Scholarly Impact:
A Pluralist Conceptualization

HERMAN AGUINIS
Indiana University

DEBRA L. SHAPIRO
University of Maryland

ELENA P. ANTONACOPOULOU
GNOSIS, University of Liverpool

THOMAS G. CUMMINGS
University of Southern California

We critically assess a common approach to scholarly impact that relies almost exclusively on a single stakeholder (i.e., other academics). We argue that this approach is narrow and insufficient, and thereby threatens the credibility and long-term sustainability of the management research community. We offer a solution in the form of a broader and novel conceptual and measurement framework of scholarly impact: a pluralist perspective. It proposes actions that depart from the current win–lose and zero-sum views that lead to false trade-offs such as research versus practice, rigor versus relevance, and research versus service. Our proposed pluralist conceptualization can be instrumental in enabling business schools and other academic units to clarify their strategic direction in terms of which stakeholders they are trying to affect and why, the way future scholars are trained, and the design and implementation of faculty performance management systems. We argue that the adoption of a pluralist conceptualization of scholarly impact can increase motivation for engaged scholarship and design-science research that is more conducive to actionable knowledge as opposed to exclusive career-focused advances, enhance the relevance and value of our scholarship, and thereby help to narrow the much-lamented chasm between research and practice.

Life's most persistent and urgent question is "What are you doing for others?"
—Martin Luther King, Jr.

Most of us have chosen a life of scholarship and are researchers and educators because we want and even need to have impact. Even if we do not explicitly endorse Boyer's (1990) four types of scholarship—discovery, integration, application, and teaching and learning—we have chosen our professional path, at least in part, to have a positive effect on students, colleagues, practitioners, or society at large. In addition, there is growing expectation that our scholarly work will be not only rigorous but also relevant due to shrinking university budgets amid increasing levels of global business education competitors and demands in higher education for accountability, accessibility,

and value (Adler & Harzing, 2009; Antonacopoulou, Dehlin, & Zundel, 2011; Association to Advance Collegiate Schools of Business, 2008; Bartunek, 2007; Research Excellence Framework, 2011; Rynes, Bartunek, & Daft, 2001). Accordingly, it is not surprising that several Academy of Management presidents have referred to the challenge of defining and assessing the impact and value of our scholarly work in their presidential addresses (e.g., Bartunek, 2003; Cummings, 2007; DeNisi, 2010; Hambrick, 1994; Tsui, 2013a; Van de Ven, 2002; Walsh, 2011). However, until there is clarity on how scholarly impact is defined and assessed, calls to be "impactful" (akin to calls to behave in any other way) are unlikely to be effective in inspiring actions needed to achieve this result.

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Our goal is to offer a critical analysis, solutions, and a proposal for how to conceptualize and measure scholarly impact in the management field. Management scholars should take the lead in this process, given our understanding of substantive as well as methodological issues related to scholarly impact. Our knowledge should inform faculty assessment procedures as well as management-research policies of governments, funding agencies, and other professional bodies (e.g., Association to Advance Collegiate Schools of Business, Australian Research Council, United Kingdom's Research Excellence Framework). As noted by Morgeson and Nahrgang (2008: 39), "[b]usiness schools must make a concerted effort to wrest control from the ranking agencies and define our mission based on educational principles." Reflecting this sentiment, we offer a novel conceptualization and solutions to the challenges of conceptualizing and measuring scholarly impact so that management scholars set the agenda and implement systems and actions for judging the impact of their work.

Next, we critically analyze a common approach to scholarly impact that prevails today in many business schools, and particularly in research-oriented business schools in the United States, and describe

its limitations. Then, we offer an alternative approach and solution that accounts for multiple stakeholders and multiple measures of impact, what we call a *pluralist* conceptualization of scholarly impact. After contrasting these two approaches, we discuss implications of our proposed conceptualization for the management research profession, the conduct of research, faculty performance management, and professional organizations, as well as the further development of a pluralist approach itself.

LOOKING UNDER THE HOOD OF A COMMON APPROACH TO CONCEPTUALIZING AND MEASURING SCHOLARLY IMPACT

The majority of inquiry on scholarly impact has focused almost exclusively on one particular stakeholder and one type of measure: academics and citations. Scholarly impact is typically referenced to how management scholars judge the influence of research. It is generally measured using the number of times that other researchers include a particular published work in the references section of their published work (Aguinis, Suarez-González, Lannelongue, & Joo, 2012). For example, citations are used to measure the impact of articles (e.g., Bergh, Perry, & Hanke, 2006; Judge, Colbert, Cable, & Rynes, 2007); researchers (e.g., Podsakoff, MacKenzie, Podsakoff, & Bachrach, 2008); journals (e.g., Colquitt, 2011); and even entire fields (e.g., Lockett & McWilliams, 2005). This approach consists of defining scholarly impact from a researcher perspective and counting citations to determine whether one published work is more important than another, one researcher is more influential than another, or one field (e.g., economics) is more salient than another (e.g., management).

From conceptual and measurement perspectives, this dominant approach to scholarly impact has important limitations. First, in terms of psychometric and test construction theory (e.g., Aguinis & Edwards, 2014; Sijtsma, 2012), scholarly impact is conceptualized as an underlying construct that affects an observable indicator: number of citations. Generally, the indicator is a single measure (i.e., Thomson Reuters Web of Knowledge citations count; Podsakoff et al., 2008) and is treated as if it had a one-to-one correspondence to the underlying construct. In other words, a researcher with a citation count of 1,233 is considered to be more impactful than one with a citation count of 1,230 because citations counts are considered at face value (i.e., the observed score is assumed to be perfectly related to the underlying construct). Second, and per-

haps more important, this standard approach is based on a single stakeholder: academics. It is researchers in the academy who cite the work of others and, hence, they are the only stakeholder considered when impact is based on citations.

Many universities have expanded this traditional approach by acknowledging the impact of measurement error and including additional measures of citations. For example, there are different databases available for counting number of citations, such as Thomson Reuters Web of Knowledge, Google Scholar, Scopus, and Microsoft Academic Search. There also are additional indicators of impact that rely on citations such as the h-index, which involves a combination of number of citations and number of articles published, and the i10-index, which assesses the number of publications with at least 10 citations each. From the perspective of how the underlying construct of impact is defined and measured, the addition of multiple indicators is certainly an improvement over a single-indicator approach because it explicitly acknowledges that each indicator is only an imperfect reflection of the underlying construct (Aguinis, Henle, & Ostroff, 2001). In other words, it is possible to simultaneously examine a researcher's h-index, number of Google Scholar citations, and number of Web of Knowledge citations, and each of these scores is considered to be an imperfect measure of scholarly impact (i.e., psychometrically, error terms are not assumed to be zero and indicators are not assumed to have perfect correspondence with the underlying construct). However, even when several measures of citations are used and each one is considered imperfect (Kacmar & Whitfield, 2000; Shadish, Tolliver, Gray, & Gupta, 1995), the implicit psychometric assumption is that there is a single underlying construct of scholarly impact. In other words, *all the measures based on citations assess the extent to which research is noticed by other researchers*; even collectively; therefore, a "citation-counting approach" is not necessarily informative regarding impact on stakeholders *outside* the academy (Aguinis et al., 2012; Chan, Fray, Gallus, Schaffner, Torgler, & Whyte, 2014). As such, measuring impact exclusively based on citations or its derivatives—even if more than one such measure is used—is psychometrically deficient, because it still refers to impact on one type of stakeholder only: researchers in the academy.

Conceptualizing impact based on citations and related measures has led to fruitful research on the antecedents and consequences of scholarly impact—albeit narrowly and deficiently defined. For example, we now know some of the reasons why certain articles and authors are cited more often than others (e.g., Bergh et al., 2006; Judge et al., 2007; Podsakoff et al., 2008). Although such research has provided a deeper understanding of scholarly impact, it is from the perspective of members of the academy only. In addition, the widespread adoption of this approach, particularly in research-oriented business schools in the United States, has resulted in reward and publication practices that are commonly used because, supposedly, they enhance scholarly impact. For example, many business schools use journal lists in their tenure, promotion, and compensation systems, such that journals that on average receive more citations are considered "top-tier" and consequently are the ones identified on journal lists that faculty should target. A common criterion for deciding whether an article has been an "A-hit" is whether it has been published in a journal with a high impact factor for a given year, which is calculated as the average number of citations received per article published in that journal during the two preceding years.

Employee compensation is a powerful tool for shaping employee behavior (Gupta & Shaw, 2014; Jenkins, Mitra, Gupta, & Shaw, 1998), and professors are no exception. Accordingly, the common conceptualization of impact based primarily on citation count has had a profound influence on how faculty in business schools and other academic units make decisions about what type of research to conduct and where to publish it. Priority is given to research that is likely to be published in journals considered to be "top-tier." This implicit model of impact has contributed to a "win-at-all-cost" mentality where all that matters is to publish "A-hits" (Bedeian, Taylor, & Miller, 2010; Honig, Lampel, Siegel, & Drnevich, in press). Moreover, this model has permeated many fields in addition to management, including the natural sciences (Schekman, 2013).

As noted earlier, we believe that conceptualizing scholarly impact primarily, and often exclusively, from the perspective of internal stakeholders (i.e., members of the academy) and measuring it using only a single type of measure of impact (i.e., citations and its derivatives) is deficient from a psychometric perspective (Sijtsma, 2012). Referring to the issue of the sole emphasis on impact on researcher stakeholders, Hambrick (1994: 13) noted

that "each August, we come to talk to each other [at the Academy of Management's annual meetings]; during the rest of the year we read each other's papers in our journals and write our own papers so that we may, in turn, have an audience the following August: an incestuous, closed loop." We also believe that the adoption of this model of scholarly impact has led to negative, often unintended, consequences for the field of management. We share the concerns of many, summarized so well by Anne Tsui regarding questions about the "credibility and long-term sustainability of our research enterprise if we do nothing to bring the train back on track" (Tsui, 2013b: 383).

To be clear, we are not describing a new problem. It has been discussed widely in the management field (e.g., Aguinis et al., 2012; Pettigrew, 2011) and, as noted earlier, several presidents of the Academy of Management have referred to it (e.g., Hambrick, 1994; Tsui, 2013b). However, although the problem has been discussed repeatedly, what we need are solutions—and actionable ones. Our proposal, in the form of a conceptualization that defines and assesses scholarly impact more broadly, is intended to motivate scholars to engage stakeholders inside and outside of the academy in more meaningful ways. As noted by Pettigrew (2011: 348), "including the impact of research in the social, economic and cultural spheres beyond academia is an important corrective to this displacement of goals." In addition to a more comprehensive conceptualization of impact, we offer an expansive measurement framework because, as noted by Tsui (2013b: 378), "faculty members are responding to the requirements of the measurement system. When only the number of papers in certain outlets count, rational and good people will do whatever it takes to meet the expectations."

A PLURALIST CONCEPTUALIZATION: OPENING THE ROOF TO MULTIPLE STAKEHOLDERS AND MULTIPLE MEASURES OF SCHOLARLY IMPACT

We present an actionable solution to the concerns raised by a growing number of scholars and practitioners worldwide (Bartunek & Rynes, 2014) and propose that scholarly impact needs to account for multiple stakeholders' views and multiple measures of impact, what we label a *pluralist* conceptualization of scholarly impact. Although measures relying on citations can serve as an indicator of impact on other researchers, and they are useful

for that purpose, they do not necessarily provide information about impact on other stakeholders such as university students, corporate practitioners, nongovernmental organizations, government policy makers, and society in general. For example, Aguinis and colleagues (2012) used number of pages as indexed by google.com to assess the impact of management scholars on stakeholders outside of the academy. Their study included 384 of the 550 most highly cited management scholars in the past 3 decades, and results showed that impact on members of the academy (i.e., citations) was not equated to impact on external stakeholders (i.e., google.com entries). For example, results showed important changes in the rank ordering of individuals based on whether impact was measured for internal stakeholders or external stakeholders. On average, there was a difference of about 100 ranks between the lists based on citations and non.edu Google entries. Moreover, there were 19 scholars for whom there was a difference of more than 200 ranks across the two lists. In a more recent study that adopted the Aguinis and colleagues (2012) methodology to measure impact outside of the academy, Chan and colleagues (2014) found that speaking fees received by scholars were correlated with the number of citations (i.e., impact inside the academy) and also with the number of Google entries (i.e., impact outside the academy). However, when Chan and colleagues estimated regression models in which external impact was entered first, internal impact was no longer statistically significant. These preliminary results vividly demonstrate the need for a formal and broader conceptualization of impact that includes multiple stakeholders, particularly if we want our research to have impact beyond the academy (DeTienne, 2013).

In addition to multiple stakeholders, our proposed pluralist conceptualization of scholarly impact includes multiple measures of impact. Impact comes in different forms. Therefore using a single type of measure of impact, such as citations (even in combination with its derivatives such as the h-index and i10-index), does not capture the multidimensional nature of this construct. For example, a management scholar can affect organizational practices through teaching executives, whereas another may have impact on that same stakeholder group by writing practitioner-oriented articles in such outlets as *Business Horizons*, *Harvard Business Review*, and *Organizational Dynamics*. Yet other scholars may influence business practice through consulting, serving as an expert witness

in high-profile court cases, media appearances, or by spending a sabbatical in business practice as translators of research results or as researchers of practitioner-oriented issues (Shapiro, Kirkman, & Courtney, 2007).

Figure 1 includes a formal representation of a pluralist model of scholarly impact. Impact is viewed as a superordinate (i.e., higher order) and multistakeholder factor ξ, which affects impact on various stakeholders labeled η_1 to η_k. In turn, impact on each of these stakeholders is assessed by multiple measures (i.e., x_1 to x_N). For the sake of simplicity, Figure 1 includes only three measures for each stakeholder (i.e., three x's for each η), but there could be more or fewer indicators of impact on each. For now, we describe our model; we will discuss different types of measures later.

A pluralist conceptualization views scholarly impact as a higher order construct, which includes impact on various stakeholders both inside and outside the academy. In turn, impact on each of these stakeholders is assessed by multiple measures. For example, referring to Figure 1 and assuming there is an interest in conceptualizing and measuring impact on three types of stakeholders only, η_1 could represent academics, η_2 executive

FIGURE 1
A Pluralist Conceptualization of Impact: Multiple Stakeholders and Multiple Measures

students, and η_3 the media. Given these stakeholders considered important by a particular business school, measures can be used to assess scholarly impact on each of them. For example, x_1 to x_3 would be three indicators of impact on academics such as citations based on Web of Science, citations based on Google Scholar, and i10-index (i.e., the number of publications with at least 10 citations each). Following this example, x_4 to x_6 would be three indicators of impact on executive students. These measures could include a combination of self-reported and third-party data. For example, these could include the extent to which executive students believe what they have learned will help them improve their effectiveness at work. Finally, regarding impact on the media (i.e., η_3), x_7 to x_9 would be measures of this latent construct. These could include, for example, number of newspaper outlets (both on-line and print) that mention a scholar's research and youtube.com entries, both of which can be collected using web-based tools generally referred to as "altmetrics." As we describe below, these types of measures have great potential and should be investigated as part of a future research agenda on our proposed pluralist conceptualization, because they allow for an assessment of impact on multiple stakeholders, not just academics.

As summarized in Table 1, our multistakeholder and multimeasure approach differs in a number of significant ways from the common approach to scholarly impact described previously. First, as noted earlier, the prevailing model of impact relies on citations, sometimes citations of various kinds. But even if multiple measures of citations are used, impact is considered from the perspective of one type of stakeholder only: researchers in the academy. In contrast, a pluralist conceptualization is multistakeholder in nature because it involves assessing impact, not only on researchers in the academy but also on additional types of stakeholders having an interest in management knowledge. These stakeholders might include students at various levels (e.g., undergraduate, MBA, doctoral, executive), corporate employees, unions, government policy makers, funding agencies, nongovernmental organizations, accreditation organizations, and the media. The choice of which stakeholders to consider will vary, of course, depending on the purpose for measuring scholarly impact of management knowledge. A pluralist conceptualization argues that multiple stakeholders should at least be considered explicitly in these decisions, rather
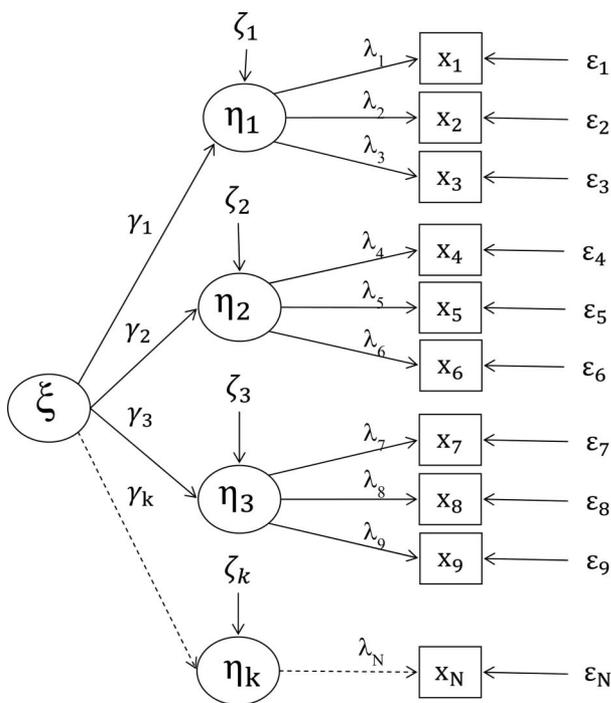
TABLE 1
Comparison of the Common and a Pluralist Approach to Conceptualizing and Measuring Scholarly Impact

	Common approach	Pluralist conceptualization
Conceptualization of scholarly impact	• Impact considered from perspective of one type of stakeholder only: academics. • Zero-sum conceptualization of impact such that impact on researchers (i.e., via publications in "A-journals" and citations) often assumed a detriment to impact on other stakeholders (i.e., teaching executive education courses), and vice versa.	• Impact considered from perspective of multiple stakeholders, including academics but also students at various levels (e.g., undergraduate, MBA, doctoral, executive), executives, government policy makers, not-for-profit organizations, media, among others. • Allows for non-zero relationships between overall impact on various stakeholder groups and also for non-zero relationships among indicators of impact within and across stakeholder groups.
Measurement of scholarly impact	• Citation count, including possibility of including multiple measures of citations (e.g., Web of Knowledge, Google Scholar, h-index). • Same measures of citation counts used in all contexts. • Given reliance on single type of measure of impact, no possibility to adjust relative weights of different impact indicators.	• Considers more than one measure for assessing impact on each stakeholder; does not assume citation count is a perfectly valid and reliable indicator of impact. • Measures of impact can be adapted to specific local context; revised over time based on changes in strategic priorities. • Relative weight of measures of impact can be adjusted based on relative importance of different stakeholder groups. Can be used in a compensatory manner (i.e., a low score on a measure can be offset by a high score in another) or in a noncompensatory one (i.e., minimum threshold of impact required for each individual measure before computing overall score of impact).

than ignored by giving habitual attention to only researchers in the academy.

A second important difference between our proposed solution and the prevailing approach is that the former considers more than one operationalization or measure for assessing impact on each stakeholder; and thus, a pluralist framework is multimeasure in nature, because it involves assessing impact via varying types of impact-related measures. Specifically, a pluralist conceptualization does include the possibility of assessing citations as one indicator of impact on researchers in the academy, such as citations based on Web of Knowledge and Google Scholar and, for example, the i10-index. However, it does not assume that citation-counting (in any of its varieties) is the only indicator and, equally important, does not assume

that citation count is a perfectly valid and reliable indicator of impact. For example, other indicators of impact on researchers might include number and types of scholarly awards received; the extent to which an individual's work is used in doctoral seminars at other institutions (Ashford, 2013); number and quality of invited presentations at professional meetings (including keynote addresses); and workshops delivered at professional conferences and elsewhere that include researchers as the targeted audience, among others. Multiple measures can be used to assess scholarly impact on other types of stakeholders as well.

A third distinction between our proposed solution and the traditional approach to impact is that a pluralist conceptualization can be adapted to a specific local context, and it can also be revised

over time, based on changes in strategic priorities. As such, a pluralist conceptualization of impact can be *locally sensitive*. For example, a business school might determine that there are two key stakeholder groups that should be targeted in terms of impact; another school might decide that there are five important stakeholder groups. In fact, a pluralist conceptualization can accommodate such lofty goals as mitigating inequality and injustice within a particular societal context, and even improve ecologic viability, by including not-for-profit organizations as a stakeholder. Such a perspective would be consistent with a critical management worldview in which these are the goals that should be prioritized in defining and measuring impact, because they are value-based and aligned with the goals of stakeholder groups such as not-for-profit organizations and charities rather than business corporations. Thus, rather than focusing on the same type and number of stakeholders, our proposed solution enables changing them across schools, within schools over time, and based on an institution's strategic priorities. In short, a pluralist conceptualization is flexible and adaptive to changes in strategic priorities.

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A fourth distinction is that a pluralist approach can be adjusted based on the relative importance of different stakeholder groups. As such, it can be *stakeholder-sensitive*. First and more specifically, a pluralist perspective on impact can be used in a compensatory manner. The same overall impact score can be achieved, for example, by having a moderate score on one stakeholder and a very high score on another stakeholder, or a reversal of those scores between the two types of stakeholders. On the other hand, if there is a strategic decision that impact on a particular stakeholder group is twice as important compared to impact on another stakeholder group, weights on measures of impact on those groups can be adjusted accordingly. Second, a pluralist conceptualization can be used in a noncompensatory manner. For example, if a particular stakeholder group is considered to be essential from a strategic standpoint, a minimum overall

impact score for that group might be desired, which would be a combination of more than one measure of impact for that group. The use of a minimum threshold impact measure is illustrated by business schools that encourage faculty members to focus research on publishing a certain number of "A-hits" in order to earn tenure and promotion, and only after doing so, to broaden their research goals and publishing outlets in ways that appeal to a wider readership, thus promoting a "sequential impact strategy."

Finally, a pluralist conceptualization departs from the assumption underlying the traditional model that impact on one type of stakeholder is a detriment to impact on other stakeholders. Specifically, a pluralist approach departs from the current win–lose or zero-sum conceptualization of research (i.e., publishing in top-tier journals) at the expense of practice (i.e., assisting in changing the governance structure of a large multinational corporation); research (i.e., producing knowledge) at the expense of service (i.e., devoting time and effort to the profession); and rigor (i.e., producing knowledge that mainly targets an academic audience) at the expense of relevance (i.e., producing knowledge that mainly targets a practitioner audience; see Aguinis, Gottfredson, Culpepper, Dalton, & de Bruin, 2013; Antonacopoulou, 2010; Burke & Rau, 2010; Egri, 2012). Instead of viewing each type of impact as an inescapable trade-off, a pluralist conceptualization suggests that there can be *synergies across the various stakeholders* in terms of impact, such that more impact on one stakeholder actually leads to more impact on others—a possibility that again is illustrated by the sequential impact strategy described earlier. We note, however, a potential problem with starting a career with an exclusive focus on basic research and then trying later to produce work that appeals to a broader audience. This career sequence can discourage scholars from seeking synergistic scholar–practitioner partnerships until later in their careers, by which time synergies may be less possible because scholars' identities would be tied to their already-published worldview. In summary, in contrast to the zero-sum traditional approach to assessing impact (which relies primarily if not exclusively on counting citations in various ways by only members of the academy), a pluralist approach assesses the extent to which certain observable measures of impact are indicators for more than one stakeholder group, and the extent to

which impact on certain stakeholders is related to impact on others.

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Our pluralist solution to the challenge of defining and measuring scholarly impact raises significant implications for our profession. We address these next.

IMPLICATIONS OF A PLURALIST CONCEPTUALIZATION OF IMPACT FOR THE MANAGEMENT RESEARCH PROFESSION

In describing how business schools shape (misshape) management research, Cummings noted: "Business schools are the professional home of most management researchers. Consequently, they can have an enormous effect on the conduct and output of faculty research and, ultimately, on whether it is useful for theory and practice" (Cummings, 2011: 331). Fittingly, an implication of a pluralist conceptualization is that business schools need to carefully and strategically consider the meaning of impact. For example, what types of stakeholders are they trying to influence and why? Are there some stakeholders who are more important than others from a strategic point of view? The fact that a pluralist conceptualization addresses multiple stakeholders implies that the first step in the process of determining impact involves the explicit identification of those stakeholders that matter. This can be quite revealing in terms of underlying values, assumptions, and goals. In turn, it can help to clarify a business school's overall strategic direction. So, even if the implemented pluralist conceptualization includes less than perfect observable indicators of impact, its adoption is likely to have an immediate effect, because there will be a clearer and more transparent understanding of the various stakeholders that a business school is trying to affect.

Another implication of a pluralist conceptualization of scholarly impact is that it makes explicit that the trade-off between research impact and practice impact is misleading. Consider this question, for instance: "Do you want to influence fellow academics or the world at large?" A pluralist perspective avoids this framing problem. It does not consider impact on different stakeholders to be mutually exclusive. Thus, it rephrases the question as follows: "Do you want to only have influence on fellow academics, or do you also want to have influence on other stakeholders?" A pluralist approach to impact provides a conceptualization that enables scholars to keep aspirations high and not settle for impact on a limited, or even unitary, type of stakeholder (Ashford, 2013).

We recognize that a researcher's time is finite, and there may be a trade-off of time when producing knowledge that impacts one versus many types of stakeholders. We do not intend to trivialize the time-management challenge of producing work that impacts multiple types of stakeholders. However, it is important to emphasize that it is an empirical question—as yet only partially tested—whether the trade-off of time is a "necessary evil" of producing work that impacts many rather than a single type of stakeholder. It is possible, for example, that when scholars organize research programs in ways that target different stakeholders rather than solely academics, they may save time if one of the advantages of a pluralist approach to research is community building. In a preliminary test of this possible trade-off (or lack thereof), based on a sample of 32 past editors of *Academy of Management Journal*, *Academy of Management Review*, *Administrative Science Quarterly*, *Journal of Applied Psychology*, *Journal of Management*, and *Personnel Psychology*, Aguinis and colleagues (2013) found positive and nontrivial relationships between research and nonresearch performance dimensions. For example, there was no evidence that past editors who published more journal articles were less involved with academic conference committees or with leadership roles in professional organizations. In fact, past editors who were more involved with professional leadership positions wrote more books compared to those who were less involved. Overall, the conclusion from this study was that "these results do not provide evidence that past editors solve the [time] dilemma of focusing on their individual research careers versus making other contributions by doing one at the expense of the other" (Aguinis et al., 2013: 576). Next, we discuss additional implications of a pluralistic conceptualization of scholarly impact for the conduct of research, faculty performance management, and professional organizations.

Implications for the Conduct of Research

A pluralist conceptualization of scholarly impact justifies and encourages engaged scholarship (Mohrman & Lawer, 2011; Van de Ven, 2007), an approach to research that was typical of many of the founders of organizational science. For example, Kurt Lewin (1946) and Eric Trist (Trist & Bamforth, 1951) among others, formed networks of researchers who shared values, research interests, and expertise. They had a deep personal commitment to creating new scientific knowledge and helping to solve pressing social problems such as racial conflict, oppressive leadership, and alienating forms of work. These "action researchers" had an explicit agenda in terms of which stakeholders they wanted to influence and why. Yet as Pettigrew (2011) cautioned, researchers doing engaged scholarship must surmount the "double hurdle" of scholarly and practical impact, a difficult task that generally requires treating engaged research as a vocation or calling, not simply an episodic event leading to a publishable outcome (Brower, 2013). Unfortunately, as noted by Walsh, our profession currently favors an "audit culture" and "the problem is that we have reproduced and internalized this audit culture in our own universities. I fear for our future if that culture is left unchecked" (Walsh, 2011: 217). As similarly echoed by Tsui (2013b: 377), "Under this 'bean counting' culture, where numbers more than impact can be easily counted, schools focus on only those metrics that will improve school rankings."

A pluralist conceptualization reinforces the need to consider engaging with different stakeholders both inside and outside of the academy and to acknowledge its multidimensional character as well (Antonacopoulou, 2009; Van de Ven, 2007). This broader emphasis can affect not only the way we do research, but also how we train future scholars. It suggests that a first step in the research process is to identify an important stakeholder and phenomenon of interest or societal problem that needs to be solved rather than to think about what type of project "will land an A-hit" (Aguinis & Vandenberg, 2014). Research might be guided by the design-science perspective proposed by Simon (1969/1996), where management research is not only concerned about "what is," but also about "what can be" (Aguinis & Vandenberg, 2014). Applied disciplines such as medicine and engineering follow this approach to research systematically, which starts by describing the present as the

first step toward the creation of preferred futures (Van Aken & Romme, 2012). In management, a design-science approach might involve helping organizations create performance management systems, structures, and work designs that not only maximize individual and firm performance, but personal growth and development as well. This type of engaged research addresses the needs of a broad set of stakeholders, because it rests on an understanding of the complex social dynamics that individual and collective practices entail. Therefore, a design-science approach holds great promise in producing high-impact actionable knowledge, as it goes beyond seeking to understand the social actors and structures that shape institutional practices to exploring entirely new possibilities and their consequences. It is encouraging that the Academy of Management's newly created journal, *Academy of Management Discoveries*, seeks manuscripts that include "empirical evidence that strengthens our understanding of substantively important yet poorly understood phenomena (i.e., phenomenon-driven research;" *Academy of Management Discoveries*, 2013).

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Implications for Faculty Performance Management

As has been documented extensively in the performance management literature, measurement and reward systems drive and guide behavior (Aguinis, 2013). Unless we change these systems in the management field and in the business schools that employ us, we will continue to emphasize citations and "A-hit" publications as the main or even only indicator of scholarly impact. As noted by Tsui (2013b: 376), "research has changed its focus and primary goal from producing knowledge to publishing papers, from improving practice to advancing a researcher's own career." This is the reason why, as noted by Hitt and Greer (2012: 239), "effec-

tive research evaluation systems have never been more important to the continuation and legitimacy of our research activities." Consistent with this statement, we have anecdotally observed in personal conversations with several management scholars that different answers tend to be given in response to the question, "What is good for the advancement of *our knowledge*?" versus "What is good for the advancement of a *scholar*'s career?" If what is good for advancing our knowledge is a shared superordinate goal, as it should be, then the answers to these questions ought to be compatible and oriented toward advancing knowledge, even if doing so requires more ambitious and time-consuming research designs and collaborations.

Accordingly, our measurement and reward practices need to support a more expansive view of research. A pluralist conceptualization suggests that once a business school has decided which stakeholders matter and the indicators of impact for each, a reward system needs to be created that will be consistent with these strategic decisions. Its design should follow the same general recommendations as those available for the design of any good performance management system (Aguinis et al., 2012). However, there is an important shift in focus from the traditional academic dimensions of research, teaching, and service to an emphasis on various stakeholders and the types of activities and processes that affect each of them. This kind of performance management system also can lead faculty members to ask the important question, "How do I choose to have impact and on whom?" Seen through the lens of a broader conceptualization of scholarly impact, activities such as research, teaching, consulting, writing, directorships, administrative work, professional organization work, media appearances, and editorships can all "be counted." Moreover, a performance management system based on a pluralist conceptualization is more difficult to "game" than the prevailing system, because it involves several criteria. A known problem related to citations and their unidimensional nature is that they can be manipulated (e.g., Opatrný, 2008). In fact, the *Academy of Management Learning and Education* has issued a call for papers for a special issue on ethics in management research seeking submissions that address, among other topics, practices that inflate journal impact factors (Honig et al., in press). It is obviously more difficult to game a

performance management system involving multiple and diverse criteria such as citations, publications targeting practitioners, executive education, and engagement with the media.

Implementing a faculty performance management system using a pluralist conceptualization need not be mechanistic. It can enable a quantitative assessment of impact on each stakeholder by combining scores for each indicator, and then possibly an overall impact score based on combining the impact scores for each stakeholder with predefined weights for each. In addition, the system also can be implemented following a more qualitative case-study approach. For example, rather than an actual impact score, the system could include a classification system geared to meeting certain standards; faculty would provide a narrative and evidence regarding their two most impactful research outputs (e.g., books, articles, cases). The format could be standardized (i.e., word limit) along with a list of targeted stakeholders and acceptable indicators of impact on each.

Finally, it is important to consider the time dimension in designing a faculty performance management system based on a pluralist conceptualization. It may take a long time, sometimes many years, before impact on outside stakeholders occurs. So, although the window for research outputs (e.g., number of articles and books published) is usually between 1–3 years, the window for impact on outside stakeholders could be longer.

Implications for Professional Organizations

A pluralist conceptualization of scholarly impact also has implications for professional societies, such as the Academy of Management, the Society for Industrial and Organizational Psychology, the Strategic Management Society, and the Association for International Business, to name a few. For example, one of the strategic objectives of the Academy of Management is to "encourage our members to make a positive difference in the world by supporting scholarship that matters" (Academy of Management Strategic Plan, 2010). However, to help accomplish this strategic objective, relevant measures and reward systems need to be implemented to motivate and guide member behavior in that direction. Criteria for Academy of Management awards, journal publications, and conference presentations need to be consistent with this strategic objective. In the absence of specific motivation and reward systems tied to objectives, it is

likely that professional organizations' vision statements and strategic plans about being impactful will remain rhetorical statements—right on target but, nevertheless, simply wishful thinking. Worse still, the lack of clarity of what counts for impact will only increase confusion as to what impact means, let alone how it is measured. We believe it is the responsibility of professional societies to support the development of statements and actions regarding what impact means for particular stakeholders.

EMERGING DIRECTIONS AND FURTHER DEVELOPMENT OF A PLURALIST CONCEPTUALIZATION

The approach to scholarly impact proposed here is still in a formative stage, and more work is needed to develop its conceptual and measurement underpinnings. Because a pluralist conceptualization includes multiple stakeholders and measures of impact, it will be necessary to develop valid and reliable measures for each stakeholder group (i.e., x_1 to x_N in Figure 1), which admittedly is not an easy task. Such measures are essential for creating motivation and reward systems that encourage researchers to think and act about scholarly impact in a broader manner. A useful starting point is to examine existing measures of scholarly impact and to assess how they fit with different stakeholders' conceptions. For example, measures of impact on researchers in the academy have been developed and improved over time, including the h-index, among others. Also, the number of websites residing on non.edu domains has been used as an indicator of impact on stakeholders outside of the academy (Aguinis et al., 2012; Chan et al., 2014). Among these external stakeholders are powerful entities that hold great sway over emerging conceptions of scholarly impact, such as state legislatures, the Association to Advance Collegiate Schools of Business (AACSB), government agencies in countries such as the United Kingdom (UK) and Australia that make decisions about funding of public universities (e.g., Australian Research Council, Higher Education Funding Council for England), and the media. Accordingly, at this stage of development, it seems wise to assess the validity of existing impact measures. For example, a 2008 AACSB report titled "Impact of Research" recommended that as a part of the accreditation process, a business school's portfolio of intellectual contributions should be based on impact mea-

sures. Specifically, this report refers to an assessment of "intellectual contributions by going beyond counting refereed journal articles and other contributions (inputs) to demonstrate the impact of scholarship of all types (outcomes) on various audiences" (AACSB, 2008: 30).

Altmetrics: A New Frontier for Assessing Impact

A promising direction in identifying useful indicators of scholarly impact is to take advantage of knowledge generated in the field of *scientometrics*, which concerns the measurement and analysis of science, and its subfield of *bibliometrics*, which focuses on the measurement of impact of scientific publications. The availability of on-line resources has greatly facilitated gathering information on citations attributed to articles, authors, universities, and entire fields. Until recently, citation analysis has been the predominant and most popular approach to measuring impact based on these technological and information science advances. At present, however, newer on-line information sources are producing yet another revolution that is affecting not only scientometrics but other fields as well: the availability of web-based data that go beyond the exclusive reliance on citations. These alternative metrics of scholarly impact, called *altmetrics*, *cybermetrics*, or *webometrics*, refer to the study of scholarly impact measures based on activity in on-line tools and environments (Priem, Groth, & Taraborelli, 2012). For example, these metrics include the number of times an article has been bookmarked by others using on-line reference managers such as Mendeley (http://www.mendeley.com), CiteUlike (http://www.citeulike.org), and Zotero (https://www.zotero.org); number of views and downloads; number of Facebook "likes" and "shares"; number of Tweets; number of mentions in blog posts; and number of mentions in Wikipedia articles (Galloway, Pease, & Rauh, 2014; Munnolli & Pujar, 2013; Sud & Tudwall, 2014).

The increasing popularity of altmetrics is evident in the growing list of providers of altmetrics data: altmetrics.com, impactstory.org, plumanalytics.com, PLoS Impact Explorer, CitedIn, ScienceCard, PaperCritic, and Crowdometer, to name a few. These vary in terms of metrics (i.e., number of indicators); coverage (i.e., articles included in the database); and accessibility (i.e., altmetrics.com and plumanalytics.com are fee-based; for reviews and comparisons see Fenner, 2014; Galloway et al., 2014; Philbrick, 2014). Overall, these services offer altmetrics data on

such dimensions as usage (e.g., downloads, views); captures (e.g., favorites, bookmarks); mentions (e.g., blog posts, news stories); and social media (e.g., Tweets, likes). In addition, they usually include information on citations (e.g., based on Scopus).

An important and yet unresolved issue in the use of altmetrics is whether they capture scholarly impact or simply buzz. Are these measures of scholarly influence or measures of popularity (and perhaps for the wrong reasons)? The following example encapsulates this question quite well. In October 2009, the open access journal PLoS ONE published an article on bat fellatio by Tan and colleagues (2009). Based on altmetrics data, Tan and colleagues (2009) is one of the most popular research articles in recent memory (Konkiel, 2013). In fact, as of April 2014, PLoS ONE reported that this article has garnered an enviable total of 312,685 views and 9,920 shares. However, it has received a total of only four citations! This raises the obvious question about what factors are causing this enormous difference in the amount of attention received by this study outside versus inside of the academy. Is this high number of views an indicator of scholarly impact?

Addressing the relevance and appropriateness of altmetrics is receiving increased attention in the scientific literature. For example, recent letters published in the journal *Nature* both support (Viney, 2013) and question (Cheung, 2013) the use of altmetrics in research assessment schemes. Because altmetrics are collected in real time and can be gathered as quickly as a few seconds after an article becomes available on-line, they are especially appealing to scientometricians who are gaining insight about the meaning of web-based indicators of scholarly impact (e.g., Haustein, Peters, Bar-Ilan, Priem, Shema, & Terliesner, 2014; Roemer & Borchardt, 2013). As expected, preliminary findings suggest that traditional citation measures, such as those covered by Thomson Reuters Web of Science, are significantly correlated to academic-oriented web-based measures of impact focusing on academics, such as the number of on-line reference manager Mendeley readers (Li, Thelwall, & Giustini, 2011; Zahedi, Costas, & Wouters, 2014: 1510). However, relationships between traditional indicators of impact and less academically related web-based measures tend to be very small. Similarly, factor analytic studies have shown that journal-level citation measures, article-level citation measures, and altmetrics measures load on different factors, suggesting

independence among these different measures of impact (Costas, Zahedi, & Wouters, 2014).

Taken together, we can draw the following conclusions regarding altmetrics research to date. First, only a miniscule number of scholarly articles receive attention outside of the academy, as indicated by altmetrics indicators such as number of Tweets, Facebook walls, and news items. Accordingly, altmetrics research faces the challenge of being a very low base-rate phenomenon (Wimbush & Dalton, 1997). Thus, we may have to wait for some more time to pass to be able to answer questions about the meaning and validity of altmetrics scores. Second, only articles published in 2011 or later are likely to receive a meaningful altmetrics score. Thus, altmetrics are questionable for articles published prior to the year 2010. Third, there is a relationship between altmetrics scores based on impact inside the academy (e.g., number of Mendeley readers) and more traditional citation-based measures. However, there is little if any relationship between altmetrics scores based on impact inside the academy with measures of impact outside the academy such as number of Tweets and news mentions. These results point to the possibility that these altmetrics measures have potential to capture a qualitatively different type of impact. That in itself can broaden our conceptualization of impact, not only its measurement. Of course, there is also the possibility that these measures do not capture actual impact but simply short-lived buzz. Overall, as concluded by Zahedi and colleagues (in press: 20), "it is not yet clear what the quality of the altmetrics data is and neither what kind of dimension of impact they could represent." Clearly, altmetrics is in its infancy in terms of capturing the digital footprint of management research.

Table 2 includes an illustrative set of scholarly impact measures derived from discussions among colleagues at a symposium on scholarly impact at the 2013 Academy of Management Conference in Orlando, Florida. This table also includes several altmetrics indicators. We agree with a quote usually attributed to Albert Einstein that "Not everything that counts can be counted, and not everything that can be counted counts." However, we also believe that researchers and academic administrators are drawn to numbers, and unless we offer concrete and specific ways to measure impact more broadly, current thinking about scholarly impact is unlikely to change.

TABLE 2
Illustrations of Observable Indicators of Impact
(*x* variables in Figure 1)

Indicators of impact inside and outside the academy

Inside the academy
- Citations based on Web of Science, Scopus, Google Scholar, and Microsoft academic search
- h-index (i.e., number of publications h with at least h citations each)
- i-10 index (i.e., number of publications with at least 10 citations each)
- Service to professional organizations

Outside the academy
- Number of invitations to practitioner events
- Number of practitioner publications
- Media coverage
- Demand/requests for time from industry
- Surveys involving stakeholders about extent of influence on practice
- Number of popular press business books published
- Presentations to practitioner communities
- Expert witness involvement in high-profile court cases
- Funding received from outside sources
- Partnerships with outside stakeholders (e.g., local and state legislatures, policy makers)

Inside and outside the academy
- Number of followers on social media
- Volume of books sales
- Citations in textbooks
- Number of textbooks published

Altmetrics indicators of impact
- Social bookmarking and digital libraries: Number of bookmarks based on Delicious, Mendeley, CiteUlike, Digg, Stumbleupon, and Reddit, among others.
- Social networks: Number of likes, clicks, comments, shares, and tweets on Facebook, Google$^+$, Twitter, academia.edu, and ResearchGate
- Mentions in blogs: blogger, Wordpress, research blogging
- Mentions in encyclopedias: Wikipedia
- Mentions in news promotion systems: Menéame (in Spanish)

Note. We thank participants at our Academy of Management showcase symposium (2013, Orlando) for suggesting some of the observable indicators of impact inside and outside the academy included in the top portion of this table. Altmetrics indicators are from Fenner (2014); Haustein et al. (2014); Torres, Cabezas, & Jimenez (2013), and Zahedi, Costas, & Wouters (2014).

Research Directions on Antecedents and Consequences of Impact

A related area for further development of a pluralist conceptualization to scholarly impact involves understanding the activities and processes that lead to impact from the viewpoint of various stakeholder groups. Research on scholarly impact has focused primarily on antecedents of citations for individual articles or individual researchers. A pluralist conceptualization suggests an expanded research agenda focused on understanding which activities and processes drive greater impact among, for example, the media compared to corporate stakeholder groups. For instance, does writing a practitioner-oriented journal article lead to more impact from the perspective of the media or from the view of the corporate sector? Moreover, this research could investigate the consequences of scholarly impact. For example, to what extent are business school rankings affected by impact on specific stakeholders? To what extent are donors more likely to make gifts to a particular business school based on its impact on various stakeholder groups? These are just some of the many questions and directions needed to understand the antecedents and consequences of impact from a pluralist perspective.

Continued refinement of a pluralist conceptualization would benefit from identifying the conditions—behavioral, personal, and contextual—that lead certain scholars to produce work having broad impact among multiple stakeholders. For example, there is some evidence that only a small number of scholars have had an important impact on stakeholders both inside and outside of the academy. Aguinis and colleagues (2012) identified management scholars who have accumulated both a very large number of citations and a very large number of non.edu Google.com hits, suggesting both academic and practitioner impact. Specifically, 40 individuals were in the top-100 ranks in both number of citations and number of non.edu Google entries. This is consistent with our broader conceptualization that having impact on one type of stakeholder is not mutually exclusive with having impact on other stakeholder groups. A closer examination of what made these 40 scholars so highly impactful on both researcher and practitioner stakeholders showed that 16 (40% of the total) were affiliated with three universities: Harvard, Stanford, and University of California, Berkeley. This, of course, raises the question of what explains these results. And, how can other universities attract, develop, and retain such multi-impactful scholars and provide the resources, work conditions, and a culture that enable them to be so productive? Answers to these kinds of questions would add greatly to the development of a pluralist perspective on scholarly impact as well as provide fascinating accounts of what it

takes to produce research that is influential across different stakeholders.

A Pluralist Conceptualization: International Dimensions

The United States seems to lag behind other countries' agenda and efforts on assessing scholarly impact outside of the academy, particularly if we consider initiatives such as the Research Excellence Framework in the UK, Excellence in Research in Australia, Evaluating Research in Context (ERiC) in the Netherlands, and programs by the *Centre National de la Recherche Scientifique* (CNRS) in France. Consider the Research Excellence Framework (REF) in the UK, for example, which is a new system to assess the quality of research in higher education institutions that has replaced the 20-year-old Research Assessment Exercise. In contrast to our pluralist conceptualization, the primary unit of analysis of REF is the institution, not the individual researcher. Nevertheless, REF includes 3 criteria with relative weights: research outputs (65%), impact (25%), and environment (15%). The criterion "impact" is based on an examination of up to 10 case studies submitted by each higher education institution. Each case study includes a clear and specific description of how a particular research study has had "any social, economic or cultural impact or benefit beyond academia . . . submissions will also include information about how the unit has supported and enabled impact during the assessment period" (Research Excellence Framework, 2011: 1). Initially, only 20% of weight will be given to the impact criterion, but eventually this percent will increase to 25%. Related to our discussion regarding altmetrics, the document is clear that "Dissemination activity—without evidence of its benefits—will not be considered as impact" (Research Excellence Framework, 2011: 4). In other words, measures such as number of Tweets or news media mentions may be considered indicators of "dissemination" and not "impact." An interesting aspect of this system is that although the particular research described needs to have been produced during a 6-year window, the timeframe for documenting impact is up to 15 years after research results become available. In fact, this timeframe may be extended by a further 5 years (Research Excellence Framework, 2011). REF is clearly important for researchers residing in the UK because "[t]he funding bodies are committed to attaching a significant weighting to

impact, ensuring that it is taken seriously by all key stakeholders, and to make the benefits of research explicit and public" (Research Excellence Framework, 2011: 5).

In summary, the existence and growing use of new measures and procedures for assessing scholarly impact, particularly those originating outside of management, suggest that it would be too harsh to characterize the management field as relying exclusively, universally, and uniformly on only a single indicator or a few measures to assess impact. However, despite the existence of other indicators for assessing scholarly impact, we can say with certainty that business schools and other academic units vying for top rankings (especially but not only in the US) generally do not conceptualize or assess scholarly impact pluralistically. As such, a pluralist conceptualization and measurement framework of scholarly impact does not yet exist for these and many other business schools. We find this disconcerting. A greater benefit to society and to the management field would occur if scholarly impact were conceptualized and measured pluralistically.

CONCLUSIONS

A critical analysis of the prevailing approach to scholarly impact in the management field enables us to understand why this model, which emphasizes a single stakeholder view and usually a single measure of impact, is narrow and incomplete. Ours is clearly not the first critical assessment of the current state of affairs and many past presidents of the Academy of Management have referred to this issue. However, our value-added contribution lies in, first, describing the psychometric fallacy associated with a citation-counting approach (in any of its forms) by other academics and, second, in offering a solution in the form of a pluralist conceptualization that broadens the meaning of impact to include *multiple stakeholders* and *multiple measures* of impact. A pluralist approach recognizes the value of researcher stakeholders and citation measures of impact, yet offers a greater variety of stakeholder views and impact measures. This underscores that our intention regarding the conceptualization and measurement of scholarly impact is, as famously mentioned by former US President Bill Clinton in a different context, to "mend it, don't end it." A pluralist conceptualization leads to actionable recommendations for creating performance management systems in

the management field that will encourage engaged scholarship and design-science research aimed at creating better futures. Also, it suggests a research agenda on the antecedents and consequences of scholarly impact from the viewpoint of multiple stakeholders. Finally, we believe that a pluralist conceptualization will help to narrow the much-lamented chasm between research and practice (Bartunek & Rynes, 2014; Cascio & Aguinis, 2008) as well as enhance the value of our scholarship (Walsh, Tushman, Kimberly, Starbuck, & Ashford, 2007). The questions that can be addressed from a pluralist view of impact and the potential directions that their answers can inspire us to take will remain hidden, hence unrealized, unless the conversation among management scholars includes the possibility of treating impact pluralistically. We trust that our proposal will spur scholarly dialogue and move us to actionable solutions.

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Herman Aguinis is the John F. Mee Chair of Management, professor of organizational behavior and human resources, and the founding director of the Institute for Global Organizational Effectiveness in the Kelley School of Business, Indiana University. His research and teaching interests are multidisciplinary and multilevel and address human capital acquisition, development, and deployment, and research methods and analysis. He has published five books and about 120 journal articles, is the recipient of the 2012 Academy of Management Research Methods Division Distinguished Career Award, and a fellow of the Academy of Management.

Debra L. Shapiro is Clarice Smith Professor of Management at the University of Maryland's Smith School and President-Elect of the Academy of Management (AoM). Her research and teaching regard strategies for managing perceptions of conflict and injustice in organizations, and cross-cultural influences on these strategies' effectiveness. Shapiro has published two books and nearly 80 journal articles, is past chair of AoM's Conflict Management Division, and former associate editor *of Academy of Management Journal.* She is a fellow of AoM, Association of Psychological Science, Society for Organizational Behavior, and the Ethics Resource Center.

Elena P. Antonacopoulou is professor of organizational behavior at the University of Liverpool Management School where she leads GNOSIS, a research initiative advancing impactful collaborative research in management and organization studies. Antonacopoulou's principal research interests include change, learning, and leadership practices in organizations and the impact of actionable knowledge.

Thomas G. Cummings is professor and chair of the Department of Management and Organization in the Marshall School of Business, University of Southern California. Cummings' research and teaching interests are strategic change and designing high-performance organizations. He has published 23 books, 83 journal articles, was founding editor of the *Journal of Management Inquiry,* and is a fellow of the Academy of Management. He was formerly president of the Western Academy of Management, chair of the Organization Development and Change Division of the Academy of Management, and president of the Academy of Management.