# TONY Q. FAN

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## PRINCIPAL EMPLOYMENT

2023- Assistant Professor of Economics
Department of Economics, Finance, and Legal Studies, University of Alabama.

# **EDUCATION**

Ph.D. in Economics, Stanford University, 2017-2023 (expected).

B.A. in Economics, Peking University, 2012-2016.

B.Sc. in Mathematics and Applied Mathematics (double major), Peking University, 2013-2016.

Exchange student at the University of Pennsylvania, Fall 2014.

#### RESEARCH AND TEACHING FIELDS

Behavioral Economics, Experimental Economics, Household Finance, Applied Microeconomics.

#### **RESEARCH PAPERS**

The Inference-Forecast Gap in Belief Updating (Job Market Paper, with Yucheng Liang and Cameron Peng)

Individual forecasts of economic variables show widespread overreaction to recent news, but laboratory experiments on belief updating typically find underinference from new signals. We provide new experimental evidence to connect these two seemingly inconsistent phenomena. Building on a classic experimental paradigm, we study how people make inferences and revise forecasts in the same information environment. Participants underreact to signals when inferring about underlying states, but overreact to signals when revising forecasts about future outcomes. This gap in belief updating is largely driven by the use of different simplifying heuristics for the two tasks. Additional treatments suggest that the choice of heuristics is affected by the similarity between cues in the information environment and the belief updating question: when forming a posterior belief, participants are more likely to rely on cues that appear similar to the variable elicited by the question.

Motivated Mislearning: The Case of Correlation Neglect (with Lukas Bolte) Revise and Resubmit at the *Journal of Economic Behavior and Organization* 

We design an experiment to study the role of motivated reasoning in correlation neglect. Participants receive potentially redundant signals about an ego-relevant state—their IQ test performance. We elicit their belief that the signals came from the same source (and thus contain redundant information). Participants generally underappreciate the extent to which identical signals are more likely to come from the same source, but the bias is significantly stronger for good (ego-favorable) signals than for bad (ego-unfavorable) signals. This asymmetric effect disappears in a control treatment where the state is ego-

irrelevant. These results suggest that individuals may neglect the correlation between desirable signals to sustain motivated beliefs. However, the estimated effect is not quantitatively large enough to generate significant asymmetric updating about own IQ test performance.

Forming Misspecified Mental Models: The Power of Choice.

Using a novel experimental approach that directly elicits individuals' mental models, I document how choices lead individuals to adopt models that exaggerate the importance of their choice variable for payoff-relevant outcomes. Going beyond the traditional notion of the illusion of control, I emphasize how choices distort *models about general causal relationships* instead of *beliefs about personal control*. Thus, distorted models can generate spillover effects on what people "choose to choose" and how people advise others. Finally, I test for selective memory retrieval during the choice process as a potential key mechanism for the model distortions.

How Paternalistic Preferences Shape the Welfare State: The Case of In-Kind Nutrition Assistance (with Sandro Ambuehl, B. Douglas Bernheim, and Zach Freitas-Groff)

Poverty assistance is often administered in-kind even though cash transfers might raise recipients' welfare more effectively. We characterize the political economy constraint that paternalistic motives impose on the welfare system. In our experiment, a representative sample of U.S. citizens reveal their motives by deciding whether to constrain real U.S. food stamp recipients' choices between in-kind donations and cash equivalents we disburse. The modal respondent (40%) imposes the strictest possible constraints, while 30% impose no constraints. Hence the majority's behavior is consistent with deontological motives rather than trade-off thinking. Yet, because of biased beliefs about recipient preferences, respondents underestimate the restrictiveness of their interventions, suggesting that they are partly misguided. When respondents decide between restricting recipients whom they believed should be restricted and giving choice to those whom they believe should have choice, they place substantially more weight on the former motive, which, too, tends to increase the severity of restrictions. Overall, respondents' goal is not to ensure sufficient healthy nutrition, but to prevent consumption of items deemed inappropriate. While respondents reveal racial and gender stereotypes in various survey questions, neither donor nor recipient demographics have substantial effects on restriction decisions, though restrictions increase with respondents' political conservatism. In-experiment behavior correlates strongly with views about government policy.

## SELECTED RESEARCH IN PROGRESS

Meta-cognition of Reasoning Errors.

How Do Narratives Move Markets? Evidence from the Laboratory.

### TEACHING EXPERIENCE

- Teaching Assistant for Prof. Matthew Gentzkow, Stanford University, Econ 255 (PhD Economics of Communication).
- 2019-20 Teaching Assistant for Dr. Marcelo Clerici-Arias, Stanford University, Econ 178 (Undergraduate Behavioral Economics).
- 2015-16 Teaching Assistant for Prof. Juanjuan Meng and Prof. Xi Weng, Peking University, Undergraduate Public Finance.

#### SCHOLARSHIPS, HONORS, AND AWARDS

- 2022-23 B.F. Haley and E.S. Shaw Fellowship for Economics, SIEPR, Stanford.
- 2019, 22 Shultz Graduate Student Fellowship in Economic Policy (x2), SIEPR, Stanford.
- 2020, 21 Graduate Research Opportunity (GRO) Grant (x3, including 2 for joint projects), Stanford.
- 2020, 21 IRiSS Research Data Grant (x2), Stanford.
- 2020 Russell Sage Foundation Small Grant in Behavioral Economics.
- 2018, 20 The Europe Center Graduate Student Grant (x2), Stanford.
- 2017-21 Stanford Graduate Fellowship.
- 2013, 15 National Scholarship of China (x2).

# **PROFESSIONAL ACTIVITIES**

Referee for the *Journal of Economic Behavior and Organization*.

Participant in *Russell Sage Foundation Summer Institute in Behavioral Economics* (2022) and *UC San Diego Spring School in Behavioral Economics* (2022).

# **CONFERENCE AND SEMINAR PRESENTATIONS**

- AEA/ASSA\*, MFA\*, BABEEW, SFS Cavalcade\*, WFA, EFA\*, D-TEA Workshop\*, ECBE\*, SABE, SITE (Experimental Economics), Amsterdam ACBC Workshop\*, AMIE 2<sup>nd</sup> Workshop, DMfO Conference\*, Stanford-Caltech Student Workshop, ESA North America, MPI Workshop on Paternalism\*, Swiss V-BEERS\*, ESA Job Market Candidate Series.
- briq Beliefs Workshop\*, SITE (Psychology and Economics), ESA North America\*, NBER (Behavioral Finance)\*.

  \*: conference presentations by co-authors (not including seminars by co-authors or a
  - \*: conference presentations by co-authors (not including seminars by co-authors or at home institution)

### **REFERENCES**

Available upon request.