CAMBRIDGE UNIVERSITY PRESS

DIALOGUE, DEBATE, AND DISCUSSION

Notes on Lessons from Health Sciences for Responsible Management Research

Stephen X. Zhang¹ (D) and Jiyao Chen² (D)

¹Baylor University Hankamer School of Business, USA and ²Oregon State University, USA Corresponding author: Stephen X. Zhang (stephen.x.zhang@gmail.com)

(First published online 24 July 2025)

Introduction

We deeply appreciate the thoughtful commentaries from Tsang (2025), Meyer (2025), Davis (2025), and Friedman (2025) on our paper 'Responsible Research: Reflections of Two Business Scholars Doing Mental Health Research During COVID-19'. These commentaries have enriched the conversation we sought to initiate through our experiential account of conducting mental health research during the pandemic. The perspectives offered – ranging from philosophical considerations about explanation versus prediction to reflections on the narrative orientation of management knowledge – deserve critical engagement as we collectively contemplate the nature of responsible research in business and management.

Our original paper presented a phenomenological account of our experiential learning as management scholars venturing into health sciences research during the COVID-19 pandemic. Through this interdisciplinary journey, we observed substantive differences in publication expectations, research paradigms, and evaluation mechanisms between management and health sciences. These observations prompted us to reflect on how management research, as an applied science, might enhance its practical relevance while maintaining scientific rigor through critical examination of what it emphasizes in publications.

The commentaries engage with our reflections from various angles, raising important considerations about the nature of management knowledge, the relationship between theory and evidence, and the challenges faced by management scholars compared to those in health sciences. In this response, we engage with these perspectives to clarify our position and further elaborate on the implications of our experiential learning for the future development of management scholarship.

We organize our response around five key themes emerging from the commentaries: (1) the primacy of explanation versus prediction in management research, (2) the applied nature of management scholarship, (3) effect heterogeneity, (4) the complexity of management and health sciences research, and (5) the role of narrative and story in management research. Through engaging in these themes, we aim to advance a more nuanced understanding of how management research might evolve to better fulfill its dual mission of scientific advancement and practical relevance for business.

Does Nonexplanatory Research Have a Place in Management Research?

Tsang (2025) raises an important concern regarding our paper, suggesting that we advocate prioritizing prediction over explanation in management research. We unequivocally concur with Tsang's assertion regarding the primacy of explanation in management research. We do not contest the superiority of explanatory theorizing and agree that theoretical explanation remains the paramount

© The Author(s), 2025. Published by Cambridge University Press on behalf of International Association for Chinese Management Research.

objective of management scholarship. However, we question whether every individual paper must prioritize novel theoretical explanation to merit publication, particularly when addressing emerging or important business phenomena or problems. Rather, we address the structural configuration of the publication system in management and how it evaluates and disseminates different forms of scholarly contributions. Does nonexplanatory research have a place in management research?

The health sciences publication system demonstrates that papers focusing on predictive modeling or systematic empirical documentation can make significant contributions by establishing evidence that helps practitioners. Consider, for instance, the predictive models in healthcare that identify patients at risk of hospital readmission. These models, which incorporate multiple variables including demographic information, medical history, and socioeconomic factors, enable hospitals to allocate preventive care resources more effectively. They have tangible impacts on patient outcomes and cost management without necessarily advancing novel theoretical explanations of why certain factors predict readmission (Kansagara et al., 2011).

Similarly, in finance, a discipline in business schools, predictive models for credit default risk have transformed lending practices by systematically identifying patterns in consumer behavior that correlate with repayment likelihood. These models, while primarily predictive rather than explanatory, have enormous practical utility and have democratized access to capital (Lessmann, Baesens, Seow, & Thomas, 2015). In management, predictive models could be equally valuable for identifying those that need more assistance, including but not limited to firms that are more likely to fail during a pandemic or crisis, employees at risk of turnover, customers likely to churn, or suppliers vulnerable to disruption – all areas where business practitioners need reliable evidence given the limited resources to allocate at hand.

This evidence-centric approach does not devalue explanatory theory; instead, it recognizes that robust theoretical explanation may better emerge from accumulated evidence across multiple studies than from individual papers making grand theoretical claims based on limited evidence (Zhang & Ertug, forthcoming). We advocate for a more pluralistic publication ecosystem that recognizes multiple legitimate pathways to scholarly contribution, including papers that do not necessarily advance novel theoretical explanations, but instead rigorously develop predictive models.

The Applied Nature of the Management Discipline

Meyer (2025) questions whether management research should 'attempt to be practical and useful', suggesting that management scholars' 'core competence' may lie in the realm of ideas that may or may not influence managers' thinking and actions. This perspective merits engagement, as it touches upon foundational questions regarding the disciplinary identity and mission of management scholarship.

We contend that management research is, by definition and by its institutional architecture in business schools, fundamentally an applied science whose raison detre involves addressing practical business challenges. Business schools themselves emerged to prepare individuals to work for business and solve business problems, and management scholarship evolved to provide the intellectual foundations for this mission. This applied orientation does not diminish the significance of intellectual exploration; rather, it provides the orientation for such scholarly pursuits much like other well-respected applied science disciplines such as health sciences, engineering, and design.

In engineering, for example, research on materials science directly informs industrial applications without necessarily requiring a novel theoretical understanding in each publication. Studies documenting the performance characteristics of composite materials under various stress conditions provide valuable guidance to aerospace, automotive, and construction industries, even when they primarily contribute empirical evidence rather than theoretical novelty. Similarly, in management research, systematic documentation of how various business practices perform across different contexts could provide invaluable guidance to practitioners, regardless of whether each study advances a novel theoretical framework.

Management research should not be a mere intellectual exercise conducted solely for the game of academics; rather, it, as an applied science, should serve practice. Meyer (2025) questions whether management research should even try to be practical and useful, suggesting that its core competence may lie in the realm of ideas that diffuse through the scholarly community. While we recognize the value of theoretical contributions, we disagree with the notion that management research should remain self-contained within the academic ivory tower. As an applied discipline, management research better strive for a tangible impact on real-world managerial practices to be relevant and legitimate.

Effect Heterogeneity

Davis (2025) posits an intriguing perspective regarding the temporally bounded nature of research findings, suggesting that perhaps 'the quest for timeless research insights into management is a mirage best abandoned by responsible researchers'. This provocative assertion invites valuable reflection on the temporal boundedness of management knowledge and has profound implications for how we conceptualize and evaluate research contributions.

Traditional approaches in management research have often emphasized the presence or absence of relationships between variables, privileging the statistical significance of these relationships over their magnitude, contextual dependencies, or temporal stability. This binary approach to conceptualizing relationships – either they exist or do not – contrasts sharply with the effect-size centered approach in health sciences, which explicitly acknowledges that effect sizes vary systematically across individuals, contexts, and time periods.

Health sciences research has developed sophisticated publication systems for documenting, analyzing, and interpreting this heterogeneity in effect sizes. For instance, research on treatment effect heterogeneity in clinical interventions has demonstrated that the efficacy of medical treatments can vary dramatically across patient populations. Diabetes management interventions, for example, show substantial heterogeneity in effectiveness depending on patients' age, comorbidity profiles, socioeconomic status, and social support systems (American Diabetes Association, 2019). These variations are not mere statistical noise but meaningful patterns that directly inform clinical practice, guiding practitioners toward more personalized treatment approaches.

Similarly, vaccine effectiveness studies illustrate how intervention effects can vary both across populations and over time. Moreover, vaccine effectiveness has demonstrated temporal variation, with protection against infection waning over time while protection against severe disease remains relatively stable. These patterns of heterogeneity are not incidental findings but central insights that directly guide public health policy and clinical practice.

The health sciences approach to documenting effect heterogeneity offers valuable lessons for management research. Rather than conceptualizing management phenomena through binary relationships that either exist or do not, we might benefit from systematic investigation of how relationship magnitudes vary across business contexts, industry settings, cultural environments, and time periods. This approach would acknowledge the inherently contingent nature of management phenomena while simultaneously seeking to identify the patterns in these contingencies and how the magnitude of this relationship varies across these contextual dimensions. Such investigation would provide practitioners with more actionable guidance about when and where specific interventions might prove most effective.

Moreover, this approach to effect heterogeneity connects directly to the question of temporal boundedness in management knowledge. By explicitly acknowledging and systematically documenting how effect sizes vary over time and across contexts, management research might develop better understanding of which principles have enduring validity and which are more temporally or contextually bounded. This understanding would enable more precise guidance to practitioners about which management principles are likely to remain valid in their specific contexts and which might require adaptation.

By allowing more direct dissemination of empirical findings that document effect patterns in specific contexts and synthetic works that identify patterns across contexts without requiring theoretical novelty in each paper, health sciences enable more systematic accumulation of evidence regarding what works, for whom, under what conditions, and when. This approach acknowledges the context-dependent and temporally bounded nature of many phenomena while facilitating the identification of patterns that may have broader applicability through subsequent meta-analyses and systematic reviews.

We concur with Davis's suggestion that management research might benefit from greater humility regarding the temporal boundedness of its findings. We suggest that management research might benefit from a more systematic approach to testing effect heterogeneity that acknowledges both the context-dependent aspects of business phenomena and the potential for identifying patterns in these contingencies to be able to know not just 'is there an effect' but 'how much, for whom, and why'? to be able to more reliable guidance to business practitioners.

The Complexity of Management and Health Sciences

Meyer (2025) rightly acknowledges the inherent complexity of management phenomena, which we fully recognize. This complexity, however, is not unique to management research. Health sciences – particularly those dealing with health interventions, population health, health systems, and implementation science – confront analogous complexity in social systems.

A salient example is medication adherence research in healthcare. Interventions to improve adherence depend on intricate interactions between individual patients' body (e.g., genetics), socioe-conomic contexts (e.g., access to pharmacies), and systemic factors (e.g., healthcare provider communication). Osterberg and Blaschke (2005) demonstrated that adherence rates vary widely across socioeconomic groups, with low-income patients facing barriers like cost and transportation, while affluent patients may prioritize convenience. These findings led to *tailored interventions* – such as subsidized medications for low-income groups or text reminders for busy professionals – highlighting how systematic documentation of heterogeneity directly informs practice.

A similar approach could benefit management research, allowing for systematic documentation of how business practices and interventions perform differently across various organizational contexts, industry settings, and cultural environments. In addition, our paper does not suggest all health sciences research provides an appropriate model for management scholarship. Rather, we draw attention to specific domains within health sciences that confront analogous challenges to those faced by management researchers – particularly those dealing with fuzzy and complex biological and social mechanisms, varying effect sizes, as well as human implementation of interventions and practices in complex social settings. These domains navigate similar challenges regarding the interplay between theoretical development and practical application in complex, context-dependent social situations.

The Role of Narrative and Story in Management Research

Friedman (2025) offers a thought-provoking characterization of management research as 'story telling with p-values' or 'constrained art', emphasizing the interpretive plurality inherent in our field compared to the more unified objective of medical research 'to figure out what makes patients better'. This perspective acknowledges the epistemological complexity of management phenomena while raising important questions about whether greater consolidation of the key objectives of management as an applied science would actually enhance the field's practical impact for business. Friedman's commentary articulates a fundamental tension in management scholarship that merits careful consideration: the balance between solving major business problems and narrative richness.

This characterization invites us to engage with the dialectical relationship between scientific rigor and interpretive richness that constitutes a defining epistemological tension within management research. We wish to clarify that our argument does not advocate abandoning this interpretive richness or narrative element of management scholarship. We reckon that the narrative element of management research might be enhanced rather than diminished by more systematic attention to effect heterogeneity and contextual contingencies. By documenting how the magnitude and direction of relationships vary across contexts, management research could provide practitioners with more nuanced narratives that acknowledge the conditional nature of organizational phenomena. The systematic documentation of effect heterogeneity across contexts could enrich the narratives we construct about organizational phenomena, making them more nuanced, contextually sensitive, and ultimately more useful to practitioners facing complex, contingent realities.

We suggest that narrative richness and empirical robustness need not be mutually exclusive in business research. The problem is not that management scholarship develops theoretical narratives, but that our current publication system often incentivizes theoretical novelty at the expense of systematic empirical documentation. A more pluralistic publication ecosystem would allow for both compelling theoretical narratives and rigorous empirical documentation, recognizing the complementary value of each in advancing both scientific understanding and practical relevance for business.

Implications for Management Research

Taken together, to bridge the gap between theoretical rigor and practical relevance, we propose four systemic shifts in how management research evaluates and disseminates knowledge:

First, expand the scope of contributions. Management research should broaden its focus beyond theoretical novelty to explicitly value diverse contributions, including empirical documentation, replication, exploration, and practical problem-solving. Journals could create dedicated sections for replication studies or exploratory research. This shift recognizes that robust theories often emerge cumulatively from evidence, not individual papers, and aligns with applied sciences' emphasis on evidence and actionable insights.

Second, adopt specialized guidelines for research types. Drawing from health sciences frameworks like EQUATOR network, management may establish clear protocols tailored to distinct research purposes. For instance, qualitative studies could follow SRQR reporting standards, prognostic research could adopt TRIPOD guidelines, and meta-analyses might adhere to PRISMA. These guidelines would help ensure transparency and comparability across studies while accommodating diverse methodologies.

Third, develop depreciation to evaluate research based on their purposes. Journals should replace blanket theoretical novelty requirements with purpose-specific criteria. For example, while theorybuilding papers can continue prioritizing conceptual originality, problem-solving studies might emphasize practical usefulness, and predictive work could focus on efficacy. This approach mirrors health sciences' 'fit-for-purpose' evaluation, where contributions are judged by their alignment with stated goals rather than a one-size-fits-all mandate.

Fourth, implement differentiated review processes. To enhance responsiveness, journals could adjust timelines based on urgency and research type. Some research may have a 'business case' to be prioritized, and expedited reviews might address time-sensitive topics (e.g., AI ethics crises).

This more pluralistic approach to knowledge production would expand the pathways through which management research contributes to both scientific understanding and practical relevance for business. By recognizing the complementary value of different forms of scholarly contribution, management research might enhance its capacity to address complex business challenges while maintaining its commitment to scientific rigor.

Conclusion

Our paper shares experiential insights from an interdisciplinary journey that highlight relevant health sciences approaches to knowledge creation and dissemination; approaches that maintain scientific

rigor while enhancing practical relevance for business. We do not advocate wholesale adoption but hope we can at least trigger some examination of how our publication systems differ from other applied sciences in terms of enabling or constraining various forms of scholarly contribution.

We envision a future for management scholarship that embraces both rigor and practical relevance, where researchers have multiple legitimate pathways to contribute to the field's dual mission of scientific advancement and business impact. By broadening our understanding of what constitutes valuable contributions – beyond mere theoretical novelty, we might develop publication systems that effectively accommodate diverse forms of knowledge essential for addressing real business challenges.

The path forward requires collective action from journal editors, reviewers, and individual scholars to reimagine our publication ecosystem. We invite the management research community to join us on this exciting journey toward a more pluralistic, impactful approach to knowledge creation so that management research can fulfill its mission as an applied scientific enterprise.

References

American Diabetes Association. 2019. Standards of medical care in diabetes—2019 abridged for primary care providers. Clinical Diabetes, 37(1): 11–34.

Davis, G. F. 2025. Is 'contribution to theory' an unhealthy obsession for management research? A response to Zhang and Chen. Management and Organization Review, 24(4): 697–698.

Friedman, R. 2025. Science, stories, and impact: A response to Zhang and Chen. *Management and Organization Review*, **24**(4): 699–701.

Kansagara, D., Englander, H., Salanitro, A., Kagen, D., Theobald, C., Freeman, M., & Kripalani, S. 2011. Risk prediction models for hospital readmission: A systematic review. *JAMA*, 306(15): 1688–1698.

Lessmann, S., Baesens, B., Seow, H. V., & Thomas, L. C. 2015. Benchmarking state-of-the-art classification algorithms for credit scoring: An update of research. *European Journal of Operational Research*, **247**(1): 124–136.

Meyer, M. W. 2025. Comment on Zhang and Chen, "Responsible research: Reflections of two business scholars doing mental health research during COVID-19." *Management and Organization Review*, **21**(3): forthcoming.

Osterberg, L., & Blaschke, T. 2005. Adherence to medication. New England Journal of Medicine, 353(5): 487-497.

Tsang, E. W. K. 2025. Management researchers' prioritizing of explanation over prediction and description: A response to Zhang and Chen. *Management and Organization Review*, 21(forthcoming): 1–2.

Zhang, S. X., & Chen, J. 2024. Responsible research: Reflections of two business scholars doing mental health research during COVID-19. Management and Organization Review, 20(3): 339–353.

Zhang, S. X., & Ertug, G. forthcoming. Organization research as an applied science. Organization Science.