

# Decision Processes Colloquia

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Monday, February 18, 2019

Where: 340 JMHH

When: 12:00 – 1:20 pm

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## Rethinking Interactions: Most Published Interactions Have Been Misinterpreted

### ABSTRACT:

Hypotheses involving interactions are common in social science. Do returns to education differ by gender? Are unexpected losses more impactful than expected ones? Does construal moderate power posing? Etc. Linear regressions, as in  $y=ax+bz+cxz$  are the most common (only?) way in which such interactions are tested, and yet such approach is extremely likely to give the wrong answer. The false-positive rate can easily reach over 50%, the sign of the interaction can easily be wrong, the average interaction effect is oddly defined and its estimate often biased, and simple-slopes/spotlight/floodlight analysis are approximately hopeless. I identify four questions we often ask from interaction effects, and explore trustworthy alternatives to the current approach to answering them. I also propose a fifth and novel question: what share of the interaction effect is mechanical vs conceptually interesting?

Note: Paper not available before August 2019

