Inverse Planning Model in Selecting Project Partner

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Inverse Planning Model

- Observe other agent's actions → infer about their goals, beliefs, desires, emotions
- The Child as Econometrician: A Rational Model of *Preference* Understanding in Children

- Social Attributes!
- $P(Attribute, B|A) \propto P(A|Attribute, B)P(Attribute, B)$

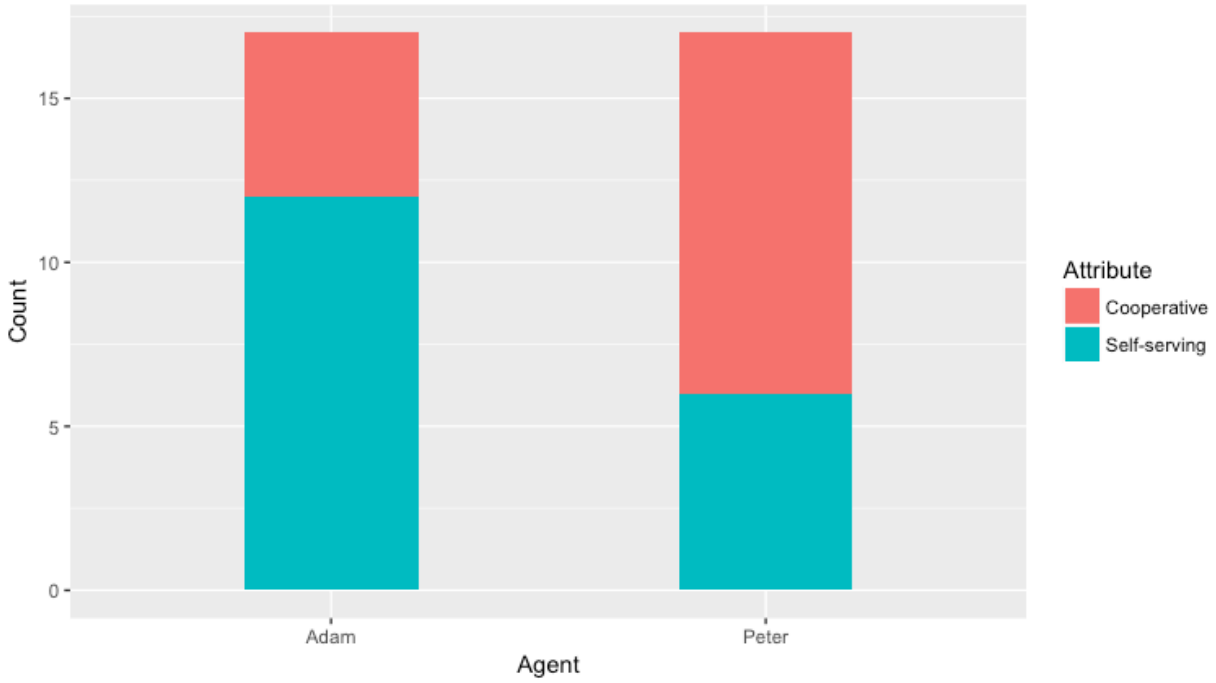
Experiment

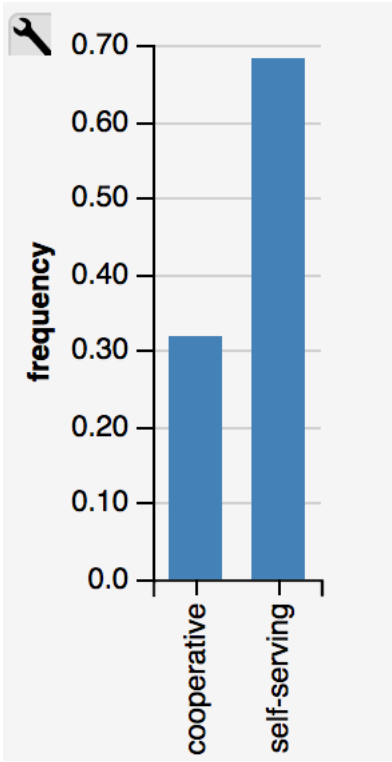
- ABRA & Kadabra
- 60, 70, 80
- Dave – Kadabra (history of record → cooperative)
- Adam (self-serving/Q-learning) – ABRA
- Peter (cooperative/joint policy (Boutilier, 1996)/Schelling point) –ABRA
    - Who would you prefer as your project partner? Adam or Peter?

Adam	Dave
60	80
70	80
70	70
60	60
60	70
60	80
70	80
60	70
80	80
60	80

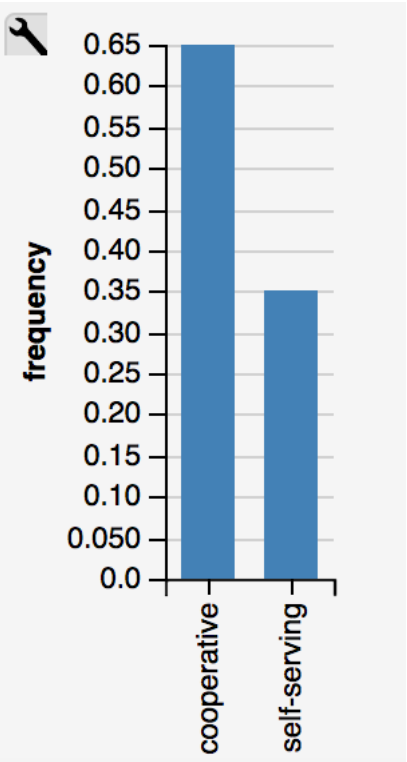
Peter	Dave
70	80
70	70
80	70
80	80
80	70
80	80
80	80
80	80
80	80
80	80

17 responses





Adam



Peter

Not currently done

What the model does not capture

- “Leading”
- “Random”
- “All I did was looking at the first number”
- “I tried to think of the calculations involved so I guess I thought of what I'd do” → Simulation-based action understanding?