# Article information:

Full article: Modeling and Learning From Variation and Covariation  
<https://amstat.tandfonline.com/doi/full/10.1080/01621459.2022.2117703?af=R>

# Article summary:

1. McShane, Böckenholt, and Hansen proposed a multilevel multivariate modeling framework to quantify the variation and covariation in variates and effects at all levels.

2. De Boeck, DeKay, and Xu appreciated the contributions of the proposal and discussed how it would be useful for future integrative metastudies.

3. Simple models can yield results that indicate substantial variation and covariation in variates and effects, which calls for more sophisticated modeling.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article by McShane, Böckenholt, and Hansen is a well-written piece that provides an overview of their proposed multilevel multivariate modeling framework for quantifying the variation and covariation in variates and effects at all levels. The authors provide evidence from two replication projects (Att-SNARC RRR and MLP) to support their claims that simple models can yield results that indicate substantial variation and covariation in variates and effects.

The article is generally reliable as it provides evidence from two replication projects to support its claims. However, there are some potential biases that should be noted. For example, the authors do not discuss any potential risks associated with their proposed model or any possible counterarguments to their claims. Additionally, they do not present both sides of the argument equally; instead they focus on providing evidence to support their own claims without exploring other perspectives or points of view.

In conclusion, while this article is generally reliable due to its use of evidence from two replication projects to support its claims, there are some potential biases that should be noted such as lack of discussion of potential risks associated with the proposed model or any possible counterarguments to its claims as well as lack of presenting both sides of the argument equally.

# Topics for further research:

* Multilevel multivariate modeling risks
* Counterarguments to multilevel multivariate modeling
* Variation and covariation in variates and effects
* Replication projects for multilevel multivariate modeling
* Advantages of multilevel multivariate modeling
* Disadvantages of multilevel multivariate modeling

# Report location:

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