1994; Medoff 2003, 2007). A more recent study (Colussi 2018) shows that editorial favoritism is prevalent in economics, but does not take the extra step of exploring how it affects citation counts.

The contradictory findings between law and international relations on the one hand and economics on the other suggest that further research on this topic is needed. This is the present study's point of departure.

2. Data

Our original dataset includes 2,713 articles published in the *American Economic Review* (AER), the *Quarterly Journal of Economics* (QJE), *Econometrica*, the *Journal of Political Economy* (JPE), and the *Review of Economic Studies* (REStud) during the years 2006–2015.[1] These journals are considered by many to be the leading journals in economics, and are collectively known as the top five (Heckman & Moktan 2020). Table 1 provides descriptive statistics for the main variables; descriptive statistics of the in-group variables are found in Appendix Table A1. We use citation counts to explore whether in-group authors publish lower-quality articles in their in-group journal. Using citations as a measure for article impact and quality is standard practice in the economics and scientometrics literature (Garfield 1979; Hix 2004; Bornmann & Daniel 2008; Card & DellaVigna 2017). Tahamtan et al. (2016) provide a comprehensive review of the literature on factors that affect citation counts.

[Table 1 about here]

Figure 1 and Appendix Figure A1 compare Web of Science and Google Scholar citation counts, respectively, for in-group and out-group authors and journals. As can be seen in the figures, articles published in the QJE by in-group authors have lower

---

[1] We include all articles except those appearing in the May issue of the AER (the Papers and Proceedings issue).

impact compared to articles published by out-group authors. However, this is not the case for either the JPE or REStud

[Figure 1 about here]

3. Methodology

Our basic regression model is given in equation 1:

(1) $Citations_i = \alpha + \beta_1 Journal_i + \beta_2 InGroupFaculty_i + \beta_3 InGroupArticle_i + \gamma x_i + e_i,$

where $Citations_i$ is the log citation count (from Web of Science or Google Scholar; one specification for each), plus one for article i.[2] To control for variation across time, the citation counts are divided by the average citation count in the sample in the same year. The regression can be interpreted as a variant of the difference-in-differences approach. $Journal_i$ is a vector of dummy variables for four of the five journals we analyze (the QJE is the benchmark). $InGroupFaculty_i$ is a vector of dummy variables for author affiliations of Harvard, MIT, Chicago and the UK. Each dummy variable receives the value 1 if at least one author of an article held a faculty position at the relevant institution. Finally, $InGroupArticle_i$ is a vector of dummy variables which take the value 1 if the article is published by an in-group author in an in-group journal.[3] These dummy variables are each an interaction of an in-group journal dummy and an in-group author dummy. The control variables - vector x_i - include: a time trend, number of authors, length of article (in pages), and a dummy for first article in issue. In the robustness checks we also include issue number and country of the first author. Finally, e_i is the residual.

---

[2] In using log (citations +1) we follow Thelwall and Wilson (2014), Ajiferuke and Famoye (2015) and Reingewertz and Lutmar (2018).

[3] We define in-group authors for the JPE and REStud as faculty members from Chicago and the UK, respectively. For the QJE we consider faculty members from both MIT and Harvard because they might be considered an integrated research community, in part as a result of geographical proximity.

4. Results

The main results of the empirical analysis are provided in Table 2. Columns 1 and 2 analyze the determinants of citation counts using the Web of Science index, and columns 3 and 4 do the same using Google Scholar. We will focus here on column 2, which includes the control variables described in Equation 1. The results suggest that in-group authors who publish in the QJE receive roughly 20% fewer citations. No effect was found for in-group bias at the JPE or REStud.[4] The results also show that citation counts are affected by the authors' affiliation and by the journal, with certain journals (e.g., the AER) and authors from certain institutions (e.g., Harvard) receiving more citations in general. The effects of the control variables are all in the expected direction – newer articles receive on average fewer citations, and lead articles, articles with more authors, and lengthier articles all receive more citations. Columns 3 and 4, using Google Scholar, reveal a similar picture.

[Table 2 about here]

We conducted a number of robustness checks to ensure our results are not sensitive to changes in the specification. These include: (1) testing the effect of having more than one in-group author; (2) using year fixed effects instead of a time trend; (3) including the issue number and the first author's country of origin as control variables; (4) using robust standard errors; and (5) looking at citations in levels rather than log transformation. The findings are very similar to our baseline results (see Appendix Tables A2 and A3).

---

[4] For REStud we also used a different in-group criterion – authors who are faculty members in the four leading UK universities – LSE, Oxford, Cambridge and UCL. This does not change our results (results available upon request).

5. Conclusions

The results confirm our hypothesis that academic in-group bias exists in at least one economics journal, specifically the QJE. This means that the publication process is sometimes tilted in favor of in-group members, at the expense of research quality. While these findings are in line with previous results for journals in international relations (Reingewertz & Lutmar, 2018) and law (Yoon 2013), they are not in line with prior research in economics. This may reflect the fact that prior research focused on connections between authors and editors, and did not address possible links between authors and the journal's publishing institution. It may also be attributed to the fact that the previous literature in economics analyzes a somewhat outdated sample (from the years 1984 and 1990).

While we believe our paper offers an accurate empirical analysis of in-group bias in economics journals, we acknowledge possible limitations of the study. First, citation counts have been questioned as a measure of paper quality. However, citation counts do seem to be correlated with an article's impact, and they are the most widely used metric for identifying academic quality (Bornmann & Daniel 2008; Card & DellaVigna 2017). Second, and relatedly, we base our analysis on whether or not an article was accepted, without data on the review process. Regardless, we consider this study a promising step in uncovering the intricate links that underlie academic publishing, both in economics and more broadly.

References

Ajiferuke, I., & Famoye, F. (2015). Modelling count response variables in informetric studies: Comparison among count, linear, and lognormal regression models. *Journal of Informetrics, 9*(3), 499–513.

Becker, G. S. (1957). *The economics of discrimination.* Chicago: The University of Chicago Press.

Bornmann, L., & Daniel, H. D. (2008). What do citation counts measure? A review of studies on citing behavior. *Journal of Documentation*, *64*(1), 45–80.

Brewer, M. B. (1979). In-group bias in the minimal intergroup situation: A cognitive-motivational analysis. *Psychological Bulletin*, *86*(2), 307–324.

Brewer, M. B. (1999). The psychology of prejudice: Ingroup love and outgroup hate? *Journal of Social Issues*, *55*(3), 429–444.

Card, D., & DellaVigna, S. (2017). *What do Editors Maximize? Evidence from Four Leading Economics Journals* (No. w23282). National Bureau of Economic Research.

Colussi, T. (2018). Social ties in academia: A friend is a treasure. *Review of Economics and Statistics*, *100*(1), 45-50.

Garfield, E. (1979). Is citation analysis a legitimate evaluation tool? *Scientometrics*, *1*(4), 359–375.

Heckman, J. J., & Moktan, S. (2020). Publishing and promotion in economics: the tyranny of the top five. *Journal of Economic Literature, 58*(2), 419–470.

Laband, D. N., & Piette, M. J. (1994). Favoritism versus search for good papers: Empirical evidence regarding the behavior of journal editors. *Journal of Political Economy, 102*(1), 194–203.

Medoff, M. H. (2003). Editorial favoritism in economics? *Southern Economic Journal*, 70(2), 425–434.

Medoff, M. H. (2007). An analysis of parochialism at the JPE and QJE. *The Journal of Socio-Economics, 36*(2), 266–274.

Mullen, B., Brown, R., & Smith, C. (1992). Ingroup bias as a function of salience, relevance, and status: An integration. *European Journal of Social Psychology*, *22*(2), 103–122.

Reingewertz, Y., & Lutmar, C. (2018). Academic in-group bias: An empirical examination of the link between author and journal affiliation. *Journal of Informetrics*, *12*(1), 74-86.

Shayo, M., & Zussman, A. (2011). Judicial ingroup bias in the shadow of terrorism. *Quarterly Journal of Economics, 126*(3), 1447–1484.

Tahamtan, I., Afshar, A. S., & Ahamdzadeh, K. (2016). Factors affecting number of citations: A comprehensive review of the literature. *Scientometrics, 107*(3), 1195–1225.

Thelwall, M., & Wilson, P. (2014). Regression for citation data: An evaluation of different methods. *Journal of Informetrics, 8*(4), 963–971.

Yoon, A. H. (2013). Editorial bias in legal academia. *Journal of Legal Analysis, 5*(2), 309–338.

Table 1. Summary statistics

|	Average	Standard deviation	Min.	Max.
Citations – log-WoS	0.594	0.407	0	2.741
Citations – log-GS	0.589	0.416	0.007	2.901
Harvard faculty	0.101	0.301	0	1
MIT faculty	0.072	0.258	0	1
Chicago faculty	0.083	0.275	0	1
UK faculty	0.118	0.323	0	1
Number of authors	2.188	0.918	1	8
Article length (pages)	34.081	12.334	2	104
First in issue (1 = first, 0 otherwise)	0.097	0.295	0	1
Issue	3.476	2.144	1	12
Country, first author (1 = US, 0 otherwise)	0.794	0.404	0	1

Note: The summary statistics refer to 10 years of data (2006-2015) for five journals (*American Economic Review, Econometrica, Journal of Political Economy, Quarterly Journal of Economics, Review of Economic Studies*), producing a sample size of 2,713 observations.

Table 2. Main results

Citation index:	(1) No controls WoS	(2) Controls WoS	(3) No controls GS	(4) Controls GS
In-group – QJE	-0.196***	-0.213***	-0.213***	-0.226***
	(0.048)	(0.047)	(0.049)	(0.048)
In-group – JPE	0.023	0.052	0.025	0.049
	(0.074)	(0.072)	(0.075)	(0.073)
In-group – REStud	0.027	0.023	0.027	0.019
	(0.053)	(0.052)	(0.054)	(0.053)
Harvard faculty	0.186***	0.159***	0.216***	0.190***
	(0.029)	(0.028)	(0.029)	(0.029)
MIT faculty	0.128***	0.084***	0.137***	0.092***
	(0.030)	(0.030)	(0.031)	(0.030)
Chicago faculty	0.103***	0.074**	0.116***	0.089***
	(0.030)	(0.030)	(0.031)	(0.030)
UK faculty	0.009	-0.011	0.017	0.002
	(0.027)	(0.027)	(0.028)	(0.027)
Econometrica	-0.186***	-0.149***	-0.238***	-0.194***
	(0.030)	(0.030)	(0.031)	(0.030)
Journal of Political Economy	-0.204***	-0.179***	-0.216***	-0.174***
	(0.034)	(0.033)	(0.034)	(0.034)
Review of Economic Studies	-0.226***	-0.127***	-0.267***	-0.144***
	(0.031)	(0.032)	(0.031)	(0.032)
American Economic Review	-0.026	0.101***	-0.096***	0.064**
	(0.026)	(0.030)	(0.027)	(0.030)
Control variables:				
Year trend	-	-0.012***	-	-0.012***
		(0.003)		(0.003)
Number of authors	-	0.066***	-	0.054***
		(0.008)		(0.008)
Length in pages	-	0.007***	-	0.008***
		(0.001)		(0.001)
First in issue	-	0.088***	-	0.112***
		(0.025)		(0.026)
N	2,713	2,707	2,713	2,707
Adj. R square	0.074	0.122	0.076	0.133

Note: The table presents the results of four regression specifications, one in each column. Columns 1 and 2 explain the determinants of Web of Science citation counts, and columns 3 and 4 of Google Scholar citation counts. The specifications in columns 2 and 4 include the set of baseline control variables described in Equation 1. Asterisks denote the level of statistical significance (*, **, and *** for 90%, 95% and 99% significance levels).

Figure 1. In-group vs. out-group – Web of Science citations
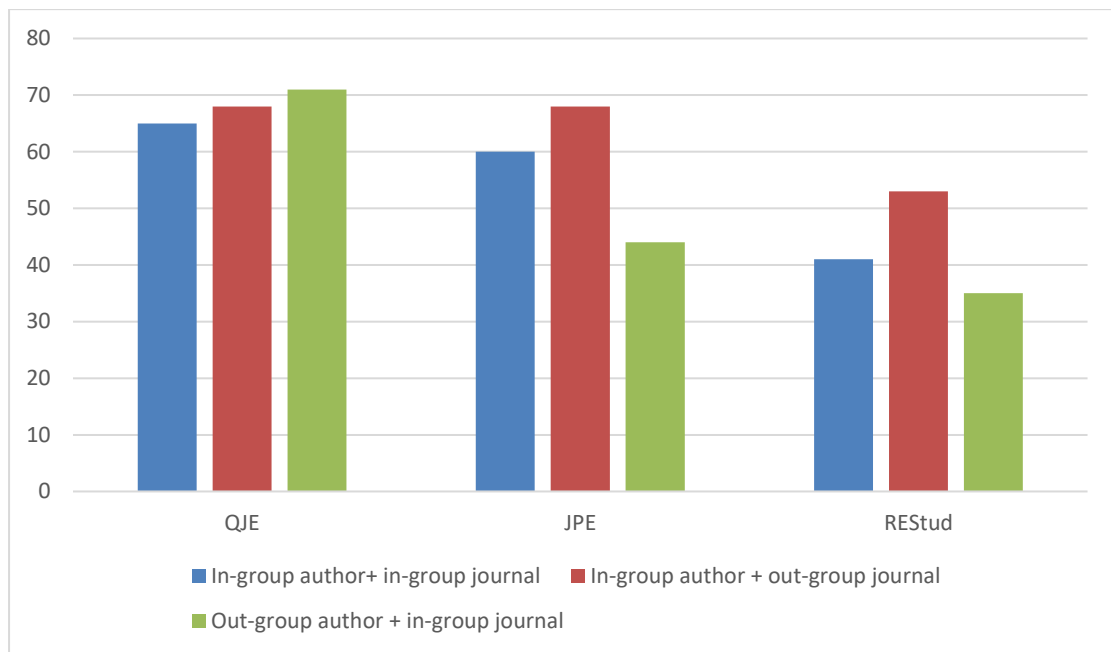
APPENDIX A. Tables and Figures

Appendix Figure A1. In-group vs. out-group - Google Scholar citations
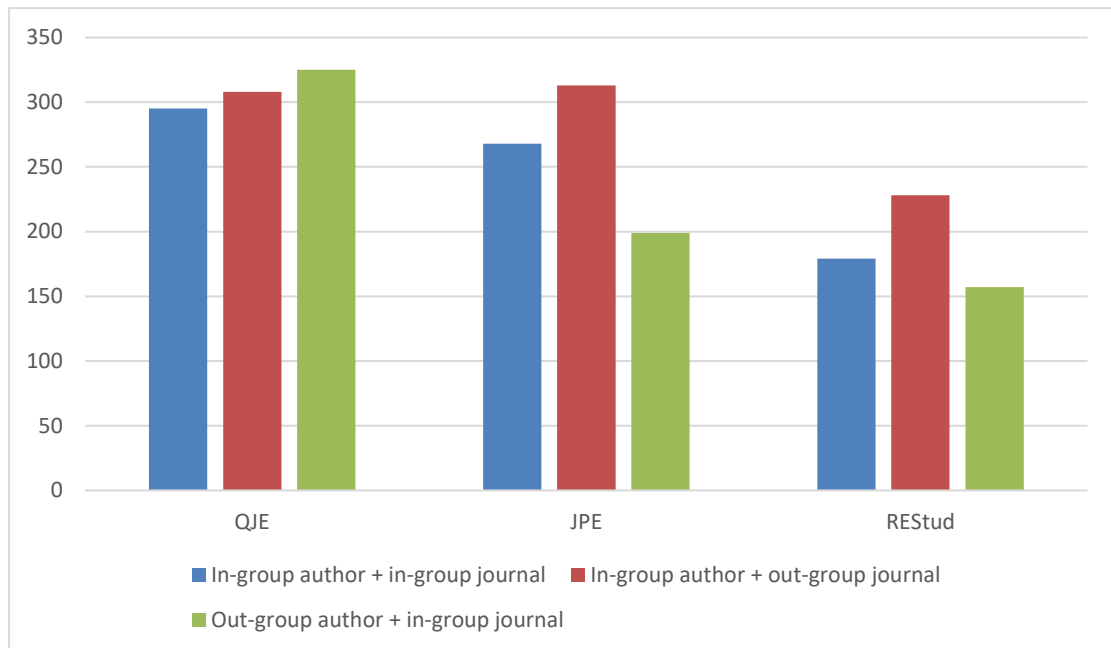
Table A1. Publication shares of in-group authors, by journal

	QJE	JPE	REStud	ECTA	AER
Harvard/MIT	**31%**	17%	7%	14%	14%
Chicago	15%	**13%**	3%	8%	7%
UK	8%	7%	**18%**	12%	12%
Others	46%	63%	72%	66%	67%

Note: Each cell represents the share of articles written by in-group members in each journal.

Table A2. Robustness checks – WoS

	(1) Continuous in-group indicator	(2) Fixed effects	(3) Additional controls	(4) Robust SE	(5) Citations in levels
In-group – QJE	-0.270***	-0.213***	-0.212***	-0.213***	-23.665***
	(0.067)	(0.047)	(0.047)	(0.049)	(8.841)
In-group – JPE	0.029	0.052	0.050	0.052	1.409
	(0.096)	(0.072)	(0.072)	(0.060)	(11.943)
In-group – REStud	0.052	0.022	0.013	0.023	3.485
	(0.081)	(0.052)	(0.052)	(0.048)	(8.693)
Harvard faculty	0.259***	0.159***	0.151***	0.159***	18.748***
	(0.045)	(0.028)	(0.028)	(0.031)	(4.692)
MIT faculty	0.150***	0.083***	0.073**	0.084***	6.508
	(0.049)	(0.030)	(0.030)	(0.031)	(4.969)
Chicago faculty	0.148***	0.075**	0.065**	0.074**	9.187*
	(0.048)	(0.030)	(0.030)	(0.031)	(4.942)
UK faculty	-0.038	-0.010	0.0001	-0.011	-0.322
	(0.042)	(0.027)	(0.038)	(0.027)	(4.442)
Econometrica	-0.138***	-0.149***	-0.130***	-0.149***	-17.340***
	(0.029)	(0.030)	(0.030)	(0.030)	(4.933)
Journal of Political Economy	-0.158***	-0.169***	-0.153***	-0.179***	-23.102***
	(0.032)	(0.033)	(0.034)	(0.033)	(5.546)
Review of Economic Studies	-0.114**	-0.127**	-0.121**	-0.127***	-21.497**
	(0.031)	(0.032)	(0.032)	(0.031)	(5.303)
American Economic Review	0.115***	0.102***	0.136***	0.101***	5.872
	(0.028)	(0.030)	(0.031)	(0.031)	(4.915)
Control variables:					
Number of authors	0.072***	0.066***	0.070***	0.066***	6.514***
	(0.008)	(0.008)	(0.008)	(0.008)	(1.383)
Length in pages	0.007***	0.007***	0.007***	0.007***	0.755***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.129)
First in issue	0.087***	0.088***	0.087***	0.088***	12.765***
	(0.025)	(0.025)	(0.025)	(0.029)	(4.194)
Year trend	+	-	+	+	+
Year fixed effects	-	+	-	-	-
Country (1st author): US			0.047**		
			(0.018)		
Country (1st author): UK			0.030		
			(0.045)		
Issue dummies	-	-	+	-	-
N	2,696	2,707	2,706	2,707	2,707
Adj. R square	0.123	0.120	0.134	0.127	0.200

Note: The table presents five robustness checks of the main results, one in each column. All columns explain the determinants of Web of Science citation counts. Column 1 uses as in-group indicator the percentage of authors with in-group affiliation. Column 2 introduces year fixed effects instead of a time trend. Column 3 includes two additional control variables – a vector of dummy variables for issue numbers and two dummy variables for country of employment of the first author (US and UK). Column 4 reports the baseline results using robust standard errors. Finally, Column 5 uses the levels of citations as a dependent variable. Asterisks denote the level of statistical significance (*, **, and *** for 90%, 95% and 99% significance levels).

Table A3. Robustness checks – Google Scholar citations

	(1) Continuous in-group indicator	(2) Fixed effects	(3) Additional controls	(4) Robust SE	(5) Citations in levels
In-group – QJE	-0.287*** (0.068)	-0.226*** (0.048)	-0.225*** (0.048)	-0.226*** (0.049)	-126.71*** (33.384)
In-group – JPE	0.0001 (0.097)	0.049 (0.073)	0.050 (0.073)	0.049 (0.063)	-4.389 (50.852)
In-group – REStud	0.026 (0.082)	0.019 (0.053)	0.011 (0.053)	0.019 (0.052)	13.889 (37.014)
Harvard faculty	0.300*** (0.045)	0.190*** (0.028)	0.183*** (0.029)	0.190*** (0.031)	100.83*** (19.977)
MIT faculty	0.177*** (0.050)	0.092*** (0.030)	0.083** (0.031)	0.092*** (0.032)	40.868* (21.159)
Chicago faculty	0.171*** (0.050)	0.090*** (0.030)	0.080*** (0.030)	0.089** (0.033)	57.333*** (21.043)
UK faculty	-0.017 (0.042)	0.002 (0.027)	0.015 (0.038)	0.002 (0.027)	2.664 (18.926)
Econometrica	-0.184*** (0.029)	-0.194*** (0.030)	-0.184*** (0.030)	-0.194*** (0.032)	-108.82*** (21.006)
Journal of Political Economy	-0.160*** (0.033)	-0.174*** (0.034)	-0.166*** (0.035)	-0.174*** (0.034)	-106.92*** (23.615)
Review of Economic Studies	-0.129** (0.032)	-0.144** (0.032)	-0.139** (0.032)	-0.144*** (0.033)	-95.648** (52.579)
American Economic Review	0.078*** (0.029)	0.065** (0.030)	0.089*** (0.031)	0.064** (0.032)	12.039 (20.928)
Control variables:					
Number of authors	0.063*** (0.008)	0.054*** (0.008)	0.058*** (0.008)	0.054*** (0.008)	21.718*** (5.889)
Length in pages	0.008*** (0.001)	0.008*** (0.001)	0.008*** (0.001)	0.008*** (0.001)	4.206*** (0.550)
First in issue	0.112*** (0.026)	0.112*** (0.026)	0.111*** (0.026)	0.112*** (0.030)	74.762*** (17.858)
Year trend	+	-	+	+	+
Year fixed effects	-	+	-	-	-
Country (1st author): US			0.045** (0.019)		
Country (1st author): UK			0.023 (0.045)		
Issue dummies	-	-	+	-	-
N	2,696	2,707	2,706	2,707	2,707
Adj. R square	0.133	0.131	0.139	0.138	0.156

Note: The table presents five robustness checks of the main results, one in each column. All columns explain the determinants of Google Scholar citation counts. Column 1 uses as in-group indicator the percentage of authors with in-group affiliation. Column 2 introduces year fixed effects instead of a time trend. Column 3 includes two additional control variables – a vector of dummy variables for issue numbers and two dummy variables for country of employment of the first author (US and UK). Column 4 reports the baseline results using robust standard errors. Finally, Column 5 uses the levels of citations as a dependent variable. Asterisks denote the level of statistical significance (*, **, and *** for 90%, 95% and 99% significance levels).