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Nutrition Innovations

Why and How to Collaborate with Adversaries

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Planck's Principle:

"A new scientific truth does not triumph by convincing its opponents and making them see the light, but rather because its opponents eventually die and a new generation grows up that is familiar with it ..."

Traditional Scientific Disagreement:

- Scholar A: “X is true”
- Scholar B: “X is not true”

years go by

- Scholar A: “Um yes, X is definitely true”
- Scholar B: “Um no, X is definitely not true”
- Scholar A and Scholar B become enemies, talk behind each others’ backs, fragment their peers, and die convinced of their own accuracy

Empirical Support for Planck's Principle:

- Scientists' prior beliefs and theoretical and political orientations impact how they evaluate their own and their peers' research (e.g., Abramowitz et al., 1975; Eitan et al., 2018; Huber et al., 2022; Koehler, 1993; Mahoney, 1977; Wicherts et al., 2011)

- Scholars game methods and analyses to support their preferred conclusions (e.g., Camerer et al., 2018; Ebersole et al., 2020; Flake & Fried, 2020; Ioannidis, 2012; Nosek et al., 2021; Open Science Collaboration, 2015; Simmons et al., 2011; Simmons & Simonsohn, 2017; Simonsohn et al., 2014; 2021; Singal, 2021; Vazire, 2018)

Surely, we can do better

- Adversarial Collaborations (ACs/adcollabs) require disagreeing scholars to:
  - Work *together* to pursue truth
  - Mutually design fair and unbiased methodological procedures
  - Commit to conditions of falsifiability
  - Publish results regardless of outcome

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Benefits of ACs

- Higher quality methods that both sides agree constitute fair and rigorous tests
- Findings converge on a shared understanding
- Higher quality (and appropriately nuanced) information for policy makers and interventionists
- Ideally, eventually, a more cooperative and less hostile scientific environment

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Challenges of ACs

- They are harder and more time consuming
- They are more likely to derail and so require additional precautions (e.g., preregistration)

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How to do an AC successfully

- Select adversary carefully
- Include a mutually trusted moderator
- Explicitly and clearly define disagreement and the competing perspectives until everyone agrees
- After methods and analyses are agreed upon, preregister plans
- Be flexible

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Why to participate…

- Science is bigger than the scientist
- Reputational benefits of public commitment to truth
- Correct any errors faster (and stop wasting time on dead ends!)
- ACs are *long-term* career investments

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My anecdotal experience

- Enemies become friendlier
- Inspire more creativity than traditional collaborations
- Inspire more honest discussions of competing perspectives
- There are signs the tide is turning, so rewards/incentives may improve soon…

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