

Getting Started Doing Philosophy

Stephen A. Butterfill
< s.butterfill@warwick.ac.uk >

Tuesday, 24th September 2024

Contents

1	Introduction	2
1.1	There are ethically significant behaviours	2
1.2	Humans appear to have ethical knowledge	2
1.3	What are the sources of ethical knowledge?	2
1.4	What are intuitions?	3
1.5	Conclusions so far	4
2	Moral Knowledge Does Not Exist	4
2.1	Attempt 1: Ethical intuitions vary between cultures	4
2.2	Attempt 2: Ethical intuitions are influenced by extraneous factors	5
2.3	Conclusion so far	7
3	Moral Knowledge Does Exist	7
3.1	Objection to Attempt 2: Ethical intuitions are influenced by extraneous factors	7
3.2	Objection to Attempt 1: Ethical intuitions vary between cultures	8
3.2.1	Purity matters for combating pathogens	9
3.2.2	Does cultural variation preclude knowledge?	10
3.3	Conclusion so far	10
4	Tentative Resolution	11
4.1	Physical intuitions are reliable—but only within limits	11
4.2	Limits of ethical intuitions	12
4.3	Conclusion	12
	Glossary	13

1. Introduction

1.1. There are ethically significant behaviours

A paradigm example is food sharing. Humans do this in a way that has no counterpart in other species.¹

More generally, behaviours which have ethical significance include caring for another, cooperating with her, sanctioning her for something she does or fails to do, shunning her, enslaving her, and so on.

Humans are unusual among apes in the degree to which they cooperate with non-kin, even to the extent of being cooperative breeders.² They appear to have been doing this since well before the advent of farming.³

1.2. Humans appear to have ethical knowledge

Many people feel more confident about some propositions than others. For example, I am more confident that Aristotle was a philosopher than that Aristotle was partly responsible for Alexander the Great's death.

This is true for some ethical propositions too. Speaking for myself, I am more confident that it is wrong to kill people than that it is wrong to kill insects.

This is an indication that we do not just have ethical abilities. We also appear to have knowledge of ethical propositions in whatever sense we have knowledge of ordinary, non-ethical propositions. And, quite plausibly, ethical knowledge is an enabler for many of our ethical abilities

1.3. What are the sources of ethical knowledge?

There is a view in ethics called 'Intuitionism' whose key tenet is that 'moral intuitions [are] basic sources of evidence' (Stratton-Lake 2020, footnote 1).

¹ See Kaplan & Gurven (2005, p. 75): 'the patterning and complexity of food sharing among humans is truly unique.' Note that these authors argue that 'persistent imbalances in amounts given and received between families suggest that strict reciprocal altruism cannot account for all food sharing between families' (Kaplan & Gurven 2005, p. 86)

² See Hrdy (2011, p. 67): 'hominin infants must have been reared differently from any other ape. By possibly as early as 1.8 million years ago, hominin youngsters were being cared for and provisioned by a range of individuals in addition to their mothers'

³ Hill et al. (2011, p. 1289) argue that 'our foraging ancestors evolved a novel social structure that emphasized [...] co-residence with many unrelated individuals.' This conclusion is based on their observation that, across 32 contemporary hunter-gatherer societies, 'bands are mainly composed of individuals either distantly related by kinship and/or marriage or unrelated altogether. [...] primary kin generally make up less than 10% of a residential band' (Hill et al. 2011, p. 1288). See further Apicella et al. (2012).

This remains a minority view.

Of wider interest, even some philosophers who do not explicitly endorse intuitionism agree that intuitions are indispensable for ethical knowledge. For instance:

‘Our intuitions about cases provide us with evidence for and against rival moral claims—and it is difficult to imagine giving them no weight whatsoever.’ (Kagan 2001, p. 2)

‘When I have an intuition it seems to me that something is the case, and so I am defeasibly justified in believing that things are as they appear to me to be. That fact [...] opens the door to the possibility of moral knowledge.’ (Kagan 2023, p. 167)⁴

Intuitions in philosophy are also essential for reflective equilibrium (Rawls 1999). Several ethicists regard ‘the method of reflective equilibrium, or a process very similar to it, is the best or most fruitful method of moral inquiry [and] the one that seems most likely to lead to justified moral beliefs’ (McMahan 2013, p. 111). If we discover that intuitions are too unreliable to be a source of knowledge, this may lead to an objection to the method of reflective equilibrium. Such an objection, if successful, would be a major challenge to much contemporary ethics.

1.4. What are intuitions?

On this course, a person’s *intuitions* are the claims they take to be true independently of whether those claims are justified inferentially. And a person’s *moral intuitions* are simply those of their intuitions that concern ethical matters.

Not everyone adopts this terminological stipulation. According to Sinnott-Armstrong et al. (2010, p. 256): ‘When we refer to *moral intuitions*, we mean strong, stable, immediate moral beliefs.’ For many purposes such differences are not critical. But note that philosophers sometimes use the term ‘intuition’ in ways that differ drastically. To illustrate, Bedke (2008) offers two ways of characterising what philosophers call intuitions:

‘intuitions are understandings of self-evident propositions, where such understanding alone is sufficient for justification’ and ‘intuitions are sui generis seeming states [...] which are like

⁴ For another example, see Audi (2015, p. 57): ‘Intuition is a resource in all of philosophy, but perhaps nowhere more than in ethics.’ Audi argues that ‘Episodic intuitions [...] can serve as data [...] ... beliefs that derive from them receive prima facie justification.’ (Audi 2015, p. 65)

[..] seemings based on sensory experience [...] in the way they justify' (Bedke 2008, p. 253).⁵

Neither of these is a moral intuition for the purposes of this course. (One could coherently maintain that moral intuitions exist in our sense while denying that there are any intuitions in Bedke's sense.)

1.5. Conclusions so far

At least some humans appear to have ethical knowledge.

Intuitions are necessary for ethical knowledge.

2. Moral Knowledge Does Not Exist

Consider the following argument:

1. Ethical intuitions are necessary for ethical knowledge.
2. Ethical intuitions are too unreliable to be a source of knowledge; therefore:
3. Ethical knowledge is not possible.

We will assume that premise 1 is true and that the argument is valid. But is premise 2 true?

This section will consider two attempts to defend premise 2

2.1. Attempt 1: Ethical intuitions vary between cultures

Graham et al. (2009) show that people who are socially conservative tend to put more emphasis on ethical concerns linked to purity than people who are socially liberal.⁶ They are more likely to consider that eating vomit is an ethical violation (rather than simply imprudent or merely harmful).

The difference in ethical intuitions about purity matters. It predicts attitudes about 'gay marriage, euthanasia, abortion, and pornography [...], stem cell research, environmental attitudes, [...] social distancing in real-world social networks' and more (Graham et al. 2019).

⁵ As you would expect, other philosophers offer terminological stipulations about intuitions which are incompatible with Bedke's. See, for instance, Audi (2015, p. 65): 'some intuitions have non-self-evident propositions as objects, for example, my intuition that I should protect the wandering toddler even with its apparent mother in view.'

⁶ This study based on a questionnaire called *MFQ* which does not have the right properties to justify this conclusion. However new research by Atari et al. (2023) based on an improved questionnaire does support the conclusion.

Could cultural variation provide a defence of the claim that intuitions are too unreliable to be a source of knowledge? Consider:

1. Between cultures there are inconsistent ethical intuitions; therefore
2. Ethical intuitions are too unreliable to be a source of knowledge.

Further reading: McGrath (2008) argues that ethical intuitions are controversial and therefore cannot be a basis for knowledge.

2.2. Attempt 2: Ethical intuitions are influenced by extraneous factors

In evaluating moral scenarios involving (such as Switch and Drop), what factors might sway people's judgements?

Waldmann et al. (2012, p. 288) offers a brief summary of some factors which have been considered to influence judgements about trolley problems including:

- whether an agent is part of the danger (on the trolley) or a bystander;
- whether an action involves forceful contact with a victim;
- whether an action targets an object or the victim;
- how far the agent is from the victim;⁷ and
- how the victim is described.

They comment:

'A brief summary of the research of the past years is that it has been shown that almost all these confounding factors influence judgments, along with a number of others [...] it seems hopeless to look for the one and only explanation of moral intuitions in dilemmas. The research suggests that various moral and nonmoral factors interact in the generation of moral judgments about dilemmas' (Waldmann et al. 2012, pp. 288, 290).

Many extraneous factors also influence trained philosophers' intuitions ...

Schwitzgebel & Cushman (2015) show that philosophers (and non-philosophers) are subject to order-of-presentation effects (they make different judgements depending on which order trolley problems are presented).

⁷ After this review was published, Nagel & Waldmann (2013) provided substantial evidence that distance may not be a factor influencing moral intuitions after all (the impression that it does was based on confounding distance with factors typically associated with distance such as group membership and efficacy of action).

Wiegmann et al. (2020) show that philosophers are subject to irrelevant additional options: like non-philosophers, philosophers will more readily endorsing killing one person to save nine when given five alternatives than when given six alternatives. (These authors also demonstrate order-of-presentation effects.)

Wiegmann & Horvath (2021) show that philosophers are subject to the ‘Asian disease’ framing used in a famous earlier study (Tversky & Kahneman 1981).⁸ (They also find an indication that philosophers, although susceptible to other framing effects, may be less susceptible than non-philosophers to four other framing effects, including whether an outcome is presented as a loss or a gain.)

Why care about the influence of extraneous factors on ethical intuitions? According to Rini (2013, p. 265):

‘Our moral judgments are apparently sensitive to idiosyncratic factors, which cannot plausibly appear as the basis of an interpersonal normative standard. [...] we are not in a position to introspectively isolate and abstract away from these factors.’⁹

Does the influence of extraneous factors on ethical intuitions reveal that ethical intuitions are too unreliable to be a source of knowledge? Consider:

1. Ethical intuitions are influenced by extraneous factors; therefore
2. Ethical intuitions are too unreliable to be a source of knowledge.

Further reading: Rini (2013) considers an argument along these lines.

⁸ This is one example of a framing effect involving differences in valence. McDonald et al. (2021) provide a useful meta-analysis of the research on such framing effects, allowing us to be confident that valence framing has a small effect on moral judgements. (They also offer a helpful definition: ‘Valence framing effects occur when participants make different choices or judgments depending on whether the options are described in terms of their positive outcomes (e.g. lives saved) or their negative outcomes (e.g. lives lost).’)

⁹ Compare Kahneman (2013): ‘there is no underlying [intuition] that is masked or distorted by the frame. [...] our moral intuitions are about descriptions, not about substance’ (Kahneman 2013). This comment is linked specifically to Schelling’s child exemptions in the tax code example and the problems of the Asian disease. But the same could be true in other cases too (Chater 2018).

Also relevant in Sinnott-Armstrong (2008, p. 99)’s argument: > ‘Evidence of framing effects makes it reasonable for informed moral > believers to assign a large probability of error to moral intuitions in > general and then to apply that probability to a particular moral intuition > until they have some special reason to believe that the particular moral > intuition is in a different class with a smaller probability of error.’

2.3. Conclusion so far

Are ethical intuitions too unreliable to be a source of knowledge? Both attempts to defend this claim appear successful.

3. Moral Knowledge Does Exist

We are considering the following argument:

1. Ethical intuitions are necessary for ethical knowledge.
2. Ethical intuitions are too unreliable to be a source of knowledge; therefore:
3. Ethical knowledge is not possible.

We will assume that premise 1 is true and that the argument is valid. But is premise 2 true?

Previously, in *Moral Knowledge Does Not Exist* (section §2), we considered two attempts to defend premise 2. This section introduces objections to each of those attempts.

I start with an objection to the second attempt ...

3.1. Objection to Attempt 2: Ethical intuitions are influenced by extraneous factors

Earlier we considered this argument:

1. Ethical intuitions are influenced by extraneous factors; therefore
2. Ethical intuitions are too unreliable to be a source of knowledge.

Is this a good argument?

The premise is uncontroversially true; the issue is whether the conclusion follows.

How do the extraneous factors influence the intuitions? How, for instance, does order of presentation influence philosophers' intuitions about cases? Wiegmann & Waldmann (2014) offer evidence for the theory that this effect is a consequence of one scenario selectively highlighting an aspect of the causal structure of another scenario.¹⁰ It is possible that, rather than

¹⁰ 'Performing the proposed action in Switch leads to two outcomes—saving three persons and causing the death of one person. The negative outcome does not lie on the same causal path as the good outcome [...] To illustrate why causing the death of the one

undermining reliability of intuitions, philosophers might regard them as vindicated. By *contrasting* the dilemmas, perhaps they can identify morally relevant differences.

How pervasive is the influence of extraneous factors? Wiegmann & Horvath (2021) find that ‘expert ethicists have a genuine advantage over laypeople with respect to some well-known biases.’ This finding suggests that do not know whether the consequences of extraneous effects on philosophers’ intuitions are extensive enough to undermine their claims to knowledge. Perhaps extraneous factors have a significant but small effect on ethical intuitions. In that case, the influence of extraneous factors would not be a threat to the claim that ethical intuitions are a source of knowledge.

In many other domains—including the financial (Moreira Costa et al. 2021), the medical (Druckman 2001), the logical (Wason 1960)¹¹ and the physical (Fini et al. 2015)—there is evidence that extraneous factors influence intuitions. In none of these domains does it follow that intuitions are never be a source of knowledge. We should not apply different standards to the ethical case.¹²

Conclusion: existing evidence for the influence of extraneous factors does not show that ethical intuitions are so unreliable that they cannot be a source of knowledge.

Further reading: Kagan (2023)’s chapter on ethical intuitions defends their reliability by comparison with physical intuitions.

3.2. Objection to Attempt 1: Ethical intuitions vary between cultures

Earlier we considered this argument:

person does not lie on the causal path saving the three, imagine that the threatening train would stop for some reason shortly after being redirected but before reaching the one person. In this case, the one person would not get killed but the three persons would still be rescued. The feature that the different outcomes lie on different causal paths allows for selective highlighting of the causal relationship between the intervention and the good outcome. If this path is highlighted, the aspect of saving becomes salient in this dilemma. Analogously, the good outcome does not lie on the causal path leading from the intervention to the bad outcome. If this path is selectively highlighted, the aspect of killing dominates. In sum, the causal structure of Switch allows for selective highlighting of the causal relationship between the intervention and either the good or the bad outcome’ (Wiegmann & Waldmann 2014, p. 30).

¹¹ But see Oaksford & Chater (1994) who argue that participants’ choices in the Wason selection task are actually rational.

¹² Kagan (2023) develops a comparison between ethical intuitions and physical intuitions in support of the view that intuitions are reliable enough to be a source of ethical knowledge.

1. Between cultures there are inconsistent intuitions; therefore
2. Intuitions are too unreliable to be a source of knowledge.

Is this a good argument?

To evaluate it, we need to ask why there is cultural variation ...

3.2.1. Purity matters for combating pathogens

Hominins are amazingly versatile, but we homo sapiens are distinctive even among hominins in the vast range of environments we inhabit (Roberts & Stewart 2018, p. 542). Different places present different challenges. For instance, pathogens will typically be more prevalent in warm, humid environments than dry, cold ones.

How was our species able to adapt to such different environments? Because the spreading out happened relatively quickly (perhaps in the last seventy thousand years), evolution can explain only a limited range of homo sapiens' abilities to adapt. (In the talk I will illustrate this by reference to genetic differences in saliva production (Perry et al. 2007). As important as these differences are, they are quite small.) Culture must have been a significant factor in enabling homo sapiens to adapt to different climates.

Purity appears to have been important for meeting the varying challenges posed by pathogens. van Leeuwen et al. (2012) had subjects answer questions which indicated the degree to which they endorsed moral concerns linked to purity, authority and loyalty (the 'binding foundations') compared to the degree to which they endorsed moral foundations linked to harm and unfairness (the 'individual foundations'). They found a link between stronger endorsement of binding foundations and the historical prevalence of pathogens in the region subjects lived:

'historical pathogen prevalence—even when controlling for individual-level variation in political orientation, gender, education, and age—significantly predicted endorsement of In-group/loyalty [stats removed], Authority/respect, and Purity/sanctity; it did not predict endorsement of Harm/care or Fairness/reciprocity' (van Leeuwen et al. 2012).

This is coherent with the idea that purity has been important because it enabled humans to mitigate risks from pathogens associated with their diet long before they understood pathogens.

3.2.2. Does cultural variation preclude knowledge?

Intuitions about purity have played a role in enabling our species' colonization of diverse environments during difficult times in which, tragically, many other hominins species became extinct. This seems to indicate that the intuitions are in at least one important sense reliable after all.

This is not to say that intuitions are perfectly reliable—as we saw in *Moral Knowledge Does Not Exist* (section §2), between cultures there are inconsistent intuitions. But perhaps the inconsistencies do not run very deep. Perhaps (to speculate) they arise from different people attending to different aspects of a situation.

Languages appear on the surface to be very different but, famously, they turn out to have a common deep structure. Perhaps ethical intuitions are similar (as Mikhail (2007) argues).

To make the argument from cultural variation work, we have to show that not merely that ethical intuitions are a bit unreliable. We have to show that they are *too unreliable to be a source of ethical knowledge*. This would be very difficult. (How reliable would intuitions have to be? How can we measure degrees of reliability? How are intuitions supposed to enable ethical knowledge anyway?)

Conclusion: The first attempt to support the premise that ethical intuitions are too unreliable to enable ethical Knowledge does not appear successful, at least not as it stands.

Further reading: Bengson et al. (2020) offer a defence of ethical intuitions based on the idea that they are part of a successful cognitive practice.

3.3. Conclusion so far

Are ethical intuitions are too unreliable to be a source of knowledge? Neither attempt to establish this appears to succeed. Ethical intuitions are not clearly more susceptible to extraneous influences than intuitions in other domains. And the existence of inconsistent ethical intuitions between cultures does not demonstrate that no ethical intuitions can be a source of knowledge.

Further, ethical intuitions play a role in explaining the relative success of our species over the last fifty thousand years or more. This is an indication that at least some ethical intuitions can be a source of knowledge.

4. Tentative Resolution

This section presents Steve's current guess at the truth. The guess is offered as an idea for further consideration and is unlikely to be correct.

4.1. Physical intuitions are reliable—but only within limits

Non-experts have incorrect physical intuitions. To illustrate, they will reliably judge that a projectile exiting a spiral tube will subsequently follow a spiral trajectory (McCloskey et al. 1980). Why?

Sometimes when adult humans observe a moving object that disappears, they will misremember the location of its disappearance in way that reflects its momentum; this effect is called *representational momentum* (Freyd & Finke 1984; Hubbard 2010).

The trajectories implied by representational momentum reveal that the effect reflects impetus mechanics rather than Newtonian principles (Freyd & Jones 1994; Kozhevnikov & Hegarty 2001; Hubbard et al. 2001; Hubbard 2013). And these trajectories are independent of subjects' scientific knowledge (Freyd & Jones 1994; Kozhevnikov & Hegarty 2001). Representational momentum therefore reflects judgement-independent expectations about objects' movements which track momentum in accordance with a principle of impetus.¹³

We might therefore conjecture that physical intuitions are based on impetus mechanics. This would explain the spiral trajectory judgements observed by (McCloskey et al. 1980).

Why is this significant? Impetus mechanics makes computing trajectories and other physical quantities relatively fast (compared to Newtonian mechanics).¹⁴ Impetus mechanics is also reliable within a limited but useful

¹³ Note that momentum is only one of several factors which may influence mistakes about the location at which a moving object disappears. See Hubbard (2005, p. 842): 'The empirical evidence is clear that (1) displacement does not always correspond to predictions based on physical principles and (2) variables unrelated to physical principles (e.g., the presence of landmarks, target identity, or expectations regarding a change in target direction) can influence displacement. [...] information based on a naive understanding of physical principles or on subjective consequences of physical principles appears to be just one of many types of information that could potentially contribute to the displacement of any given target'

¹⁴ See Kozhevnikov & Hegarty (2001, p. 450): To extrapolate objects' motion on the basis of [e.g. Newtonian] physical principles, one should have assessed and evaluated the presence and magnitude of such imperceptible forces as friction and air resistance [...] This would require a time-consuming analysis that is not always possible. In order to have a survival advantage, the process of extrapolation should be fast and effortless, without much conscious deliberation. Impetus theory allows us to extrapolate objects' motion

range of situations—those in which objects move horizontally rather than vertically, gravity is unchanging, and so on. So impetus mechanics was all humans needed for nearly all of the last few hundred thousand years. Only recent technological changes expose the limits of physical intuitions.

Conclusion: physical intuitions are reliable enough to be a source of knowledge—but only within limits. Their reliability is limited to situations that were frequent and significant in human experience over evolutionary timescales.

4.2. Limits of ethical intuitions

Like physical intuitions, ethical intuitions are likely reliable only in situations that were frequent and significant in humans' evolutionary history. (This is probably true of intuitions generally.)

Ethical intuitions are probably reliable enough to ground knowledge of ethics concerning matters such as food sharing in small bands and cooperative breeding.

They are unlikely to be reliable enough to ground ethical knowledge concerning matters that were not frequent and significant in humans' evolutionary history.

This includes trolley problems. Filial infanticide aside,¹⁵ decisions involving harming one to save others have probably been as rare in humans' history as reliance on recent discoveries to construct such scenarios hints (Greene 2014, p. 252).¹⁶

4.3. Conclusion

Those who defend ethical intuitions are right insofar as intuitions are a reliable source of knowledge in a limited but useful range of situations.

quickly and without large demands on attentional resources.'

¹⁵ Hrdy (1979, 2011) reviews evidence on the prevalence and causes of filial infanticide in humans. Although important in many ways for understanding humans' moral intuitions, filial infanticide can be set aside here as the special circumstances in which it routinely occurs (in the first hours after giving birth and where there is a perceived lack of social support) indicate that it is unlikely to be a source of representative experience (Hrdy 1979, 2011).

¹⁶ Could nutritional cannibalism have been a significant source of representative experience and valid feedback? This turns out to be unlikely. Humans were historically insufficiently nutritious to make cannibalism worthwhile, except possibly where death had other causes (Garn & Block 1970; Rodríguez et al. 2019, p. 236).

Those who attack ethical intuitions are right that ethical intuitions are not a source of knowledge concerning the things that philosophers are interested in. (That said, it is not the influence of extraneous factors which makes intuitions too unreliable to be a source of knowledge; nor does the existence of inconsistent intuitions between cultures demonstrate this—see *Moral Knowledge Does Exist* (section §3).)

Relying on intuitions for ethical knowledge in philosophy is probably always a mistake because philosophers are mostly interested in novel problems, such as climate change or global poverty, or very general theories, such as a theory of justice.

Relying on ethical intuitions to establish a theory of justice would be like relying on physical intuitions to land a robot on a comet.

Glossary

moral intuition According to this lecturer, a person's intuitions are the claims they take to be true independently of whether those claims are justified inferentially. And a person's *moral* intuitions are simply those of their intuitions that concern ethical matters.

According to Sinnott-Armstrong et al. (2010, p. 256), moral intuitions are 'strong, stable, immediate moral beliefs.' 4

References

- Apicella, C. L., Marlowe, F. W., Fowler, J. H., & Christakis, N. A. (2012). Social networks and cooperation in hunter-gatherers. *Nature*, 481(7382), 497–501.
- Atari, M., Haidt, J., Graham, J., Koleva, S., Stevens, S. T., & Dehghani, M. (2023). Morality beyond the WEIRD: How the nomological network of morality varies across cultures. *Journal of Personality and Social Psychology*, 125(5), 1157–1188.
- Audi, R. (2015). Intuition and Its Place in Ethics. *Journal of the American Philosophical Association*, 1(1), 57–77.
- Bedke, M. S. (2008). Ethical Intuitions: What They Are, What They Are Not, and How They Justify. *American Philosophical Quarterly*, 45(3), 253–269.
- Bengson, J., Cuneo, T., & Shafer-Landau, R. (2020). Trusting Moral Intuitions. *Noûs*, 54(4), 956–984.

- Chater, N. (2018). *The Mind Is Flat: The Illusion of Mental Depth and The Improvised Mind*. Penguin UK.
- Druckman, J. N. (2001). Evaluating framing effects. *Journal of Economic Psychology*, 22(1), 91–101. [Online; accessed 2024-09-17].
- Fini, C., Brass, M., & Committeri, G. (2015). Social scaling of extrapersonal space: Target objects are judged as closer when the reference frame is a human agent with available movement potentialities. *Cognition*, 134, 50–56.
- Freyd, J. J. & Finke, R. A. (1984). Representational momentum. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 10(1), 126–132.
- Freyd, J. J. & Jones, K. T. (1994). Representational momentum for a spiral path. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 20(4), 968–976.
- Garn, S. M. & Block, W. D. (1970). The Limited Nutritional Value of Cannibalism. *American Anthropologist*, 72(1), 106–106.
- Graham, J., Haidt, J., Motyl, M., Meindl, P., Iskiwitch, C., & Mooijman, M. (2019). Moral Foundations Theory: On the advantages of moral pluralism over moral monism. In K. Gray & J. Graham (Eds.), *Atlas of Moral Psychology*. New York: Guilford Publications.
- Graham, J., Haidt, J., & Nosek, B. A. (2009). Liberals and conservatives rely on different sets of moral foundations. *Journal of Personality and Social Psychology*, 96(5), 1029–1046.
- Greene, J. D. (2014). *Moral Tribes: Emotion, Reason and the Gap between Us and Them*. New York: Atlantic Books.
- Hill, K. R., Walker, R. S., Božičević, M., Eder, J., Headland, T., Hewlett, B., Hurtado, A. M., Marlowe, F., Wiessner, P., & Wood, B. (2011). Co-Residence Patterns in Hunter-Gatherer Societies Show Unique Human Social Structure. *Science*, 331(6022), 1286–1289.
- Hrdy, S. B. (1979). Infanticide among animals: A review, classification, and examination of the implications for the reproductive strategies of females. *Ethology and Sociobiology*, 1(1), 13–40.
- Hrdy, S. B. (2011). *Mothers and others: the evolutionary origins of mutual understanding*. Cambridge, Massachusetts: Belknap Press.
- Hubbard, T. L. (2005). Representational momentum and related displacements in spatial memory: A review of the findings. *Psychonomic Bulletin & Review*, 12(5), 822–851.

- Hubbard, T. L. (2010). Approaches to representational momentum: theories and models. In R. Nijhawan & B. Khurana (Eds.), *Space and Time in Perception and Action*. Cambridge: Cambridge University Press.
- Hubbard, T. L. (2013). Launching, Entraining, and Representational Momentum: Evidence Consistent with an Impetus Heuristic in Perception of Causality. *Axiomathes*, 23(4), 633–643.
- Hubbard, T. L., Blessum, J. A., & Ruppel, S. E. (2001). Representational momentum and Michotte's 'launching effect' paradigm (1946/1963). *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 27(1), 294–301.
- Kagan, S. (2001). *Thinking about Cases*, volume 18 of *Social Philosophy and Policy*, (pp. 44–63). Cambridge: Cambridge University Press.
- Kagan, S. (2023). *Answering Moral Skepticism*. New York, NY: Oxford University Press.
- Kahneman, D. (2013). *Thinking, Fast and Slow*. New York: Farrar, Straus and Giroux.
- Kaplan, H. & Gurven, M. (2005). *The Natural History of Human Food Sharing and Cooperation: A Review and a New Multi-Individual Approach to the Negotiation of Norms*, (pp. 75–114). The MIT Press. [Online; accessed 2024-06-28].
- Kozhevnikov, M. & Hegarty, M. (2001). Impetus beliefs as default heuristics: Dissociation between explicit and implicit knowledge about motion. *Psychonomic Bulletin & Review*, 8(3), 439–453.
- McCloskey, M., Caramazza, A., & Green, B. (1980). Curvilinear Motion in the Absence of External Forces: Naive Beliefs about the Motion of Objects. *Science*, 210(4474), 1139–1141.
- McDonald, K., Graves, R., Yin, S., Weese, T., & Sinnott-Armstrong, W. (2021). Valence framing effects on moral judgments: A meta-analysis. *Cognition*, 212, 104703.
- McGrath, S. (2008). Moral disagreement and moral expertise. *Oxford studies in metaethics*, 3, 87–107.
- McMahan, J. (2013). Moral Intuition. In H. LaFollette & I. Persson (Eds.), *The Blackwell Guide to Ethical Theory* (pp. 103–120). Oxford: Blackwell.
- Mikhail, J. (2007). Universal moral grammar: Theory, evidence and the future. *Trends in Cognitive Sciences*, 11(4), 143–152.

- Moreira Costa, V., De Sá Teixeira, N. A., Cordeiro Santos, A., & Santos, E. (2021). When more is less in financial decision-making: financial literacy magnifies framing effects. *Psychological Research*, 85(5), 2036–2046. [Online; accessed 2024-09-17].
- Nagel, J. & Waldmann, M. R. (2013). Deconfounding distance effects in judgments of moral obligation. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 39(1), 237.
- Oaksford, M. & Chater, N. (1994). A rational analysis of the selection task as optimal data selection. *Psychological Review*, 101(4), 608–631.
- Perry, G. H., Dominy, N. J., Claw, K. G., Lee, A. S., Fiegler, H., Redon, R., Werner, J., Villanea, F. A., Mountain, J. L., Misra, R., Carter, N. P., Lee, C., & Stone, A. C. (2007). Diet and the evolution of human amylase gene copy number variation. *Nature Genetics*, 39(10), 1256–1260.
- Rawls, J. (1999). *A Theory of Justice* (Revised edition ed.). Cambridge, Massachusetts: Harvard University Press.
- Rini, R. A. (2013). Making psychology normatively significant. *The Journal of ethics*, 17(3), 257–274.
- Roberts, P. & Stewart, B. A. (2018). Defining the ‘generalist specialist’ niche for Pleistocene *Homo sapiens*. *Nature Human Behaviour*, 2(8), 542–550.
- Rodríguez, J., Guillermo, Z.-R., & Ana, M. (2019). Does optimal foraging theory explain the behavior of the oldest human cannibals? *Journal of Human Evolution*, 131, 228–239.
- Schwitzgebel, E. & Cushman, F. (2015). Philosophers’ biased judgments persist despite training, expertise and reflection. *Cognition*, 141, 127–137.
- Sinnott-Armstrong, W. (2008). Reply to tolhurst and shafer-landau. In W. Sinnott-Armstrong (Ed.), *Moral psychology: Intuition and diversity. The cognitive science of morality*, volume 2 (pp. 97–105). Cambridge: Cambridge University Press.
- Sinnott-Armstrong, W., Young, L., & Cushman, F. (2010). Moral intuitions. In J. M. Doris, M. P. R. Group, et al. (Eds.), *The moral psychology handbook* (pp. 246–272). Oxford: Oxford University Press.
- Stratton-Lake, P. (2020). Intuitionism in Ethics. In E. N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy* (Summer 2020 ed.). Metaphysics Research Lab, Stanford University.

- Tversky, A. & Kahneman, D. (1981). The framing of decisions and the psychology of choice. *Science*, 211(4481), 453–458.
- van Leeuwen, F., Park, J. H., Koenig, B. L., & Graham, J. (2012). Regional variation in pathogen prevalence predicts endorsement of group-focused moral concerns. *Evolution and Human Behavior*, 33(5), 429–437.
- Waldmann, M. R., Nagel, J., & Wiegmann, A. (2012). Moral Judgment. In K. J. Holyoak & R. G. Morrison (Eds.), *The Oxford Handbook of Thinking and Reasoning* (pp. 274–299). Oxford: Oxford University Press.
- Wason, P. C. (1960). On the Failure to Eliminate Hypotheses in a Conceptual Task. *Quarterly Journal of Experimental Psychology*, 12(3), 129–140.
- Wiegmann, A. & Horvath, J. (2021). Intuitive Expertise in Moral Judgements. *Australasian Journal of Philosophy*, 100(2), 342–359.
- Wiegmann, A., Horvath, J., & Meyer, K. (2020). Intuitive expertise and irrelevant options. *Oxford studies in experimental philosophy*, 3, 275–310.
- Wiegmann, A. & Waldmann, M. R. (2014). Transfer effects between moral dilemmas: A causal model theory. *Cognition*, 131(1), 28–43.