Moral Psychonomics

Normative Ethics and Welfare Economics
October 21-22, 2016
Harvard Business School

Julia S. Haas
Department of Philosophy
Rhodes College

John M. Doris
Philosophy-Neuroscience-Psychology-Program
Philosophy Department
Washington University in St. Louis
Moral Psychology

- How do human beings create and respond to occasions of moral significance?
Interdisciplinary Moral Psychology

- The study of moral psychology should be richly informed by the quantities of relevant empirical work in the human sciences.

- This methodological precept is controversial – in practice anyway.

  - Descriptive v. normative

- Yet moral philosophers routinely make (quite apparently) empirical claims.
Moral Psychology: Philosophy & . . .

• Economics
  • Not so much
• (Cognitive) Social Psychology
  • Mostly
  • Accessibility (e.g., Milgram)
  • Appropriate-ability (Experimental Philosophy)
  • Happenstance (Small Worlds)
Moral Psychology: (Faintly Tendentious) Take-Aways

• **Small** things matter.

• **Silly** things matter.

• As a result, behavior is surprisingly cross-situationally variable, or fluid

• As compared with general normative principles
Illustrative Example

- **Ballot Order Effects**: candidates topping the slate may enjoy a several point advantage in vote share (Krosnick et al. 2004: 61–68; cf. Lutz 2010; Marcinkiewicz 2014; Meredith and Salant 2013; Webber et al. 2014).

- *I’ll vote for her because she’s first on the ballot*

- Huh? – small and silly

- *Vote for the best candidate.*

- [Not experimental social psychology –RepliGate]
Why is fluidity bad?

- Makes planning, cooperation, trust, and norm-compliance difficult
Why care about what moral psychologists do?

• MP and BE share core goals:
  • Descriptive agenda: Understanding and predicting human decision-making and choice
  • Normative agenda: Manipulations and meliorations aimed at happiness, well-being, welfare
  • Cooperation should enhance progress
Moral Psychology: Moving forward

- Moral psychology has made progress on the components of moral cognition
- But the field would benefit from a unifying model of moral cognition

“Research in moral psychology has focused primarily on the critically important first step of identifying the key ingredients of moral judgments and decisions—norms, empathy, intentions, actions, outcomes, and so on” (Crockett 2016, 85)
Neuroeconomic model of moral cognition

- We propose a model of moral cognition by building on the neuroeconomic model of choice
Neoclassical economics: Value as a theoretical construct

- Economic choices can be accounted for as if the choosing subject maximized an internal value function

*E.g.:* Buying a house in the suburbs or downtown
Neuroeconomics: Value as a function of the brain

- Not ‘as if’
- Brain assign values to various choice alternatives
- Neural circuits encode the cardinal subjective values of the objects of choice (Glimcher 2011, Padoa-Schioppa 2011)
Neural signature of economic choice

- Signaling in the medial orbitofrontal cortex (OFC) and in the dorsolateral prefrontal cortex (dIPFC) encodes subjective value (Plassman et al. 2007, De Martino et al. 2009)

- How?
Goods-based model of subjective value (Padoa-Schioppa 2011)

External determinants:
- commodity
- quantity
- delay
- risk
- ...

Internal determinants:
- motivation
- im/patience
- risk tolerance
- ...

Common space of goods
Goods plus action costs

Action costs → Good value

Action value → Choice outcome

Choice outcome → Common space of actions

Good value → Action costs

Action value → Action costs
Subjective value is fluid

• Goods-based action values are calculated by the brain online, *i.e.*, at the time of choice

• Consequently, a given good’s subjective value is surprisingly variable over time and across situations
What then of *moral* principles?

- PFC activation increases when individuals process statements about “sacred” values (Berns et al., 2012; Greene et al., 2004; Harris et al., 2009; Kapogiannis et al., 2009).
- Not coincidental neural association
- We argue that *moral* principles are subject to valuation
Prediction

• We predict a positive correlation between the values of different moral principles and their corresponding BOLD signal in the OFC, dIPFC

• How?

• Three alternatives
(1) Encoded as an action cost

- Consequence: Harm, shame
- Good value
- Action value
- Action costs

Common space of actions

Choice outcome
(2) Encoded as a principle, maxim, or rule

External determinants
- commodity
- quantity
- delay
- risk
- ...

Internal determinants
- motivation
- im/patience
- risk tolerance
- ...

Common space of goods

good value

“Minimize harm”
(3) Encoded as an external determinant

External determinant
- commodity
- causes harm
- delay
- risk
- ... 

Internal determinants
- motivation
- im/patience
- risk tolerance
- ...

good value

good value
Model of moral subjective value

• Neuroeconomic model of choice extends to moral cognition
  • Moral principles are traded off against material goods
  • Moral principles are traded off against other moral principles
Moral choices are inevitably fluid

- As in non-normative economic choice, we should expect cross-situational fluidity
Ensuring less fluid, more stable moral responses

- This understanding should help refine our predictive and manipulative strategies
- Target and manipulate valuation to ensure stable moral behavior
Thank you