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ASSOCIATION FOR PSYCHOLOGICAL SCIENCE

# Scholarly Merit in a Global Context: The Nation Gap in Psychological Science

Perspectives on Psychological Science
2017, Vol. 12(6) 1133–1137

DOI: 10.1177/1745691617708233
www.psychologicalscience.org/PPS
SAGE

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**Abstract**
Psychologists from the United States are extremely prominent in psychological science, publishing more articles and receiving more citations than researchers from other nations. In this brief article, I review some previous research on this "nation gap" in psychology and highlight relevant data from journals published by the Association for Psychological Science. I then discuss some possible explanations for the nation gap and touch on some of its implications for thinking about scholarly merit and scientific eminence. I hope that the research and data discussed here will stimulate further consideration of the role of author nationality for both judgments of scholarly merit and psychological science more generally.

**Keywords**
scholarly merit, scientific eminence, publication metrics, internationalization

More than 10 years ago, the American Psychological Society voted to change its name to the Association for Psychological Science, thereby keeping the abbreviation APS while reshaping its public persona. One of the motivations behind the name change was to represent and reinforce the increasingly international nature of the organization (Wargo, 2006). A decade later, about 80% of APS members reside in North America, so the organization is clearly still in the early stages of internationalization (Association for Psychological Science, 2016), but this nonetheless marks a change from the 10% non-U.S. membership celebrated in 2006 (Wargo, 2006).

The purpose of this article is to explore some of the implications of the fact that—like APS itself—much of psychological science is dominated by researchers from the United States. I first briefly review some previous research on the influence of the United States in psychology and highlight relevant data from journals published by APS. I then discuss some possible explanations for the psychology nation gap and touch on some of its implications for thinking about scholarly merit. Although this article is brief, my hope is that the research discussed here will stimulate further consideration of the role of author nationality for both judgments of scholarly merit and psychological science more generally.[1]

## The Nation Gap in Psychological Science

In many respects, the United States leads the world in scientific output and influence (e.g., May, 1997), and this has certainly been true in psychology since at least the second half of the 20th century. According to data from Web of Science, from 1996 to 2010, researchers in the United States published approximately half of all psychology publications (O'Gorman, Shum, Halford, & Ogilvie, 2012), and in a survey of several top journals published by the American Psychological Association from 2003 to 2007, Arnett (2008) found that 73% of first authors resided in the United States and 68% of the participant samples were from the United States. Similarly, Adair and Huynh (2012) found that U.S. authors made up the majority of first authors in 16 different top-rated psychology journals published between 2000 and 2008.

There is also some evidence that research by U.S. authors is more likely to be cited compared to work by authors from other countries (e.g., O'Gorman et al.,

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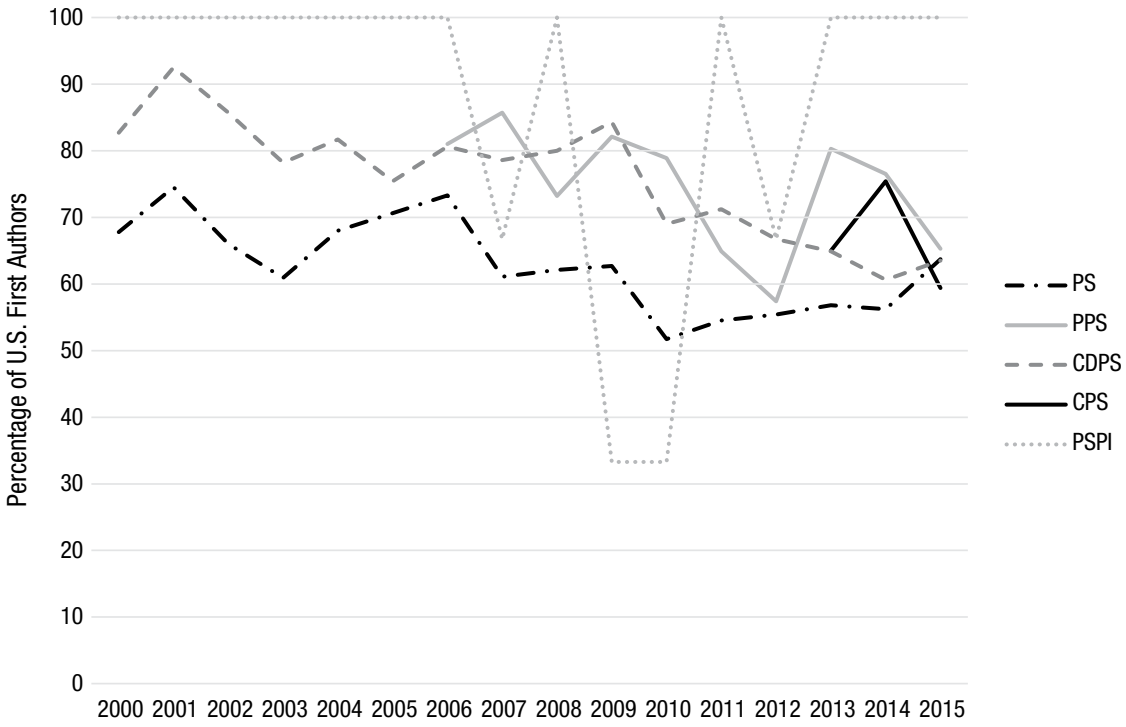


**Fig. 1.** Percentage of authors from the United States in APS journals 2000–2015.
Note: *PS = Psychological Science; PPS = Perspectives on Psychological Science; CDPS = Current Directions in Psychological Science; CPS = Clinical Psychological Science; PSPI = Psychological Science in the Public Interest*. Because so few issues of *PSPI* are published per year, the yearly fluctuations should be interpreted with caution.

2012). Patterns of citations in favor of U.S. psychologists are not entirely clear, may vary by journal and subfield, and are likely changing over time, however; for example, using data from 2004 to 2013, Brown and Goh (2016) found that articles in *Personality and Social Psychology Bulletin* with U.S. first authors were cited more, whereas there was no difference for articles in the *Journal of Personality and Social Psychology*. More clear is the prevalence of U.S. psychologists among the eminent: Of the 100 most eminent psychologists identified by Diener, Oishi, and Park (2014), only 9 spent a large part of their careers outside the United States.

## The Nation Gap in APS Journals

To investigate the nation gap in APS journals, I coded the national affiliation for each first author of articles in *Perspectives on Psychological Science* (*PPS*), *Current Directions in Psychological Science* (*CDPS*), *Clinical Psychological Science* (*CPS*), and *Psychological Science in the Public Interest* (*PSPI*) published from 2000 to 2015, excluding editorials, introductions to special issues, and satirical articles. If authors had more than one national affiliation, I used their corresponding address; if they were not the corresponding author, I used the first affiliation listed. I did the same for issues of *Psychological Science* (*PS*) published between 2000 and 2003, after which I randomly selected six issues from each year to code from 2004 to 2015. I recorded how many citations each article received in Google Scholar, excluding retracted articles from citation analyses but not from authorship analyses.[2] I then log-transformed citation counts after adding 1 to avoid zero values. For simplicity, I compared the United States with all other countries combined.

As can be seen in Figure 1, authors from the United States make up the majority of first authors in APS publications, though this trend appears to be decreasing over time. Table 1 shows that articles written by first authors from the United States appear to receive more citations in *PS* and *CDPS*, but not in *PPS, CPS*, or *PSPI*. Taken together, these results fit with previous research on the nation gap in psychology, extending it to APS journals. There are clearly many more nuanced analyses to be conducted with these data, and they are available through the Open Science Framework (https://osf.io/d338y/) for interested readers, but given the necessary brevity of this article, it suffices to identify some evidence of the nation gap in APS journals as well.

**Table 1.** Citations by Author Nationality for APS Journals

| | United States | | | All Other Countries | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Journal | *n* | *M* | *SD* | *n* | *M* | *SD* | *t* | *p* | *d* [95% CI] |
| *PS* | 1082 | 133.06 | 205.01 | 671 | 90.01 | 119.81 | 4.71 | < .001 | .23 [.13, .33] |
| *PPS* | 406 | 94.41 | 236.41 | 145 | 95.42 | 142.32 | −1.21 | .229 | −.12 [−.31, .07] |
| *CDPS* | 794 | 125.65 | 216.99 | 262 | 80.33 | 101.56 | 3.72 | < .001 | .26 [.12, .41] |
| *CPS* | 107 | 20.37 | 34.57 | 54 | 13.96 | 19.96 | 1.15 | .253 | .19 [−.14, .52] |
| *PSPI* | 39 | 499.72 | 547.80 | 6 | 279.50 | 175.69 | .21 | .833 | .09 [−.77, .95] |

Note: *PS* = *Psychological Science; PPS* = *Perspectives on Psychological Science; CDPS* = *Current Directions in Psychological Science; CPS* = *Clinical Psychological Science; PSPI* = *Psychological Science in the Public Interest*. All analyses were conducted on log-transformed means, but raw means are reported for ease of interpretation.

## The Nation Gap, Merit, and Eminence

As with other patterns of (under)representation in scientific research (e.g., gender gaps; Eagly & Miller, 2016), the nation gap likely results from the interplay of many factors at different levels. Table 2 presents a summary of some possible causes, but more research needs to be done. For example, survey research exploring the publishing preferences and experiences of researchers in different countries could shed light on the nation gap, and data from journals about submission and rejection rates for authors from different nations may help distinguish between insidious biases and other, more benign, causes.

An interesting question is whether nation gaps exist in journals from other countries—for example, do German journals mainly publish research from German researchers? My guess is that this is indeed the case,

**Table 2.** Some Possible Causes of the Nation Gap

| Cause | Description |
|---|---|
| Differences in research interests | Research interests may vary across nations and different research ideas and topics will be cited at different rates based on, e.g., prominence or popularity. |
| Differences in research training | Research training varies across nations and may prepare researchers differently (e.g., Adair & Huynh, 2012). |
| Differences in research settings | Differences in where research is primarily conducted may contribute to national differences in productivity (e.g., May, 1997). |
| Differences in research resources | Resources influence research productivity and quality (e.g., O'Gorman, Shum, Halford, & Ogilvie, 2012, found that a nation's psychological research output is correlated with its gross domestic product). |
| Differences in academic responsibilities/ expectations | Non-U.S. researchers may have different scholarly responsibilities, such as higher teaching loads or encouragement to publish books instead of articles. |
| Reticence to submit to traditionally U.S. journals | Non-U.S. authors may be reluctant to submit research to journals that have traditionally been U.S. journals; awareness of the nation gap could even contribute to this hesitancy. |
| Differences in publishing guidelines | Authors from one nation with its own publishing guidelines or traditions may not be aware of or interested in following the guidelines of journals with other guidelines or traditions. |
| Publishing in local or regional journals | Non-U.S. researchers may publish in their own regional journals, rather than more international journals. |
| The Matthew effect | Psychologists who are already prominent (often from the United States; e.g., Diener, Oishi, & Park, 2014) get more recognition (i.e., the rich get richer; Merton, 1968). |
| Language bias in scientific databases | English-language publications are overrepresented in scientific databases (e.g., Scopus), which could contribute to the nation gap in citations (e.g., Mongeon & Paul-Hus, 2016). |
| Researcher bias in research evaluation | Researchers may evaluate research more negatively when authors are from nations or institutions not well-known for research, leading to an advantage for U.S. researchers (e.g., Harris, Macinko, Jimenez, Mahfoud, & Anderson, 2015; Okike, Hug, Kocher, & Leopold, 2016). |
| Researcher bias in research citation | U.S. researchers, who publish—and therefore cite—the most, may be more likely to cite research from the United States (e.g., Campbell, 1990), contributing to the nation gap in citations. More generally, researchers may be more likely to cite research from their own country. |

but I am not sure that these situations are entirely analogous. Many of the journals that have been the subject of nation gap research—including APS journals—are implicitly or explicitly intended to be international, and English has become, for better or worse, the dominant language of science communication on a global scale. Moreover, *PS* is, according to its website, the most prominent empirical psychology journal, and I do not know that it should be taken for granted that we want or expect our most prominent journals—even if they have traditionally been U.S.-based—to devote only 30% to 40% of their pages to articles by researchers from outside the United States. Overall, the nation gap is complicated and merits further research and discussion, which can then inform considerations of its implications and, indeed, the extent to which the global scientific community thinks it is a problem in the first place.

What are the implications of the nation gap for assessing scholarly merit? Researchers from outside the United States—and, particularly, from countries also outside Western Europe—may face greater obstacles to achieving the accomplishments necessary be deemed prominent or eminent. Indeed, Diener et al.'s (2014) research suggests that more than 90% of psychology's most eminent researchers spent their careers in the United States. If, for whatever reasons, non-U.S. researchers' work is published and cited less, they will be at a disadvantage for two of the most important evaluation criteria: number of publications and number of citations (including newer citation metrics like the *h* index). One of the guiding questions of this symposium is whether the metrics we use to evaluate scholars are biased in favor of or against certain groups (Sternberg, 2016), and it seems that researchers from the United States and perhaps some countries in Western Europe may be at an advantage when it comes to publication and citation rates.

A possible implication of the nation gap is that cross-national comparisons of research prominence or scholarly merit may be less straightforward than previously believed. For instance, when hiring or award committees evaluate candidates or nominees from different countries, it may be useful to be attentive to potential differences in publication and citation rates across different countries. Recent calls to consider publication quality over quantity, and perhaps to place less importance on journal prestige or impact factor, may help address possible negative effect of the nation gap in addition to the other issues they were proposed to address (e.g., questionable research practices). Furthermore, it is worth noting that considering different publishing practices and patterns in different countries highlights the fact that scholarly merit is also judged differently in different nations, so any prescriptions for merit evaluation may well work better or worse in different regional and national contexts. And, of course, it is also worth noting that the United States is not a homogenous entity; biases that could underlie the nation gap (e.g., more positive evaluations of research from prestigious universities) can also operate within the United States, which serves as a reminder of one of the purposes of this symposium—to recognize the nuance inherent in the evaluation of merit and eminence.

In addition to informing discussions of how to think about scholarly merit and what it means to be eminent, considering the nation gap and broadening the range of international contributions to psychological science will likely have benefits for our science more generally. Indeed, psychology has frequently been criticized for relying too heavily on U.S. undergraduate samples (and WEIRD populations more generally; see, e.g., Henrich, Heine, & Norenzayan, 2010), and our understanding of human behavior will likely benefit from attending more to research conducted by authors from many different nations. There are indications that psychology is becoming more international every year (e.g., Adair & Huynh, 2012; Webster, Nichols, & Schember, 2009), and this trend may improve not only discussions of how to understand and assess scholarly merit but also psychological science as a whole.

## Declaration of Conflicting Interests

The author declared no conflicts of interest with respect to the authorship or the publication of this article.

## Notes

1. I use the term *nationality* to describe the location of authors' institutions for lack of a better term, though it is important to note that, of course, authors reside in countries they are not originally from, and that author nationality should not be interpreted as a proxy for author ethnicity or race.
2. I could not locate one article from *PPS* and one from *CDPS* in Google Scholar.

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