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COMMENTARY

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On the Continued Need for Replication in Media and Communication Research

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Abstract

Common models of the scientific method articulate the processes by which we hypothesize about the correlation between variables and then test those predictions to make incremental conclusions about the world around us. Implied in this process is the replication and extension of that knowledge to various contexts. As with other social sciences, published analyses have demonstrated that media and communication scholarship suffers from a lack of replication studies, often due to presumptions about the lack of reward or incentive for conducting this work—such as perceived difficulties securing support for and/or publishing these studies. This commentary will reflect on and reinforce arguments for the intentional and important role of replication studies in media and communication scholarship. The essay reflects on replication as a key to post-positivist approaches, and then highlights recent developments that center replication work as key to scientific progression.

Keywords

open science; post-positivism; replication; research integrity; social sciences

1. Introduction

Among the many ways we understand the social sciences, we can look at two enduring maxims. The first is the Popperian perspective on falsification, that "every genuine test of a theory is an attempt to falsify it (or refute it)" (Popper, 1963, p. 36). The second is the Newtonian perspective on iterative science, that "if I have seen further, it is by standing on the shoulders of giants" (Newton, 1675). The former reminds us that theories and findings are tentative and accepted in the absence of more robust explanations, and the latter reminds us that social sciences build on each other—simply put, we need prior evidence and theory to advance on, but we must also consider the robustness of those prior advances, lest we advance on less than sturdy ground.

These twin perspectives are central to the notion of replication. The former reminds us that empirical claims are tentative and should be reexamined in the face of new evidence, and the latter reminds us that scientific progress is additive and iterative. Using these two maxims as points of departure, in this brief commentary I review and revive arguments for the importance of replication studies, framed as answers to questions we should be asking ourselves as we scrutinize and stabilize our science. Notably, this commentary focuses more directly on replications of prior research, rather than more direct reproduction efforts—the latter focused on using published data and code to verify published results (see LeBel et al., 2018). Notably, that same reference provides a more nuanced discussion of the different types of replication studies.

2. Replication as Post-Positivism?

Among many different approaches to social science, much of the empirical work in media and communication scholarship using quantitative data is rooted in a post-positivist perspective. The positivist approach promoted the use of the scientific method when engaging media and communication phenomena, using empirical observation and measurement to generate what was presumed to be verifiable, factual, and objective knowledge. Elegant on its face, the approach hardly represents the reality of scientific progress (see Kuhn, 1962) and as noted by Naveed (2014), "people are not beakers of water"—the units of analysis in media and communication research often involved variables that are measured imprecisely and that social reality is more volatile than physical reality, which might require some subjectivity in interpretation. As such, post-positivism allows for a measure of intersubjectivity. For example, post-positivist perspectives might interpolate between the findings of several scholars, rather than relying on a definitive claim from any one scholar (see Schutt, 2022); such claims also align with Merton's (1942) norms of science, including a reliance on communities of scholars with a skeptical view.

This intersubjectivity is key to notions of falsification and indeed highly relevant to the practice of replications. For Popper (1963), the hypothesis that "all swans are white" is disproven by the observance of a single black swan (or really, a swan of any color other than white). Tests of this hypothesis require more than a single dataset, however, just as it is unlikely that any one observation of swans would account for all swans in existence. Put another way, the inherent falsifiability of a hypothesis requires constant and persistent testing—observing swans wherever swans might (or might not) be known to exist. What we are essentially describing here is the process of replication, as replications are necessary for generating empirical data for which to continually test our hypotheses. When viewed this way, replication is not a novel concept but rather *a bedrock of the post-positivism*. Others have taken a similar position. For example, Iso-Ahola (2020) argues that replication studies are essentially "just another empirical investigation in an ongoing effort to establish scientific truth."

3. Replications as a Publication Paradox?

In recent years, one attempt to encourage replications has been through focused calls for papers, such as special issues in established journals—for example, a recent issue of *Communication Studies* "Special Issue for Replications" (volume 69, issue 3). Such efforts are invaluable tools for directly encouraging and spotlighting replication attempts and setting a clear standard for replication scholarship (see McEwan et al., 2018).

As important as special issues focused on replication are, I worry about the paradox that they might create—that replications are only feasible as publications if they are given extraordinary consideration and incentive. As suggested by Keating and Totzkay (2019) in their analysis of major communication journals from 2007–2016, less than 2% of all published research could be classified as a direct replication; in looking at psychology research since 1900, Makel et al. (2012) drop this number to about 1.6%, although these numbers have likely grown in recent years. Thus, on the one hand, special issues clearly encourage the submission and eventual publication of replication studies (especially if we presume that there were other manuscripts submitted to but ultimately not published with the special issue). On the other hand, special issues might encourage "one-off" replications wherein the replication efforts are taken up as an interesting but isolated challenge, rather than integrated into a programmatic line of research. Special issues could fetishize replications in ways that make them exotic rather than essential, and this is compounded given that so few journals *explicitly* call for replications in their calls for papers (as few as 3% of psychology journals; see Martin & Clarke, 2017). Special issues play a critical role in driving interest in replication research, but my hope is that they move replication research towards mainstream practice.

4. Do Replications Reap Rewards?

An enduring critique of replication studies is that their perceived lack of novelty makes them generally uninteresting for readers (and by extension, journals). That said, we can again look at the manuscripts in *Communication Studies* for evidence to the contrary. As of this writing (early 2024) and excluding the editorial on replications itself, the nine replication studies published in that issue have been collectively cited more than 160 times (according to Google Scholar). Moreover, successful replications draw needed and necessary attention to scholarship from broader audiences. One example of this is the "many labs" approach in which replication is a central aspect of the scientific process (Protzko et al., 2023)—when published, this article was in the 99th percentile of more than 245,000 articles tracked in terms of online engagement.

Replication studies are also quite useful for training early career scholars. As outlined by Janz (2016), replication studies are especially useful for graduate student training with respect to research methods and data analysis, as well as establishing replication as a routine approach to their scientific program. Such efforts, in tandem with arguments earlier in this essay, can also facilitate early career publications (for example, see Yoshimura et al., 2022) relevant to helping early career scholars establish themselves within a given area of research.

5. Conclusion

Replications reflect a core logos of post-positivism and as such, should be conducted and encouraged precisely because of what they are—introspective and reflective tests of reported findings to directly protect against the logical weaknesses of positivism (Tsang & Kwan, 1999). Scholars need not wait for an invitation to submit replication studies, either by way of special issues or stated shifts to editorial practices. Drawing from local experience (as editor-in-chief of the *Journal of Media Psychology*), the explicit inclusion of replications in our general call for papers has netted only three submissions in the last three years (one each in 2021, 2022, and 2023). One of those has been accepted for publication (Wright, 2022). As scholars, we have the agency to move towards a replication culture. Regarding "making the case" for a replication study, understand that the requirements of arguing for the novelty or necessity of a replication study are not so unique from the

arguments for arguing for the novelty or necessity of *any* study. Ironically, so-called novel studies (i.e., studies with "interesting" findings) do tend to be published and cited more often, but tend not to replicate and, thus, might not stand to extended scrutiny (Serra-Garcia & Gneezy, 2021). Regarding the labor of replication studies, emerging open science practices greatly facilitate the ability for scholars to replicate each other's research (see Dienlin et al., 2021) in ways that align with the philosophical norms of sciences (see Bowman & Keene, 2016). Drawing back to Yoshimura et al. (2022), that replication would not have been possible without having access to shared study materials and data from Eden et al. (2017).

In the late 20th century, an upstart advertising agency launched what would become one of the most iconic global branding campaigns in three simple words: "Just Do It" (López Restrepo, 2022). The slogan far outgrew the athletic apparel brand Nike, and we submit that it can and should be co-opted to address the consistently (over)stated need for replications in media and communication, and in social sciences broadly.

Replications? Just do them.

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Conflict of Interests

The author declares no conflicts of interest.

References

Bowman, N. D., & Keene, J. R. (2016). A layered framework for considering open science practices. *Communication Research Reports*, *35*(4), 363–372. https://doi.org/10.1080/08824096.2018.1513273

Dienlin, T., Johannes, N., Bowman, N. D., Masur, P. K., Engesser, S., Kümpel, A. N., Lukito, J., Bier, L. M., Zhang, R., Johnson, B. K., Huskey, R., Schneider, F. M., Breuer, J., Parry, D. A., Vermeulen, I., Fisher, J. T., Banks, J., Weber, R., Ellis, D. A., . . . de Vreese, C. (2021). An agenda for open science in communication. *Journal of Communication*, *71*(1), 1–26. https://doi.org/10.1093/joc/jqz052

Eden, A., Daalmans, S., & Johnson, B. K. (2017). Morality predicts enjoyment but not appreciation of morally ambiguous characters. *Media Psychology*, *20*(3), 349–373. https://doi.org/10.1080/15213269.2016.1182030

Iso-Ahola, S. E. (2020). Replication and the establishment of scientific truth. *Frontiers in Psychology*, *11*, Article 2183. https://doi.org/10.3389/fpsyg.2020.02183

Janz, N. (2016). Bringing the gold standard into the classroom: Replication in university teaching. *International Studies Perspective*, *17*(4), 392–407. https://doi.org/10.1111/insp. 12104

Keating, D. M., & Totzkay, D. (2019). We do publish (conceptual) replications (sometimes): Publication trends in communication science, 2007–2016. *Annals of the International Communication Association*, *43*(3), 225–239. https://doi.org/10.1080/23808985.2019.1632218

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

LeBel, E. P., McCarthy, R. J., Earp, B. D., Elson, M., & Vanpaemel, W. (2018). A unified framework to quantify the credibility of scientific findings. *Advances in Methods and Practices in Psychological Science*, *1*(3), 389–402. https://doi.org/10.1177/2515245918787489

López Restrepo, M. (2022, October 6). Just do it: How the iconic Nike tagline built a career for the late Dan Wieden. *National Public Radio (NPR)*. https://www.npr.org/2022/10/06/1127032721/nike-just-do-

it-slogan-success-dan-wieden-kennedy-dies
Makel, M. C., Plucker, J. A., & Hegarty, B. (2012). Replications in psychology research: How often do they really occur? *Perspectives on Psychological Science*, *7*(6), 537–542. https://doi.org/10.1177/1745691612460688
Martin, G. N., & Clarke, R. M. (2017). Are psychology journals anti-replication? A snapshot of editorial practices. *Frontiers in Psychology*, *8*, Article 523. https://doi.org/10.3389/fpsyg.2017.00523
McEwan, B., Carpenter, C. J., & Westerman, D. (2018). On replication in communication science. *Communication Studies*, *69*(3), 235–241. https://doi.org/10.1080/10510974.2018.1464938
Merton, R. (1942). *The sociology of science: Theoretical and empirical investigations*. University of Chicago Press.
Naveed, F. (2014, May 29). Defining theory: Post-positivism-hermeneutic-critical-normative. *Mass Communication Talk*. https://www.masscommunicationtalk.com/defining-theory-post-positivism-hermeneutic-critical-normative.html
Newton, I. (1675). *Letter to Robert Hooke*. https://digitallibrary.hsp.org/index.php/Detail/objects/9792
Popper, K. (1963). *Science as falsification*. Routledge & Keagan Paul.
Protzko, J., Krosnick, J., Nelson, L., Nosek, B. A., Axt, J., Berent, M., Buttrick, N., DeBell, M., Ebersole, C. R., Lundmark, S., MacInnis, B., O'Donnell, M., Perfecto, H., Pustejovsky, J. E., Roeder, S. S., Walleczek, J., & Schooler, J. W. (2023). High replicability of newly discovered social-behavioural findings is achievable. *Nature Human Behavior*, *8*, 311–319. https://doi.org/10.1038/s41562-023-01749-9
Schutt, R. K. (2022). *Investigating the social world* (10th ed.). SAGE.
Serra-Garcia, M., & Gneezy, U. (2021). Nonreplicable publications are cited more than replicable ones. *Sciences Advances*, *7*(21), Article eabd1705. https://doi.org/10.1126/sciadv.abd1705
Tsang, E. W. K., & Kwan, K.-M. (1999). Replication and theory development in organizational science: A critical realist perspective. *The Academy of Management Review*, *24*(4), 759–780. https://doi.org/10.2307/259353
Wright, P. J. (2022). A longitudinal analysis of political ideology, pornography consumption, and attitude change: Replication and extension. *Journal of Media Psychology*, *35*(6), 346–354. https://doi.org/10.1027/1864-1105/a000370
Yoshimura, K., Bowman, N. D., Cohen, E. L., & Banks, J. (2022). Character morality, enjoyment, and appreciation: A replication of Eden, Daalmans, and Johnson (2017). *Media Psychology*, *25*(2), 181–207. https://doi.org/10.1080/15213269.2021.1884096

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