

*A Citation Analysis of Philosophy of Education Journals*¹

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Philosophers of education have expressed concern about the relevance of philosophy of education to scholars outside of our field—philosophers, educational researchers, curriculum theorists, and teacher educators (for example, see Laverty, 2014; Arcilla, 2002; Wortham, 2011; Burbules, 2014, 2002; Fenstermacher, 2002; Butin, 2005; Bullough and Kriedel, 2011). But their accounts foreground another problem in our field that is, perhaps, even more significant. My experience as a reader often leaves me wondering why work in philosophy of education is not cited by other philosophers of education working in similar areas.² As Hayden’s (2012) important empirical work demonstrates, philosophers of education work on different topics but there are certainly clusters of interest present, which would suggest that there are grounds for greater citation within our own field.

Drawing on my own experience as a reader and thinking more about the results of Hayden’s project, I began looking informally at patterns of citation in individual articles. This brief and non-systematic initial look at literature in philosophy of education journals validated my concern that we might not be citing each other enough, and it led me to the current project: an empirical examination of citation patterns in philosophy of education journals.

The goal of this brief paper is to explore in an empirical manner how our field engages with the literature we publish. In this paper, I present a citation analysis of three prominent journals of philosophy of education: *Studies in Philosophy of Education*, *Journal of Philosophy of Education*, and *Educational Theory*. By exploring patterns of citation and self-citation in our field, I hope to spark a conversation about what citation patterns say about our field and its future. As will become clear from these results, it may be hard to make the case to scholars *outside* of our field that our work is important when it doesn’t seem as though scholars *within* the field engage with the work particularly well.

¹ The first author presented an earlier version of this paper at the 2016 Philosophy of Education Society Annual Conference, and I want to thank my audience—particularly Barbara Thayer-Bacon, Natasha Levinson and Cara Furman—for their feedback, suggestions and ideas. As well, I would like to thank the editors of this journal for their thoughtful and insightful feedback. It made the paper much stronger. Thank you.

² It is important to note that the second author is a graduate student who did all of the data collection, but the first author framed the problem and thought through its significance, hence the use of “I” throughout. The opinions and thoughts on this topic represent that of the first author; the second author is responsible only for the data collection.

A Note on Method

The data analysis looked at the past five years of citations in each of the three journals. For example, looking at the first column in Table 1, which presents the results for the *Journal of Philosophy of Education*, we see n=995. This means that in all of the articles published in that journal in 2009 there were 995 references. For the year 2009, we can look at the rows to see the number of articles cited from each of the listed journals as a part of those 995 total references. The first row lists self-citations; each time the author of the article cited one of her own articles, one self-citation was counted. If an author cited five of her articles in one article, the count is five. Because many times the author self-cited an article included in a philosophy of education journal, I decided to include the column “Omitting SC” to show what happens to overall citation numbers when self-citations are omitted.

As you can see in the tables below, self-citations make up a higher percentage of all citations than citations of other journals in the field. In the case of *Studies in Philosophy of Education*, self-citations account for more citations than almost all of the other philosophy of education journals combined. The data also provides information on what journals are most frequently cited.

Table 1 shows the citation patterns for the *Journal of Philosophy of Education*. We can see that the number of author self-citations is higher than the number of citations to any journal in the field of philosophy of education.

	2009 n=995		2010* n=986		2011 n=1427		2012 n=1047		2013 n=1124		2009-2013 n=5579		2009-2013 n=5579	
	All	Omitting SC	All	Omitting SC	All	Omitting SC	All	Omitting SC	All	Omitting SC	All	Omitting SC	All	Omitting SC
Self Citation (SC)	56	56**	26	26**	77	77**	57	57**	57	57**	273	273**	5%	5%**
<i>Journal of Philosophy of Education</i>	41	38	41	39	75	70	52	44	44	42	253	233	5%	4%
<i>Educational Theory</i>	10	6	18	18	16	11	7	5	9	8	60	38	1%	1%
<i>Educational Philosophy and Theory</i>	14	12	8	8	7	5	7	4	9	7	45	36	1%	1%
<i>Studies in Philosophy and Education</i>	6	4	6	5	12	10	9	8	4	3	37	30	1%	1%
<i>Ethics and Education</i>	4	4	3	3	4	4	6	5	4	4	22	20	0%	0%
<i>Theory and Research in Education</i>	6	5	5	3	2	2	6	2	2	2	21	14	0%	0%
<i>Philosophy of Education Yearbook</i>	1	0	1	1	2	2	1	1	3	3	8	7	0%	0%
*=-The only year citations to a single journal are greater than SC **=SC count is kept for the sake of comparison														

Table 1: Complete data for *Journal of Philosophy of Education*, 2009-2013

Table 2 shows the citation patters for *Studies in Philosophy of Education*. When looking at Table 2, the results remain the case. It appears that an author will cite her or himself more than he or she will cite others.

	2009 n=1179		2010 n=1156		2011 n=1168		2012 n=1360		2013 n=1615		2009-2013 n=6478		2009-2013 n=6478	
	All	Omitting SC	All	Omitting SC	All	Omitting SC	All	Omitting SC	All	Omitting SC	All	Omitting SC	All	Omitting SC
Self Citation (SC)	74	74*	67	67*	69	69*	73	73*	98	98*	381	381*	6%	6%
<i>Journal of Philosophy of Education</i>	27	22	14	11	26	25	24	20	40	35	131	113	2%	2%
<i>Studies in Philosophy and Education</i>	17	14	9	7	27	23	30	28	29	26	112	98	2%	2%
<i>Educational Theory</i>	24	18	21	19	22	16	24	22	14	11	105	86	2%	1%
<i>Educational Philosophy and Theory</i>	7	6	11	9	8	7	26	26	20	18	72	66	1%	1%
<i>Theory and Research in Education</i>	8	7	0	0	3	3	0	0	2	2	13	12	0%	0%
<i>Philosophy of Education Yearbook</i>	0	0	2	2	3	0	1	1	4	4	10	7	0%	0%
<i>Ethics and Education</i>	3	3	0	0	0	0	0	0	5	3	8	6	0%	0%
* = SC count is kept for the sake of comparison														

Table 2: Complete data for *Studies in Philosophy of Education*, 2009-2013

Table 3 shows the citation patters for *Educational Theory*. The example of *Educational Theory* once more shows that authors are more likely to self-cite than to cite others in our field.

	2009 n=758		2010 n=1047		2011 n=1299		2012 n=1371		2013 n=1315		2009-2013 n=5790		2009-2013 n=5790	
	All	Omitting SC	All	Omitting SC	All	Omitting SC	All	Omitting SC	All	Omitting SC	All	Omitting SC	All	Omitting SC
SC	31	31*	43	43*	64	64*	71	71*	86	86*	295	295*	5%	5%*
<i>Educational Theory</i>	7	6	18	16	21	21	31	30	29	29	106	102	2%	2%
<i>Journal of Philosophy of Education</i>	3	3	14	12	10	9	23	22	8	8	58	54	1%	1%
<i>Studies in Philosophy and Education</i>	0	0	3	3	10	9	6	6	10	10	29	28	1%	0%
<i>Educational Philosophy and Theory</i>	2	2	6	5	6	6	6	6	7	7	27	26	0%	0%
<i>Theory and Research in Education</i>	1	1	5	5	1	1	12	12	5	4	24	23	0%	0%
<i>Ethics and Education</i>	1	1	5	4	1	1	1	1	3	3	11	10	0%	0%
<i>Philosophy of Education Yearbook</i>	3	3	0	0	0	0	0	0	0	0	3	3	0%	0%
* = SC count is kept for the sake of comparison														

Table 3: Complete data for *Educational Theory*, 2009-2013

Table 4 shows combined citation patterns for all three journals. As this table very clearly shows, when we combine citation patterns from the journals, self-citations are far more prominent than citations to the work of other scholars.

	2009-2013 n=17847	
	All	Omitting SC
Self Citation (SC)	949 (5%)	949 (5%)
<i>Journal of Philosophy of Education</i>	442 (3%)	420 (2%)
<i>Studies in Philosophy and Education</i>	178 (1%)	163 (1%)
<i>Educational Theory</i>	166 (1%)	162 (1%)
<i>Educational Philosophy and Theory</i>	144 (1%)	137 (1%)
<i>Theory and Research in Education</i>	58 (0%)	57 (0%)
<i>Ethics and Education</i>	41 (0%)	38 (0%)
<i>Philosophy of Education Yearbook</i>	21 (0%)	17 (0%)

Table 4: Combined citation patterns for *Studies in Philosophy of Education*, *Journal of Philosophy of Education*, and *Educational Theory*, 2009-2013

Interpreting the Data

It is hard not to draw the conclusion that philosophy of education—as measured by citation data—is only questionably relevant to the work of philosophers of education. As is quite clear from each of the tables, philosophers of education seem to find their own work more relevant to the work they are doing than the work of other philosophers of education. But I do not want to discuss this point or draw implications from it just yet. Before doing so, I turn to citation patterns in other fields to see what they might add to this inquiry.

In a study of 45,000 publications by Norwegian authors, Dag Aksnes (2003) found that 21 percent of all citations were self-citations. This number varied by field (from 17 percent for clinical medicine to 31 percent for astrophysics) but is, on average, well above the self-citation numbers for philosophy of education, although Aksnes only looked at the sciences. An older study examining a range of disciplines demonstrated that the humanities have the lowest self-citation rates (Snyder & Bonzi, 1998). As such, it is hard to draw conclusions about whether or not philosophers of education cite themselves too often (or not often enough). Hyland (2003) shows that individuals who appear to have more citations on their papers can be seen as more important to scholars both inside and outside of the field. Though this can lead to a cynical view as to why individuals self-cite (for mere self-promotion),³ it also seems natural that we are most familiar with our own work, and we often are working on projects that span articles, so we would want to alert readers to our other work. As such, I

³ I see something like this cynicism in Lowe & Robinson (2014).

don't want to be seen as taking a negative view of self-citation. Rather, I want to make it an object of thought, one that is complicated but important.

When we turn to data about journal citations, a similarly complicated picture emerges. Recently, Thompson Reuters realized that some journals were “gaming” citation numbers. In order to increase impact factors, it appeared as if some editors were mandating that prospective authors cite the journal they were submitting to (Davis, 2011; White & Fong, 2012). In three prevalent cases, citation analysis revealed that 96 percent, 90 percent and 78 percent of all citations in a journal were of the journal itself. After being delisted from *Journal Citation Reports* these journals changed their editorial practices, and their self-citation numbers moved from 96 percent to 10 percent, 90 percent to 8 percent, and 78 percent to 18 percent. The impact factors of these journals suffered as a result. When representatives from Thompson Reuters were asked what a permissible number of journal self-citations is, they replied that they weren't going to set baselines, but they knew problematic numbers when they saw them. Again, it is hard to compare numbers in philosophy of education journals to journals targeted by Thompson Reuters for potentially “gaming” impact factors. But, we might wonder if we—as a field—are doing enough to reference our work. I turn to this topic in the following section.

Discussion

When writing about citation practices in philosophy journals, Berit Brogaard (2013) makes a point that is worth quoting at length:

In philosophy, poor citation practices are the rule rather than the exception.... This convention is devastating to individual authors and to the field as a whole. It is clear how it can hurt individual authors. For example, younger, lesser known and minority philosophers may never get the credit they deserve. But it also hurts the profession as a whole. Because philosophy papers don't typically include sufficient citations, philosophy journals will have very low impact factors. Admittedly, philosophy journals might have low impact factors, even if we were to implement better citation practices but I have a feeling that the low impact numbers largely are due to philosophers' bad citation practices.... There are some who will say that citation numbers are not the only way to determine the quality of a journal or a published article. I couldn't agree more. Citation numbers may not even be among the most important factors. But it is nonetheless a factor and one that may help philosophers who apply for grants and fellowships achieve their goals.

As Paul Smeyers and Nicholas Burbules (2011) have persuasively argued, we should be skeptical when it comes to quantifying the quality of academic work by using metrics like impact factors. Having said this, Brogaard makes an important point about the individual and collective good of changing citation practices. As individuals, having more people citing our work will improve our likelihood of earning tenure and being rewarded grants and fellowships. Equally important, higher impact factors for philosophy of education journals will likely increase the profile, if not the relevance, of philosophy of education as a field. Again, though impact factors are often problematic, I do believe that philosophers of education are put in a difficult position when it comes to talking about our importance to

philosophers and the field of education broadly understood when our work—as measured by citations—appears unread.

More important is a point Lisa Herzog (2014) makes in a related commentary on citation practices in philosophy:

To cite or not to cite is a form of exercising power.... [T]his power is often exercised to the benefit of those who are (considered to be) in the centre of the academic community to the detriment of those who are (considered to be) at its periphery, not only in terms of gender and race, but also in terms of institutions and countries.

She goes on,

But what is at stake here is not only justice. It's also good scholarship. Authors at the periphery might have important objections to one's claims, or they might have suggested ways of reconceptualising the problem in a better way. They might have drawn attention to historical debates that run in parallel, or they might have explored the problem at hand from an interdisciplinary perspective. Therefore, there needs to be space for including references to people from the periphery. The norm for who needs to be cited should be "what is relevant?", not "whom do I have to quote in order to meet everyone else's expectations?"

This point speaks for itself, and it is worth reading it in concert with the data presented above. Though journal editors and reviewers (generally individuals more at the center of our discipline) can influence citation patterns, authors should also think with Herzog about the epistemic virtues of creating broader citation networks in their own work.

Implications

Altering citation patterns in our field may have the benefit of creating a more rigorously inclusive vision of our field—that is, instead of citing only a handful of established or expected authors when we write, we seek to draw from a broader, more diverse range of references. It may also make our field and scholars within our field more prominent when measured by citation metrics (as problematic as they may be). However, this doesn't tell the entire story. In the rest of this brief paper, I note important constraints and possibilities when it comes to citations.

Institutional constraints: When authors are only compensated for presenting at conferences and not for attending conferences, what message does this send about the importance of maintaining communities of inquiry and practice? Is the message one of promoting an individualistic if not competitive ethos when it comes to scholarship, or one where we are building—together—ways of thinking and growing together as a field? I worry that we are losing a sense of intellectual community, and the more we can do to repair and rebuild this, the better for us as individual scholars and as a field.

Technology affordances: Just as technology gives rise to concerns related to the problematic nature of issues such as impact factors, it opens up possibilities. The main thing I am thinking about here is Google Scholar. Now more than ever it is quite easy to trace webs of citation; one can easily find a "classic" in our field and see everyone who cited the paper. When we see this network, we have a

strong sense of who is working on the topic, even if they aren't heavily cited. This allows us to read new work and engage with what may be underrepresented perspectives. It is important to educate future scholars about the ease with which one can find work on a topic and show that engaging with the conversation that exists on any topic is intellectually and morally valuable.

Not replicating the social sciences in education: The social sciences seem to have a much clearer standard of expectation when it comes to reviewing literature (Boote & Beile, 2005), but I don't want to be seen as suggesting that the model used by social scientists should be the standard used by philosophers of education. In particular, American Psychological Association stylistic practices may not as effectively facilitate the conversations that are valuable in our field. Extensive endnotes may be one of those places where conversations—conversations I discuss directly below—would flourish. But it might be worth our time—as a field—to come up with expectations and ideals when it comes to graduate work and the type of literature reviews students do.

Facilitating a conversation: One of the main reasons we should see citation as important is because it shows that we value the conversation of philosophy of education. There is a certain moral stance we take when we try to learn from our past and the work that other philosophers of education are doing.⁴ Not only does it cultivate the epistemic virtues mentioned above, but it speaks to the ways in which we value the work done in our field. Citation is not only an exercise in power; it can be a moral and ethical practice. By our acts of citation we can show our students the ways in which we value work that our colleagues do.

Rethinking a fragmentation: It might be argued that we don't cite each other enough because we are doing distinctly different types of work. But I think Hayden's (2012) empirical work on the topics and writers addressed in our literature shows that there are more similarities in the field than may initially appear. And I believe that we have all had the experience of reading papers (published and unpublished) where authors fail to engage with good work done on the topic they are writing about. Though we can't expect comprehensiveness on the part of any single author, I believe we can do much better than we currently are doing to cultivate conversations that lie dormant due to our failure to seek out other philosophers of education doing work similar to our own. As noted above, technology makes this cultivation more accessible than ever.

Gender, race and graduate education: Future work may want to look at how gender and race factors into citation patterns. Does an author's gender or race impact how she cites; does gender or race impact how much the author is cited? What might responses to these questions mean? As well, though it would appear natural that students from the same graduate programs would be more likely to cite work from authors from the same program due to familiarity, we could test this hypothesis and—again—consider its meaning.

Conclusions

As mentioned in the introduction, the goal of this paper is to contribute to an ongoing conversation about the state of philosophy of education and its future. I hope that this paper has been suggestive; it certainly isn't meant to be exhaustive or judgmental. What this paper suggests is that we—as a field—

⁴ For an excellent discussion of the role of history in philosophy of education, see Mintz (in press).

aren't doing enough to engage with the work of our field, and this has negative internal and external implications. Internally, we are losing opportunities to cultivate conversations. While there are constraints to collaboration and communication, I have to think we would all benefit from increased engagement with our literature. And the prospect of writing work that is unread by scholars outside the field is enervating; much more so when we see that our work isn't read by scholars working on topics similar to our own. Saying this, we shouldn't engage for cynical reasons, to game impact factors or to superficially list a reference without discussing or thinking with it. But the more we can do to engage each other, the better our prospects for reaching a wider audience. Citation seems to beget citation: the more a work is perceived to be important (through citation numbers in something like Google Scholar), the more it will be engaged with. Instead of wondering why scholars outside of our discipline aren't engaging with our work, I hope this paper shows that we have a lot of work to do internally to show that we actually value the work that we do.

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