Focal Article

Most Frequently Cited Sources, Articles, and Authors in Industrial-Organizational Psychology Textbooks: Implications for the Science–Practice Divide, Scholarly Impact, and the Future of the Field

Herman Aguinis, Ravi S. Ramani, P. Knight Campbell, Paloma Bernal-Turnes, Josiah M. Drewry, and Brett T. Edgerton
George Washington University

Most future industrial and organizational (I-O) psychology practitioners and researchers initially enroll in an introductory I-O psychology course during their junior or senior year of undergraduate studies, making introductory textbooks their first in-depth exposure to the field and an important knowledge base. We reviewed and analyzed the 6,654 unique items (e.g., journal articles, book chapters) published in 1,682 unique sources (e.g., scholarly journals, edited books, popular press publications) and authored by 8,603 unique individuals cited in six popular I-O psychology textbooks. Results showed that 39% of the top-cited sources are not traditional academic peer-reviewed journals, 77% of the top-cited articles were published in cross-disciplinary journals, and 58% of the top-cited authors are affiliated with business schools and not psychology departments. These results suggest that the science–practice divide in I-O psychology may develop later—perhaps after graduates obtain employment as either practitioners or researchers. Also, results suggest I-O psychology is closer to business and management than social psychology and psychology in general. We

> *discuss additional implications for the science–practice divide, how to define and measure scholarly impact, and the future of I-O psychology as a field, including the movement of I-O psychologists to business schools and the sustainability of I-O psychology programs in psychology departments.*

The scientist–practitioner model in industrial and organizational (I-O) psychology suggests a permeable boundary between science and practice. As Rupp and Beal (2007) noted, "Practitioners should look to the scientific literature for guidance on setting up effective workplace systems, and scientists should take their cues from practitioners in identifying issues relevant to employee well-being and organizational effectiveness" (p. 36). Although this model was created several decades ago (Benjamin & Baker, 2000), there remains a documented and persistent divide between science and practice (McHenry, 2007). For example, a review of 5,780 articles published in *Journal of Applied Psychology* (*JAP*) and *Personnel Psychology* (*PPsych*) from 1963 to 2007 ascertained that much I-O psychology research does not address current societal issues (Cascio & Aguinis, 2008). The divide does not seem to be narrowing (Colella, Hebl, & King, 2017), prompting Woodwark and MacMillan (2014) to call the issue of the "growing gulf between researchers and practitioners … exigent" (p. 324).

Directly related to the relationship between science and practice, the issue of scholarly impact has received substantial attention, but the majority of this work focuses on measuring impact only on the work of other researchers rather than on practitioners (Certo, Sirmon, & Brymer, 2010; Kozlowski, 2017; McNally, 2010). Although the Society for Industrial and Organizational Psychology (SIOP) lists the advancement of "the science, practice, and teaching of industrial-organizational psychology" as its mission (SIOP, 2015), only science seems to be explicitly and consistently measured and rewarded for academics (Gomez-Mejia & Balkin, 1992). For many academics, scholarly publications and citations drive important rewards such as appointment, tenure, and promotion decisions. For I-O psychology programs, research impact—the number of publications in "A" journals and citations received by those articles in other academic journals—affects program rankings, reputation, monetary resources, and the future student applicant pool (Beiler, Zimmerman, Doerr, & Clark, 2014; Salter, Allen, Gabriel, Sowinski, & Naidoo, 2016). Overall, it seems that pluralistic definitions of scholarly impact and the assessment of contributions to practice and teaching remain an afterthought (Aguinis, Shapiro, Antonacopoulou, & Cummings, 2014).

Another aspect of the ongoing debate regarding the science–practice divide involves the education and training of future I-O psychology professionals—both practitioners and researchers. As an applied science, I-O psychology education seeks to influence both science and practice (Weathington, Bergman, & Bergman, 2014). Byrne et al. (2014) recently pointed to I-O psychology students' grounding in a "psychological base" as a source of competitive advantage (p. 8), and Aguinis, Bradley, and Brodersen (2014) noted that although many I-O psychology researchers are moving to business schools, many have been trained using knowledge drawn from I-O psychology sources, a claim also echoed by Tett, Brummel, Simonet, and Rothstein (2014). So, it seems that the current *zeitgeist* is that future I-O psychology professionals are mostly trained in psychology. However, is it correct to make this assumption? What sources and authors constitute the initial knowledge base for I-O psychology professionals (both practitioners and researchers) of the future—those students enrolled in an introductory I-O psychology course?

Present Study and Research Questions

The goal of our study is to investigate what sources (e.g., scholarly journals, edited books, popular press publications), individual items (i.e., articles, book chapters, books), and authors are cited in some of the most widely used I-O psychology textbooks. Most future I-O psychology practitioners and researchers initially enroll in an introductory I-O psychology course during their junior or senior year of undergraduate studies, making introductory I-O psychology textbooks their first in-depth exposure to the field. Unlike journal articles, which primarily influence a smaller community of current and future researchers, I-O psychology textbooks influence the knowledge base of exponentially larger numbers of future practitioners and researchers.

Our results have implications regarding several issues that are currently debated vigorously: the science–practice divide (Cascio & Aguinis, 2008); how to define, measure, and reward scholarly impact (Aguinis, Suarez-González, Lannelongue, & Joo, 2012); the movement of I-O psychology researchers to business schools (e.g., Aguinis, Bradley, et al., 2014); and the future of I-O psychology as a field (Aycan, 2014). For example, if textbooks refer to sources other than traditional peer-reviewed academic journals, this would offer evidence that the science–practice divide does not develop until later in the career of I-O psychologists. As a second illustration, if the authors cited most frequently in academic journals do not overlap with authors cited in textbooks, this would indicate that the knowledge base included in textbooks is not consistent with the most influential scholarly developments. As a third potential contribution of our study, if researchers housed in business schools produce more of the knowledge disseminated in intro-

ductory I-O psychology courses than their colleagues in I-O psychology programs, this would provide further evidence regarding the movement of I-O psychologists, and even I-O psychology, to business schools. In total, we addressed the following specific research questions about the relative influence of sources, individual articles and book chapters, and authors:

Research Questions About the Influence of Sources

Research Question 1 (RQ1): Which are the most frequently cited sources in popular I-O psychology textbooks?

Research Question 2 (RQ2): Among the most-cited sources, what is the proportion of academic publications compared to other types of sources?

Research Question 3 (RQ3): Among the most frequently cited academic sources, what is the proportion of academic I-O psychology sources compared to academic sources originating outside of I-O psychology?

Research Questions About the Influence of Individual Journal Articles and Book Chapters

Research Question 4 (RQ4): Which are the most-cited articles and book chapters in popular I-O psychology textbooks?

Research Question 5 (RQ5): Among the most-cited articles and chapters, what is the proportion of academic journal articles compared to other sources, and in what fields have they been published?

Research Question 6 (RQ6): Among the most-cited articles and chapters, how does the coverage of topics in I-O psychology textbooks compare to the coverage of the same topics in journals?

Research Question 7 (RQ7): What are the publication dates of the most-cited articles and chapters?

Research Questions About the Influence of Authors

Research Question 8 (RQ8): Who are the most frequently cited authors in popular I-O psychology textbooks?

Research Question 9 (RQ9): Among the most-cited authors, what proportion work in I-O psychology versus business school programs?

Research Question 10 (RQ10): Among the most-cited authors, what is the relation between their citations in textbooks and their citations in academic journals (i.e., impact on the academic literature)?

Method
Textbook Selection
We used three steps to identify the most popular and widely used I-O psychology textbooks. First, we searched the textbook section of Amazon.com,

the world's largest online retailer (Li, 2015), and one of the largest retailers of textbooks (Mosendz, 2014). We conducted individual searches using the subject area as keywords (e.g., "industrial organizational psychology textbook," "organizational psychology textbook"). We excluded any results that were not specifically written to be used as introductory textbooks (e.g., Cascio & Aguinis, 2011) or that focused on narrower subfields (e.g., Lowman, 2006). As the number of editions published is an indicator of longevity, and therefore accumulated influence and popularity of a textbook, we only included books in at least their second edition. This process generated five books.

Second, we queried seven I-O psychology faculty at a large, private, mid-Atlantic university for the name of the textbook they used in their classes. We cross-referenced responses with the list we had compiled through Amazon.com and found all five textbooks mentioned by the faculty were already on our list.

Third, we examined the recommended I-O psychology textbook lists at a different large mid-Atlantic university (public), a large Midwestern university (private), and a large southwestern university (public). After examining the textbooks for the first two universities, we found that most of the recommended textbooks for these schools were already included on our list. However, our examination uncovered one additional textbook, which we added, taking our total to six textbooks. Upon examining the listings for the third university (southwestern), we reached saturation (Glaser & Strauss, 1967) and found no additional recommended textbook not already included in our list. Table 1 lists the textbooks we reviewed and analyzed in our study.

Data Collection and Accuracy Checks

We used two different methods to collect our data. For three textbooks (Levy, 2017; Muchinsky & Culbertson, 2016; and Riggio, 2013), we scanned the endnotes and references into PDF files using a high-resolution scanner. To make the data searchable, we conducted an optical character recognition (OCR) operation using Adobe Acrobat Pro software. For the other three textbooks (Aamodt, 2016; Landy & Conte, 2016; and Spector, 2017), we obtained editable Word documents with the references directly from the authors. Next, we created a transcription template in Excel to capture the data from each references file and a detailed guide on how to transcribe different entries (e.g., book chapters versus journal articles). For each entry in endnotes or references, we extracted the following information: last name(s) of author(s); first name(s) of author(s); year of publication of entry; title of article/book chapter/publication (as applicable); journal/book/source. Multiple entries of the same article/book chapter in the same textbook (e.g., in endnotes and in references) were only counted once.

Table 1.   List of Textbooks Reviewed and Analyzed in This Study

Textbook title	Publication year	Authors	Authors' affiliation	Authors' PhD field
Industrial/Organizational Psychology: An Applied Approach, 8th Edition	2016	Michael G. Aamodt	Emeritus. Department of Psychology, Radford University	Psychology
Work in the 21st Century: An Introduction to Industrial and Organizational Psychology, 5th Edition	2016	Frank J. Landy[a] & Jeffrey M. Conte[b]	[a]Deceased. Department of Psychology, Pennsylvania State University	I-O psychology
			[b]Department of Psychology, San Diego State University	I-O psychology
Industrial/Organizational Psychology: Understanding the Workplace, 5th Edition	2017	Paul E. Levy	Department of Psychology, University of Akron	I-O psychology
Psychology Applied to Work, 11th Edition	2016	Paul M. Muchinsky[a] & Satoris S. Culbertson[b]	[a]Deceased. Department of Psychology, University of North Carolina at Greensboro	I-O psychology
			[b]Pamplin School of Business, University of Portland	I-O psychology
Introduction to Industrial and Organizational Psychology, 6th Edition	2013	Ronald E. Riggio	Department of Psychology, Claremont McKenna College	Social/personality psychology
Industrial and Organizational Psychology: Research and Practice, 7th Edition	2017	Paul E. Spector	Department of Psychology, University of South Florida	I-O psychology

Note: I-O = Industrial-organizational.

Next, we used six coders to create our database. The coders were the second, third, fourth, fifth, and sixth authors, and a freelancer whom we recruited from the Internet freelancing website Upwork.com (see Aguinis & Lawal, 2013, for a review of Internet freelancing). To select the Upwork coder, potential freelancers were provided with an abbreviated list of references from one of the textbooks and asked to submit a sample transcription. We reviewed this sample and clarified questions and errors with the freelancers. The freelancer who successfully completed the sample transcription was hired on an hourly basis. All coders received a copy of the transcription guide that provided examples of how to code different entries, the references for one of the textbooks, and an Excel file in which to enter the transcribed data. During transcription, we corrected obvious errors in the textbooks' references sections (e.g., Kozlowski, S. W. J. listed as Kozlowski, S. J. W.).

Once the coders completed transcription of the textbook assigned to them, they created an Excel file with the transcribed data. The second author then conducted a preliminary check of the work by randomly inspecting the transcription of 10% of all entries. If a discrepancy was found in the submitted data file compared to the textbook's references list, the coder was asked to recheck the Excel file and correct discrepancies. The coders invested approximately 400 hours of work to transcribe the data from the PDF and Word files into Excel.

Following transcription, we conducted a second round of quality checks. For each textbook, each coder independently inspected all the transcribed entries for 20 randomly chosen authors against the textbook's references. In all, we inspected 903 entries during this process and found 18 errors, for an error rate of 2%. Most of these errors were due to the inability of the optical character recognition software to distinguish between letters (e.g., Yukl, G. A. scanned as Yuki, G. A.).

Next, with the data for each of the six textbooks quality checked, we concatenated the six Excel files into a single, master database. To ensure the integrity of the database, each coder independently concatenated the data from the individual files from each of the six textbooks into his or her separate master database. We then compared the results of our analysis of the most frequently cited authors, journals, and articles from the six separate master databases concatenated by each coder and found that they matched perfectly. As a final quality control step, we individually checked the entries for all articles and journals in the database, as well as the top-500 most-cited authors.

Although, as described above, we conducted extensive checks, given the size of our database, it is possible that some spelling errors may exist in some author names (i.e., last names and first and middle initials). However, given our accuracy-check procedures, these errors are random in nature, likely

to be minimal, and therefore unlikely to change our substantive conclusions. Our final database of the endnotes and references for all six textbooks contains 8,372 rows of information, including individual items with multiple citations each. The database contains 6,654 unique published items (e.g., articles, book chapters), drawn from 1,682 unique sources (e.g., journals, books), and authored by 8,603 unique individuals with at least one citation each. Obviously, many of the items have multiple coauthors. So, cumulatively, these 8,603 unique authors are cited a total of 19,473 times when counting all the coauthors for each item in the database.

Results

Most-Cited Sources

To answer RQ1, we identified the top-100 most-cited sources, including those with equal numbers of citations. This selection procedure led to the 110 sources listed in Table 2. Each of these sources received at least seven citations; that is, on average they were cited more than once per textbook. As has been found repeatedly in the past, the distribution of citations is right heavy tailed, meaning that a relatively small number of sources accounts for a disproportionately large number of citations (e.g., Podsakoff, MacKenzie, Bacharach, & Podsakoff, 2005). Not surprisingly then, the top-110 sources listed in Table 2, which include less than 7% of the total number of sources (i.e., 1,682), accounted for 72% (i.e., 5,989) of the total number of citations (i.e., 8,372). So, the sources included in Table 2 are substantially more influential than the rest.

The two oldest and most established applied psychology journals (i.e., *JAP* and *PPsych*) are ranked #1 and #2, respectively. Table 2 also reveals the presence of practitioner publications such as *HR Magazine* (#20) and *Harvard Business Review* (#50), and popular press sources such as the *New York Times* (#34). In addition, Table 2 includes "bridge" journals, which typically feature articles authored by academics but target both academic and practitioner audiences (e.g., *Human Resource Management* is #35 and *Organizational Dynamics* is #47). In addition, this list of top-cited sources includes 25 edited volumes and one textbook.

Regarding RQ2, Table 2 distinguishes sources that are "academic journals." We made this distinction based on whether a source is indexed by the Web of Science (WoS) database, which includes traditional peer-reviewed academic journals. We recognize that some publications may not be listed on the WoS database but nevertheless be peer-reviewed (to some extent) or academic in nature (e.g., publication targeting practitioners but also academics). But, in the interests of transparency and replicability of our procedures, we decided to use the WoS clear-cut inclusion criterion. Based on results in Table 2, 39% of the 110 most-cited sources are not academic journals. These

Table 2. Top-110 (i.e., 6.5%) Most-Cited Sources in Popular Industrial-Organizational (I-O) Psychology Textbooks (Out of a Total of 1,682 Unique Sources)

Rank	Academic journal	Academic journal rank	Source	Number of citations	JCR category
1	Yes	1	*Journal of Applied Psychology*	1,526	B/APL
2	Yes	2	*Personnel Psychology*	581	B/APL
3	Yes	3	*Journal of Organizational Behavior*	266	B/APL
4	Yes	4	*Academy of Management Journal*	202	B
5	Yes	5	*Journal of Management*	171	B/APL
6	Yes	6	*Journal of Occupational and Organizational Psychology* (formerly *Journal of Occupational Psychology*)[a]	168	B/APL
7	Yes	7	*International Journal of Selection and Assessment*	147	B/APL
8	Yes	8	*Organizational Behavior and Human Decision Processes* (formerly *Organizational Behavior and Human Performance*)[a]	146	B/APL/PO
9	Yes	9	*Journal of Vocational Behavior*	128	APL
10	Yes	10	*Academy of Management Review*	127	B
10	Yes	10	*Psychological Bulletin*	127	PO
12	Yes	12	*Human Performance*	98	APL
13	Yes	13	*American Psychologist*	88	PO
14	Yes	14	*Journal of Business and Psychology*	82	B/APL
15	No		*The Industrial-Organizational Psychologist*	81	
16	Yes	15	*Leadership Quarterly*	78	B/APL
17	Yes	16	*Journal of Applied Social Psychology*	75	PO
17	Yes	16	*Journal of Occupational Health Psychology*	75	APL
19	Yes	18	*Applied Psychology: An International Review*	73	APL
20	No		*HR Magazine* (formerly *Personnel Administrator*)[a]	64	
21	No		*Society for Industrial and Organizational Psychology Annual Meeting*	59	

Table 2.   Continued

Rank	Academic journal	Academic journal rank	Source	Number of citations	JCR category
22	Yes	19	Human Relations	57	B
23	Yes	20	Human Resource Management Review	56	B
24	Yes	21	Annual Review of Psychology	53	PO
25	No		APA Handbook of Industrial and Organizational Psychology	51	
25	No		International Review of Industrial and Organizational Psychology	51	
27	Yes	22	Industrial and Organizational Psychology: Perspectives on Science and Practice	49	APL
27	Yes	22	Journal of Personality and Social Psychology	49	PO
29	Yes	24	Group & Organization Management (formerly Group & Organization Studies)[a]	48	APL
30	Yes	25	Public Personnel Management	41	Other
31	Yes	26	Administrative Science Quarterly	40	B
32	No		Handbook of Industrial and Organizational Psychology	38	
33	Yes	27	Small Group Research	37	B/APL/PO
34	No		New York Times	36	
35	Yes	28	Human Resource Management	32	B/APL
36	Yes	29	European Journal of Work and Organizational Psychology	31	B/APL
36	Yes	29	Work and Stress	31	APL
38	Yes	31	Academy of Management Perspectives (formerly Academy of Management Executive)[a]	29	B
38	No		Handbook of Industrial, Work, and Organizational Psychology	29	
40	No		Graduate Conference in Industrial/Organizational Psychology and Organizational Behavior Annual Meeting	25	

Table 2. Continued

Rank	Academic journal	Academic journal rank	Source	Number of citations	JCR category
41	Yes	32	*Research in Organizational Behavior*	24	B/APL
41	No		*Research in Personnel and Human Resources Management*	24	
41	No		*Unpublished Manuscript*	24	
44	No		*Handbook of Employee Selection*	22	
44	No		*Historical Perspectives in Industrial and Organizational Psychology*	22	
44	No		*Performance Appraisal: State of the Art in Practice*	22	
47	No		*Applied HRM Research*	21	
47	Yes	33	*Organizational Dynamics*	21	B/APL
49	Yes	34	*Personality and Individual Differences*	20	PO
50	No		*Harvard Business Review*	18	
50	Yes	35	*Journal of Managerial Psychology*	18	B/APL
50	Yes	35	*Journal of Organizational Behavior Management*	18	B/APL
53	Yes	37	*Educational and Psychological Measurement*	17	Other
53	Yes	37	*International Journal of Stress Management*	17	APL
53	Yes	37	*Journal of Business Ethics*	17	B
56	Yes	40	*Current Directions in Psychological Science*	16	PO
56	No		*Handbook of Work Analysis*	16	
56	Yes	40	*Human Resource Development Quarterly*	16	B/APL
56	No		*Oxford Handbook of Personnel Assessment and Selection*	16	
56	Yes	40	*Psychological Science*	16	PO
61	Yes	43	*Journal of Social Psychology*	15	PO
61	No		*Oxford Handbook of Organizational Psychology*	15	
63	No		*Training Magazine*	14	
64	Yes	44	*Ergonomics*	13	PO
64	No		*Journal of Managerial Issues*	13	
66	No		*Advances in Experimental Social Psychology*	12	

Table 2.   Continued

Rank	Academic journal	Academic journal rank	Source	Number of citations	JCR category
66	No		*Handbook of Psychology: Industrial and Organizational Psychology*	12	
66	Yes	45	*Organization Science*	12	B
66	No		*Unpublished Dissertation*	12	
70	No		*Counterproductive Work Behavior: Investigations of Actors and Targets*	11	
70	No		*International Journal of Training and Development*	11	
70	Yes	46	*Psychological Reports*	11	PO
70	No		*Workforce* (formerly *Personnel Journal*)[a]	11	
74	No		*Consulting Psychology Journal: Practice and Research*	10	
74	No		*Creating, Implementing, and Managing Effective Training and Development*	10	
74	No		*Handbook of Research Methods in Industrial and Organizational Psychology*	10	
74	Yes	47	*Human Factors*	10	PO
74	Yes	47	*Journal of Applied Behavioral Science*	10	B/APL
74	Yes	47	*Journal of Social Behavior and Personality*	10	PO
74	No		*Leadership in Organizations*	10	
74	Yes	47	*Psychological Methods*	10	PO
82	Yes	51	*Group Dynamics: Theory, Research, and Practice*	9	PO
82	Yes	51	*Personnel Review*	9	B/APL
84	Yes	53	*Environment & Behavior*	8	PO
84	No		*Going Global*	8	
84	No		*Individual Differences and Behavior in Organizations*	8	
84	Yes	53	*International Journal of Human Resource Management*	8	B
84	Yes	53	*Journal of Psychology: Interdisciplinary and Applied*	8	PO
84	Yes	53	*Journal of Social Issues*	8	PO
84	Yes	53	*Leadership & Organization Development Journal*	8	B

Table 2. Continued

Rank	Academic journal	Academic journal rank	Source	Number of citations	JCR category
84	No		*Managing Selection in Changing Organizations: Human Resource Strategies*	8	
84	No		*Personnel Selection and Assessment: Individual and Organizational Perspectives*	8	
84	No		*USA Today*	8	
94	Yes	58	*Academy of Management Learning & Education*	7	B
94	Yes	58	*Anxiety, Stress & Coping: An International Journal*	7	PO
94	Yes	58	*Applied Ergonomics*	7	Other
94	No		*Biodata Handbook*	7	
94	No		*California Management Review*	7	
94	No		*Comprehensive Handbook of Psychological Assessment*	7	
94	Yes	58	*Computers in Human Behavior*	7	PO
94	Yes	58	*Group Dynamics*	7	PO
94	Yes	58	*Human Resource Development Review*	7	B
94	Yes	58	*Journal of Experimental Social Psychology*	7	PO
94	Yes	58	*Management Science*	7	Other
94	Yes	58	*Personality and Social Psychology Bulletin*	7	PO
94	Yes	58	*Psychological Review*	7	PO
94	No		*TD* (formerly *Training and Development*)[a]	7	
94	No		*Team Effectiveness and Decision Making in Organizations*	7	
94	No		*Training and Development in Organizations*	7	
94	No		*Work Motivation: Past, Present, and Future*	7	

Note: Sources are ranked by number of citations in I-O psychology textbooks. Sources with equal numbers of citations are listed alphabetically and assigned the same rank. Sources are classified as "Academic" if they are currently included in the Web of Science Journal Citations Report (JCR) database. JCR classifications are as of March 12, 2017. B = business and/or management only; APL = psychology-applied only; B/APL = business/management/applied psychology; B/APL/PO = business/management/applied psychology/other psychology; PO = psychology-other (psychology, social psychology, and multidisciplinary psychology); Other = nonpsychology or business related academic sources.

[a]Citation counts include both past and current names for these sources.

sources account for 14% of the total number of citations accumulated by the 110 most-cited sources (i.e., 859 out of a total of 5,989). To answer RQ3, we used the WoS Journal Citations Reports (JCR) categories assigned to a journal. Journals were considered purely I-O psychology related (APL) if they were categorized only in the psychology-applied category by JCR (e.g., *Applied Psychology: An International Review*; *Journal of Vocational Behavior*), purely business-related (B) if they were categorized only in either or both of the business and management categories by JCR (e.g., *Academy of Management Journal*; *Administrative Science Quarterly*), and cross-disciplinary (B/APL and B/APL/PO) if they were categorized in both of the psychology-applied and business or management categories by JCR (e.g., *JAP*; *Journal of Management*; *Journal of Organizational Behavior*). Using these categories, other psychology journals account for the largest percentage (36%) of the most-cited academic sources listed in Table 2, followed by cross-disciplinary journals (29%), purely business journals (18%), purely I-O psychology journals (12%), and other nonpsychology or business related journals (6%). The top seven sources account for more than half of the total citations drawn from the most-cited sources in Table 2 (i.e., 3,061 out of a total of 5,989), providing further evidence of the right heavy tail of the distribution. These top seven comprise six cross-disciplinary journals and one purely business journal.

Most-Cited Articles and Book Chapters

Regarding RQ4, Table 3[1] shows the most frequently cited articles and book chapters. The first six entries in Table 3 show items that have been cited in all six textbooks analyzed (i.e., total of six citations each). These items were published in a mix of cross-disciplinary journals (n = 3), edited volumes (n = 2), and an other psychology journal (n = 1). Of these six, three were published more than 40 years ago (i.e., Adams, 1965; Dansereau, Graen, & Haga, 1975; French & Raven, 1959). The other three include two meta-analyses (i.e., Judge, Thoresen, Bono, & Patton, 2001; Van Iddekinge, Roth, Raymark, & Odle-Dusseau, 2012) and a qualitative review (i.e., Baldwin & Ford, 1988).

To answer RQ5, we identified all items with at least three citations each (i.e., cited by at least half the textbooks analyzed in our study). Journal articles account for 93% (i.e., 203 out of a total of 219) of total citations among the most-cited items. Using the same categories defined in the previous section, 77% (169) of the top-219 most-cited items were published in

---

[1] Due to space considerations, Table 3 only lists the top-59 most-cited items, each with four or more citations. Results reported in text are based on items with three or more citations (n = 219). The full list is available from the authors upon request.

Table 3. Top-59 Most-Cited Articles and Book Chapters in Popular Industrial-Organizational (I-O) Psychology Textbooks (Out of a Total of 6,654 Unique Articles and Book Chapters)

Rank	Journal article	Source	Authors	Year	Article/chapter title	Textbooks citing article
1	Yes	*Organizational Behavior and Human Performance*	Dansereau, F., Graen, G., & Haga, W. J.	1975	A vertical dyad linkage approach to leadership within formal organizations: A longitudinal investigation of the role making process	6
1	No	*Advances in Experimental Social Psychology*	Adams, J. S.	1965	Inequity in social exchange	6
1	No	*Studies of Social Power*	French, J. R. P., & Raven, B. H.	1959	The bases of social power	6
1	Yes	*JAP*	Van Iddekinge, C. H., Roth, P. L., Raymark, P. H., & Odle-Dusseau, H. N.	2012	The criterion-related validity of integrity tests: An updated meta-analysis	6
1	Yes	*Psychological Bulletin*	Judge, T. A., Thoresen, C. J., Bono, J. E., & Patton, G. K.	2001	The job satisfaction–job performance relationship: A qualitative and quantitative review	6
1	Yes	*Personnel Psychology*	Baldwin, T. T., & Ford, J. K.	1988	Transfer of training: A review and directions for future research	6
7	Yes	*JAP*	Taylor, P. J., Russ-Eft, D. F., & Chan, D. W.	2005	A meta-analytic review of behavior modeling training	5
7	No	*Performance Appraisal: State of the Art in Practice*	Malos, S. B.	1998	Current legal issues in performance appraisal	5

Table 3. Continued

Rank	Journal article	Source	Authors	Year	Article/chapter title	Textbooks citing article
7	Yes	*JAP*	Arthur Jr., W., Bennett Jr., W., Edens, P. S., & Bell, S. T.	2003	Effectiveness of training in organizations: A meta-analysis of design and evaluation features	5
7	Yes	*Personnel Psychology*	Werner, J. M., & Bolino, M. C.	1997	Explaining U.S. courts of appeals decisions involving performance appraisal: Accuracy, fairness, and validation	5
7	Yes	*JAP*	Baltes, B. B., Briggs, T. E., Huff, J. W., Wright, J. A., & Neuman, G. A.	1999	Flexible and compressed workweek schedules: A meta-analysis of their effects on work-related criteria	5
7	Yes	*JAP*	Katzell, R. A., & Austin, J. T.	1992	From then to now: The development of industrial-organizational psychology in the United States	5
7	Yes	*JAP*	Huffcutt, A. I., Conway, J. M., Roth, P. L., & Stone, N. J.	2001	Identification and meta-analytic assessment of psychological constructs measured in employment interviews	5
7	Yes	*Organizational Behavior and Human Performance*	Hackman, J. R., & Oldham, G. R.	1976	Motivation through the design of work: Test of a theory	5
7	Yes	*Personnel Psychology*	Fleishman, E. A., & Harris, E. F.	1962	Patterns of leadership behavior related to employee grievances and turnover	5

Table 3.   Continued

Rank	Journal article	Source	Authors	Year	Article/chapter title	Textbooks citing article
7	Yes	*JAP*	Judge, T. A., Bono, J. E., Ilies, R., & Gerhardt, M. W.	2002	Personality and leadership: A qualitative and quantitative review	5
7	Yes	*Personnel Psychology*	Barrick, M. R., & Mount, M. K.	1991	The big five personality dimensions and job performance: A meta-analysis	5
7	Yes	*JAP*	Judge, T. A., Piccolo, R. F., & Ilies, R.	2004	The forgotten ones? The validity of consideration and initiating structure in leadership research	5
7	Yes	*JAP*	Van Eerde, W., & Thierry, H.	1996	Vroom's expectancy models and work-related criteria: A meta-analysis	5
20	No	*TIP*	Khanna, C., Medseker, G. J., & Ginter, R.	2013	2012 income and employment survey results for the Society for Industrial and Organizational Psychology	4
20	Yes	*Journal of Management*	Griffeth, R. W., Hom, P. W., & Gaertner, S.	2000	A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the new millennium	4
20	Yes	*JAP*	Williams, M. L., McDaniel, M. A., & Nguyen, N. T.	2006	A meta-analysis of the antecedents and consequences of pay level satisfaction	4
20	Yes	*Personnel Psychology*	Alliger, G. M., Tannenbaum, S. I., Bennett, W., Traver, H., & Shotland, A.	1997	A meta-analysis of the relations among training criteria	4

Table 3. Conitnued

Rank	Journal article	Source	Authors	Year	Article/chapter title	Textbooks citing article
20	Yes	*JAP*	Dalal, R. S.	2005	A meta-analysis of the relationship between organizational citizenship behavior and counterproductive work behavior	4
20	Yes	*Personnel Psychology*	Roth, P. L., Bobko, P., & McFarland, L.	2005	A meta-analysis of work sample test validity: Updating and integrating some classic literature	4
20	Yes	*Administrative Science Quarterly*	House, R. J.	1971	A path-goal theory of leader effectiveness	4
20	Yes	*JAP*	McCormick, E. J., Jeanneret, P. R., & Mecham, R. C.	1972	A study of job characteristics and job dimensions as based on the Position Analysis Questionnaire (PAQ)	4
20	Yes	*Journal of Vocational Behavior*	Meyer, J. P, Stanley, D. J., Herscovitch, L., & Topolnytsky, L.	2002	Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences	4
20	Yes	*JAP*	Koppes, L. L.	1997	American female pioneers of industrial and organizational psychology during the early years	4
20	Yes	*JAP*	Cavanaugh, M. A., Boswell, W. R., Roehling, M. V., & Boudreau, J. W.	2000	An empirical examination of self-reported work stress among U.S. managers	4

Table 3. Conitnued

Rank	Journal article	Source	Authors	Year	Article/chapter title	Textbooks citing article
20	Yes	*JAP*	Normand, J., Salyards, S. D., & Mahoney, J. J.	1990	An evaluation of preemployment drug testing	4
20	Yes	*JAP*	Tracey, J. B., Tannenbaum, S. I., & Kavanagh, M. J.	1995	Applying trained skills on the job: The importance of the work environment	4
20	Yes	*JAP*	Kinicki, A. J., McKee-Ryan, F. M., Schriesheim, C. A., & Carson, K. P.	2002	Assessing the construct validity of the Job Descriptive Index: A review and meta-analysis	4
20	Yes	*JAP*	Feldman, J. M.	1981	Beyond attribution theory: Cognitive processes in performance appraisal	4
20	Yes	*American Psychologist*	Locke, E. A., & Latham, G. P.	2002	Building a practically useful theory of goal setting and task motivation: A 35-year odyssey	4
20	Yes	*JAP*	Beal, D. J., Cohen, R. R., Burke, M. J., & McLendon, C. L.	2003	Cohesion and performance in groups: A meta-analytic clarification of construct relations	4
20	Yes	*JAP*	Driskell, J. E., Willis, R. P., & Copper, C.	1992	Effect of overlearning on retention	4
20	Yes	*Personnel Psychology*	Goff, S. J., Mount, M. K., & Jamison, R. L.	1990	Employer supported child care, work/family conflict, and absenteeism: A field study	4
20	Yes	*Psychological Bulletin*	Eagly, A. H., & Johnson, B. T.	1990	Gender and leadership style: A meta-analysis	4

Table 3. Conitnued

Rank	Journal article	Source	Authors	Year	Article/chapter title	Textbooks citing article
20	Yes	*JAP*	Arvey, R. D., Bouchard, T. J., Segal, N. L., & Abraham, L. M.	1989	Job satisfaction: Environmental and genetic components	4
20	Yes	*JAP*	Rockstuhl, T., Dulebohn, J. H., Ang, S., & Shore, L. M.	2012	Leader–member exchange (LMX) and culture: A meta-analysis of correlates of LMX across 23 countries	4
20	Yes	*JAP*	Gerstner, C. R., & Day, D. V.	1997	Meta-analytic review of leader-member exchange theory: Correlates and construct issues	4
20	Yes	*JAP*	Ilies, R., & Judge, T. A.	2003	On the heritability of job satisfaction: The mediating role of personality	4
20	No	*Journal of Contemporary Business*	House, R. J., & Mitchell, T. R.	1974	Path-goal theory of leadership	4
20	Yes	*Personnel Psychology*	Barrett, G. V., & Kernan, M. C.	1987	Performance appraisal and termination: A review of court decisions since Brito v. Zia with implications for personnel practices	4
20	Yes	*JAP*	Hurtz, G. M., & Donovan, J. J.	2000	Personality and job performance: The Big Five revisited	4
20	Yes	*JAP*	Hershcovis, M. S., Turner, N., Barling, J., Arnold, K. A., Dupré, K. E., Inness, M., LeBlanc, M. M., & Sivanathan, N.	2007	Predicting workplace aggression: A meta-analysis	4

Table 3. Conitnued

Rank	Journal article	Source	Authors	Year	Article/chapter title	Textbooks citing article
20	Yes	*Journal of Occupational and Organizational Psychology*	Roch, S. G., Woehr, D. J., Mishra, V., & Kieszczynska, U.	2012	Rater training revisited: An updated meta-analytic review of frame-of-reference training	4
20	Yes	*Personnel Psychology*	Morgeson, F. P., Campion, M. A., Dipboye, R. L., Hollenbeck, J. R., Murphy, K., & Schmitt, N.	2007	Reconsidering the use of personality tests in personnel selection contexts	4
20	Yes	*JAP*	Smith, P. C., & Kendall, L. M.	1963	Retranslation of expectations: An approach to the construction of unambiguous anchors for rating scales	4
20	Yes	*Journal of Management*	Stevens, M. J., & Campion, M. A.	1999	Staffing work teams: Development and validation of a selection test for teamwork settings	4
20	Yes	*Psychological Bulletin*	Flanagan, J. C.	1954	The critical incident technique	4
20	Yes	*JAP*	Chiaburu, D. S., Oh, I. S., Berry, C. M., Li, N., & Gardner, R. G.	2011	The five-factor model of personality traits and organizational citizenship behaviors: A meta-analysis	4
20	Yes	*Psychological Bulletin*	Schmidt, F. L., & Hunter, J. E.	1998	The validity and utility of selection methods in personnel psychology: Practical and theoretical implications of 85 years of research findings	4

Table 3.   Conitnued

Rank	Journal article	Source	Authors	Year	Article/chapter title	Textbooks citing article
20	Yes	*JAP*	McDaniel, M. A., Whetzel, D. L., Schmidt, F. L., & Maurer, S. D.	1994	The validity of employment interviews: A comprehensive review and meta-analysis	4
20	No	*Performance Appraisal: State of the Art in Practice*	Hauenstein, N. M. A.	1998	Training raters to increase the accuracy of appraisals and the usefulness of feedback	4
20	Yes	*JAP*	McDaniel, M. A., Morgeson, F. P., Finnegan, E. B., Campion, M. A., & Braverman, E. P.	2001	Use of situational judgment tests to predict job performance: A clarification of the literature	4
20	Yes	*JAP*	Heilman, M. E., & Alcott, V. B.	2001	What I think you think of me: Women's reactions to being viewed as beneficiaries of preferential selection	4
20	Yes	*International Journal of Selection and Assessment*	Callinan, M., & Robertson, I. T.	2000	Work sample testing	4

Note: Sources are ranked by number of citations in I-O psychology textbooks. Articles with equal numbers of citations are ranked alphabetically and assigned the same rank. Sources are classified as "academic journals" if they are currently included in the Web of Science Journal Citations Report (JCR) database. JCR data is as of March 12, 2017. *JAP = Journal of Applied Psychology. TIP = The Industrial-Organizational Psychologist.* Due to space considerations, only the top-59 articles (each with four or more citations) are listed. However, results reported in text are based on the top-219 articles (each with three or more citations). A full list of these articles is available from the authors upon request.

cross-disciplinary journals, 10% (21) in other psychology journals, 5% (12) in edited volumes, 3% (7) in purely business journals, and 2% (5) in purely I-O psychology journals.

To answer RQ6, we drew upon the work of Cascio and Aguinis (2008), who conducted a content analysis of 5,780 articles published in *JAP* and *PPsych* from January 1963 through May 2007 and classified each article as addressing primarily one of 15 broad topical areas (e.g., job analysis, predictors of performance, motivation and work attitudes, leader influences). The second, third, and sixth author independently categorized all 219 top-cited items according to the 15 topical areas. We compared the categorizations using a simple matching function in Excel to determine the overlap between independent selections. In terms of intercoder agreement, results indicated that 85% of the items in each coder's independently categorized list was the same as those selected by the other coders. The correlation between the popularity of topics as addressed in textbooks and the journals examined by Cascio and Aguinis (2008) is $r(15) = .78, p = .001$. The top three most popular topical areas in I-O psychology textbooks are (1) work motivation and attitudes (16%), (2) predictors of performance (14%), and (3) leader influences (11%). For I-O psychology journals, Cascio and Aguinis (2008) reported that the top three domains are (1) methodology–psychometric issues (21%), (2) work motivation and attitudes (15%), and (3) performance measurement–work outcomes (14%). Thus, there is overlap between the broad content areas covered by textbooks and journal articles, although there is a slight difference in terms of the frequency of particular topics. For example, the issue of leader influences is almost twice as likely to be addressed in textbooks (11%) than in journal articles (6%).

Finally, for RQ7, we examined the publication dates for the 219 most-cited articles and book chapters. About 66% of these articles and book chapters have been published since 1997.

Most-Cited Authors

Regarding RQ8, Table 4 lists the most-cited authors. As mentioned earlier, the distribution of citations is right heavy tailed such that a relatively small number of authors accounts for a disproportionately large number of citations. Accordingly, Table 4 lists 178 authors with 14 or more citations, who constitute 2% of the total number of unique authors cited at least once (i.e., 8,603) but account for 22% of the total number of citations for all authors across entries in the I-O psychology textbooks analyzed (i.e., 4,268 citations out of a total of 19,473 cumulative author citations).

Our initial list of the top-178 most-cited individuals included some of the authors of the textbooks we analyzed. Accordingly, to take into account self-citations (i.e., textbook authors citing their own work), we used

Table 4. Top-178 (i.e., 2.0%) Most-Cited Authors in Popular Industrial-Organizational (I-O) Psychology Textbooks (Out of a Total of 8,603 Unique Authors With at Least One Citation Each)

Rank	Author name	Textbook citations	WoS citations	Current/most recent affiliation	Year PhD Received	PhD field
1	Timothy A. Judge	97	20,255	Fisher College of Business, Ohio State University	1990	ILR
2	Michael A. Campion	66	5,533	Krannert School of Management, Purdue University	1982	I-O Psychology
3	Frank L. Schmidt	62	13,308	Emeritus. Tippie College of Business, University of Iowa	1970	I-O Psychology
4	Edwin A. Locke	61	12,661	Emeritus. Robert H. Smith School of Business, University of Maryland	1964	I-O Psychology
4	Eduardo Salas	61	10,676	Department of Psychology, Rice University	1984	I-O Psychology
4	Gary P. Latham	61	9,673	Rotman School of Management, University of Toronto, Canada	1974	I-O Psychology
7	Kevin R. Murphy	56	2,817	Kemmy School of Business, University of Limerick, Ireland	1979	I-O Psychology
8	Paul R. Sackett	55	5,701	Department of Psychology, University of Minnesota	1979	I-O Psychology
9	Frederick P. Morgeson	54	5,199	Eli Broad College of Business, Michigan State University	1998	I-O Psychology
10	Deniz S. Ones	49	5,583	Department of Psychology, University of Minnesota	1993	HRM
11	Paul E. Spector[a]	48	11,545	Department of Psychology, University of South Florida	1975	I-O Psychology
12	Philip L. Roth	47	3,367	College of Business, Clemson University	1988	I-O Psychology

Table 4. Continued

Rank	Author name	Textbook citations	WoS citations	Current/most recent affiliation	Year PhD Received	PhD field
13	Chockalingam Viswesvaran	44	8,176	Department of Psychology, Florida International University	1993	HRM
13	Neal Schmitt	44	6,772	Emeritus. Department of Psychology, Michigan State University	1972	I-O Psychology
15	Michael K. Mount	43	7,725	Tippie College of Business, University of Iowa	1977	I-O Psychology
16	Filip Lievens	41	3,367	Department of Personnel Management and Work and Organizational Psychology, Ghent University, Belgium	1999	I-O Psychology
17	Robert J. House	40	8,837	Deceased. Wharton School of Management, University of Pennsylvania	1960	Management
18	Remus Ilies	39	4,992	School of Business, National University of Singapore	2003	OB
19	Murray R. Barrick	38	8,018	Mays Business School, Texas A&M	1988	I-O Psychology
20	John E. Mathieu	37	8,302	School of Business, University of Connecticut	1985	I-O Psychology
20	Gerald R. Ferris	37	7,792	College of Business, Florida State University	1982	HRM/OB
22	Bruce J. Avolio	34	10,669	Foster School of Business, University of Washington	1981	I-O Psychology
22	Walter C. Borman	34	3,047	Department of Psychology, University of South Florida	1972	I-O Psychology
24	John E. Hunter	33	9,357	Deceased. Department of Psychology, Michigan State University	1964	Psychology
24	Cary L. Cooper	33	6,208	Manchester Business School, University of Manchester, England	1968	Organizational/Social Psychology
24	J. Kevin Ford	33	3,557	Department of Psychology, Michigan State University	1983	I-O Psychology

Table 4.   Continued

Rank	Author name	Textbook citations	WoS citations	Current/most recent affiliation	Year PhD Received	PhD field
27	Fritz Drasgow	32	6,103	Department of Psychology, University of Illinois, Urbana-Champaign	1978	Psychometrics
27	Tammy D. Allen	32	4,436	Department of Psychology, University of South Florida	1996	I-O Psychology
27	Richard D. Arvey	32	3,248	School of Business, National University of Singapore	1970	Psychology
27	Michael A. McDaniel	32	2,790	School of Business, Virginia Commonwealth University	1986	I-O Psychology
27	Wayne F. Cascio	32	2,503	School of Business, University of Colorado, Denver	1973	I-O Psychology
32	Joyce E. Bono	31	6,437	Warrington College of Business, University of Florida	2001	OB
32	Edward L. Levine	31	527	Emeritus. Department of Psychology, University of South Florida	1970	I-O Psychology
34	Michael Frese	30	5,833	School of Business, National University of Singapore	1978	Psychology
34	Neil Anderson	30	3,315	School of Business, Brunel University, England	1989	I-O Psychology
34	Philip Bobko	30	3,084	Pamplin College of Business, Virginia Tech	1976	Economic and Social Statistics
34	Jesus F. Salgado	30	2,200	Department of Psychology, University of Santiago de Compostela, Spain	1984	Social Psychology
38	Susan E. Jackson	29	8,317	School of Management and Labor Relations, Rutgers University	1982	I-O Psychology
38	Robert G. Lord	29	5,323	School of Business, Durham University, England	1975	Psychology

Table 4. Continued

Rank	Author name	Textbook citations	WoS citations	Current/most recent affiliation	Year PhD Received	PhD field
38	Robert E. Ployhart	29	3,610	Darla Moore School of Business, University of South Carolina	1999	I-O Psychology
38	David J. Woehr	29	1,740	Belk College of Business, University of North Carolina, Charlotte	1989	I-O Psychology
42	Daniel C. Feldman	28	6,859	Emeritus. Terry College of Business, University of Georgia	1976	Psychology
42	Bernard M. Bass	28	4,900	Deceased. School of Business, State University of New York, Binghamton	1949	I-O Psychology
42	Herman Aguinis	28	4,260	School of Business, George Washington University	1993	I-O Psychology
42	Winfred Arthur, Jr.	28	2,240	Department of Psychology, Texas A&M	1988	I-O Psychology
46	Stephan J. Motowidlo	27	4,064	Department of Psychology, Rice University	1976	I-O Psychology
46	Gary A. Yukl	27	4,039	School of Business, State University of New York, Albany	1967	I-O Psychology
46	Steve W. J. Kozlowski	27	3,458	Department of Psychology, Michigan State University	1982	I-O Psychology
46	Juan I. Sanchez	27	2,011	College of Business, Florida International University	1989	I-O Psychology
46	H. John Bernardin	27	1,022	College of Business, Florida Atlantic University	1976	I-O Psychology
51	Alice H. Eagly	26	13,887	Department of Psychology, Northwestern University	1965	Social Psychology
51	Russell Cropanzano	26	7,664	Leeds School of Business, University of Colorado, Boulder	1988	I-O Psychology
51	Ben Schneider	26	7,372	Ben Schneider Consulting	1967	Organizational/Social Psychology

Table 4.   Continued

Rank	Author name	Textbook citations	WoS citations	Current/most recent affiliation	Year PhD Received	PhD field
51	Jerald Greenberg	26	6,785	Deceased. College of Business, University of Texas–Arlington	1975	I-O Psychology
51	Allen I. Huffcutt	26	2,407	Department of Psychology, Bradley University	1992	I-O Psychology
56	David A. Harrison	25	7,169	McCombs School of Business, University of Texas–Austin	1988	Social/Organizational/ Individual Differences Psychology
56	John P. Campbell	25	1,086	Emeritus. Department of Psychology, University of Minnesota	1964	I-O Psychology
58	Wilmar B. Schaufeli	24	19,313	Department of Psychology, Utrecht University, Netherlands	1988	Clinical Psychology
58	Terence R. Mitchell	24	9,571	Emeritus. Foster School of Business, University of Washington	1969	Social Psychology
58	J. Richard Hackman	24	7,893	Deceased. Department of Psychology, Harvard University	1966	Social Psychology
58	Raymond A. Noe	24	4,213	Fisher College of Business, Ohio State University	1985	I-O Psychology
62	Philip M. Podsakoff	23	25,976	Warrington College of Business, University of Florida	1980	OB
62	Julian Barling	23	5,278	School of Business, Queen's University, Canada	1979	Psychology
62	Chester A. Schriesheim	23	4,121	School of Business, University of Miami	1978	OB/I-O Psychology
65	John P. Meyer	22	10,114	Department of Psychology, University of Western Ontario, Canada	1978	Psychology
65	George B. Graen	22	6,527	LMX-Team Leadership, Inc.	1967	I-O Psychology
65	Terry A. Beehr	22	4,751	Department of Psychology, Central Michigan University	1974	Organizational Psychology

Table 4.   Continued

Rank	Author name	Textbook citations	WoS citations	Current/most recent affiliation	Year PhD Received	PhD field
65	Daniel M. Cable	22	4,485	London Business School, England	1995	ILR
65	Paul E. Levy[a]	22	2,119	Department of Psychology, University of Akron	1989	I-O Psychology
65	Scott I. Tannenbaum	22	1,738	Group for Organizational Effectiveness	1986	I-O Psychology
65	Kurt Kraiger	22	1,521	Department of Psychology, Colorado State University	1983	I-O Psychology
72	Arnold B. Bakker	21	13,556	Department of Work and Organizational Psychology, Erasmus University Rotterdam, Netherlands	1995	Social Psychology
72	Denise M. Rousseau	21	9,733	Heinz College and Tepper School of Business, Carnegie Mellon University	1977	I-O Psychology
72	Robert A. Baron	21	7,122	Spears School of Business, Oklahoma State University	1968	Social Psychology
72	Lyman W. Porter	21	6,900	Deceased. Paul Merage School of Business, University of California, Irvine	1956	Psychology
72	Jeffery A. LePine	21	5,912	W. P. Carey School of Business, Arizona State University	1998	OB
72	Daniel R. Ilgen	21	4,751	Emeritus. Eli Broad College of Business, Michigan State University	1969	Psychology
72	Peter B. Warr	21	4,573	Emeritus. Management School, Sheffield University, England	1963	Psychology
72	Charles L. Hulin	21	3,560	Emeritus. Department of Psychology, University of Illinois, Urbana-Champaign	1963	I-O Psychology
72	Stephen J. Zaccaro	21	3,139	Department of Psychology, George Mason University	1981	N/A

Table 4.   Continued

Rank	Author name	Textbook citations	WoS citations	Current/most recent affiliation	Year PhD Received	PhD field
72	Thomas W. H. Ng	21	2,424	Faculty of Business and Economics, University of Hong Kong	2006	HRM/OB
72	Kenneth N. Wexley	21	1,383	Wexley Consulting	1969	I-O Psychology
72	David A. Kravitz	21	1,000	School of Business, George Mason University	1980	Social Psychology
84	Michael D. Mumford	20	6,205	Department of Psychology, University of Oklahoma	1983	I-O Psychology
84	Ruth Kanfer	20	4,613	Department of Psychology, Georgia Tech	1981	I-O Psychology
84	John R. Hollenbeck	20	4,498	Eli Broad College of Business, Michigan State University	1984	Management
84	Lillian T. Eby	20	4,452	Department of Psychology, University of Georgia	1996	I-O Psychology
84	Robert Hogan	20	4,129	Hogan Assessment Systems	1967	Personality Psychology
84	Madeline E. Heilman	20	4,098	Department of Psychology, New York University	1972	Social Psychology
84	Angelo S. DeNisi	20	3,760	Emeritus. Freeman School of Business, Tulane University	1977	I-O Psychology
84	David V. Day	20	3,477	Department of Psychology, Claremont McKenna College	1989	I-O Psychology
84	Patricia C. Smith	20	1,024	Deceased. Department of Psychology, Bowling Green State University	1942	I-O Psychology
84	Edwin A. Fleishman	20	801	Management Research Institute	1951	N/A
94	Sandy J. Wayne	19	6,073	School of Business, University of Illinois, Chicago	1987	HRM/OB
94	Alicia A. Grandey	19	3,418	Department of Psychology, Pennsylvania State University	1999	I-O Psychology
94	Michael T. Brannick	19	2,599	Department of Psychology, University of South Florida	1986	Psychology

Table 4. Continued

Rank	Author name	Textbook citations	WoS citations	Current/most recent affiliation	Year PhD Received	PhD field
94	Janis A. Cannon-Bowers	19	2,422	Institute for Simulation and Training, University of Central Florida	1988	I-O Psychology
94	Paul J. Hanges	19	2,402	Department of Psychology, University of Maryland	1987	I-O Psychology
94	Talya N. Bauer	19	2,361	School of Business, Portland State University	1994	HRM/OB
94	Steve M. Jex	19	2,087	Department of Psychology, Bowling Green State University	1988	I-O Psychology
94	Frank J. Landy[a]	19	2,032	Deceased. Department of Psychology, Pennsylvania State University	1968	I-O Psychology
94	Robert D. Pritchard	19	1,039	Emeritus. Department of Psychology, University of Central Florida	1969	Psychology
94	P. Richard Jeanneret	19	463	Valtera Corporation	1969	I-O Psychology
104	Fred Luthans	18	7,273	Emeritus. College of Business Administration, University of Nebraska, Lincoln	1965	OB
104	David A. Waldman	18	3,603	W. P. Carey School of Business, Arizona State University	1982	I-O Psychology
104	Ann Marie Ryan	18	3,323	Department of Psychology, Michigan State University	1987	I-O Psychology
104	Angelo J. Kinicki	18	3,149	Emeritus. W.P. Carey School of Business, Arizona State University	1982	OB
104	Mark C. Bolino	18	2,599	Price College of Business, University of Oklahoma	2000	OB
104	Robert L. Dipboye	18	2,368	Emeritus. Department of Psychology, University of Central Florida	1973	I-O Psychology
104	Dieter Zapf	18	2,364	Department of Psychology, Goethe University Frankfurt, Germany	1988	Psychology

Table 4.   Continued

Rank	Author name	Textbook citations	WoS citations	Current/most recent affiliation	Year PhD Received	PhD field
104	Leanne E. Atwater	18	2,332	C.T. Bauer College of Business, University of Houston	1985	Organizational/Social Psychology
104	Manuel London	18	1,894	College of Business, Stony Brook University	1974	I-O Psychology
104	Timothy T. Baldwin	18	1,723	Kelley School of Business, Indiana University	1987	Business
104	Elaine D. Pulakos	18	1,610	PDRI	1984	I-O Psychology
104	Suzy Fox	18	1,569	Quinlan School of Business, Loyola University, Chicago	N/A	N/A
104	Chad H. Van Iddekinge	18	596	College of Business, Florida State University	2001	I-O Psychology
117	Robert C. Liden	17	8,436	School of Business, University of Illinois, Chicago	1981	OB
117	Michael R. Frone	17	5,603	Department of Psychology, State University of New York, Buffalo	1991	Organizational/Social Psychology
117	Miriam Erez	17	3,840	Faculty of Industrial Engineering and Management, Technion-Israel Institute of Technology, Israel	1972	I-O Psychology
117	Howard M. Weiss	17	3,613	Department of Psychology, Georgia Tech	1976	I-O Psychology
117	Greg L. Stewart	17	2,489	Tippie College of Business, University of Iowa	1993	OB
117	Joyce Hogan	17	1,694	Deceased. Hogan Assessment Systems	1974	Physical Education/Biomechanics
117	Hubert S. Feild	17	1,483	College of Business, Auburn University	1973	I-O Psychology
117	Stephen W. Gilliland	17	1,411	Eller College of Management, University of Arizona	1992	I-O Psychology
117	Thomas W. Lee	17	1,164	Foster School of Business, University of Washington	1984	Management
117	Stephanie C. Payne	17	1,127	Department of Psychology, Texas A&M	2000	I-O Psychology

Table 4. **Continued**

Rank	Author name	Textbook citations	WoS citations	Current/most recent affiliation	Year PhD Received	PhD field
117	Arthur Gutman	17	168	Department of Psychology, Florida Institute of Technology	1976	Experimental Psychology
117	Laura L. Koppes Bryan	17	72	Vice President for Academic Affairs and Dean, Transylvania University	1987	I-O Psychology
129	Greg R. Oldham	16	8,101	School of Business, University of Illinois, Urbana-Champaign	1974	OB
129	Barry Gerhart	16	3,554	School of Business, University of Wisconsin, Madison	1985	OB
129	John P. Wanous	16	3,152	Emeritus. Fisher College of Business, Ohio State University	N/A	N/A
129	Neal M. Ashkanasy	16	2,995	School of Business, University of Queensland, Australia	1989	Organizational/Social Psychology
129	George M. Alliger	16	1,798	Group for Organizational Effectiveness	1985	I-O Psychology
129	Scott Highhouse	16	1,711	Department of Psychology, Bowling Green State University	1992	I-O Psychology
129	James W. Smither	16	1,531	School of Management, LaSalle University	1985	I-O Psychology
129	Kenneth G. Brown	16	1,013	Tippie College of Business, University of Iowa	1999	Psychology
129	Chris M. Berry	16	910	Kelley School of Business, Indiana University	2007	I-O Psychology
129	Erich C. Dierdorff	16	578	Kellstadt Graduate School of Business, DePaul University	2002	I-O Psychology
129	Victor H. Vroom	16	525	Emeritus. School of Management, Yale University	1958	Psychology
140	Richard M. Steers	15	7,099	Emeritus. Charles H. Lundquist College of Business, University of Oregon	1973	Management and Industrial Psychology
140	Natalie J. Allen	15	6,386	Department of Psychology, University of Western Ontario, Canada	1985	Psychology

Table 4.   Continued

Rank	Author name	Textbook citations	WoS citations	Current/most recent affiliation	Year PhD Received	PhD field
140	Sara L. Rynes	15	4,841	Tippie College of Business, University of Iowa	1981	ILR
140	John Schaubroeck	15	3,931	Eli Broad College of Business, Michigan State University	1988	HRM/OB
140	Dan C. Ganster	15	3,560	College of Business, Colorado State University	1978	OB
140	William H. Bommer	15	2,297	Craig School of Business, California State University, Fresno	1995	OB
140	L. Alan Witt	15	2,138	Department of Psychology, University of Houston	1985	I-O Psychology
140	Boris B. Baltes	15	1,933	Department of Psychology, Wayne State University	1998	I-O Psychology
140	James M. Diefendorff	15	1,861	Department of Psychology, University of Akron	1999	I-O Psychology
140	Marvin D. Dunnette	15	1,726	Deceased. Department of Psychology, University of Minnesota	1954	I-O Psychology
140	Brian J. Hoffman	15	1,320	Department of Psychology, University of Georgia	2006	I-O Psychology
140	Jeanette N. Cleveland	15	1,139	Department of Psychology, Colorado State University	1982	I-O Psychology
140	Robert M. Guion	15	942	Deceased. Department of Psychology, Bowling Green State University	1952	I-O Psychology
140	Jeff A. Weekley	15	776	Naveen Jindal School of Management, University of Texas, Dallas	1986	HRM
140	Sylvia G. Roch	15	491	Department of Psychology, State University of New York, Albany	1997	I-O Psychology
155	Edward L. Deci	14	34,908	Department of Psychology, University of Rochester	1970	Social Psychology
155	Scott B. MacKenzie	14	21,838	Kelley School of Business, Indiana University	1983	Marketing

Table 4. Continued

Rank	Author name	Textbook citations	WoS citations	Current/most recent affiliation	Year PhD Received	PhD field
155	Dennis W. Organ	14	9,945	Emeritus. Kelley School of Business, Indiana University	1970	OB
155	Jason A. Colquitt	14	6,963	Terry College of Business, University of Georgia	1999	I-O Psychology
155	David C. McClelland	14	4,156	Deceased. Department of Psychology, Harvard University	1941	Experimental Psychology
155	Fred O. Walumbwa	14	3,635	College of Business, Florida International University	2002	HRM/OB
155	Pamela L. Perrewé	14	2,992	College of Business, Florida State University	1985	Business
155	Alan M. Saks	14	2,516	Rotman School of Management, University of Toronto, Canada	1990	HRM/OB
155	Wayne A. Hochwarter	14	2,496	College of Business, Florida State University	1993	Business
155	Howard J. Klein	14	2,419	Fisher College of Business, Ohio State University	1987	Business
155	James L. Farr	14	1,890	Emeritus. Department of Psychology, Pennsylvania State University	1971	I-O Psychology
155	Ryan D. Zimmerman	14	1,547	Pamplin College of Business, Virginia Tech	2006	HRM/OB
155	Kenneth Pearlman	14	1,369	Independent Consultant	1982	I-O Psychology
155	Steven G. Rogelberg	14	1,238	Belk College of Business, University of North Carolina, Charlotte	1994	I-O Psychology
155	Rick R. Jacobs	14	1,227	Department of Psychology, Pennsylvania State University	1978	Psychology
155	James A. Breaugh	14	1,225	College of Business Administration, University of Missouri, St. Louis	1977	I-O Psychology
155	Nathan A. Bowling	14	1,224	Department of Psychology, Wright State University	2005	I-O Psychology
155	Ivan T. Robertson	14	1,212	Robertson Cooper	1976	Psychology

Table 4.   Continued

Rank	Author name	Textbook citations	WoS citations	Current/most recent affiliation	Year PhD Received	PhD field
155	Dirk D. Steiner	14	1,000	Department of Psychology, Université Nice Sophia Antipolis, Nice, France	1985	I-O Psychology
155	Suzanne T. Bell	14	969	Department of Psychology, DePaul University	2004	I-O Psychology
155	Fred E. Fiedler	14	941	Emeritus. Foster School of Business, University of Washington	1949	Clinical Psychology
155	Michael J. Zickar	14	897	Department of Psychology, Bowling Green State University	1997	I-O Psychology
155	Lynn A. McFarland	14	875	Darla Moore School of Business, University of South Carolina	2000	I-O Psychology
155	Lorne M. Sulsky	14	780	School of Business, Memorial University, Canada	1988	I-O Psychology

Note: Authors are ranked in decreasing order of number of citations in I-O psychology textbooks, and then listed in decreasing order of number of Web of Science citations. Authors with the same number of textbook citations are assigned the same rank. WoS = Web of Science. I-O = industrial-organizational. HRM = human resource management. OB = organizational behavior. ILR = industrial and labor relations. Web of Science citations are as of March 18, 2017. N/A = not available, and is used to indicate authors for whom we were unable to obtain the relevant information.

[a]The numbers of textbook citations for authors of the textbooks analyzed are a sum of the total and mean number of citations in the other five textbooks analyzed. Including raw citation counts instead of the sum and mean number of citations in the other five textbooks would affect rankings such that Paul E. Spector's rank would change from 11 to 3 (from 48 to 63 citations); Paul E. Levy's rank would change from 65 to 16 (from 22 to 41 citations); and Frank J. Landy's rank would change from 94 to 17 (from 19 to 40 citations). Ronald E. Riggio and Michael G. Aamodt would change from not being included in this table to being ranked 65 (with 22 citations) and 117 (with 17 citations), respectively.

the same procedure as Diener, Oishi, and Park (2014). Specifically, we used the following formula to account for the impact of self-citations of textbook authors:

Total Citations = Total number of citations for textbook author in other five textbooks + Mean number of citations for textbook author in other five textbooks

For example, the number of total citations listed in Table 4 for Paul E. Spector is 48. This is the sum of the number of times his work was cited in the other five textbooks (n = 40) and the mean number of citations of his work in those textbooks (n = 8).

Regarding RQ9, most of the top-178 most-cited authors in Table 4 (58%) are affiliated with business schools, a little more than one-third (34%) are affiliated with I-O psychology programs, a small number (7%) are in industry, and a few (1%) are affiliated with an academic program other than business or I-O psychology. To answer RQ10, we collected citation information using WoS for each of the most-cited authors listed in Table 4. Note that WoS citations are based on citations in journals included in the WoS database, which excludes textbooks (Aguinis et al., 2012). The correlation between textbook citations and WoS citations is $r(178) = .37$, $p < .01$.

Supplemental Analyses

An anonymous reviewer commented that it may be informative to also determine the academic training of the most-cited authors, which might be an additional indication of who influences the I-O psychology knowledge base included in textbooks. Accordingly, we collected information on the discipline in which the most-cited authors received their doctoral degree, and this information is also included in Table 4.[2] Results show that 54% (94) of the top-178 most-cited authors received their doctoral degree in I-O psychology, 20% (35) in business (organizational behavior, business, management, marketing, and human resources), 10% (18) in general psychology, and 9% (16) in social/organizational psychology. Other doctoral fields include industrial and labor relations (n = 3); clinical psychology and experimental psychology (n = 2 each); and economic and social statistics, personality psychology, physical education/biomechanics, and psychometrics (n = 1 each).

---

[2] To obtain this information, we used curriculum vitae posted on the authors' personal or university-affiliated webpages (N = 132), and information listed on the authors' professional association webpage (Society for Industrial and Organizational Psychology, Academy of Management) or LinkedIn profile (N = 32). This process allowed us to obtain information for all but 14 of the most influential authors. As a follow-up, we emailed these authors directly (N = 14) to obtain this information. As a result, we obtained information for 170 of the 178 most-cited authors listed in Table 4.
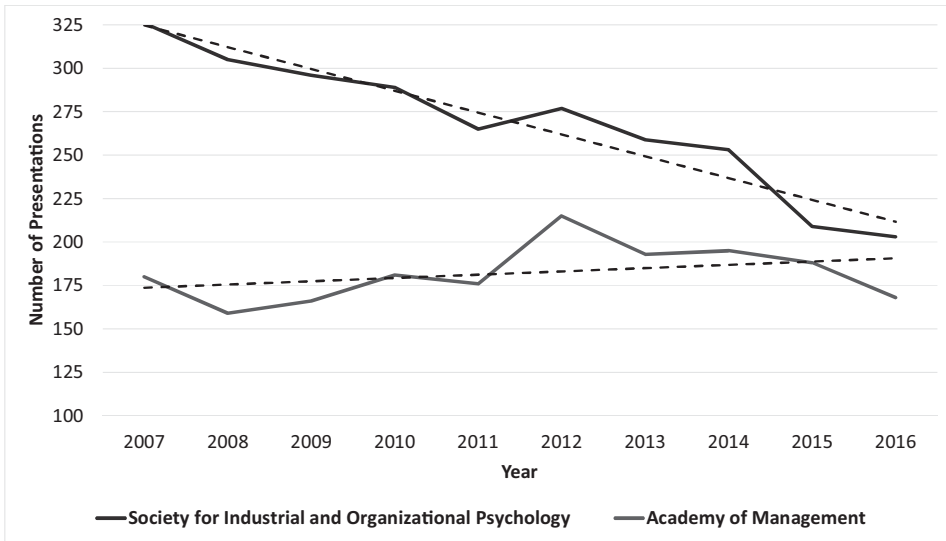
Figure 1. Total number of peer-reviewed presentations per year in which the most-cited authors in industrial-organizational psychology textbooks included in Table 4 participated at the annual meetings of the Society for Industrial and Organizational Psychology and the Academy of Management. Dashed lines represent linear trends.

Also related to the most-cited authors, an anonymous reviewer asked "whether there is any evidence that the most-cited authors (who were trained as I-O psychologists but now reside in business schools) have sold-out … sold out in the sense of no longer remaining affiliated or actively involved in the field (e.g., through conference participation)." To address this issue, we collected information on SIOP and Academy of Management (AOM) membership for each of the nondeceased most-cited authors using the SIOP and AOM online membership directories (as of March 14, 2017). Because membership in SIOP or AOM only requires a financial commitment in the amount of the annual fees, we also collected data on the number of peer-reviewed presentations the most-cited authors authored or coauthored in the past decade (i.e., 2007–2016) using the online conference programs available on the SIOP and AOM meetings websites. Regarding membership, 134 authors are members of SIOP as compared to 108 who are currently members of AOM. Additionally, 36 are exclusively members of SIOP, whereas 10 are exclusively members of AOM.[3] Second, regarding presentations at the annual meetings, Figure 1 includes a graphical representation of the total num-

---

[3] A table including the membership status in AOM and SIOP for the each of the most-cited authors is available from the authors upon request.

ber of peer-reviewed presentations per year in which the most-cited authors participated.

Discussion

We discuss implications of our findings for issues currently debated in I-O psychology and related fields: the science–practice divide; how to define, measure, and reward scholarly impact; and the future of I-O psychology as a field, including considerations about the movement of I-O psychology researchers to business schools and the sustainability of I-O psychology programs in psychology departments.

Implications for the Science–Practice Divide

The scientist–practitioner model espoused by the field of I-O psychology implies a synergistic relationship between science and practice that benefits both parties. Previous research has examined the impact of scholarly work on subsequent scholarship, but we do not know what sources of knowledge, which specific articles, and which authors are most often referred to in I-O psychology textbooks, which is the first in-depth exposure to the field for most future I-O psychology professionals.

Compared to previous research, our results are encouraging regarding the scientist–practitioner model. For example, 39% of the 110 most frequently cited sources mentioned in I-O psychology textbooks are nonacademic journals. Moreover, these top 6.5% cited sources (i.e., 110 out of a total of 1,682) include practitioner publications such as *HR Magazine* (#20) and *Harvard Business Review* (#50), popular press sources such as the *New York Times* (#34), and bridge journals such as *Human Resource Management* (#35) and *Organizational Dynamics* (#47). These results show that future I-O psychology practitioners and researchers are exposed to both scholarly research (as published in academic journals) and the practical implications of such research (as published in practitioner publications and bridge journals). Thus, future I-O psychology professionals—those enrolled in introductory I-O psychology courses—are exposed to the practical side of organizational life, indicating that the divide may develop later, perhaps after graduates obtain employment as either practitioners or researchers.

Our analysis of the relative frequency of cited sources also revealed that although non-academic sources are commonly cited in I-O psychology textbooks, they account for a minority (i.e., 14%) of the total citations drawn from the most-cited sources. So, I-O psychology textbooks refer to practitioner and bridge sources, but they draw more heavily from scientific findings published in academic journals to shape the knowledge base upon which future I-O psychology professionals will rely. Another interesting finding is that 38% (84) of the top-219 most-cited articles are meta-analyses,

which is consistent with results from Aguinis, Dalton, Bosco, Pierce, and Dalton (2011) that meta-analyses are cited, on average, more often than primary-level studies. Therefore, future practitioners are educated using not only knowledge published in rigorous academic journals, but also accumulated knowledge that has been synthesized quantitatively. These findings are also an encouraging result regarding the scientist–practitioner model because they suggest that textbook content includes evidence-based knowledge to guide future practitioners' decisions and actions.

Finally, the presence of bridge journals such as *The Industrial-Organizational Psychologist* (*TIP*), *Human Resource Management*, and *Organizational Dynamics* is particularly interesting. Straddling the line between academic journals (e.g., *JAP* and *PPsych*) and practitioner publications (e.g., *HR Magazine*), these sources speak to and feature contributions from both academics and practitioners. Although these journals do not have a high JCR impact factor,[4] they nevertheless feature prominently in introductory I-O psychology textbooks. Thus, these journals represent an outlet that academics can use to bridge the science–practice divide and impact both current and future practitioners.

Implications for Defining and Measuring Scholarly Impact

Our results regarding the most frequently cited authors in I-O psychology textbooks have important implications about how the field defines, measures, and rewards scholarly impact (Aguinis et al., 2012). Recall that we examined the extent to which authors cited by other researchers (as measured by WoS citations) are also cited in textbooks. Based on the data in Table 4, the correlation between textbook citations and WoS citations is $r = .37$. This may not seem like a large effect because "only" 14% of variance in WoS citations is explained by textbook citations (i.e. $r^2 = .137$). But, this correlation is more than twice the size of the median effect size of $r = .16$ calculated by Bosco, Aguinis, Singh, Field, and Pierce (2015) based on 147,328 correlations reported in *JAP* and *PPsych* from 1980 to 2010. In other words, there is considerable overlap between the authors who are cited most frequently by other researchers and authors who are cited most frequently in I-O psychology textbooks. These results provide evidence that these authors influence both other researchers (i.e., those who are publishing in peer-reviewed journals) as well as future I-O psychology professionals (i.e., those who are enrolled in introductory I-O psychology courses). Also, given their influence on the

---

[4] A journal's impact factor is calculated as the average number of times articles from the journal published in the past 2 years have been cited in a particular year. So, for example, the 2015 impact factor score for a journal is the average number of times articles published in that journal during 2013 and 2014 have been cited during 2015 in journals included in the Web of Science database.

scholarly community and textbooks, the authors listed in Table 4 seem to be boundary spanners—individuals able to move across and have influence on different types of knowledge communities.

Our findings also lead to implications for the design of faculty performance management systems. For example, consider the case of a university that is particularly interested in undergraduate learning and education, and having an impact on future practitioners. Should this university reward the extent to which a faculty member publishes in outlets referred to in textbooks, even if they are not "traditional" scholarly outlets? Should tenure and promotion systems at those universities expand their journal lists to include bridge journals such as *TIP*, *Human Resource Management*, and *Organizational Dynamics*, which do not enjoy particularly high JCR impact factor scores (or do not have an impact factor score at all) but are nevertheless cited frequently in textbooks (ranked #14, #35, and #47, respectively)? As another particularly relevant example, consider the case of *Industrial and Organizational Psychology: Perspectives on Science and Practice* (*IOP*). Established in 2008, *IOP*'s 2015 JCR impact factor of 0.38 is admittedly smaller than that of other top-cited journals included in Table 2, such as *Journal of Personality and Social Psychology* (*JPSP*; impact factor = 4.74), *Administrative Science Quarterly* (*ASQ*; impact factor = 5.32), and *Psychological Science* (*PS*; impact factor = 5.48). However, *IOP* is cited just as often as *JPSP* in I-O psychology textbooks (both ranked #27) and more often than *ASQ* (ranked #31) and *PS* (ranked #56). Given these results, should universities with a mission to influence the undergraduate learning and education of future practitioners revise their reward systems to encourage more "star performers" in terms of their influence on textbooks, as suggested more generally by articles published recently (Aguinis & O'Boyle, 2014; Aguinis, O'Boyle, Gonzalez-Mulé, & Joo, 2016; Joo, Aguinis, & Bradley, 2017)? Our results provide a reminder of the need for the field to address such thorny questions in the years to come and the need for future research to produce knowledge on how to define and measure scholarly impact more pluralistically (Aguinis, Shapiro, et al., 2014).

As an additional contribution of our study, we make our entire database available upon request. As we describe in more detail later in our article, making our database available will allow interested readers to conduct additional impact-based analyses that may be of particular interest and usefulness for various purposes. For example, university administrators will be able to use our database to search for individual faculty members in a particular university or department and learn about their relative impact in terms of the knowledge included in textbooks. Also, this same author-based search can be conducted for particular individuals across universities, such as a cohort of researchers who received their doctorates in the same year. The resulting information can be used for developmental as well as administrative

purposes, such as the allocation of rewards and as additional information for other decisions such as tenure and promotion—particularly for those universities for which impact based on the information disseminated through textbooks is an important strategic objective. Similarly, journal editors will be able to use the database to compare the relative attention received in textbooks by their journal compared to others. This type of information can be useful as another indicator of impact—in concert with the more traditionally and typically used impact factor score, which focuses exclusively on citations in other academic journals.

Implications for the Future of I-O Psychology

Our results provide additional evidence regarding the movement of I-O psychologists to business schools. Specifically, Aguinis, Bradley, et al. (2014) argued that the growing trend of I-O psychologists taking positions in business schools, as opposed to psychology departments, heralded important changes for the field. Results of our study indicate that some of the predictions made by Aguinis, Bradley, et al. (2014) may already be coming true.

Our results indicate that 58% of the 178 most-cited authors in I-O psychology textbooks are affiliated with business schools, whereas only 34% are affiliated with psychology departments. This is a noteworthy result for two reasons. First, as shown in Table 1, six of the seven authors of the textbooks included in our study are or were (in the case of deceased authors) affiliated with a psychology department. Nevertheless, these psychology-department–affiliated textbook writers cited a majority of authors housed in business schools. Second, this trend holds even among the most-cited authors who received their PhDs in I-O psychology, with 47% working in business schools and 43% in psychology departments. This means future I-O psychology practitioners and researchers are exposed to more business-school–affiliated scholars via their textbooks. A potential implication of these results is that undergraduate students interested in pursuing doctoral studies may be drawn to the work authored by researchers in business schools found in their I-O psychology textbooks and then decide to seek admittance into a doctoral program in a business school (e.g., organizational behavior, human resource management) rather than an I-O psychology program. Clearly, if a large number of potential I-O psychology graduate students decide to enroll in business schools instead, this would be detrimental for the future pipeline of I-O psychologists with a doctoral degree and would affect the sustainability of I-O psychology programs within psychology departments.

Another challenge posed by our results is with regard to the knowledge base of I-O psychology itself. Regarding the movement of I-O psychologists to business schools, Allen, Eby, Weiss, and French (2014) noted that "the

real issue of concern is not brain drain but the impact that the immigration of the managerial sciences is having on the research published in I–O psychology journals" (p. 307). As our results show, although other psychology journals are cited somewhat more frequently than cross-disciplinary journals (36% vs. 29%) among the 110 most-cited sources listed in Table 2, cross-disciplinary journals account for two-thirds (66%; i.e., 3,381 out of a total of 5,130) of the citations from among these academic sources, whereas other psychology and purely I-O psychology sources are cited far less frequently (11%; 588 and 10%; 519, respectively). Moreover, 77% of the 219 most-cited articles were published in cross-disciplinary journals, compared to 10% for other psychology and 2% for purely I-O psychology journals. Thus, our results point to challenging questions regarding the future of I-O psychology and its relationship with other psychology specialty areas such as social psychology, as well as the field of psychology in general. Based on the knowledge summarized in I-O psychology textbooks, I-O psychology is much closer to business and management than social psychology and psychology in general.

Directly related to the aforementioned results and the movement of I-O psychologists and I-O psychology to business schools, based on information in Table 4, the mean graduation year of the top-178 most influential authors is 1982 and the median is 1983. So, overall, the most-cited authors received their doctorates about 34 years ago. As noted by an anonymous reviewer, it is likely that their doctoral training has influenced their thinking and research. But, we believe that a work context involving ongoing and regular interactions with colleagues and doctoral students mostly in business schools over a period of about 3.5 decades is likely a more powerful influence on their scholarship than the doctoral training they received about 34 years ago. Furthermore, if we consider the 25 authors in Table 4 who have received a doctorate since 1997 as midcareer scholars—given an average academic career length of about 40 years (Aguinis et al., 2012)—we find that 68% (17) have earned an I-O psychology degree, 28% (7) have earned a business/management degree, and one author a general psychology degree. We draw two implications from these results. First, business-trained scholars comprise 20% (35) of the 178 most-cited authors in Table 4, but 28% (7) of the most-cited authors who are in the middle of their academic careers. This indicates that scholars trained in business are becoming increasingly more influential in shaping the knowledge base of I-O psychology. Second, whereas 20% (34) of the 178 most-cited authors in Table 4 were trained in social/organizational and general psychology, only 4% (1) of the midcareer scholars received such training. This provides further evidence that the knowledge base of I-O psychology is moving closer to business and management, and further away from social psychology and psychology in general.

On a perhaps more encouraging note for the sustainability of the field of I-O psychology in psychology departments, we found that despite moving to business schools, many of the most-cited authors continue to stay engaged with the I-O psychology community. For example, a slightly greater percentage of the most-cited authors are members of SIOP than of AOM. In addition, results in Figure 1 show that the most-cited authors participated in slightly more presentations at SIOP than AOM. However, the gap has almost closed in 2016, and the linear trend lines suggest that the number of AOM presentations by the top-cited authors may surpass those of SIOP in the near future.

Our results expand upon the work by Aguinis, Bradley, et al. (2014), Byrne et al. (2014), and Tett et al. (2014), who pointed to a psychology-driven knowledge base as an important strength for the field of I-O psychology. Our results indicate that I-O psychology students' initial base of knowledge is much more likely to be influenced by cross-disciplinary academic journals than by research published in purely I-O psychology journals or other psychology journals. These results speak partially to the issue of the crisis of identity that is affecting I-O psychology today (Lefkowitz, 2010; Ryan, 2003; Woodwark & MacMillan, 2014). Students whose introduction to I-O psychology is shaped by cross-disciplinary sources and articles written by business school professors may view themselves more as "organizational researchers" than as "I-O psychologists." This means that they would be equally, if not more, likely to draw upon knowledge from business schools for their own practice and research, aim to publish in business-related outlets, and consider career positions in business schools. As such, we conclude that the concern noted by Allen et al. (2014) extends beyond research to questions about the future of I-O psychology as an independent field housed in psychology departments.

In addition to the origins of the knowledge base for I-O psychology, our comparison of the broad topical areas and authors referenced by the most-cited articles and book chapters with the areas identified by Cascio and Aguinis (2008) in their review of research published in two premier I-O psychology journals reveals similarities between the two. This is not entirely surprising given that, after all, textbooks should rely on state-of-the-science knowledge as published in academic journals. Although there were some differences—for example the issue of leader influences is almost twice as likely to be addressed in textbooks (11%) than in journal articles (6%)—there is a high degree of overlap (a correlation of .78) between the broad content areas of textbooks and journal articles.

As an additional result, our study uncovered a troubling finding: the severe underrepresentation of female authors. For many years, the number of women earning a degree in I-O psychology in the U.S. has exceeded the

number of men (National Center for Education Statistics, 2017). For example, in 2016, women earned 70% of all bachelor's degrees, 68% of all master's degrees, and 62% of all doctorates in the field of I-O psychology (National Center for Education Statistics, 2017). Despite this trend, our results show that women constitute only 17% (i.e., 29 out of a total of 178) of the most-cited authors listed in Table 4. In part, this could be due to the fact that, as mentioned earlier, the mean graduation year of the top-178 most influential authors is 1982, and the number of women in the field was much smaller then. Nevertheless, this is a troubling result that certainly deserves urgent consideration. In addition, results showed that only 15% (i.e., 25 out of a total of 178) of the most-cited authors listed in Table 4 in I-O psychology textbooks reside outside the U.S. This result is similar to findings by Cascio and Aguinis (2008) regarding authors of *JAP* and *PPsych* articles, and, therefore, not entirely surprising. However, the growing internationalization of I-O psychology (Griffith & Wang, 2010) suggests that this is another area of opportunity for the field. Expanding the horizons of I-O psychology to include more international perspectives when training future practitioners and researchers can expand I-O psychology's contribution and practical impact by helping us better "inform the public about the purpose and importance of our field" (Rupp & Beal, 2007, p. 38).

Last, we also examined the dates of publication for the most-cited articles or book chapters and found that 66% of the top-219 most-cited articles and book chapters have been published since 1997. On one hand, the use of recent sources is encouraging as it implies that I-O psychology students are receiving the most updated knowledge. Thus, I-O psychology textbooks are fulfilling their role of educating future I-O psychology professionals with current research findings. However, personal experience as textbook writers and conversations with other textbook authors suggest that this drive for newness may also be motivated by the demands of textbook publishers, who often encourage the addition of "new" (and the deletion of "old") references for successive editions of a textbook. As introductory I-O psychology classes are the gateway for future I-O psychology researchers, forsaking classics of I-O psychology in favor of recent articles, mostly authored by business school faculty and published in cross-disciplinary journals, textbooks may, unwittingly, be contributing to a lack of I-O psychology identity among I-O psychology graduates (Allen et al., 2014; Thoroughgood, Jacobs, & Caligiuri, 2014).

Limitations and Additional Future Directions

Although we analyzed popular textbooks that have broad impact, we readily acknowledge that there are other textbooks available, many of which address I-O psychology subdomains such as motivation, leadership, and ethics,

among others. An analysis of those more specialized textbooks might produce different results from those obtained in this study. Thus, future research could examine the relative impact of sources and authors in more specialized domains.

Another potential limitation of our study is the use of citations as a measure of impact. Clearly, measuring impact and influence based on citations is an established methodological approach that has been and continues to be used for bibliometric research in many fields. For example, past research has used citation counts to assess the relative impact of researchers over time (e.g., Podsakoff, MacKenzie, Podsakoff, & Bachrach, 2008), the influence of journals (e.g., Podsakoff et al., 2005), and trends in the influence of different streams of research within a field (e.g., Ramos-Rodríguez & Ruíz-Navarro, 2004). However, a citation count is an imperfect measure of impact because it does not assess the reason why a particular source has been cited (Kacmar & Whitfield, 2000; Zupic & Čater, 2015). For example, consider our own manuscript as an illustration of this point. We cited Li (2015) and Mosendz (2014) to reference the primacy of Amazon.com as an online retailer of textbooks. Although these citations clearly influenced our work, they are not as influential in our conceptualization, research design, measures, and analytic procedures as the work by Aguinis et al. (2012) and Cascio and Aguinis (2008). If we conduct a citation count of sources included in our manuscript, these four sources would receive one citation each, although they were not equally influential on our work. Additionally, the number of citations garnered by a source may also be affected by the longevity of the journal (i.e., how many years it has been published) and the number of issues it publishes per year. For example, in March 2017, *JAP* celebrated its centennial as a journal. In contrast, *IOP* has only been published since 2008. Accordingly, there is a much larger pool of *JAP* articles to be cited in textbooks compared to *IOP* and many other journals. However, this difference in publication history and frequency is not a methodological artifact but likely a substantive reason why certain journals are more impactful than others and should therefore not be corrected statistically. In short, although not always ideal, the use of citations offers an important initial assessment of relative impact.

Regarding future research, as an additional contribution of our study, we make our entire database available upon request. In addition to comparisons based on the citations of individuals and groups of researchers, our database can also be used to conduct additional analyses aimed at understanding why certain sources, articles, and authors are cited more than others. For example, researchers can use computer aided text analysis (CATA) to understand if particular theories and streams of research are more likely to be cited than others (McKenny, Aguinis, Short, & Anglin, in press). As another example of future use of the database, researchers can conduct a content

analysis of the most-cited articles to determine if there are specific research designs, methodologies, or data analytical techniques that are more influential than others. Finally, future research could study the current and past affiliations, training, and socialization of the most-cited authors to understand if differences in these factors contributed to certain authors being more highly cited than others.

Our database is formatted to allow users to locate and synthesize data to answer these and other questions. Each row in our database refers to an entry from one of the six introductory I-O psychology textbooks analyzed. The first column lists the last name(s) of the author(s) of the textbooks. The next 12 columns list, in order of authorship, the names of the authors of the reference cited. These are followed by columns listing, in order, the year of publication of the reference, the name of the article/book chapter (as applicable), and finally the source of the reference. We offer the database formatted as a comma separated values (.csv) file for use with Excel or to import into a variety of statistical analysis software (e.g., R, SAS, SPSS). For example, in Excel, users can use the "Find All" function (accessed via the Ctrl+F keys) to quickly locate all entries for a particular author or journal. In sum, our database can be used to contribute to the discussion and understanding of the key features of impactful authorship and influence conducted by other researchers in the past (e.g., Hadani, Coombes, Das, & Jalajas, 2012; Judge, Cable, Colbert, & Rynes, 2007; Podsakoff et al., 2005).

Conclusions

Our study went beyond the traditional examination of impact that has focused exclusively on citations in journal articles. Adopting Aguinis, Shapiro, et al.'s (2014) pluralist perspective allowed us to examine the extent to which different types of sources and authors influence the knowledge included in the most widely used I-O psychology textbooks—the initial and first in-depth knowledge base used to train future generations of I-O psychology practitioners and researchers. Our results expand upon and also offer useful information regarding the science–practice divide, how to define and measure scholarly impact, and the future of I-O psychology as a field.

Our results are encouraging regarding the transmission of the scientist–practitioner model to students who receive their first in-depth exposure to I-O psychology. Specifically, although the majority of citations in textbooks refer to academic journal articles, there is a prominent presence of nonacademic sources as well as bridge journals. These results clearly do not reflect the wide science–practice gap documented by past research focused on academic publications.

Results are also encouraging regarding the continued affiliation of the most-cited authors with I-O psychology because we found that such

academics continue to remain members of SIOP and participate in SIOP conferences. So, although the majority of authors cited in I-O psychology textbooks are currently affiliated with business schools (in spite of their I-O psychology doctoral training), and they choose to publish in cross-disciplinary journals, they have not abandoned the field of I-O psychology.

The overlap between authors whose work is highly cited by other researchers and those whose work is most cited in textbooks is also encouraging. This shows that high-quality and rigorous scholarship, ostensibly the reason those articles are referred to by other researchers, also receives substantial attention in textbooks.

Our article offers an actionable system to measure scholarly impact more pluralistically—reaching beyond the traditional impact measure focused on citations by other researchers exclusively. In addition to results included in our article, we make the database available so that readers can conduct additional analyses and comparisons (e.g., between individuals, between departments, between schools, between universities). Finally, our results also lead to challenges regarding the future of I-O psychology in terms of its relationship with the broader field of psychology versus business and management, and the content of the knowledge disseminated in I-O psychology textbooks. Taken together, we hope our results will serve as a catalyst for the ongoing debates regarding the science–practice gap, the definition and assessment of scholarly impact, and the future of I-O psychology, including the movement of I-O researchers to business schools and the sustainability of I-O psychology programs in psychology departments.

References

Aamodt, M. G. (2016). *Industrial/organizational psychology: An applied approach* (8th ed.). Boston: Cengage Learning.

Adams, J. S. (1965). Inequity in social exchange. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 2, pp. 267–299). New York: Academic Press.

Aguinis, H., Bradley, K. J., & Brodersen, A. (2014). Industrial–organizational psychologists in business schools: Brain drain or eye opener? *Industrial and Organizational Psychology: Perspectives on Science and Practice*, *7*, 284–303.

Aguinis, H., Dalton, D. R., Bosco, F. A., Pierce, C. A., & Dalton, C. M. (2011). Meta-analytic choices and judgment calls: Implications for theory building and testing, obtained effect sizes, and scholarly impact. *Journal of Management, 37*, 5–38.

Aguinis, H., & Lawal, S. O. (2013). eLancing: A review and research agenda for bridging the science–practice gap. *Human Resource Management Review*, *23*, 6–17.

Aguinis, H., & O'Boyle, E. (2014). Star performers in twenty-first century organizations. *Personnel Psychology*, *67*, 313–350.

Aguinis, H., O'Boyle, E., Gonzalez-Mulé, E., & Joo, H. (2016). Cumulative advantage: Conductors and insulators of heavy-tailed productivity distributions and productivity stars. *Personnel Psychology*, *69*, 3–66.

Aguinis, H., Shapiro, D. L., Antonacopoulou, E., & Cummings, T. G. (2014). Scholarly impact: A pluralist conceptualization. *Academy of Management Learning and Education, 13*, 623–639.

Aguinis, H., Suarez-González, I., Lannelongue, G., & Joo, H. (2012). Scholarly impact revisited. *Academy of Management Perspectives, 26*, 105–132.

Allen, T. D., Eby, L. T., Weiss, H. M., & French, K. A. (2014). Industrial–organizational psychology's Chicken Little syndrome. *Industrial and Organizational Psychology: Perspectives on Science and Practice, 7*, 304–311.

Aycan, Z. (2014). "'Houston, we do have a problem!" Why should industrial-organizational psychologists be pulled by psychology departments? *Industrial and Organizational Psychology: Perspectives on Science and Practice, 7*, 333–336.

Baldwin, T. T., & Ford, J. (1988). Transfer of training: A review and directions for future research. *Personnel Psychology, 41*, 63–105.

Beiler, A. A., Zimmerman, L. M., Doerr, A. J., & Clark, M. A. (2014). An evaluation of research productivity among I-O psychology doctoral programs. *The Industrial-Organizational Psychologist, 51*(3), 40–52.

Benjamin, L. T. Jr., & Baker, D. B. (Eds.) (2000). Boulder at 50. *American Psychologist, 55*, 233–254.

Bosco, F. A., Aguinis, H., Singh, K., Field, J. G., & Pierce, C. A. (2015). Correlational effect size benchmarks. *Journal of Applied Psychology, 100*, 431–449.

Byrne, Z. S., Hayes, T. L., Mort McPhail, S., Hakel, M. D., Cortina, J. M., & McHenry, J. J. (2014). Educating industrial–organizational psychologists for science and practice: Where do we go from here? *Industrial and Organizational Psychology: Perspectives on Science and Practice, 7*, 2–14.

Cascio, W. F., & Aguinis, H. (2008). Research in industrial and organizational psychology from 1963 to 2007: Changes, choices, and trends. *Journal of Applied Psychology, 93*, 1062–1081.

Cascio, W. F., & Aguinis, H. (2011). *Applied psychology in human resource management* (7th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.

Certo, S. T., Sirmon, D. G., & Brymer, R. A. (2010). Competition and scholarly productivity in management: Investigating changes in scholarship from 1988 to 2008. *Academy of Management Learning & Education, 9*, 591–606.

Colella, A., Hebl, M., & King, E. (2017). One hundred years of discrimination research in *Journal of Applied Psychology*: A sobering synopsis. *Journal of Applied Psychology, 102*, 500–513.

Dansereau, F., Graen, G., & Haga, W. J. (1975). A vertical dyad linkage approach to leadership within formal organizations: A longitudinal investigation of the role making process. *Organizational Behavior and Human Performance, 13*, 46–78.

Diener, E., Oishi, S., & Park, J. (2014). An incomplete list of eminent psychologists of the modern era. *Archives of Scientific Psychology, 2*, 20–32.

French, J. R. P., & Raven, B. H. (1959). The bases of social power. In D. Cartwright (Ed.), *Studies in social power* (pp. 150–167). Ann Arbor, MI: University of Michigan Press.

Glaser, B. G., & Strauss, A. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago: Aldine.

Gomez-Mejia, L. R., & Balkin, D. B. (1992). Determinants of faculty pay: An agency theory perspective. *Academy of Management Journal, 35*, 921–955.

Griffith, R. L., & Wang, M. (2010). The internationalization of I-O psychology: We're not in Kansas anymore…. *The Industrial-Organizational Psychologist, 48*(1), 41–45.

Hadani, M., Coombes, S., Das, D., & Jalajas, D. (2012). Finding a good job: Academic network centrality and early occupational outcomes in management academia. *Journal of Organizational Behavior, 33*, 723–739.

Joo, H., Aguinis, H., & Bradley, K. J. (2017). Not all non-normal distributions are created equal: Improved theoretical and measurement precision. *Journal of Applied Psychology, 102*(7), 1022–1053.

Judge, T. A., Cable, D. M., Colbert, A. E., & Rynes, S. L. (2007). What causes a management article to be cited—article, author, or journal? *Academy of Management Journal, 50*, 491–506.

Judge, T. A., Thoresen, C. J., Bono, J. E., & Patton, G. K. (2001). The job satisfaction-job performance relationship: A qualitative and quantitative review. *Psychological Bulletin, 127*, 376–407.

Kacmar, K. M., & Whitfield, J. M. (2000). An additional rating method for journal articles in the field of management. *Organizational Research Methods*, *3*, 392–406.

Kozlowski, S. J. (2017). Reflections on the *Journal of Applied Psychology* for 2009 to 2014: Infrastructure, operations, innovations, impact, evolution, and desirable directions. *Journal of Applied Psychology, 102*, 580–588.

Landy, F. J., & Conte, J. M. (2016). *Work in the 21st century: An introduction to industrial and organizational psychology* (5th ed.). Hoboken, NJ: John Wiley & Sons.

Lefkowitz, J. (2010). Industrial-organizational psychology's recurring identity crises: It's a values issue! *Industrial and Organizational Psychology: Perspectives on Science and Practice*, *3*, 293–299.

Levy, P. E. (2017). *Industrial/organizational psychology: Understanding the workplace* (5th ed.). Gordonsville, VA: Macmillan Learning.

Li, S. (2015). Amazon overtakes Wal-Mart as biggest retailer. *Los Angeles Times*. Retrieved from http://www.latimes.com/business/la-fi-amazon-walmart-20150724-story.html

Lowman, R. L. (Ed.). (2006). *The ethical practice of psychology in organizations*. Washington, DC: American Psychological Association.

McHenry, J. (2007, April). We are the very model. Presidential address delivered at the 22nd Annual Conference of the Society for Industrial and Organizational Psychology, New York, NY.

McKenny, A. F., Aguinis, H., Short, J. C., & Anglin, A. H. (in press). What doesn't get measured does exist: Improving the accuracy of computer-aided text analysis. *Journal of Management*. Advance online publication. doi: 10.1177/0149206316657594

McNally, G. P. (2010). Scholarly productivity, impact, and quality among academic psychologists at group of eight universities. *Australian Journal of Psychology*, *62*, 204–215.

Mosendz, P. (2014). Amazon has basically no competition among online booksellers. *The Wire*. Retrieved from www.thewire.com/business/2014/05/amazon-has-basically-no-competition-among-online-booksellers/371917/

Muchinsky, P. M., & Culbertson, S. (2016). *Psychology applied to work* (11th ed.). Summerfield, NC: Hypergraphic Press

National Center for Education Statistics. (2017). *Digest of education statistics, 2016*. Retrieved from https://nces.ed.gov/programs/digest/2016menu_tables.asp

Podsakoff, P. M., MacKenzie, S. B., Bachrach, D. G., & Podsakoff, N. P. (2005). The influence of management journals in the 1980s and 1990s. *Strategic Management Journal*, *26*, 473–488.

Podsakoff, P. M., MacKenzie, S. B., Podsakoff, N. P., & Bachrach, D. G. (2008). Scholarly influence in the field of management: A bibliometric analysis of the determinants of university and author impact in the management literature in the past quarter century. *Journal of Management*, *34*, 641–720.

Ramos-Rodríguez, A. R., & Ruíz-Navarro, J. (2004). Changes in the intellectual structure of strategic management research: A bibliometric study of the *Strategic Management Journal*, 1980–2000. *Strategic Management Journal, 25*, 981–1004.

Riggio, R. (2013). *Introduction to industrial and organizational psychology* (6th ed.). New York: Routledge.

Rupp, D. E., & Beal, D. (2007). Checking in with the scientist-practitioner model: How are we doing? *The Industrial-Organizational Psychologist*, *45*(1), 35–40.

Ryan, A. M. (2003). Defining ourselves: I-O psychology's identity quest. *The Industrial-Organizational Psychologist, 41*(1), 21–33.

Salter, N. P., Allen, J. A., Gabriel, A. S., Sowinski, D., & Naidoo, L. (2016). Call for proposals for I-O graduate program rankings. *The Industrial-Organizational Psychologist, 54*(1), 1–2.

Society for Industrial and Organizational Psychology. (SIOP). (2015). *2013 SIOP mission statement, vision, core values, and strategic planning goals* (para.1). Retrieved from http://www.siop.org/reportsandminutes/strategicplan.aspx

Spector, P. E. (2017). *Industrial and organizational psychology: Research and practice* (7th ed.). Hoboken, NJ: John Wiley & Sons.

Tett, R. P., Brummel, B., Simonet, D. V., & Rothstein, M. (2014). Making an informed choice of industrial–organizational versus organizational behavior as a PhD student (and a

professor). *Industrial and Organizational Psychology: Perspectives on Science and Practice*, *7*, 336–342.

Thoroughgood, C., Jacobs, R., & Caligiuri, P. (2014). Industrial–organizational psychologists in business schools: Considering the more subtle issue of fit. *Industrial and Organizational Psychology: Perspectives on Science and Practice*, *7*, 329–333.

Van Iddekinge, C. H., Roth, P. L., Raymark, P. H., & Odle-Dusseau, H. N. (2012). The criterion-related validity of integrity tests: An updated meta-analysis. *Journal of Applied Psychology, 97*, 499–530.

Weathington, B. L., Bergman, S. M., & Bergman, J. Z. (2014). Training science–practitioners: Broadening the training of industrial–organizational psychologists. *Industrial and Organizational Psychology: Perspectives on Science and Practice, 7*, 35–38.

Woodwark, M., & MacMillan, K. (2014). Industrial–organizational psychology research: The setting is academic. *Industrial and Organizational Psychology: Perspectives on Science and Practice, 7*, 324–328.

Zupic, I., & Čater, T. (2015). Bibliometric methods in management and organization. *Organizational Research Methods*, *18*, 429–472.