Moral Cognition I: 
Moral Thinking Fast & Slow

Peter Danielson
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Plan

1. Problem:
   – Moral Dumbfounding: Trolley problems

2. Method:
   – Moral Neuropsychology: fMRI & Emotions

3. Relevance:
   – How Can Science Effect Ethics?
Switch/Bystander/Trolley

A runaway trolley is about to run over and kill five people, but a bystander who is standing on a footbridge can throw a switch that will turn the trolley onto a side track, where it will kill only one person.

Is it morally acceptable to throw the switch?
A. Yes
B. No

Footbridge

A runaway trolley is about to run over and kill five people, but a bystander who is standing on a footbridge can shove a man wearing a large backpack in front of the train, saving the five people but killing the man.

Is it morally acceptable to shove the man?
A. Yes
B. No
Loop Track

A runaway trolley is about to run over and kill five workmen. Fortunately, Joe is standing next to a switch that he can throw, which will temporarily turn the trolley onto a side track. There is a heavy object on the side track. If the trolley hits the object, the object will slow it down, thereby giving the five time to escape. The heavy object is, however, a large workman standing on the side track. Joe can throw the switch, preventing the trolley from killing the five, but killing the large person. Or he can refrain from doing this, letting the five die. Is it morally acceptable for Joe to throw the switch?

A. Yes
B. No

Moral Philosophy & Psychology

Diagram of moral philosophy and psychology concepts, including prescriptive and descriptive approaches, Sparrow, Gau/Goodall, Piaget/Kohlberg, Haidt/Kahneman, conscious reasoning, intuition, grammar, and emotion.
Haidt Story 1

Pause after you read it and decide whether the people in the story did anything morally wrong.

A man goes to the supermarket once a week and buys a chicken. But before cooking the chicken, he has sexual intercourse with it. Then he cooks it and eats it.

A: Yes   B: No

Haidt Story 2

Julie and Mark are brother and sister. They are traveling together in France on summer vacation from college. One night they are staying alone in a cabin near the beach. They decide that it would be interesting and fun if they tried making love. At the very least it would be a new experience for each of them. Julie was already taking birth control pills, but Mark uses a condom too, just to be safe. They both enjoy making love, but they decide not to do it again. They keep that night as a special secret, which makes them feel even closer to each other. What do you think about that? Was it OK for them to make love?

A: Yes   B: No
Moral Dumbfounding: Puzzles Philosophical & Psychological

• Ethical Principles for
  – Trolley/Footbridge
    • Why acceptable to kill one to save 5 in T but not F?
  – What’s wrong with
    • Chicken sex
    • “safe incest”?

• Agreement without justification
  • “But what model of moral judgment allows a person to know that something is wrong without knowing why?” Haidt “The Emotional Dog and its Rational Tail”

• Greene’s hypothesis: emotional triggers/heuristics

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Methods & fMRI Results

- Experimental
  - Many participants
  - Many Dec. Problems
  - Scanned & Timed
- Distinguish:
  - Moral/non-moral
  - Personal/Impersonal
    - Distinguished by independent coders

fMRI Results: Timing
Dual Process Theory

“There has been much confusion about what this experiment shows and what it was intended to show. It was designed to test the dual-process theory ... [not] the personal-impersonal distinction” (Greene, 2014, N. 17)

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From Is to Ought: Attempt 1

- Some influential Naturalists:
  - Bentham’s Hedonism: “Nature has placed mankind under the governance of two sovereign masters, pain and pleasure. It is for them alone to point out what we *ought* to do, as well as to determine what we *shall* do.” (Chap 1, §1.1)
  - Counter-examples: sadistic pleasure; schadenfreude

From Is to Ought: Attempt 2

- Moore on Spencer: “These doctrines are those which maintain that the course of evolution, while it shews us the direction in which we *are* developing, thereby and for that reason shews us the direction in which we *ought* to develop.” (Moore, Chap 2, §29)
  - Counter-example: non-kin “murder” in lions
3. G.E. Moore: Ethics as Perception

• “‘good’ denotes a simple and indefinable quality...
• Consider yellow... those light-vibrations are not themselves what we mean by yellow. They are not what we perceive.” (Principia Ethica (1903))
• => question: What is the moral “sense” and is it reliable?

Debunking Moral Intuitions

Greene’s Indirect strategy: show that – as a matter of fact – the moral sense is unreliable

1. Ethically: Singer/Unger Famine vs. Affluence
   – Save bloody hiker vs. save sick/starving families
   – “…Maybe ...moral intuitions have nothing to do with ‘some good reason’ and everything to do with the way our brains happen to be built” (Greene, 848)

2. (Rationally: Tversky & Kahneman’s Asian Disease Problem)
   – Dual Process
Debunking Moral Intuitions ...

3. Psychologically:
   • Footbridge case & emotions
     - Moral/Personal
     - Engage motional brain regions
     - Longer response time signals conflict

An Empirical Test

• In class empirical test: reading Greene should increase acceptance of Footbridge.
From Intuition to Deliberation

• Are Trolley or Footbridge No respondents swayed by Greene’s debunking?

Discussion question

What is the utility of emotional processing in making moral judgement? Should a moral authority or an expert possess a higher degree of emotional processing in making moral judgement?

Daehan
Rate Discussion Question 1

A. Excellent  
B. Very Good  
C. Good  
D. Acceptable  
E. Poor

Discussion...

What are the lessons, if any, of Greene’s research for robot design?
Debunking 4: Emotions & Evolution

“Several factors are likely to make killing norms stronger than helping norms. First, in cultural evolution, prohibitions against killing are more vital than prohibitions against unhelpful behavior, because a group whose members kill each other will fare worse than a group of members who go out of their way to help each other. Second, helping also carries more personal cost than refraining from killing. ...” Prinz

Debunking 4: Emotions & Evolution

• If emotions against personal killing are explained by evolution
• Less reason to give them independent normative weight
• Parallel to evolutionary explanation of surplus male elephant seals.
Methodological problem: External Validity

- Trouble with Trolleys (Bauman et al., 2014)
- Too Serious: deadly sacrificial dilemmas
- Yet entertaining...

Fun & Death

“Philosophers counted on the fantastic details of trolley problems to lighten an otherwise dense and heavy topic. In her original discussion of the trolley problem, for example, Foot (1967) argued that people may wish to believe that the lone victim may somehow escape his plight provided that, “the driver of the tram does not then leap off and brain him with a crowbar” (p. 9). She also discussed a story about spelunkers who became trapped in a cave because an obese member of their party got stuck. She suggests that some in the party might try to justify setting off dynamite near the man by arguing that, “We didn’t want to kill him ... only to blow him into small pieces” (p. 7).”
Psychological Realism & Social Distancing

“One potential indication that humorous and unrealistic sacrificial dilemmas engage different psychological processes than other moral situations is that they are socially inconsequential. ..., people do not sit idly and watch moral transgressions and transgressors; they are moved by them. People express outrage, report a strong sense of contempt and disgust, and fear moral contagion when they witness or even contemplate wrongdoing ... They also distance themselves from morally dissimilar others; they are uncomfortable in relationships (e.g., close friends and romantic partners, but also co-workers and neighbors) with people who disagree with their moral beliefs. In our classroom experiences with trolley problems, however, no one ostracizes or even seriously reprimands those who would push the fat man or refuse to flip the switch. ... Therefore, trolley problems and other sacrificial dilemmas may lack psychological realism because people act differently to people who make deviant choices in these settings than to those who break moral rules in other situations.”

Need Robot Friendly Scenario

• Data on Robot Trolley 1 but no plausible robot Footbridge
• Need contrast with plausible human/robot substitution
  – Even better, a pair of non/personal suitable for human/robot substitution.
Mikhail on another mechanism: Universal Moral Grammar

See Greene n. 2: “A …potentially illuminating analogy … between [moral dumfounding] and the Chompskyan question: How is that most people can speak grammatically without being able to exhaustively cite the rules of grammar?”

References & Further Reading