

Why Control Variables are Often Not Working as Intended and How to Do It Right

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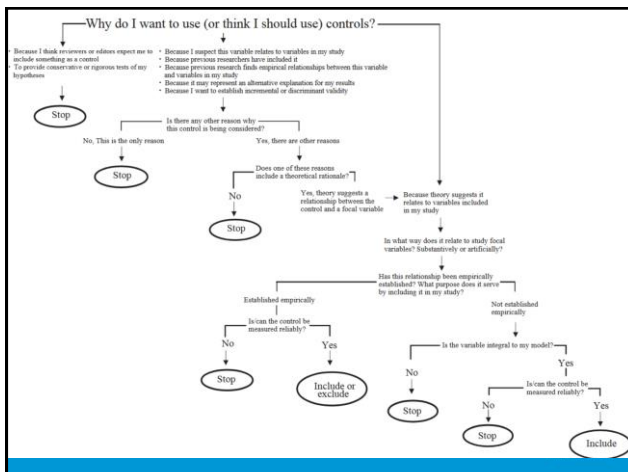
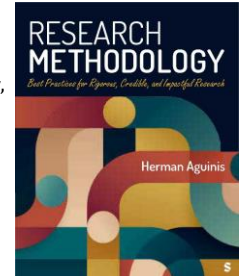
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Acknowledgment

- Bernerth, J., & Aguinis, H. 2016. A critical review and best-practice recommendations for control variable usage. *Personnel Psychology*, 69(1): 229-283.
- Aguinis, H. 2025. *Research methodology: Best practices for rigorous, credible, and impactful research*. Sage.
 - Chapter 3: How to Plan Your Research (i.e., causality, internal vs. external validity, control variables)



Explainer Video (AI-generated)

- <https://www.youtube.com/watch?v=TjsFW5yLDYM>

How to Report: Illustrative Text

"We considered several potentially relevant control variables including A, B, and C. Previous empirical research, including a recent meta-analysis by [insert text], suggests a relationship between A and X and between B and X. As theory explains, the relationship between A and X exists as a result of [insert text]. Moreover, B impacts X to the extent that [insert text]. Finally, researchers also suggest a relationship between C and X that is [insert text]. Given these relationships, X may relate to Y not because [insert text], as our theorizing suggests, but rather because [insert text]. Thus, it is important to parse out the variance between these controls and our predictor variable to eliminate alternative explanations and demonstrate the unique relationship between X and Y. That said, examination of the bivariate correlations found in Table XX indicates that A and B are not significantly correlated with X. C is not only significantly related to X, but it relates in a manner consistent with our theory-based expectation that comparison between our hypotheses tests with and without A and B yielded identical results. Thus, to maximize statistical power and offer the most interpretable results, we report the results without controlling for A and B. However, we control for C given the correlations in Table XX and the theory presented in our research."

Additional Resources

- Journal articles: <https://www.hermanaguinis.com/pubs.html>
- Books: <https://www.hermanaguinis.com/books.html>
- Watch videos and listen to podcasts (over 500 of them): <https://www.youtube.com/@hermanaguinis1070/playlists>