

Shahryar Minhas
Department of Political Science
Michigan State University
368 Farm Lane
East Lansing, MI 48823
United States

Phone: (248) 675-7345
Email: s7.minhas@gmail.com
Website: s7minhas.com

Editorial Team of American Political Science Review via submission portal

Dear Colleagues:

This letter accompanies our submission of a manuscript for your consideration. The manuscript "Taking Dyads Seriously" introduces the Additive and Multiplicative Effects (AME) framework for conducting inference in the context of the dependencies that we often observe in dyadic data. In submitting this paper, we feel as though it would be helpful to first provide some background information.

Among political scientists using statistical models to analyze network data there has emerged a dispute between the advocates of the Exponential Random Graph (ERGM) model and those building on the "latent space" approach pioneered by Hoff, Raftery, and Handcock. This fight is not mirrored in the statistical or broader networks literature, as in those communities people recognize these models as having distinct goals.

In political science, however, the dispute has become quite prevalent. Although we clearly work in the latent space world, this paper is not about engaging or extending the ERGM-latent space discussion. Rather, we evaluate the utility of the AME framework using a simulation based exercise and a replication of three recently published works from the field of International Relations. Through the simulation exercise, we show that in the presence of unobserved dependencies the model is able to provide less biased estimates and better calibrated standard errors than extant approaches in the literature. Next, for nearly all of the replications reestimated using the AME framework we find that the case for the key findings from the original works become much less compelling. Additionally, we show through an out-of-sample cross-validation exercise that the AME approach uniformly outperforms each of the replicated approaches in capturing the data generating process of the event of interest.

We believe that the AME framework is of notable interest to political scientists broadly, and that this study provides not only an introduction but a strong case for its applicability to the questions that we are seeking to address. We look forward to your evaluation of this paper.

Respectfully submitted,

A handwritten signature in black ink, reading "Shahryar Minhas". The signature is fluid and cursive, with the first name "Shahryar" and last name "Minhas" clearly distinguishable.