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Source: *Higher Education* , September 2014, Vol. 68, No. 3 (September 2014), pp. 379-395

Published by: Springer

Stable URL: https://www.jstor.org/stable/43648726

High Educ (2014) 68:379–395
DOI 10.1007/s10734-014-9718-0

Working in separate silos? What citation patterns reveal about higher education research internationally

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Published online: 28 January 2014

Abstract Higher education research is a growing, inter-disciplinary and increasingly international field of study. This article examines the citation patterns of articles published in six leading higher education journals—three published in the United States and three published elsewhere in the world—for what they reveal about the development of this field. The analysis shows that the American journals are not only dominated by American-based authors, but that they also cite predominantly articles, books, chapters and other publications published in the United States. By contrast, the three non-American journals accommodate a much broader spread internationally of both authors and citations. Possible explanations for these patterns, and whether they matter, are discussed.

Keywords Higher education research · Journal articles · Citation patterns

Introduction

Higher education research—i.e. research-based studies focused on extending our understanding of the workings of all aspects of higher education—is a growing, inter-disciplinary and increasingly international field of study (Brennan and Teichler 2008; Kehm and Musselin 2013). As such, its development is worthy of study, so that we may better understand what has been researched, where and how; as well as, by comparison, what has not been researched but might be. One obvious way of researching the field of higher education research is to examine its outputs: the range of books, journal articles and other kinds of publications that are produced every year.

This is the approach—a form of meta-analysis—that I have been taking over the last decade, focusing on the outputs published worldwide in the years 2000 and 2010 in the English language, and on books and journal articles in particular (Tight 2003, 2012a).

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Within this body of research, particular studies have focused on, for example, the use of theory (Tight 2004, 2014), the role of different disciplines (Tight 2013), different levels of study (Tight 2012b), global patterns of publication (Tight 2007) and changing patterns over the decade (Tight 2012c).

One methodology that has been applied in these analyses is that of citation and co-citation analysis (Tight 2006, 2008, 2009). These techniques look at the publications that are cited in articles or books, and the patterns of those citations, on the principle that this should reveal which authors and publications have been of particular influence, and on which existing bodies of research current authors are building. The aim of the present study is to continue that line of research by examining the citation patterns for articles published in a sample of higher education journals in the year 2010.

I am not, of course, the only researcher to have applied these sorts of techniques in analyzing the growing higher education literature. While, historically, most such analyses have come from the United States (e.g. Budd 1990; Budd and Magnusson 2010; Hart and Metcalfe 2010), there are a growing number of examples from elsewhere in the world (e.g. Haggis 2009; Horta and Jung, forthcoming; Jung and Horta 2013; Kandlbinder 2012; Marginson 2013; Teixeira 2013).

The next section discusses what citation analyses seek to do. The selection of journals and articles for examination is then presented and justified. Overall patterns of publication and citation in these journals in the year 2010 are reviewed. The analysis then focuses on the journals and book publishers that are most frequently cited, and the most popular authors and publications. The patterns revealed are discussed and some conclusions are drawn.

Citation analysis

Citation (and co-citation) analysis has been described as:

> A quantitative research approach based on the use of citation indexes. Two measures of scientific activity are used: first, the citation rates of authors, documents, and journals; and, second, the number of co-citations, that is, citation links between authors, documents, and journals. (Desmedt and Valcke 2004, p. 447)

Other researchers have extended this work to examine the relationship between citing and the cited work, to carry out content analyses of citation contexts, and to explore the motivations underlying citation (e.g. Hyland 2000, 2012; White 2004). As already indicated, there are a small, but growing, number of studies that have applied these approaches to studying higher education research. These have explored, for example, the productivity of researchers in particular countries, the connections between researchers, and the ways in which key works have been cited over time. In this article the focus will be on the first approach described by Desmedt and Valcke, citation analysis, and what it tells us about the kinds of publications cited by different authors.

There are, naturally enough, limitations to citation and co-citation analysis as methodological approaches. As a quantitative technique, citation analysis is commonly used—by funding bodies and others—to imply judgments of quality (Warner 2000). While there is 'a considerable body of evidence to suggest that citation counts correlate with a variety of subjective and objective performance measures' (Cronin 1984, p. 27), these correlations are far from perfect. Thus, the most cited authors, titles, journals and publishers may not necessarily be 'the best', with citations inflated through self-citation and cronyism, or

deflated through jealousy, forgetfulness and ignorance. Works may be cited for negative as well as positive reasons, and all citations may not be equal, with some items referenced just in passing—e.g. to set the policy context—while others are discussed in detail.

Despite these reservations, however, citation analyses do show much of interest about the patterning of research, because:

> Citation is central to the social context of persuasion as it can provide justification for arguments and demonstrate the novelty of one's position. By acknowledging a debt of precedent, a writer is also able to display an allegiance to a particular community or orientation, create a rhetorical gap for his or her research, and establish a credible writer ethos. (Hyland 2000, p. 20)

The remainder of this article sets out to show what citation analysis can tell us about the contemporary state of higher education research—with a particular focus on where academic journals draw their authors from, and what work those authors themselves draw upon—through the examination of a sample of journal articles.

The sample journals

Six academic journals that focus exclusively on higher education research were selected for this study. Three of them—*Journal of Higher Education* (JHE), *Research in Higher Education* (ResHE) and *Review of Higher Education* (RevHE)—are published in the United States. They are widely regarded as the leading US higher education journals, and, as such, have been the subject of a number of previous bibliographic studies (e.g. Budd and Magnusson 2010; Donaldson and Townsend 2007; Hart 2006; Hart and Metcalfe 2010).

The other three journals—*Higher Education* (HE), *Higher Education Research and Development* (HERD) and *Studies in Higher Education* (SHE)—are published outside of the United States, and may similarly be regarded as (at least amongst) the leading non-US higher education journals. They have also been the subject of comparative study (e.g. Haggis 2009), though less frequently than the American journals.

The analysis that follows focuses on the output of the six journals for the year 2010. Of course, if a different or more extensive set of journals had been examined, or the analysis had not been confined to 1 year's output, or if other forms of publication had been examined, then the findings would likely be at least somewhat different. The findings are, however, interesting and suggest lines for future research. Focusing on journal outputs for the year 2010 also allows comparisons to be made with the findings of an earlier study of the same journals' output in the year 2000 (see Tight 2012c). This comparison reveals both trends—most notably the considerable expansion in the output of the non-American journals over the period—and continuities.

Expanding the number of journals analysed would have introduced problems both in the scale of the analysis and of definition. There is no single, comprehensive and reliable list of higher education journals available of which I am aware (but see, for example, Bassett and Rumbley 2006, Tight 2012a, pp. 229–233). Though the trend in recent years has been towards an increase in their numbers and frequencies of publication, some have also ceased publication.

There are close to one hundred specialist higher education journals that publish exclusively in the English language, and there are, of course, many others that publish in other languages, or that include some articles focusing on higher education but do not specialize in it. These journals vary a good deal in their focus, frequency and standards,

with some being popular or professional in their orientation (i.e. they are newspapers or magazines), rather than academic journals.

The analysis has been deliberately restricted to 1 year's output of six leading, refereed, academic journals, focusing exclusively on higher education and publishing articles only in the English language, to keep it manageable. While the analysis cannot, therefore, be said to provide conclusions that will hold for all higher education research, this focus means that it will have something interesting to say about some of the best contemporary higher education research.

The analysis is not, however, restricted to just the journal articles themselves, but, crucially, also focuses in detail on their references or citations. Examining all of the citations made in 1 year's output of six journals is no small undertaking. Copies of all the articles included were obtained and carefully scrutinized, with relevant details entered into two databases created for the purpose: one containing data relating to the articles and their authors, and the other information on all of the items cited in each article. The cited items were then traced and verified, and their details corrected where necessary.

Patterns of authorship

All six journals are, in principle (judging by the guidance they provide on their websites for potential authors), open to publishing articles from anyone on any aspect of higher education. They do, however, exhibit differences in both methodological preferences, with the US-based journals publishing more quantitative studies, and in the level at which analyses are carried out, with larger-scale (and typically quantitative) analyses at the level of the nation also commoner in the US-based journals (Tight 2012c). Much more significantly for the present analysis, though, as Table 1 shows, there are also major variations between the journals in where their authors come from.

In 2010 the six journals examined published 273 articles in total. Interestingly, while the three US-based journals published 83 articles (30 % of the total), the three published outside of the US published more than twice as many, 190. This needs to be borne in mind in considering the results of the analysis, although most of the findings are relative in nature.

Of the 273 articles, in 97 (36 %) cases the first author was based in either the United States or Canada (an analysis of all authors—in total there were 592, or a mean of 2.2 authors per article—while adding to the complexity, would come to similar conclusions, as most co-authors were based in the same country, and usually in the same institution and

Table 1 Journal articles published in 2010 by geographic location of first author

Journal	USA/Canada	Australia/New Zealand	UK	Rest of Europe	Rest of the world	Total
HE	14 (16)	11 (13)	11 (13)	31 (36)	18 (21)	85
HERD	1 (2)	44 (90)	3 (6)	1 (2)		49
JHE	28 (100)					28
ResHE	35 (95)	1 (3)		1 (3)		37
RevHE	18 (100)					18
SHE	1 (2)	16 (29)	22 (39)	10 (18)	7 (13)	56
Total	97 (36)	72 (26)	36 (13)	43 (16)	25 (9)	273

Figures in parentheses are row percentages

department). In 81 of these cases the article was published in one of the three US-based journals, with all of the articles published in both JHE and RevHE, and all but two of those in ResHE, having first authors from North America. To put it succinctly, the best US-based higher education journals almost exclusively publish articles by American authors, and relatively few American authors seek to publish their work in non-American journals.

Similar, but less extreme, patterns can be seen for the other journals and regions. The next largest group of authors, 72 (26 %), come from Australia or New Zealand. While their prominence is in part due to the inclusion of an Australasian-based journal, HERD, in the analysis—with 44 of its 49 articles authored by Australasian-based academics—Australasian authors are also well represented in the other two non-US-based journals, HE and SHE.

The other major English-speaking nation separately identified, the UK, could only muster 36 (13 %) of the total authors, and they only accounted for a minority—22 of 56—of the articles in the only UK-based journal considered here, SHE. The UK's contribution to higher education research is, at least in 2010, relatively lower than might be expected. The rest of Europe did rather better, with 43 authors (16 %), accounting for 31 of 85 articles published in HE.

Judged on the spread of its authors, therefore, HE is clearly the most international of the six journals analysed. A comparison of the authorship patterns for 2010 and 2000 indicates that, while both HE and SHE have both become more international, the three US-based journals have remained US-focused (Tight 2012c).

There are, then, fairly strong relationships evident between where higher education journals are based or published and where their authors come from. This, of course, is not surprising; what is more interesting is how these relationships are varied. In the remainder of this article we shall see whether these relationships apply to the citations included in the articles as well.

Overall patterns of publication and citation

Table 2 shows that a total of 12,661 citations were made in the 273 articles published in 2010, a mean of 46.4 citations per article. The number of citations varied widely between articles, from a minimum of just 9 to a maximum of 142 in one article. The three US-based journals tended to contain more citations (and also longer, if fewer, articles), 4,861 in 83 articles, a mean of 58.6 per article; while the three non-US-based journals, though they contained more articles (190 with 7,800 citations), averaged fewer citations, 41.1 per article.

Table 2 Journal outputs and citation numbers, 2010

Journal	Number of articles	Number of citations	Mean number of citations	Minimum number of citations	Maximum number of citations
HE	85	3,578	42.1	11	93
HERD	49	1,700	34.7	14	63
JHE	28	1,484	53.0	11	110
ResHE	37	1,987	53.7	20	118
RevHE	18	1,390	77.2	32	142
SHE	56	2,522	45.0	9	102
Total	273	12,661	46.4	9	142

Table 3 categorises the citations by the type of publication being referred to. Here it has to be noted that, while the categories adopted are fairly obvious and robust, they do have some potential to elide into each other. Thus, the various *New Directions* series published by Jossey-Bass, which might be classified as either books or journals (and, indeed, have been classified as both in the articles analysed), have here been treated as journals. The category 'online documents' includes some items which other authors have consulted and referenced in other formats.

The most common type of citation found in these 273 journal articles was to other journal articles, which accounted for just under one-half, 49.9 %, of all citations. Books (18.6 %) and book chapters (9.1 %) between them accounted for just over one-quarter (27.7 %) of the total citations. Reports—produced by governments or other organisations—were also widely referred to, amounting to 11.5 % of all citations. The other categories identified—online documents (4.1 %), conference papers (3.3 %), newspaper articles (1.7 %), dissertations (1.2 %) and other (0.7 %)—accounted for relatively small numbers of citations.

Clearly, then, higher education researchers use, and refer to, a wide range of publications. Books and reports retain a considerable significance alongside what is currently widely regarded as the most important form of academic publishing, the refereed journal article. Indeed, as we shall see, while articles are the most common form of publication cited, the most cited individual publications tend to be books or reports.

While there is some variation evident in the proportions of different types of citations in the journals examined—e.g. articles accounted for 56.0 % of citations in ResHE, but only 44.5 % in HERD; while books made up 22.8 % of citations in JHE, but only 16.2 % in ResHE—these are relatively small-scale.

Table 3 Types of publication cited

Type	HE	HERD	JHE	ResHE	RevHE	SHE	Total
Journal article	1,745 (48.8)	756 (44.5)	695 (46.8)	1,112 (56.0)	651 (46.8)	1,364 (54.1)	6,323 (49.9)
Book	638 (17.8)	335 (19.7)	339 (22.8)	322 (16.2)	270 (19.4)	447 (17.7)	2,351 (18.6)
Chapter	356 (9.9)	134 (7.9)	136 (9.2)	149 (7.5)	123 (8.8)	252 (9.9)	1,150 (9.1)
Report	480 (13.4)	167 (9.8)	193 (13.0)	229 (11.5)	171 (12.3)	218 (8.6)	1,458 (11.5)
Conference paper	89 (2.5)	118 (6.9)	25 (1.7)	59 (3.0)	38 (2.7)	89 (3.5)	418 (3.3)
Online document	144 (4.0)	141 (8.3)	45 (3.0)	46 (2.3)	44 (3.2)	94 (3.7)	514 (4.1)
Dissertation	54 (1.5)	13 (0.8)	14 (0.9)	29 (1.5)	25 (1.8)	17 (0.7)	152 (1.2)
Newspaper article	42 (1.2)	31 (1.8)	25 (1.7)	32 (1.6)	57 (4.1)	23 (0.9)	210 (1.7)
Other	30 (0.8)	5 (0.3)	12 (0.8)	9 (0.5)	11 (0.8)	18 (0.7)	85 (0.7)
Total	3,578	1,700	1,484	1,987	1,390	2,522	12,661

Percentages in parentheses are of column totals

Other includes abstracts, acts, book reviews, databases, editorials, films, lectures, legal cases, research proposals, software, speeches, telephone conversations, unknown sources and unpublished manuscripts

Patterns of journal citation

The 6,323 citations of journal articles made in the six journals analysed during 2010 referred to 1,399 different journals, which is indicative of both the diversity and multi-disciplinary nature of the field of higher education research. Most of these journals, 764 (55.4 %), were referenced only once, with the great majority, 1,191 (85.1 %), referenced on five or fewer occasions. At the other extreme, only 11 journals were referenced 50 or more times, and only 7 on more than 100 occasions.

Table 4 identifies the 20 journals most commonly referred to, and shows how often they were referred to in each of the six journals being analysed. The majority, 12, of these journals—*Journal of Higher Education*, *Research in Higher Education*, *Review of Higher Education*, *Journal of College Student Development*, *Sociology of Education*, *Economics of Education Review*, *Review of Educational Research*, *Change*, *American Journal of Sociology*, *American Sociological Review*, *Journal of Applied Psychology* and *Journal of Educational Psychology*—may be described as American, in that they are published in the United States and their editorial boards (all journal websites were accessed and checked for this information) are wholly or overwhelmingly populated by academics working in American (and a few Canadian) universities. For example, JHE currently has an editorial advisory board made up of 7 US-based academics and an editorial review board of 24 US-based academics; while RevHE has 6 US-based editors and an editorial board of 30 US-based academics (websites checked on 4/12/13).

Of the remaining journals, five—*Studies in Higher Education*, *Assessment and Evaluation in Higher Education*, *Teaching in Higher Education*, *British Journal of Educational Psychology* and *Higher Education Quarterly*—may be identified as British (though the first named is well on its way to being considered international); two—*Higher Education Research and Development* and *Journal of Higher Education Policy and Management*—as Australasian; and one—*Higher Education*—as genuinely international. Thus, the HE editorial team of 8 contains members from four continents, while its editorial advisory board of 21 contains five members based in North America, three in the UK, six in the rest of Europe, five in Asia, and one each in Africa and Latin America (website checked 4/12/13).

As the journal titles indicate, they include a range of generic and specialist higher education and education journals, as well as others from disciplines (such as sociology, psychology and economics) that make major contributions to higher education research.

Not surprisingly, the six journals most commonly referenced are the six journals whose patterns of citations are being examined. Indeed, the most referenced journal in each of the journals analysed is typically, though not always, that journal itself. Since all of the journals cover research into all aspects of higher education, this is probably largely due to authors being strategic in signaling their awareness of previous publications of relevance in the journals they are targeting. Editors, for their part, would be concerned if authors seeking publication demonstrated a lack of awareness of what had been published in their journals.

Thus, 99, of the 330 (30.0 %) references to JHE were in articles in JHE; 115 of the 324 (35.5 %) references to ResHE were in ResHE; 143 of the 276 (51.8 %) references to HE were in HE; 119 of the 207 (57.5 %) references to SHE were in SHE; 58 of the 135 (43.0 %) references to HERD were in HERD; and 38 of the 134 (28.4 %) references to RevHE were in RevHE. Interestingly, these associations appear stronger for the non-American journals than they do for the American ones; perhaps a reflection of the greater

Table 4 Patterns of citation in the top 20 most cited journals

Journal cited	Nation	HE	HERD	JHE	ResHE	RevHE	SHE	Total
Journal of Higher Education	US	40	15	99	99	58	19	330
Research in Higher Education	US	53	13	62	115	60	21	324
Higher Education	International	143	31	16	9	8	69	276
Studies in Higher Education	UK	34	45	4	5		119	207
Higher Education Research and Development	Australia	22	58	2	2		51	135
Review of Higher Education	US	15	2	31	44	38	4	134
Journal of College Student Development	US	10	4	20	32	36	9	111
Sociology of Education	US	6		11	42	7	4	70
Economics of Education Review	US	18		9	33	5	1	66
Assessment and Evaluation in Higher Education	UK	15	12		1		26	54
Teaching in Higher Education	UK	8	13			1	28	50
British Journal of Educational Psychology	UK	22	4		12		10	48
Review of Educational Research	US	8	7	4	13	6	9	47
Change	US	11	4	8	11	8	4	46
Journal of Higher Education Policy and Management	Australia	17	13	1	3	1	9	44
American Journal of Sociology	US	5	1	10	19	5	3	43
American Sociological Review	US	13		12	10	5	3	43
Journal of Applied Psychology	US	6	3	8	19	1	2	39
Journal of Educational Psychology	US	6	3	3	4	2	20	38
Higher Education Quarterly	UK	8	6	1			19	34
Sub-total		460	234	301	473	241	430	2,139
Total		1,745	756	695	1,112	651	1,364	6,323

maturity of higher education research in North America, or of the larger number of citations per article in the American journals.

Other patterns are also apparent in Table 4. Most notably, American journal articles tend to reference American journals, while non-American journal articles tend to reference non-American journals. Thus, 256 of the 330 (77.6 %) references to JHE were in the three leading American journals under examination; as were 237 of the 324 (73.1 %) references to ResHE and 113 of the 134 (84.3 %) references to RevHE. By comparison, JHE and ResHE were each only referenced twice in HERD, and RevHE not at all. The association between non-American journals and non-American citations is even more striking. Thus, 243 of the 276 (88.0 %) references to HE were in the three leading non-American journals examined; as were 198 of the 207 (95.7 %) references to SHE and 131 of the 135 (97.0 %) references to HERD. Neither SHE nor HERD received any references in RevHE.

Looking down Table 4, with the occasional exception, similar patterns may be observed for the other journals cited. It seems that most authors of articles on higher education tend to limit their journal reading and referencing to material produced 'closer to home' and within their own networks. Is the same tendency apparent for books?

Patterns of book and chapter citation

Table 5 lists the twenty book publishers most commonly referenced, which between them accounted for over half of all of the citations to books or book chapters. The most cited publisher, Jossey-Bass, accounted for a total of 241 citations across the six journals, closely followed by Sage with 231 and Routledge with 229. The Open University Press (131), Cambridge University Press (106) and Oxford University Press (105) also accounted for more than one hundred citations each.

Examining Table 5 in more detail, it is clear that some book publishers are more commonly cited in American journal articles—Agathon, Johns Hopkins University Press, Jossey-Bass and the State University of New York (SUNY) Press—each of which publishes primarily or only in the United States. A larger number of book publishers, which publish primarily outside of the United States—Cambridge University Press, Kluwer, Kogan Page, Open University Press, Oxford University Press, Palgrave Macmillan and Routledge—are cited chiefly in non-American journal articles.

The pattern is not as clear cut as this might make it seem, however, for three reasons. First, Lawrence Erlbaum, an American publisher, is cited more often in the non-American than the American journals. Second, the other eight publishers identified in Table 5, mainly American, appear as likely to be cited in non-American journals as in American-based ones. Third, and more fundamentally, publishing is an international business, and many of the publishers identified publish books in more than one country.

The most cited authors and publications

Table 6 lists the top 20 most cited authors (actually 21 as the last two were equally popular). Together they accounted for just 6.1 % of the total citations, indicating the number and spread of authors cited. Significantly, only one of them is a woman. Note, however, that the table applies only to first authors, so second authors, particularly those with names beginning with letters late in the alphabet, are disadvantaged (thus the most cited author, Pascarella, has many citations shared with Terenzini and others).

Table 5 The 20 most commonly cited book/chapter publishers

Publisher	HE	HERD	JHE	ResHE	RevHE	SHE	Total
Agathon	4	1	20	28	8	2	63
Cambridge UP	24	23	7	5	7	40	106
Harvard UP	12	8	9	9	1	13	52
Johns Hopkins UP	14	3	47	16	7	5	92
Jossey-Bass	26	20	45	64	50	36	241
Kluwer	12	2	3	3	5	8	33
Kogan Page	11	12	0	1	1	17	42
Lawrence Erlbaum	23	5	7	13	8	28	84
McGraw-Hill	13	1	8	5	1	1	29
Open UP	52	30	3	3	0	43	131
Oxford UP	49	13	5	6	7	25	105
Palgrave Macmillan	14	12	5	5	5	13	54
Prentice Hall	13	7	2	12	4	9	47
Princeton UP	14	1	8	13	5	10	51
Routledge	57	36	14	4	21	97	229
Sage	65	38	34	29	31	34	231
Springer	22	8	6	10	1	10	57
SUNY Press	6	2	13	13	23	1	58
U Chicago Press	16	5	24	15	6	16	82
Wiley	14	4	7	12	5	12	54
Sub-total	461	231	267	266	196	420	1,841
Total	994	469	475	471	393	699	3,501

The key point about Table 6 for the present analysis, though, is how it also reflects the patterns already identified for article and book citation in the six journals examined. Fifteen of the authors identified are American, or at least American-based, while two are Australian, two are British, and two are or were from elsewhere in Europe. Once again, a strong tendency is evident for American-based authors to be highly cited in American-based journals, and for non-American authors to be more highly cited in non-American journals.

The patterns are not, however, completely clear cut. Thus, Tinto and Kuh, both American authors, also receive respectable numbers of citations in non-American journals. Similarly, Biggs, an Australian author, receives a healthy number of citations in one American journal. Bourdieu appears reasonably well cited in all of the journals, whether American or non-American based. Most curious, perhaps, is the position of Altbach and Clark, both American authors but much better cited in non-American based journals, particularly HE. That may well reflect the international orientation of their research interests.

Table 7 lists the 18 publications that were cited on 10 occasions or more. As the numbers in this table are relatively small—there were after all, just 273 articles that any particular publication could have been cited in—it would be unwise to make too much of them, as they may be artefacts of the particular emphases of the articles that happened to be published in the year in question. However, similar patterns to those previously identified

Table 6 Top twenty-one most cited first authors

Author	Nation	HE	HERD	JHE	ResHE	RevHE	SHE	Total
Pascarella, E	US	5	2	16	36	26	5	90
Astin, A	US	4	1	11	18	18	3	55
Tinto, V	US	7	5	8	16	6	6	48
Kuh, G	US	10	1	5	14	15	2	47
Braxton, J	US	2	–	23	11	3	5	44
Biggs, J	Australia	11	14	–	9	–	5	39
Hurtado, S	US	–	–	8	10	17	3	38
Perna, L	US	3	–	7	21	6	–	37
Entwistle, N	UK	27	1	–	4	–	3	35
Marton, F	Sweden	7	6	–	3	–	17	33
Marginson, S	Australia	21	6	1	–	–	4	32
Adelman, C	US	–	–	4	11	12	1	28
Bourdieu, P	France	8	2	3	6	5	4	28
Altbach, P	US	19	1	1	3	–	3	27
Clark, B	US	15	2	3	2	2	3	27
Heller, D	US	1	–	8	15	3	–	27
McLendon, M	US	4	1	5	14	3	–	27
Nora, A	US	–	–	–	16	10	1	27
St John, E	US	1	–	6	12	8	–	27
Barnett, R	UK	11	8	1	–	1	5	26
Hossler, D	US	2	–	6	12	5	1	26

for articles, books and authors may be observed, with publications produced by American-based authors more commonly referred to in American journals, and non-American publications more often cited in non-American journals.

By far the most cited single item, Pascarella and Terenzini's *How College Affects Students*, was referenced in 48 (17.6 %) of the 273 articles, an impressive proportion. The next most cited publication, Tinto's *Leaving College*, was referenced half as often, though Tinto did get two publications in the list (as did Wenger). Two-thirds of the publications identified in Table 7 are American, with one-third of Australian, British or international origin. Most are books (two of which are methodology texts), but three reports and two journal articles are also included. While most focus on aspects of the student experience, or on the practicalities of teaching and learning—which are amongst the most popular topics for higher education research (Tight 2012a)—others examine system policy, academic work and knowledge.

Place of publication of journals and citations

Finally, Table 8 draws the analysis together by providing an overall summary of all the citations made in the articles published in the six journals examined in 2010 in terms of the country or region they were published in. In only a very small number of cases, 189 (1.5 %), was it not possible to identify where an item had been published, normally because of insufficient or inaccurate citation detail. In a rather larger number of cases,

Table 7 The most cited publications

Authors	Nation	Date	Title	Number of citations	Type
Pascarella & Terenzini	US	1991/2005	How College Affects Students	48	Monograph
Tinto	US	1987/1993	Leaving College	24	Monograph
Astin	US	1993	What Matters in College	17	Monograph
Becher (& Trowler)	UK	1989/2001	Academic Tribes and Territories	17	Monograph
Bradley	Australia	2008	Review of Australian Higher Education	15	Report
Biggs (& Tang)	Australia	1999-2007	Teaching for Quality Learning at University	15	Monograph
Lave & Wenger	US	1991	Situated Learning	13	Monograph
Raudenbusch	US	2002	Hierarchical Linear Models	13	Textbook
Tinto	US	1975	Dropout from Higher Education	12	Article
Wenger	US	1998	Communities of Practice	12	Monograph
Adelman	US	1994/1999	Answers in the Toolbox	11	Report
National Committee of Inquiry into Higher Education	UK	1997	Higher Education in the Learning Society	11	Report
Gibbons, Limoges, Nowotny, Schwartzman, Scott & Trow	International	1994	The New Production of Knowledge	10	Monograph
Heller	US	1997	Student Price Response in Higher Education	10	Article
McDonough	US	1997	Choosing Colleges	10	Monograph
Ramsden	Australia/ UK	1992/2003	Learning to Teach in Higher Education	10	Monograph
Slaughter & Leslie	US	1997	Academic Capitalism	10	Monograph
Tabachnick & Fidell	US	1996–2007	Using Multivariate Statistics	10	Textbook

Table 8 Citations by region of publication

Journal	USA/Canada	Australia/New Zealand	UK	Rest of Europe	Rest of the world	International	Unknown	Total
HE	1,422 (39.7)	200 (5.6)	702 (19.6)	465 (13.0)	236 (6.6)	476 (13.3)	77 (2.2)	3,578
HERD	556 (32.7)	520 (30.6)	410 (24.1)	34 (2.0)	15 (0.9)	131 (7.7)	34 (2.0)	1,700
JHE	1,375 (92.7)	3 (0.2)	47 (3.2)	15 (1.0)	1 (0.1)	32 (2.2)	11 (0.7)	1,484
ResHE	1,803 (90.7)	14 (0.7)	53 (2.7)	25 (1.3)	7 (0.4)	73 (3.7)	12 (0.6)	1,987
RevHE	1,298 (93.4)	2 (0.1)	26 (1.9)	7 (0.5)	1 (0.1)	34 (2.4)	22 (1.6)	1,390
SHE	884 (35.1)	238 (9.4)	923 (36.6)	152 (6.0)	16 (0.6)	276 (10.9)	33 (1.3)	2,522
Total	7,338 (58.0)	977 (7.7)	2,161 (17.1)	698 (5.5)	276 (2.2)	1,022 (8.1)	189 (1.5)	12,661

Figures in parentheses are row percentages

1,022 (8.1 %), the publication has been classified as 'international', as it appeared in a journal like HE which had an international editorial team, unlike most of the journals considered here. All of the other citations have been identified with the country in which they were published, as books, reports or whatever, or as articles in journals edited in that country.

All in all, 46 different countries of origin (in addition to 'international' and 'unknown') were identified for the references cited in HE; which, in addition to the relatively high proportion of citations designated as 'international' (13.3 %—a figure swollen somewhat, of course, by references to articles in the journal itself), confirms its status as the most international of the journals studied. By comparison, there were 27 countries of origin for the citations in SHE, 19 for those in both HERD and ResHE, 9 for JHE and just 8 for RevHE.

A closer look at the table reveals very different patterns of international citation for the six journals, particularly, as we have found so far, between the American-based journals and the non-American based journals. Thus, 90.7 % (91.3 % if the 'unknown' citations are excluded) of the citations in ResHE were to American or Canadian sources, and this was almost all (90.4 %) to American sources. The proportions for JHE (92.7, 93.3, 90.6 % respectively) and RevHE (93.4, 94.9, 91.2 %) were even more striking.

By comparison, HE, HERD and SHE all appear somewhat more balanced in terms of where their authors were sourcing their citations from. In each of these three journals, a healthy proportion of citations, between 32.7 and 39.7 %, were sourced from the United States or Canada; with a slightly smaller proportion, between 19.6 and 36.6 % coming from the UK. Citations of publications from the rest of Europe (13.0 %) and the rest of the world (6.6 %) were most evident in the most international of the journals, HE. Not surprisingly, publications from Australia and New Zealand were most strongly represented in HERD (30.6 %), the only journal in the sample edited there. Australasian publications made up 9.4 % of the citations in SHE and 5.6 % of those in HE, but barely registered in the American-based journals (from 0.1 to 0.7 % of citations, as compared to between 1.9 and 3.2 % from the UK).

Discussion and conclusions

The analysis presented in this article shows clearly that—at least for the sample of journals examined and for the year in question—the American journals are not only dominated by American-based authors, but that those authors also cite overwhelmingly articles, books, chapters and other publications published in the United States. By contrast, the three non-American journals examined appear to accommodate a much broader spread internationally of both authors and citations.

I am not, of course, either the first or the only researcher to have noted patterns such as these. Thus, in another recent analysis, Shahjahan and Kezar (2013) refer to what they call 'methodological nationalism' and the tendency to focus on what they term the 'national container' (e.g. the USA, UK or Australia) when carrying out analyses of higher education policy or practice.

What the present study does is to take the discussion further by examining not the topics and geographical focus of research publications, but what their authors read and refer to. This reveals both another level of 'nationalism' and a variety of responses to it internationally. Thus, on the one hand, it would seem that American authors focus on American topics and American publications. On the other hand, however, while non-American

authors may also focus on their own 'national containers', they are much more likely to read relevant publications from around the world.

These findings would seem to beg two fundamental questions—why and does it matter?—which are, of course, to an extent, inter-related.

To begin with, we need to recognize that higher education research is both longer established and more widespread in North America than in the rest of the world. This is chiefly because the United States and Canada developed mass systems of higher education long before any other countries, and this was soon complemented by the creation of an institutional research capacity to enable the analysis of trends, performance comparisons and the evaluation of innovations. Thus, one inventory published in 2006 lists well over 100 universities and other institutions in the United States alone that offer postgraduate training and research programmes focused on higher education (Altbach et al. 2006). As yet, no other systems provide a comparable level of provision focused on higher education research.

Second, the American higher education system is of substantial size, and also distinctive in the split in policy responsibilities between national and state levels (a pattern somewhat paralleled north of the border in Canada). There is plenty, 'more than enough' if you like, worthy of study here. The context is strong and distinctive, and there are foci for research which are much less of a concern in most other systems (e.g. the role of sports and religion in higher education, the experience of ethnic minority groups). These two factors more than explain the 'methodological nationalism' identified by Shahjahan and Kezar (2013).

Added to this, as already noted (Tight 2012c), American higher education researchers evidence a strong disposition towards particular methodological approaches. They are particularly skilled at large-scale quantitative studies, frequently using advanced statistical techniques. While such techniques are also used by non-American higher education researchers, examples are much less common.

In part, this is due to the widespread existence over a long timeframe of large, often national, quantitative data sets in the United States. These naturally lend themselves to the application of sophisticated multivariate analysis techniques, and the postgraduate training programmes that are widely available in the United States provide the instruction and support needed to engage with these techniques. By comparison, higher education researchers outside of North America are more wedded to smaller-scale and qualitative forms of research. Large-scale quantitative data sets are now becoming more common in countries such as the United Kingdom and Australia, and a small number of comparative European data sets have also been created, so we may expect these patterns to change in the foreseeable future.

Fourth, as my preceding remarks would suggest, we might expect American research in some areas, or on some aspects, of higher education to be leading the field. Not only is it of longer standing and larger scale, but there are also particular methodological and topic foci in North America. All of which would seem to more than adequately explain why American higher education researchers seem to be almost exclusively focused on not just American topics but also American sources.

Finally, we might also expect there to be something of a time lag in the recognition of bodies of research developing elsewhere. The North American systems were ahead of the international field for some time in higher education research, and many of their researchers may not yet have recognized that others are catching up.

So we have addressed the 'why?' question and can move on to its corollary, 'does it matter'? There are two main arguments here: the relevance of studies carried out in other countries, and the more general desire to build up an international knowledge base. To take

the former first; higher education research is clearly an established or fast developing field in many countries across the globe. The North American systems may have taken the lead, but others are catching up fast, as the output of the non-American journals identified in Table 1 indicates (and there are, of course, many other journals, both American and non-American, focusing on higher education).

Internationally, the higher education research endeavour addresses most of the topics or issues that might be of interest to researchers, policy-makers and academics: teaching and learning, course design, the student experience, quality, institutional management, system policy, academic work, knowledge and research (Tight 2012a). The scale, degree of sophistication, methodological and theoretical engagement, and overall quality of the research carried out does, of course, vary; but, in general, better quality work tends to get published in the better quality journals, so it is not that difficult to access.

In principle, one would expect research into, for example, student engagement or university leadership, carried out in Australia, Germany, the United Kingdom or the United States, to be of some relevance and interest to researchers studying these particular topics in other countries or systems. Indeed, the patterns identified in this article, and summarized in Table 8, would seem to suggest that this is the case, at least for many researchers based outside of North America, who appear open and interested in research findings from different parts of the world. When, and why, might we expect American researchers to reciprocate by turning their gaze outwards?

Of course, some (a minority of) American researchers already do take a comparative interest in the experience of, and research into, higher education in other countries. This is suggested by both Table 1, which shows that some American researchers publish outside of North America, and by Table 6, which shows that the work of some American researchers is particularly widely referenced outside of North America. But the literature published in North America appears to be much more inward-looking (which is not, of course, to suggest that only American researchers in this field are inward-looking).

However, the underlying aim for all higher education researchers worldwide—whether in North America, Europe, Asia, Africa or elsewhere—must be, as it is for researchers in other disciplines or fields, to contribute to building up an international knowledge base, which they can then apply in their own context.

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