# The Invisible Hand as an Explanation Type in Intuitive Sociology

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## Introduction

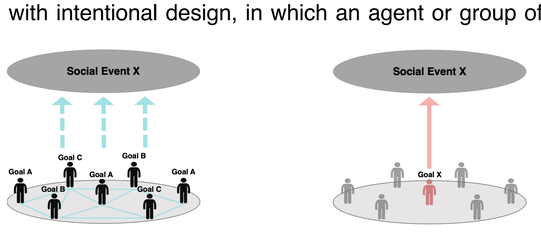
Why don't clouds fall down? Why did the girl refuse to do her homework? Why did the protest break out?

Previous research shows even without knowing specific details, people have a sense of what **type of explanation** different questions garner.

Past work shows different meta-expectations in domains of intuitive physics, biology, psychology, mechanism.

We examine the domain **intuitive sociology,** and propose the type of explanation people expect there is an **invisible-hand explanation.**

The invisible-hand: Well-known type of explanation in economics and social sciences. A global state of affairs X emerges from people taking local individual actions in pursuit of local goals, without intending X. Contrasted with intentional design, in which an agent or group of agents intend X.




Invisible-hand causal structure

Intentional-design causal structure

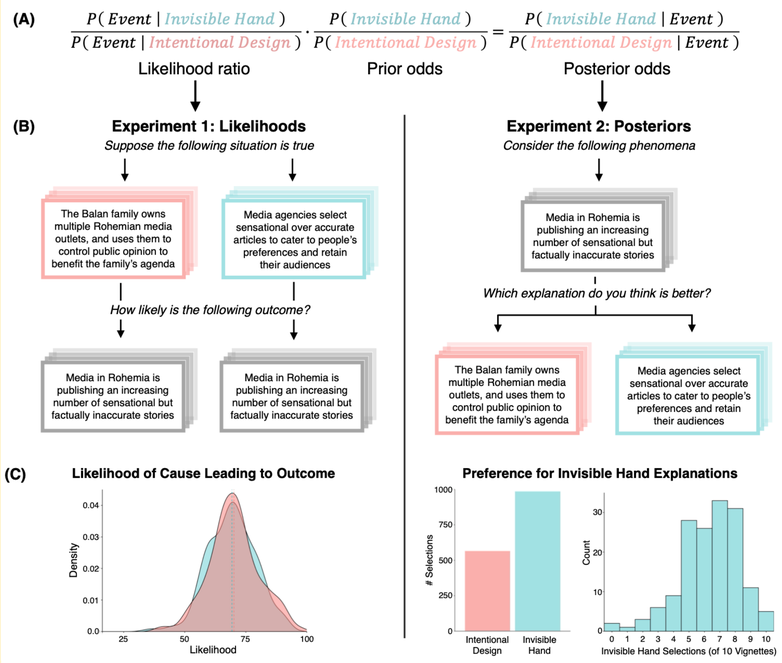
## Methods

**Participants**. 309 adult US residents (N=154 in Experiment 1, N=155 in Experiment 2) were recruited on Prolific.

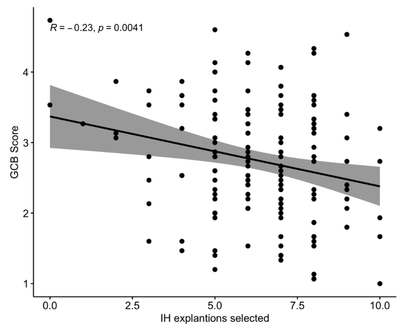
**Materials**. 10 Vignettes describing different fictional social phenomena (*Spread of Misinformation in Rohemia; Segregation in Folon City; Protesters Clash with the Police in Valtany; Social Movements Grow Influence in Gredland; Creativity in the Education System of Collenland Province; Sunflower Life Trend in Torland; Vocabulary Change for Loeria's Ocean Waste Problem; Fashion trends accelerate in Jirev; Banchi beans gain international popularity; AI assistants in West Gebei).*

**Procedure**. The experiments were presented to the participants online, on the Qualtrics platform. In both experiments, participants first completed a vignette task and then filled the Generic Conspiratorial Belief scale (GCB). Experiment 1 and 2 vignette structure and contents are illustrated in the (B) panel of the Results figure. Vignettes were presented one at a time, in a randomized order.

## People prefer invisible-hand explanations over intentional design explanations




## Preference for invisible-hand explanations and conspiratorial beliefs are negatively correlated




## Discussion and Future Directions

**(i) Preference for invisible-hand explanations**

The cause-effect scenarios were fictional and novel to the participants. Nevertheless, people showed a bias towards the invisible-hand explanation. This suggests that people might have abstract beliefs on what types of causation they expect in the sociological domain.

The bias we found in this study supports the conclusion that the invisible-hand causal structure might capture those abstract beliefs.

Further work could test the generalizability of the invisible-hand causal structure to other domains of knowledge and across a more diverse sample.

**(ii) Negative correlation between invisible-hand preference and degree of conspiratorial beliefs**

A weak but significant negative correlation suggests that there is a link between abstract and specific beliefs on causal structures in the domain of intuitive sociology.

Further research is needed to establish the causal direction of this link.

## Take-Aways

- Invisible-hand metaphor illustrates spontaneous order—*as if* there was an invisible hand organizing things without human design.
- This study proposes and shows that people intuitively prefer invisible-hand explanations over intentional-design explanations.
- We postulate that this preference works as abstract knowledge (i.e. a hyper-prior belief) that constrains reasoning.
- Individual variability in preferences for invisible-hand explanation type revealed that people with higher degree of conspiratorial beliefs have a higher preference for the intentional-design explanation type.

Poster PDF and References:

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For any questions or comments on this study, please reach out to Izabelė!

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