Teil 2 Zum Selbstverständnis der BWL

Usefulness, Credibility and Scientific Norms: Reflections on Our Third Responsibility

Anne S. Tsui

Summary: This essay takes a brief stock of the progress in the transformation of business research toward tackling the grand challenges and solving many wicked problems facing business and society today. Efforts are underway in journals, schools, academic associations and accreditation agencies to encourage attention on the societal impact of faculty research in business schools. This transformation is long overdue, and it reflects the will of the scientific community to self-correct the dual crises of research credibility and research-practice gap that dominated the business research ecosystem in the past three decades. Reflecting on the journey of this self-correction as a co-founder of the Responsible Research in Business and Management network, I draw on Robert Merton's normative structure of science and the idea of scientific freedom and scientific responsibility, to suggest five scientific norms for the business and management research community as part of our third responsibility, in addition to our responsibilities for usefulness and credibility. Accepting this third responsibility will ensure that going forward, we will continuously and consistently deliver on our two major responsibilities of producing both credible and useful knowledge for better business practices and a better world.

Key words: Responsible research, replication crisis, relevance, research-practice gap, scientific norms

Nützlichkeit, Glaubwürdigkeit und wissenschaftliche Normen: Überlegungen zu unserer dritten Verantwortung

Zusammenfassung: *Dieser Artikel zieht eine kurze Bilanz des Fortschritts bei der Transformation der betriebswirtschaftlichen Forschung hin zur Bewältigung der großen Herausforderungen und zur Lösung vieler schwerwiegender Herausforderungen, denen sich Wirtschaft und Gesellschaft heute gegenübersehen. In Fachzeitschriften, Schulen, akademischen Vereinigungen und Akkreditierungsagenturen sind Bemühungen im Gange, die Aufmerksamkeit auf die gesellschaftlichen Auswirkungen der Forschung in Business Schools zu lenken. Dieser Wandel ist längst überfällig und spiegelt den Willen der wissenschaftlichen Gemeinschaft wider, die doppelte Krise der Glaubwürdigkeit der Forschung und die Kluft zwischen Forschung und Praxis, die das Ökosystem der Wirtschaftsforschung in den letzten drei Jahrzehnten beherrschte, selbst zu korrigieren. Indem ich als Mitbegründerin des Netzwerks Responsible Research in Business and Management über den Weg dieser Selbstkorrektur nachdenke, stütze ich mich auf Robert Mertons normative Struktur der Wissenschaft und die Idee der wissenschaftlichen Freiheit und der wissenschaftlichen Verantwortung, um fünf wissenschaftliche Normen für die Business- und Management-For-*

schungsgemeinschaft als Teil unserer dritten Verantwortung vorzuschlagen, zusätzlich zu unserer Verantwortung für Nützlichkeit und Glaubwürdigkeit. Die Annahme dieser dritten Verantwortung wird sicherstellen, dass wir in Zukunft kontinuierlich und konsequent unsere beiden Hauptverantwortungen erfüllen, nämlich sowohl glaubwürdiges als auch nützliches Wissen für bessere Geschäftspraktiken und eine bessere Welt zu produzieren.

Stichworte: *Verantwortungsvolle Forschung, Replikationskrise, Relevanz, Forschung-Praxis-Lücke, wissenschaftliche Normen*

1. The Trio Problems in Business and Management Research: Usefulness, Credibility, and Scientific Freedom

Usefulness

The dawn of the third decade in the 21st century illuminates encouraging signs of solutions to several major challenges in business and management research worldwide. We see promising responses to the call for transforming business research[1] from primarily an "ivory-tower" exercise to engagement with society to solve some of the wicked problems in the world through the actions of business. These responses include special issues in journals calling for research on important problems in society, awards to recognize the societal relevance and potential impact on practice of recently published research, summits to discuss responsible research, and statements of societal impact of research in annual faculty reviews.[2] The Association to Advance Collegiate Schools of Business International (AACSB) puts societal impact of both research and teaching front and center in the revised standards for accreditation of business schools.[3] These responses suggest that we can see a light at the end of the tunnel.

This tunnel of darkness in the relevance of business research is almost three decades long. Self-reflection on the relevance of our work has appeared in the management discipline (e.g., *Davis* 2015; *Hambrick* 1994), in marketing (e.g., *Reibstein, Day & Wind* 2009), operations management (e.g., *Tang* 2016), accounting (e.g., *Rajgopal* 2020) and finance (e.g., *Zingales* 2015). This reckoning also has invited public discourse encouraging business researchers to do better in providing science-informed ideas to decision makers in business, government, non-profit, and other forms of organizations (*Stephen & Pauwels* 2019; *Jack* 2020).

The COVID-19 pandemic further heightens the urgency of research to produce relevant knowledge and suggest evidence-based solutions to government or business leaders whose decisions have life and death consequences. The human suffering worldwide causes us to reflect on some deeper questions. Should business scholars continue to hide in their ivory towers, oblivious to the calamities in the world around them? Should they continue to forgo opportunities in solving some of society's challenges with their talents and scientific ingenuity? In contrast to the silence among management scholars on the financial crisis in 2008/09 (*Starkey* 2015), the good news is that business scholars during this crisis have

1 The term "business research" is an inclusive term for research by all the core disciplines of a business school, which broadly fall into the five areas of accounting, finance, management, marketing and operations management.

2 See the Actions page of the website rrbm.network for information on awards, summits, journal special issues, and other initiatives.

3 See https://www.aacsb.edu/accreditation/standards.

shown an eagerness to contribute to the conversation and to venture suggestions in essays or blogs.[4] The windows and doors of the ivory tower are beginning to crack slightly open, an encouraging step in the right direction.

Credibility

In the past two decades, business research is confronted with a second challenge, which is the prevalence of questionable research practices that compromised the quality and credibility of the research findings. Scholars in management (e.g., *Tourish* 2019) and in psychology (*John et al.* 2012) have exposed the problems of data manipulation to find the best results, selecting and reporting only the significant findings (P-hacking) and formulating or revising the hypotheses after the results are known (HARKing). These questionable practices render the results of most published work not trustworthy and not replicable (*Ritchie* 2020). This replication crisis has sent alarm bells to the research communities in medicine (*Harris* 2017), psychology (*Nosek et al.* 2015), management (*Tourish* 2019) and sciences in general (*Ritchie* 2020). Resolving to correct this credibility problem, *Nosek* and colleagues (2015) offer a set of transparency standards that encourage sharing of data and procedures to facilitate replication, pre-registration of hypotheses and research plans with a commitment to publish null or negative results to prevent changing the hypotheses to fit the findings. These efforts have received a favorable reception by many scientific communities, especially in the natural sciences. The impact on business research is shown in editorial policies on data accessibility, replication and transparency (DART) in the business journals, led by the *Strategic Management Journal* (*Bettis et al.* 2016), the *Journal of International Business Studies* (*Meyer, van Witteloostuijn, & Beugelsdijk* 2017), and *Management and Organization Review* (*Lewin et al.* 2016). More journals have adopted such policies, though most are not mandatory and reception by authors has not been enthusiastic.

Efforts to correct the twin problems of credibility and relevance or usefulness[5] have proceeded independently though they are related at least in terms of consequences (*Tsui* 2019). Unreliable or non-replicable research findings may misinform practice. Reliable findings on trivial problems are not useful for society. The credibility problems in business research may be a blessing in disguise because applying unreliable findings to practice may lead to a waste of money, inefficacious policies, or even loss of lives (as in medical or weapons research).

In an effort to tackle the two inter-related problems of credibility and usefulness, in 2015, 24 leading business scholars in five core business disciplines (accounting, finance, management, marketing, and operations management) worldwide (plus four leaders of associations closely connected with business education) founded the Responsible Research in Business and Management (RRBM) network (www.rrbm.network).

Scientific Freedom

Business researchers faced yet a third challenge at the same time when they were confronted with the credibility and usefulness problems, and that is the loss of freedom in scientif-

4 See www.rrbm.network readings and the blogs page for a sampling of these writings.

5 The RRBM founders chose the words "credibility" and "usefulness" deliberately to include the idea of rigor and relevance. Credibility describes the results' findings. Usefulness implies that the knowledge can enable better business practices for a better world.

ic inquiry. The autonomy of inquiry is important for the pursuit of science. This ideal was introduced in the 17th century to protect the scientific community from the pressures of authority such as government, religious organizations, or granting agencies. Albert Einstein has said, "The development of science and of the creative activities of the spirit requires a freedom that consists in the independence of thought from the restrictions of authoritarian and social prejudice." (*Isaacson* 2008, 550). The independence for scientists from external pressure is necessary to encourage scientists' independence of thought. This independence "permits the individual scientist to concentrate his attention upon problems that he has good reason to believe that he can solve" (*Kuhn* 1962, 164). Kuhn considers this autonomy to be largely responsible for success in the natural sciences.

This autonomy, however, has been compromised in the business schools in recent decades due to a system of counting the number of publications in highly cited journals (the A-ranked journals) as the primary metric to evaluate research contributions. This metric is deemed to be objective because it does not rely on the subjective opinions of members of evaluation committees. Promotion and tenure (P&T) committees have thus delegated the assessment of research quality and contribution to journal reviewers and editors, by using the impact level of journals (measured by the citations to all the articles in the journal) as a proxy of the quality of individual articles published in them. However, as the DORA statement (*Cagan* 2013) points out, it is a fallacy to assume that all the papers in an A-ranked journal are of equally high quality or high impact as the journal as a whole. In fact, most papers in the A-ranked journals have very few citations. The DORA statement offers this strong recommendation "Do not use journal-based metrics, such as journal impact factors, as a surrogate measure of the quality of individual research articles, to assess an individual scientist's contributions, or in hiring, promotion or funding decisions." (*Cagan* 2013, 869)

An analysis of the five economic journals with highest impact factors (T5) shows a positive relationship between T5 publications and professional success – promotion and tenure – but not academic impact – citations of the authors (*Heckman & Moktan* 2020). The papers in the non-T5 journals are cited as often as the T5 papers. In fact, innovative papers are usually found in non-T5 journals where many leading scholars have chosen to publish their work. "The T5 journals often endorse 'safe research' that extends the boundaries of a field slightly but does not advance it by much" (*Akerlof* 2020). This may be the consequence of the peer review process which tends to perpetuate the status quo – approving research that contributes to established ideas or paradigms and rejecting those that deviate from them. Further, in most situations, including scientific work, there is a trade-off between quantity and quality. Einstein again reminds us, "An academic career in which a person is forced to produce scientific writings in great amounts creates a danger of intellectual superficiality" (*Isaacson* 2008, 79).

This measurement system not only breeds scientific mediocrity; it also encourages researchers to work on topics that they perceive to be more likely to be acceptable to editors and reviewers, and to avoid tough or new problems that do not fit into existing theoretical or methodological paradigms (*Tsui* 2016). Instrumental rationality (career concerns) dominates the decisions of what and how to study. The counting system serves as a strong incentive to authors to submit their autonomy of inquiry to the authority of the school's tenure and promotion committee and to the authority of the journal editors and reviewers. Researchers have little incentive to write for managers or policy makers. Further, a single

metric cannot capture the multifaceted way in which business researchers and scholars can contribute.

More seriously, this counting system has lured researchers into questionable research practices to maximize the chance of successful publications in the A-journals at all costs (*Aguinis et al.* 2020). Though few researchers engage in blatant cheating, many commit small "sins" (*Schwab & Starbuck* 2017). These practices produce unreliable findings on practically trivial or meaningless topics. Reduced freedom appears to have found company in a reduced sense of responsibility.

The importance of both scientific freedom and scientific responsibility is captured in a formal statement by the American Association for the Advancement of Science (AAAS). It encapsulates the responsibility for producing both credible and useful knowledge.

> *Scientific freedom and scientific responsibility are essential to the advancement of human knowledge for the benefit of all. Scientific freedom is the freedom to engage in scientific inquiry, pursue and apply knowledge, and communicate openly. This freedom is inextricably linked to and must be exercised in accordance with scientific responsibility. Scientific responsibility is the duty to conduct and apply science with integrity, in the interest of humanity, in a spirit of stewardship for the environment, and with respect for human rights* (*Jarvis* 2017).

2. A Third Responsibility in Science

This AAAS statement and the correction efforts in progress suggest a third responsibility by the research community, which is to protect the sacredness and integrity of the research enterprise, to ensure that we exercise our freedom responsibly and to deliver our scientific responsibility with integrity. Scientists not only have the responsibility to "get it right" (technically right, à la credibility) but also work on the right things (morally right, à la usefulness). In addition to attention to these two types of responsibility, the third responsibility also includes attention to the training of nascent scientists to their scientific responsibilities, to defining the norms and values to govern scientific behavior, and to applying sanction on deviation. The RRBM movement is one example of the third responsibility in action. I will discuss this third responsibility in the remainder of this essay.

I will first briefly describe the vision and mission of RRBM, including the seven principles of responsible research and how they relate to the twin goals of enhancing both the credibility and the usefulness of research findings. I will discuss the role of scientific norms, drawing on the *Merton's* four norms ([1942], 1973) and the AAAS statement to guide scientific work. Scientific norms complement codified scientific rules to ensure that research consistently and reliably delivers on its responsibility of producing both credible and useful knowledge.

Responsible Research in Business and Management: Vision, Mission and Principles

The co-founders of *RRBM* define "responsible research" as scientific work that produces credible knowledge that is useful for practice. Achieving either alone but not both does not qualify as responsible research (2017, 2020). RRBM offers a vision 2030 when business schools will become the centers of excellence for expert advice on solving critical problems in business, government, and other policy institutions. RRBM's mission is to

promote, facilitate and catalyze the transformation of business research from the current ecosystem that focuses on a numerical publication goal to an ecosystem that values the content of the work-- whether it addresses society's grand challenges and suggests knowledge that can enable businesses to be agents of positive change. The RRBM movement has brought to light a third responsibility to ensure that we as a community live up to the first two responsibilities.

The co-founders formulated seven principles to guide research design. Table 1 presents these seven principles. The first principle, "*Service to Society,*" is foundational: Science should bring benefits to ordinary citizens (not only the privileged few) and should avoid negative externalities on society.

Principles 2 to 4 aim to enhance the credibility of research findings. They appreciate diversity in methods, ontology, and epistemology in different parts of the world. These three principles encourage plurality, context sensitivity, and indigenous scholarship. They fulfill the first responsibility of science which is to produce credible, reliable, and replicable knowledge.

Principles 5 to 7 focus on strengthening the usefulness of discoveries and accessibility of research to the "end-users." This is to fulfill the second responsibility of science which is production of knowledge useful for society. As Einstein reminded us, improving the life of the ordinary human must be the chief objective of science.

1. *Service to society*: Business research aims to develop knowledge that benefits business and the broader society, locally and globally, for the ultimate purpose of creating a better world
2. *Valuing both basic and applied contributions*: Business school deans, journal editors, funders, accrediting agencies, and other stakeholders respect and recognize contributions in both theoretical and applied research.
3. *Valuing plurality and multidisciplinary collaboration*: Business school deans, senior leadership, journal editors, funders and accreditation agencies value diversity in research themes, methods, forms of scholarship, types of inquiry and interdisciplinary collaboration to reflect the plurality and complexity of business and societal problems.
4. *Sound methodology*: Business research implements sound scientific methods and processes in both quantitative and qualitative or both theoretical and empirical domains.
5. *Stakeholder involvement*: Business and management research values the involvement of different stakeholders who can play a critical role at various stages of the scientific process, without compromising the independence or autonomy of inquiry.
6. *Impact on stakeholders*: Business and management schools, funders and accrediting agencies acknowledge and reward research that has a positive impact on diverse stakeholders, especially research that contributes to better business and a better world.
7. *Broad dissemination*: Business and management schools value diverse forms of knowledge dissemination that collectively advance basic knowledge and practice.

Table 1: The Seven Principles of Responsible Research

Source: *RRBM* (2017, 2020) position paper, www.rrbm.network.

The seven principles focus on why and how to engage in responsible research. They are structural mechanisms to enable responsible research. *Merton* (1973) reminded us of the importance of informal, non-codified but commonly accepted norms that guide scientific

behavior. Scientific norms, such as those suggested by Merton, and the ideas in the AAAS statement on scientific freedom and responsibility, serve to deliver our third responsibility.

The Role of Scientific Norms for Business and Management Research

Merton (1973) discussed four norms as institutional imperatives – "Universalism," "Communism," "Disinterestedness," and "Organized Skepticism." Collectively, they comprise the normative structure or ethos of modern science.

> *These imperatives, transmitted by precept and example and reenforced by sanctions are in varying degrees internalized by the scientist, thus fashioning his scientific conscience….Although the ethos of science has not been codified, it can be inferred from the moral consensus of scientists as expressed in use and wont, in countless writings on the scientific spirit and in moral indignation directed toward contraventions of the ethos (269).*

These norms form the "scientific spirit" which serves to ensure that the scientific community is a blessing and not a curse for humanity through its dedication to developing credible knowledge that will benefit all of humanity and not only those with power, resources, or authority.

Universalism points to the impersonal nature of science. Truth is to be judged by criteria unrelated or unbiased by personal or social attributes of the scientists (such as age, gender, nationality, or religion, political ideology or homophily). The universalistic criteria are similar to the "epistemic values" (*Douglas* 2009) in judging the truthfulness of scientific claims. This impartial nature also applies to the process of the research process. A high level of objectivity is expected from those who conduct and who evaluate science. Objectivity in social science is particularly challenging because the scientist's reality may not be shared by those being studied (*Risjord* 2014, chapter 3). The impartiality and associated objectivity norms strengthen and complement Principles 2 to 4 in the RRBM framework. Stakeholder involvement in the scientific process (Principle 5) would ensure mutual understanding of the issue being analyzed, the reality being experienced, the meaning of the actions being observed, or outcome achieved.

The second imperative, *Communism*, refers to the common ownership of goods or ideas. "The substantive findings of science are a product of social collaboration and are assigned to the community" (*Merton* 1973, 273). The communal nature of scientific discoveries makes it possible for other scientists to build on existing knowledge, to extend, retest, or challenge findings. Newton is famously known for saying "If I have seen farther it is by standing on the shoulders of giants" (275), reflecting a degree of humility about one's own work or accomplishments. The communal nature of scientific discoveries requires full and open communication to advance and apply knowledge. The AAAS statement specifically calls out the importance of "communicat[ing] openly" both research processes and results. RRBM's Principle 7 highlights open, fast, and free dissemination of research findings. We may use the word *Communality* to replace the word Communism to emphasize scientific discoveries as a public good, accessible to all, regardless of the source of funding or ability to pay. This norm complements Principle 7 of responsible research.

Merton's third imperative *Disinterestedness* refers to the motive of scientists in pursuing scientific work. Ideally, the scientist should not use science to advance personal goals or achieve self-interest. The decision to engage in scientific work should be guided by

interest in the problems of the world, a desire for solving tough challenges, and a thirst for knowledge to be used to advance the common good and to benefit humanity. This norm does not and cannot depend on the personal qualities of scientists alone. It is the communal expectation, socialization, and associated policing by peers with sanctions for self-aggrandizement that ensure a degree of detachment or disinterest toward scientific achievements. This norm is inherent in the responsibility aspect of the AAAS statement "the duty to conduct and apply science with integrity, in the interest of humanity, in a spirit of stewardship for the environment, and with respect for human rights." Some may find the word *Detachment* more suitable than the word Disinterestedness to refer to detaching one's self-interests in the pursuit of science. This norm is in support of Principle 1, science in service of society.

The fourth imperative – *Organized Skepticism* – is about attitudes toward science by established institutions in society including religion, government, and certain segments of society, as well as the scientific community itself. Science does not promise definitive answers to all questions. Holding all conclusions derived from scientific work as tentative is a virtuous norm that signals humility as well, since definitive truth is not possible given the changing nature of both physical and social phenomena and the limits of science to observe or explain everything. Self-skepticism or *humility* is a healthy norm to guide scientific work. This norm ensures that scientists are cautious about wrongful conclusions and the impact on stakeholders, a focus of Principle 6.

Norms are not formal ethical codes though they can enhance the enforcement of codes. Most scientific communities have written codes to guide ethical conduct about research and professional conduct. Unlike codes, norms are non-binding on the scientists' behaviors. They are enforced through education, socialization, internalization, and implicit sanction for violation. Norms also are not personal values. Scientific norms guard science from bias related to personal values. Norms are community approved behavior and apply to all, regardless of personal value orientation of the scientists.

Merton articulated these norms almost 80 years ago. The world is very different today in the technological, social and economic domains. Inspired by and building on the ideas of giants in science such as Einstein, Kuhn, and Merton, the AAAS statement, and the vision/mission of RRBM, I suggest, in modesty, five scientific norms that we may consider for the business and management research community. I invite our research community to scrutinize, revise, and refine these scientific norms or to identify other important ones to complement efforts to guide our scientific work in fulfilling our responsibility to deliver credible and useful knowledge.

1. **Independence –** Having freedom to pursue problems in society deserving research attention, with institutional rules and performance metrics supporting rather reducing this freedom.
2. **Detachment –** Accepting scientific work as service to society, as a calling, detached from a scientist's professional (e.g., career advancement) or personal (e.g., money) interests.
3. **Impartiality –** Using impersonal criteria and objective processes, unbiased by personal background or preferences, in conducting or evaluating scientific work.
4. **Humility** – Recognizing science as one of many ways to advance human societies, maintaining modesty about the truth of discoveries, welcoming criticism, and self-correcting.

5. **Communality –** Treating scientific discoveries as a public good, accessible to all, with open and timely sharing of discoveries, regardless of the source of funding or ability to pay.

3. Conclusion: Responsible Researchers

As responsible researchers, we contribute science-based solutions to pressing problems facing humanity. A responsible scientific community ensures that our research community has the freedom to work on problems that are important for humanity and to pursue and evaluate scientific work responsibly. RRBM offers seven principles to guide in the development of credible and useful knowledge. I encourage the development of scientific norms as part of our third responsibility. Scientific norms serve as a "north star" providing light to our scientific journey. The seven principles serve as a well-oiled vehicle to carry us toward the right direction.

As the coronavirus pandemic continues to rage across the world, I am reminded of the fragility of human life and the urgency of our task as social scientists – to contribute robust knowledge to business leaders and policy makers. As a responsible scientific community, we must commit to the ideal that business research can contribute to alleviating human sufferings and can help organizations to be stronger and kinder. As a community of scholars, we have the power to reclaim our freedom and respond to the call to be responsible social scientists, so that we can realize our dreams and achieve our aspirations to contribute to a healthy, just, and thriving world.

References

Akerlof, G. A. (2020). Sins of omission and the practice of economics. *Journal of Economic Literature*, *58*(2), 405–18.

Aguinis, H., Cummings, C., Ramani, R. S., & Cummings, T. G. (2020). "An A is an A": The new bottom line for valuing academic research. *Academy of Management Perspectives*, *34*(1), 135–154.

Bettis, R. A., Ethiraj, S., Gambardella, A., Helfat, C., & Mitchell, W. (2016). Creating repeatable cumulative knowledge in strategic management: A call for a broad and deep conversation among authors, referees, and editors. *Strategic Management Journal*, *37*(2), 257–261.

Cagan, R. (2013). The San Francisco Declaration on Research Assessment. *Dis Models Mech*, *6*: 869–870.

Co-founders of Responsible Research in Business and Management (RRBM) (2017, revised 2020). *Responsible research in business and management: Striving for useful and credible knowledge*. Retrievable from www.rrbm.network/position paper.

Davis, G. F. (2015). Editorial essay: What is organizational research for? *Administrative Science Quarterly*, *60*(2), 179–188.

Douglas, H. (2009). *Science, policy, and the value-free ideal*. Pittsburgh, PA: University of Pittsburgh Press.

Hambrick, D. C. 1994. 1993 Presidential address – What if the academy actually mattered? *Academy of Management Review*, *19*(1), 11–16.

Harris, R. (2017). *Rigor mortis: how sloppy science creates worthless cures, crushes hope, and wastes billions*. New York: Basic Books.

Heckman, J. J., & Moktan, S. (2020). Publishing and promotion in economics: the tyranny of the top five. *Journal of Economic Literature*, *58*(2), 419–70.

Isaacson, W. (2008). *Einstein: His life and universe*. New York: Simon & Schuster.

Jack, A. (2020). Academic focus limits business schools' contribution to society. *Financial Times*, February 23, 2020. https://www.ft.com/content/5953739c-3b94-11ea-b84f-a62c46f39bc2

Jarvis, M. (2017). AAAS adopts scientific freedom and responsibility statement. *Science*, *358*(6362), 462.

Kuhn, T. S. (1962). *The structure of scientific revolutions*. Chicago, IL: University of Chicago press.

Lewin, A. Y., Chiu, C. Y., Fey, C. F., Levine, S. S., McDermott, G., Murmann, J. P., & Tsang, E. (2016). The critique of empirical social science: New policies at management and organization review. *Management and Organization Review*, *12*(4), 649–658.

Merton, R. K. ([1942] 1973). The normative structure of science. In *The Sociology of Science: Theoretical and empirical investigations*, 267–278. Chicago: University of Chicago Press.

Meyer, K. E., Van Witteloostuijn, A., & Beugelsdijk, S. (2017). What's in ap? Reassessing best practices for conducting and reporting hypothesis-testing research. *Journal of International Business Studies*, 48, 535–55.

Nosek, B. A., Aarts, A. A., Anderson, J. E., Kappes, H. B., & Open Science Collaboration. (2015). Estimating the reproducibility of psychological science. *Science*, *349*(6251), aac4716-aac4716.

Nosek, B. A., Alter, G., Banks, G. C., Borsboom, D., Bowman, S. D., Breckler, S. J., ... & Contestabile, M. (2015). Promoting an open research culture. *Science*, *348*(6242), 1422–1425.

Rajgopal, S. (2020). Integrating practice into accounting research. *Management Science*, in press.

Reibstein, D. J., Day, G., & Wind, J. (2009). Guest editorial: Is marketing academia losing its way?. *Journal of Marketing*, *73*(4), 1–3.

Risjord, M. (2014). *Philosophy of social science: A contemporary introduction*. New York: Routledge.

Ritchie, S. (2020). *Science fictions: How fraud, bias, negligence, and hype undermine the search for truth*. New York: Metropolitan Books – McMillan Publishers.

Schwab, A., & Starbuck, W.H. (2017). A call for openness in research reporting: How to turn covert practices into helpful tools. *Academy of Management Learning & Education*, *16*(1), 125–141.

Starkey, K. (2015). The strange absence of management during the current financial crisis. *Academy of Management Review*, 40(4): 652–663.

Stephen, A. & Pauwels, K. (2019). How to ensure more business school research is relevant to society. *Forbes*, January 8, 2018. UCSB, Meta Lab. https://www.forbes.com/sites/andrewstephen/2019/01/08/how-to-ensure-more-business-school-research-is-relevant-to-business/?sh=7c95ce5dbd85

Tang, C. S. (2016). OM forum—making OM research more relevant: "why?" and "how?". *Manufacturing & Service Operations Management*, *18*(2), 178–183.

Tourish, D. (2019). *Management studies in crisis: Fraud, deception and meaningless research*. London: Cambridge University Press.

Tsui, A. (2016). Reflections on the so-called value-free ideal: A call for responsible science in the business schools. *Cross Cultural & Strategic Management*, *23*(1), 4–28.

Tsui, A.S. (2019). Guidepost: Responsible research and responsible leadership studies. *Academy of Management Discoveries,* in press.

Walsh, J. P. (2011). Presidential address: Embracing the sacred in our secular scholarly world. *Academy of Management Review*, *36*(2), 215–234.

Zingales, L. (2015). Presidential address: Does finance benefit society? *The Journal of Finance*, *70*(4), 1327–1363.

Acknowledgement

I thank Jerry Davis, Georges Enderle, Arie Lewin, and Günter Müller-Stewens for their helpful comments on an earlier draft of this essay. I offer my deep appreciation to colleagues at the Responsible Research for Business and Management community for their inspiration and partnership on our collective efforts to encourage and catalyze the transformation of business and management research toward contributing to the common good.

Anne S. Tsui, Distinguished Adjunct Professor**,** University of Notre Dame; Motorola Professor Emerita of International Management, Arizona State University, USA; Peking University, China; Fudan University, China; Co-Chair, Responsible Research in Business and Management.

Anschrift: WP Carey School of Business, Arizona State University, Tempe, AZ 85287, USA, Email: Anne.Tsui.7@nd.edu; anne.tsui@asu.edu.