Testing the Power of Forecasting Tournaments to Foster Judgmental Accuracy, Intellectual Humility, Open-Mindedness, and Depolarization in Debates Over Human Progress

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Questions

"How do we cultivate epistemic virtues?"

Specifically, in the context of forecasting tournaments:

1. How do forecasting tournaments promote change in epistemic virtues, such as intellectual humility and open-mindedness, over time?
2. What are the traits of forecasters that predict change in epistemic virtues, within a situation and over time?
3. How do different epistemic virtues relate concurrently (i.e., individual differences and situation-specific effects) and prospectively (i.e., trait-level intra-individual change)?
4. How do epistemic virtues relate to judgmental accuracy and belief depolarization?

Background

"What are forecasting tournaments?"

In simple terms, forecasting tournaments call on individuals to make concrete and falsifiable probabilistic predictions about specific future outcomes. A typical forecasting tournament includes several rounds of forecasts, with a possibility to obtain feedback on accuracy of previous estimates and update one's predictions.

This process of critically engaging with one's beliefs has been shown to decrease polarization and promote more charitable attributions to political opponents (Mellers et al., 2019), but the full range of benefits of participating in forecasting tournaments as well as the processes underlying those benefits have yet to be explored.

Can this process of learning about one's possible inaccuracy provide a steppingstone for the cultivation of intellectual humility and open-mindedness, with potential to increase judgmental accuracy?

Our study will be the first comprehensive longitudinal experiment aiming to assess which features of forecasting tournaments promote intra-individual change in epistemic virtues over time.

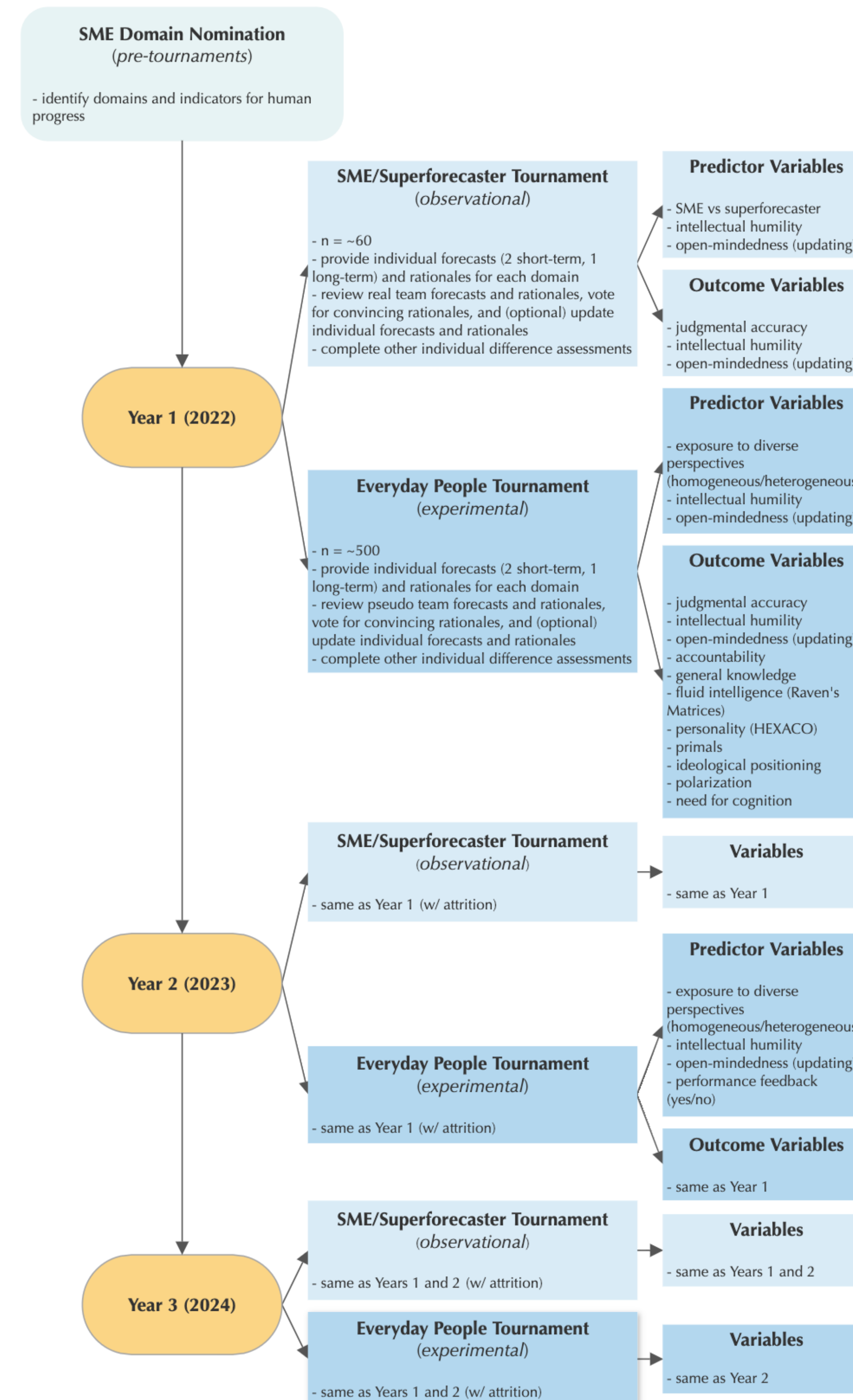**"What are epistemic virtues? What is intellectual humility?"**

The epistemic virtue of intellectual humility typically refers to humility in the domain of knowledge, related to how a person holds beliefs, opinions, and ideas (Koetke et al., 2021; Krumrei-Mancuso et al., 2020; Whitcomb et al., 2017).

To examine change in epistemic virtues, it is important to assess them repeatedly, across a range of diagnostic contexts in which such responses may be meaningful.

- By examining how epistemic virtues are expressed in each situation, one can assess state-specific responses.
- By examining profiles of responses across a set of situations (e.g., an average across them), one can assess underlying trait-level dispositions. And by doing so over time, one can trace not only intra-individual change in state-specific responses to specific situations, but also attempt to model trait-level change.

Little is known about how forecasting tournaments and other interventions aimed at fostering intellectual humility produce long-lasting effects, generalizable beyond intervention-specific situations. **To examine the generalizability of such interventions, it is critical to assess trait-level intra-individual change in epistemic characteristics beyond the specific situations trained in the intervention.**

Figure 1. Flowchart of Project Stages

Hypothesis

We hypothesize that various features of forecasting tournaments, including diverse perspective-taking and performance feedback, will promote intellectual humility and related epistemic virtues, which in turn will promote open-mindedness, attitude depolarization, and greater judgmental accuracy.

Method

Over the course of three years, we envision two forecasting tournaments on human progress—one with subject matter experts (SMEs) and superforecasters and another with everyday people—to investigate epistemic virtues and their development over time.

Figure 1 provides an overview of our project stages.

Preliminary Results

From our subject matter experts, we learned four critical domains to human progress are:

1. **Climate** (e.g., average global CO_2 concentrations)
2. **Public Health** (e.g., global infant mortality rate)
3. **The Economy** (e.g., poverty rate in the United States)
4. **Global Peace/War** (e.g., global occurrence of non-state conflicts)

As of August 2022, we are running Year 1 of the Everyday People Tournament.

Discussion

Beyond generating knowledge about how to foster epistemic virtues such as intellectual humility and open-mindedness and how these epistemic virtues relate to judgmental accuracy and depolarization, our project will provide expert judgments about what the most critical concerns for human progress are and likely outlooks for those concerns.

Our project identifies areas where investors, policymakers, philanthropists, and thought leaders might consider directing their attention and support to more effectively promote human welfare and societal change.

Critically, this research also addresses some of the most pressing social issues facing the United States and other nations. Political polarization is at an all-time high, and attachments to political identities are now stronger than attachments to gender, race, religion, and ethnicity (Iyengar et al., 2018).

Forecasting tournaments–that is, experiencing first-hand the challenges of formulating accurate beliefs and the fallibility of one's perceptions–may be the key to recognizing that adversaries, like oneself, are simply doing their best to understand the world in all its complexity.

Basic insights from this research can be translated into practical building blocks for targeted interventions.

By learning which mechanisms (e.g., accountability, perspective-taking, performance feedback, perception of a situation as adversarial vs cooperative, etc.) account for the most variance in promoting intra-individual change in epistemic virtues, practitioners can build customized interventions oriented toward fostering epistemic virtues, judgmental accuracy, and/or reducing polarization.

Virtual Poster

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