



# Demographic Differences in Philosophical Intuition: a Reply to Joshua Knobe

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## Abstract

In a recent paper, Joshua Knobe (2019) offers a startling account of the metaphilosophical implications of findings in experimental philosophy. We argue that Knobe's account is seriously mistaken, and that it is based on a radically misleading portrait of recent work in experimental philosophy and cultural psychology.

## 1 “Downright Shocking” – Knobe’s Account of the Literature on Demographic Variation in Philosophical Intuition

In a recent paper, Knobe (2019) offers a startling account of the metaphilosophical implications of findings in experimental philosophy. We think Knobe's account is seriously mistaken, and that it is based on a radically misleading portrait of recent work in experimental philosophy and cultural psychology. We are concerned that Knobe's inaccurate account of the literature may have a negative impact on the sort of research that is done in experimental philosophy, and that this may impede attempts to address the cultural insularity that characterizes much of recent philosophy in the analytic tradition.

Knobe's paper appears as part of a “Panel Discussion” focused on Timothy Williamson's paper, “Armchair Philosophy” (Williamson 2019), and Knobe develops his view by contrasting it with a view he attributes to Williamson. The claims that Knobe attributes to Williamson are not the central focus of Williamson's paper, and we are far from certain that Williamson would endorse them. But our concern is

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with the substance of these ideas, not their provenance. So we will begin by setting out the view that Knobe attributes to Williamson.

That view starts with the observation that early research in experimental philosophy suggested that philosophical intuition might be much less reliable than had been assumed. “One argument for this conclusion,” Knobe tells us, “started out with the claim that people’s intuitions show a strong impact of *demographic factors* (gender, ethnicity, age, etc.). On this view, the intuitions of older men from the United States could be radically different from, say, the intuitions of younger women in Hong Kong. Though the metaphilosophical issues here are complex, one can at least see how this empirical claim might have implications for questions about the reliability of intuition.” (Knobe 2019, 30) But, Knobe continues, according to Williamson, as time went on and additional empirical studies were conducted, this argument collapsed. Here’s how Knobe tells the story:

Williamson nicely summarizes a widely-shared narrative about the fate of this argument. According to this narrative, early experimental philosophy studies seemed to suggest that demographic factors had a large impact on people’s intuitions, but more recent studies suggest that the impact of demographic factors is smaller and more circumscribed. Taken as a whole, then, the empirical literature simply does not indicate that demographic factors have a greater influence than we would have expected.

To the extent that we accept this narrative, it might seem that we should also accept a rather bleak assessment of the metaphilosophical importance of research on demographic effects. The assessment would go something like this: early studies seemed to be pointing to a surprising phenomenon that at least had the potential to have important metaphilosophical implications, but in the end, this research program simply failed to pan out. (Knobe 2019, 30)

But Knobe thinks “this assessment is mistaken.” (31) The reason is *not* that he thinks Williamson’s “widely-shared narrative” underestimates the impact of demographic factors on people’s philosophical intuitions, but rather that it *overestimates* the demographic variability of intuitions. Across a variety of demographic groups, Knobe maintains, philosophical intuitions are *less* variable and *more* “robust” than one might have expected before experimental philosophers began exploring this issue. Here’s Knobe again:

Work in experimental philosophy is often concerned with intuitions about seemingly abstruse issues, such as the nature of the true self or whether the universe is governed by deterministic laws. There was every reason to expect that such intuitions would differ radically between demographic groups. Yet actual research on this topic has yielded a surprising result. Again and again, studies find that effects observed within one demographic group can also be found in a variety of others.

Of course, this is not to say that philosophical intuitions do not differ at all between groups. (Researchers have identified specific cases in which they clearly do.) Still, when one examines the body of research as a whole, it is impossible not to be struck by the extraordinary degree to which philosophical

intuitions are robust across demographic differences. This is an important finding that promises to have profound implications for metaphilosophical questions. (Knobe 2019, 31)

What conclusions should we draw from this “important finding”? Knobe is cautious here, since he thinks that both the empirical issues and the philosophical issues raise lots of “thorny” questions. But he maintains that one “possible” empirical conclusion is that “the capacities underlying people’s philosophical intuitions have an innate basis.” (Knobe 2019, 33) And that, in turn, might have important metaphilosophical implications about the reliability of people’s intuitions.

This is heady stuff. But all of it depends on the correctness of the “important finding” that, to an “extraordinary degree ... philosophical intuitions are robust across demographic differences.” To support that finding, Knobe spends a page and a half discussing work in experimental philosophy and psychology under three headings: “Cross-Cultural Studies,” “Developmental Studies,” and “Replication Studies”. He then offers the following dramatically worded conclusion.

I have been suggesting that one surprising finding coming out of the experimental philosophy literature is the shocking degree to which demographic factors do not impact people’s philosophical intuitions. In support of this claim, I have cited 30 studies, by 91 different researchers, comprising a total sample size of 12,696 participants. Many of these results would be highly surprising even in isolation. Taken together, they are downright shocking. (Knobe 2019, 33)

## 2 Cherry-Picking: What Knobe’s Account of the Literature Includes, and What It Doesn’t

There is something here that is indeed downright shocking. But it is not the degree to which demographic factors do not impact people’s philosophical intuitions. Rather it is the extent to which Knobe has misrepresented the literature. The 30 studies that Knobe cites are a cherry-picked<sup>1</sup> set that largely ignores the much longer list of studies that *do* report demographic differences in a wide range of philosophical intuitions.<sup>2</sup> To make the point, we spent a couple of afternoons starting the list that appears in Table 1. It wasn’t hard work, since many of the items on the list were cited in Chapter 2 of Machery (2017). After we had assembled a preliminary version of the list, we sent it to colleagues who suggested many additional studies that we

<sup>1</sup> In their paper on “The Philosophical Use and Misuse of Science,” Kingsbury and Dare (2017) offer the following definition: “To cherry-pick is to appeal to just those scientific results or theories that appear to support your view and to disregard or give insufficient weight to those that conflict with it.” (450)

<sup>2</sup> In addition to cherry-picking the studies he cites, Knobe has also cherry-picked the *parts* of studies he chooses to mention. He notes, correctly, that Beebe et al. (2015) “find cross-cultural robustness for ... metaethical intuitions.” But that study also reports that “[d]ifferences in participants’ ... age were found to significantly affect their inclination to view the truth of an ethical statement as a matter of objective fact” (Beebe et al. 2015, 386). Knobe does not mention that finding.

**Table 1** Studies Reporting Demographic Differences in Philosophical Intuitions

Authors	Title	Publication Info	Year	Study/Experiment #	Type of Intuitions	# of Subjects	Demographic Feature	Notes
N. Angel Pinillos, Nick Smith, G. Sijam Nair, Peter Marchetto & Cecilia Mun	Philosophy's new challenge: Experiments and intentional action	Mind and Language, 26, 1, 115–139	2011	Intelligence Experiment	Knobe Effect	870	CRT - Intelligence	
Erin Robbins, Jason Shepard & Philippe Rochat	Variations in judgments of intentional action and moral evaluation across eight cultures	Cognition	2017	1	Knobe Effect	348	Culture	
Cory J. Clark, Christopher W. Bauman, Shanmukh V. Kamble & Eric D. Knowles	Intentional sin and accidental virtue? Cultural differences in moral systems influence perceived intentionality	Social Psychological and Personality Science, 8, 1, 74–82	2016	1	Knobe Effect	409	Culture	
Henrik Ahlenius and Torbjörn Tännsjö	Chinese and westerners respond differently to the trolley dilemmas	Journal of Cognition and Culture 12, 195–201	2012	1	Moral	3000	Culture	
Natalie Gold, Andrew M. Colman, Briony D. Pulford	Cultural differences in responses to real-life and hypothetical trolley problems	Judgment and Decision Making, 9, 1, 65–76	2014	1	Moral	169	Culture & age	

Table 1 (continued)

Authors	Title	Publication Info	Year	Study/Experiment #	Type of Intuitions	# of Subjects	Demographic Feature	Notes
Natalie Gold, Andrew M. Colman, Briony D. Pufford	Cultural differences in responses to real-life and hypothetical trolley problems	Judgment and Decision Making, 9, 1, 65–76	2014	2	Moral	100	Culture	
Linda Abarbanell & Marc D. Hauser	Mayan morality: An exploration of permissible harms	Cognition 115, 207–224	2010	1	Moral	30	Culture	
Linda Abarbanell & Marc D. Hauser	Mayan morality: An exploration of permissible harms	Cognition 115, 207–224	2010	2	Moral	30	Culture	
Linda Abarbanell & Marc D. Hauser	Mayan morality: An exploration of permissible harms	Cognition 115, 207–224	2010	3	Moral	31	Culture	
Linda Abarbanell & Marc D. Hauser	Mayan morality: An exploration of permissible harms	Cognition 115, 207–224	2010	4	Moral	31	Culture	
Linda Abarbanell & Marc D. Hauser	Mayan morality: An exploration of permissible harms	Cognition 115, 207–224	2010	5	Moral	30	Culture	

Table 1 (continued)

Authors	Title	Publication Info	Year	Study/Experiment #	Type of Intuitions	# of Subjects	Demographic Feature	Notes
Rebecca Friesdorf, Paul Conway & Bertram Gawronski	Gender differences in response to moral dilemmas: A process dissociation analysis	Personality and Social Psychology Bulletin, 41(5) 696–713	2015	meta-analysis	Moral	6100	Gender	
Konika Banerjee, Bryce Huebner & Marc Hauser	Intuitive Moral Judgments Are Robust Across Variation in Gender, Education, Politics and religion: A Large-Scale Web-Based Study	Journal of Cognition & Culture, 10, 253–281	2010	1	Moral	8778	Gender	See Machery, <i>Proper Bounds</i> , p. 63
Yu Gao & Simone Tang	Psychopathic Personality and Utilitarian Moral Judgment in College Students	Journal of Criminal Justice, 41, 349–9	2013	1	Moral	302	Gender & personality	

Table 1 (continued)

Authors	Title	Publication Info	Year	Study/Experiment #	Type of Intuitions	# of Subjects	Demographic Feature	Notes
Guy Kahane, Jim A.C. Everett, Brian D. Earp, Miguel Farias & Julian Savulescu	'Utilitarian' judgments in sacrificial moral dilemmas do not reflect impartial concern for the greater good	Cognition, 134, 193–209	2015	1	Moral	194	Personality	
Guy Kahane, Jim A.C. Everett, Brian D. Earp, Miguel Farias & Julian Savulescu	'Utilitarian' judgments in sacrificial moral dilemmas do not reflect impartial concern for the greater good	Cognition, 134, 193–209	2015	2	Moral	283	Personality	
Andrea L. Glenn, Spassena Koleva, Ravi Iyer, Jesse Graham & Peter H. Ditto	Moral identity in psychopathy	Judgment and Decision Making, 5, 7, 497–505	2010	2	Moral	214	Personality	
Ivar R. Hannikainen, Edouard Machery, Fiery A. Cushman	Is utilitarian sacrifice becoming more morally permissible?	Cognition 170, 95–101	2018	1	Moral	4134	Age	
Ivar R. Hannikainen, Edouard Machery, Fiery A. Cushman	Is utilitarian sacrifice becoming more morally permissible?	Cognition 170, 95–101	2018	3	Moral	9337	Age	

Table 1 (continued)

Authors	Title	Publication Info	Year	Study/Experiment #	Type of Intuitions	# of Subjects	Demographic Feature	Notes
John Waterman, Chad Gonnerman, Karen Yan & Joshua Alexander	Knowledge, certainty & skepticism: A cross-cultural study	In Mizumoto et al. eds., <i>Epistemology for the Rest of the World</i> , Oxford U.P. 189–214	2018	3	Epistemic	256	Culture	
John Waterman, Chad Gonnerman, Karen Yan & Joshua Alexander	Knowledge, certainty & skepticism: A cross-cultural study	In Mizumoto et al. eds., <i>Epistemology for the Rest of the World</i> , Oxford U.P. 189–214	2018	4	Epistemic	432	Culture	
John Waterman, Chad Gonnerman, Karen Yan & Joshua Alexander	Knowledge, certainty & skepticism: A cross-cultural study	In Mizumoto et al. eds., <i>Epistemology for the Rest of the World</i> , Oxford U.P. 189–214	2018	5	Epistemic	368	Culture	
Christina Starik-Friedman	Expert or esoteric? Philosophers attribute knowledge differently than all other academics	<i>Cognitive Science</i> , 44, 7	2020	1	Epistemic	1174	Academic discipline	



**Table 1** (continued)

Authors	Title	Publication Info	Year	Study/Experiment #	Type of Intuitions	# of Subjects	Demographic Feature	Notes
Christina Star- mans & Ori Friedman	Expert or esoteric? Philosophers attribute knowledge differently than all other academics	Cognitive Science, 44, 7	2020	2	Epistemic	947	Academic discipline	
Edouard Machery & 46 additional authors	The Gettier intuition from South America to Asia	Journal of Indian Council of Philosophical Research, 34, 3, 517–541	2017	1	Epistemic	2230	Personality, age, reflection	
David Rose & 45 additional authors	The Ship of Theus Puzzle	Oxford Studies in Experimental Philosophy v. 3	2020	1	Metaphysics	2426	Culture	
Adam Feltz & Edward T. Cokely	Do judgments about freedom and responsibility depend on who you are? Personality differences in intuitions about compatibilism and incompatibilism	Consciousness and Cognition, 18, 342–50	2009	1	Free will	58	Personality	

Table 1 (continued)

Authors	Title	Publication Info	Year	Study/Experiment #	Type of Intuitions	# of Subjects	Demographic Feature	Notes
David Rose & 45 additional authors	Behavioral circumscription and the folk psychology of belief: A study in ethno-mentalizing	Thought, 6, 193–203	2017	1	Phil of mind	5554	Culture	
Edward T. Cokely & Adam Feltz	Individual differences, judgment biases, and theory-of-mind: Deconstructing the intentional action side effect asymmetry	Journal of Research in Personality 43, 18–24	2009	1	Knobe effect	95	Personality	
Edward T. Cokely & Adam Feltz	Individual differences, judgment biases, and theory-of-mind: Deconstructing the intentional action side effect asymmetry	Journal of Research in Personality 43, 18–24	2009	2	Knobe effect	133	Personality	

Table 1 (continued)

Authors	Title	Publication Info	Year	Study/Experiment #	Type of Intuitions	# of Subjects	Demographic Feature	Notes
Adam Feltz & Edward T. Cokely	The fragmented folk: More evidence of stable individual differences in moral judgments and folk intuitions	Proc.30th Annual Conference of the Cognitive Science Society, 1771–1776	2008	1	Moral & Metaphysics	115	Personality	
Adam Feltz & Edward T. Cokely	The fragmented folk: More evidence of stable individual differences in moral judgments and folk intuitions	Proc.30th Annual Conference of the Cognitive Science Society, 1771–1776	2008	2	Moral	162	Personality	
Adam Feltz & Edward T. Cokely	The fragmented folk: More evidence of stable individual differences in moral judgments and folk intuitions	Proc.30th Annual Conference of the Cognitive Science Society, 1771–1776	2008	3	Moral	60	Reflection (CRT)	

Table 1 (continued)

Authors	Title	Publication Info	Year	Study/Experiment #	Type of Intuitions	# of Subjects	Demographic Feature	Notes
Adam Feltz & Edward T. Cokely	The fragmented folk: More evidence of stable individual differences in moral judgments and folk intuitions	Proc.30th Annual Conference of the Cognitive Science Society, 1771–1776	2008	4	Knobe effect	95	Personality	
Adam Feltz & Edward T. Cokely	The fragmented folk: More evidence of stable individual differences in moral judgments and folk intuitions	Proc.30th Annual Conference of the Cognitive Science Society, 1771–1776	2008	5	Knobe effect	112	Personality	
Eric Schulz, Edward T. Cokely, Adam Feltz	Persistent bias in expert judgments about free will and morality: A test of the expertise defense	Consciousness and Cognition, 20, 1722–1731	2011	1	Free will	121	Personality	

Table 1 (continued)

Authors	Title	Publication Info	Year	Study/Experiment #	Type of Intuitions	# of Subjects	Demographic Feature	Notes
Adam Feltz and Edward T. Cokely	Individual differences in theory-of-mind judgments: Order effects and side effects	Philosophical Psychology, 24, 3, 343–355	2011	2	Knobe effect	110	Personality, Philosophical training	
Adam Feltz and Edward T. Cokely	Extraversion and compatibilist intuitions: a ten-year retrospective and meta-analyses	Philosophical Psychology, 32, 3, 388–403	2019	1	Free will	2811	Personality	Meta-analysis of 17 published studies and 8 unpublished studies
Yu Liao, Yujia Sun, Hong Li, Gedeon O. Deák & Wenfeng Feng	Intensity of caring about an action's side-effect mediates actor's intentions	Frontiers in Psychology, 9, Article 1329	2018	1	Knobe effect	119	IoC - Intensity of caring	
Yu Liao, Yujia Sun, Hong Li, Gedeon O. Deák & Wenfeng Feng	Intensity of caring about an action's side-effect mediates actor's intentions	Frontiers in Psychology, 9, Article 1329	2018	2	Knobe effect	81	IoC - Intensity of caring	

Table 1 (continued)

Authors	Title	Publication Info	Year	Study/Experiment #	Type of Intuitions	# of Subjects	Demographic Feature	Notes
Edouard Machery, Ron Mallon, Shaun Nichols, Stephen Stich	Semantics, cross-cultural style	Cognition 92, B1–B12	2004	1	Reference	71	Culture	
Edouard Machery, Max Deutsch, Ron Mallon, Shaun Nichols, Justin Sytsma, Stephen Stich	Semantic intuitions: Reply to Lam	Cognition 117, 361–366	2010	2.1 & 2.2	Reference	185	Culture	
Justin Sytsma, Jonathan Livengood, Ryoji Sato, and Mineki Oguchi	Reference in the Land of the Rising Sun: A Cross-cultural Study on the Reference of Proper Names	Review of Philosophy and Psychology, 6, 2, 213–230	2015	Stage 1	Reference	596	Culture	
Justin Sytsma, Jonathan Livengood, Ryoji Sato, and Mineki Oguchi	Reference in the Land of the Rising Sun: A Cross-cultural Study on the Reference of Proper Names	Review of Philosophy and Psychology, 6, 2, 213–230	2015	Stage 2	Reference	221	Culture	

Table 1 (continued)

Authors	Title	Publication Info	Year	Study/Experiment #	Type of Intuitions	# of Subjects	Demographic Feature	Notes
Justin Sytsma, Jonathan Livengood, Ryoji Sato, and Mineki Oguchi	Reference in the Land of the Rising Sun: A Cross-cultural Study on the Reference of Proper Names	Review of Philosophy and Psychology, 6, 2, 213–230	2015	Stage 3	Reference	583	Culture	
James R. Beebe & Ryan J. Undercoffer	Moral Valence and Semantic Intuitions	Erkenntnis, 80, 2, 445–466	2015	1	Reference	177	Culture	
James R. Beebe & Ryan J. Undercoffer	Individual and Cross-Cultural Differences in Semantic Intuitions: New Experimental Findings.	Journal of Cognition and Culture, 16, 3/4, 322–357	2016	1	Reference	406	Culture & Personality	
James R. Beebe & Ryan J. Undercoffer	Individual and Cross-Cultural Differences in Semantic Intuitions: New Experimental Findings.	Journal of Cognition and Culture, 16, 3/4, 322–357	2016	2	Reference	207	Culture	
Edouard Machery, Justin Sytsma & Max Deutsch	Speaker's reference and cross-cultural semantics	In Andrea Bianchi, ed., On Reference, Oxford U.P.	2015	1	Reference	129	Culture	

Table 1 (continued)

Authors	Title	Publication Info	Year	Study/Experiment #	Type of Intuitions	# of Subjects	Demographic Feature	Notes
Edouard Machery, Justin Sytsma & Max Deutsch	Speaker's reference and cross-cultural semantics	In Andrea Bianchi, ed., <i>On Reference</i> , Oxford U.P.	2015	2	Reference	128	Culture	
Edouard Machery, Justin Sytsma & Max Deutsch	Speaker's reference and cross-cultural semantics	In Andrea Bianchi, ed., <i>On Reference</i> , Oxford U.P.	2015	3	Reference	65	Culture	
Jincai Li, Longgen Liu, Elizabeth Chalmers, Jesse Snedeker	What's in a name? The development of cross-cultural differences in referential intuitions	<i>Cognition</i> 171, 108–111	2018	1	Reference	70	Culture	
Krist Vaesen, Martin Peterson & Bart van Bezooijen	The reliability of armchair intuitions	<i>Metaphilosophy</i> , 44, 5, 559–578	2013	1	Epistemic	573	Native language	
Krist Vaesen, Martin Peterson & Bart van Bezooijen	The reliability of armchair intuitions	<i>Metaphilosophy</i> , 44, 5, 559–578	2013	2	Epistemic	203	Native language	



Table 1 (continued)

Authors	Title	Publication Info	Year	Study/Experiment #	Type of Intuitions	# of Subjects	Demographic Feature	Notes
Albert Costa, Alice Foucart, Sayuri Hayakawa, Melina Aparici, Jose Apesteagua, Joy Heafner & Boaz Keysar	Your morals depend on language	PLoS ONE 9(4): e94842. doi: <a href="https://doi.org/10.1371/journal.pone.0094842">https://doi.org/10.1371/journal.pone.0094842</a>	2014	1	Moral	317	Native language	
Albert Costa, Alice Foucart, Sayuri Hayakawa, Melina Aparici, Jose Apesteagua, Joy Heafner & Boaz Keysar	Your morals depend on language	PLoS ONE 9(4): e94842. doi: <a href="https://doi.org/10.1371/journal.pone.0094842">https://doi.org/10.1371/journal.pone.0094842</a>	2014	2	Moral	725	Native language	
Olga Antonenko Young, Robb Willer & Dacher Keltner	"Thou shalt not kill": Religious fundamentalism, conservatism, and rule-based moral processing	Psychology of Religion and Spirituality, 5, 2, 110–115	2013	1	Moral	207	Religious fundamentalism & political conservatism	

Table 1 (continued)

Authors	Title	Publication Info	Year	Study/Experiment #	Type of Intuitions	# of Subjects	Demographic Feature	Notes
Florian Cova & 37 additional authors	De Pulchritudine non est. Disputandum? A crosscultural investigation of the alleged intersubjective invalidity of aesthetic judgment	Mind & Language, 34, 317–338	2019	1	Aesthetic	2392	Culture	
Daniel M. Bartels	Principled moral sentiment and the flexibility of moral judgment and decision making	Cognition 108, 381–417	2008	1	Moral	71	Thinking style (REI)	
Daniel M. Bartels	Principled moral sentiment and the flexibility of moral judgment and decision making	Cognition 108, 381–417	2008	2	Moral	48	Thinking style (REI)	
Daniel M. Bartels & David A. Pizarro	The mismeasure of morals: Antisocial personality traits predict utilitarian responses to moral dilemmas	Cognition, 121, 154–161	2011	1	Moral	208	Personality	

Table 1 (continued)

Authors	Title	Publication Info	Year	Study/Experiment #	Type of Intuitions	# of Subjects	Demographic Feature	Notes
Ivar R. Hannikainen, Edouard Machery, David Rose & 43 additional authors	For whom does determinism undermine moral responsibility? Surveying the conditions for free will across cultures	Frontiers in psychology, <a href="https://doi.org/10.3389/fpsyg.2019.02428">https://doi.org/10.3389/fpsyg.2019.02428</a>	2019	1	Moral / Free will	4170	Culture	
Edouard Machery, Christopher Y. Olivola, Hyundeuk Cheon, Irma T. Kurmiawan, Carlos Mauro, Noel Struchiner & Harry Susianto	Is Folk Essentialism a Fundamental Feature of Human Cognition?	manuscript	xx	1	Metaphysics / Psychological essentialism	1200	Culture / gender/ education	
Kevin Tobia, Wesley Buckwalter & Stephen Stich	Moral intuitions: Are philosophers experts?	Philosophical Psychology, 26, 5, 629–638	2013	1	Moral	102	Philosophical training	
Kevin Tobia, Wesley Buckwalter & Stephen Stich	Moral intuitions: Are philosophers experts?	Philosophical Psychology, 26, 5, 629–638	2013	2	Moral	49	Philosophical training	
Kevin Tobia, Gretchen Chapman & Stephen Stich	Cleanliness is next to morality, even for philosophers	Journal of Consciousness Studies, 20, 11–12, 195–204	2013	1	Moral	285	Philosophical training	

Table 1 (continued)

Authors	Title	Publication Info	Year	Study/Experiment #	Type of Intuitions	# of Subjects	Demographic Feature	Notes
Sydney Levine, Joshua Rottman, Taylor Davis, Elizabeth O'Neill, Stephen Stich & Edouard Machery	Religious Affiliation and Conceptions of the Moral Domain	Social Cognition, 39, 1, 139-165	2021	3	Moral	255	Religion	
James R. Beebe & David Sackris	Moral objectivism across the lifespan	Philosophical Psychology, 29, 6, 912-929	2016	1	Moral	2526	Age & gender	
James R. Beebe, Runya Qiaoan, Tomasz Wysocki & Miguel Endara	Moral objectivism in cross-cultural perspective	Journal of Cognition & Culture, 15, 386-401	2015	1	Moral	893	Age, gender & culture	
Shaun Nichols, Nina Strohminger, Arun Rai, Jay Garfield	Death and the self	Cognitive Science, 42, 314-332	2018	2.1	The self	520	Religion & culture	
Shaun Nichols, Nina Strohminger, Arun Rai, Jay Garfield	Death and the self	Cognitive Science, 42, 314-332	2018	2.3	The self	519	Religion & culture	
Shaun Nichols, Nina Strohminger, Arun Rai, Jay Garfield	Death and the self	Cognitive Science, 42, 314-332	2018	3.1	The self & death	1585	Religion & culture	

**Table 1** (continued)

Authors	Title	Publication Info	Year	Study/Experiment #	Type of Intuitions	# of Subjects	Demographic Feature	Notes
Shaun Nichols, Nina Strohminger, Arun Rai, Jay Garfield	Death and the self	Cognitive Science, 42, 314–332	2018	3.2	Death	1181	Religion & culture	
Nadia Chernyak, Carissa Kang & Tamar Kushnir	The cultural roots of free will beliefs: How Singaporean and U.S. children judge and explain possibilities for action in interpersonal contexts	Developmental Psychology, 55, 4, 866–876	2019	1	Free will	147	Culture	
Mark Sheskin, Coralie Chevalier, Kumiko Adachi, Renatas Berniūnas, Thomas Castelain, Martin Hulin, Hillary Lenfesty, Denis Regnier, Anikó Sebestény, Nicolas Baumard	The needs of the many do not outweigh the needs of the few: The limits of individual sacrifice across diverse cultures	Journal of Cognition & Culture 18, 205–223	2018	1	Moral	263	Culture	

Table 1 (continued)

Authors	Title	Publication Info	Year	Study/Experiment #	Type of Intuitions	# of Subjects	Demographic Feature	Notes
Joachim Horvath & Alex Wiegmann	Intuitive expertise and intuitions about knowledge	Philosophical Studies, 173, 2701–2726	2016	1	Epistemic	224	Philosophical training	
Joachim Horvath & Alex Wiegmann	Intuitive expertise and intuitions about knowledge	Philosophical Studies, 173, 2701–2726	2016	2	Epistemic	227	Philosophical training	
Edouard Machery, Christopher Grau & Cynthia L. S. Pury	Love and Power: Grau and Pury (2014) as a Case Study in the Challenges of X-Phi Replication	Review of Philosophy and Psychology, 11, 4, 11995–1011	2021	1	Personal identity & reference	715	Opinions about love	
Adam B. Moore, Brian A. Clark & Michael J. Kane	Who Shalt Not Kill? Individual Differences in Working Memory Capacity, Executive Control, and Moral Judgment	Psychological Science, 19, 6, 549–557	2008	1	Moral	113	Working memory capacity	
Stéphane Côté, Paul K. Piff & Robb Willer	For Whom Do the Ends Justify the Means? Social Class and Utilitarian Moral Judgments	Journal of Personality and Social Psychology, 104, 3, 490–503	2013	1	Moral	277	Social class	

Table 1 (continued)

Authors	Title	Publication Info	Year	Study/Experiment #	Type of Intuitions	# of Subjects	Demographic Feature	Notes
Stéphane Côté, Paul K. Piff & Robb Willer	For Whom Do the Ends Justify the Means? Social Class and Utilitarian Moral Judgments	Journal of Personality and Social Psychology, 104, 3, 490–503	2013	2	Moral	229	Social class	
Stéphane Côté, Paul K. Piff & Robb Willer	For Whom Do the Ends Justify the Means? Social Class and Utilitarian Moral Judgments	Journal of Personality and Social Psychology, 104, 3, 490–503	2013	3	Moral	91	Social class	
Yoel Inbar, David Pizarro, Joshua Knobe & Paul Bloom	Disgust Sensitivity Predicts Intuitive Disapproval of Gays	Emotion, 9, 3, 435–439	2009	1	Moral	44	Disgust sensitivity	
Justin Sytma & Edouard Machery	Two conceptions of subjective experience	Philosophical Studies, 151, 299–327	2010	1	Philosophy of Mind	603	Philosophical training	
Edward B. Royzman, Justin F. Landy & Geoffrey P. Goodwin	Are good reasoners more incest-friendly? Trait cognitive reflection predicts selective moralization in a sample of American adults	Judgment and Decision Making, 9, 3, 176–190	2014	1	Moral	572	CRT	

Table 1 (continued)

Authors	Title	Publication Info	Year	Study/Experiment #	Type of Intuitions	# of Subjects	Demographic Feature	Notes
Edward B. Royzman, Justin F. Landy & Geoffrey P. Goodwin	Are good reasoners more incest-friendly? Trait cognitive reflection predicts selective moralization in a sample of American adults	Judgment and Decision Making, 9, 3, 176–190	2014	2	Moral	126	CRT	
James Andow & Florian Cova	Why compatibilist intuitions are not mistaken: A reply to Feltz and Millan	Philosophical Psychology, 29, 4, 550–566	2016	1	Free will	89	Age & personality	See fn, 13
Minsun Kim & Yuan Yuan	No cross-cultural differences in the Gettier case intuition: A replication study of Weinberg et al. 2001	Episteme, 12, 3	2015	1	Epistemic	140	Culture	See fn 3, p 356
John Turri	Excuse Validation: A Cross-cultural Study	Cognitive Science, 43, e12748	2019	1	Excuse validation - rule breaking	329	Age	
Heather Winskel & Devshree Bhatt	The role of culture and language in moral decision-making	Culture and Brain, 8, 207–225	2020	1	Moral	293	Culture	



**Table 1** (continued)

Authors	Title	Publication Info	Year	Study/Experiment #	Type of Intuitions	# of Subjects	Demographic Feature	Notes
Sinan Alper, Onurcan Yilmaz	How is the Big Five related to moral and political convictions: The moderating role of the WEIRDness of the culture	Personality and Individual Differences, 145, 15	2019	1	Moral	7263	Culture	
Onurcan Yilmaz, Sinan Alper	The link between intuitive thinking and social conservatism is stronger in WEIRD societies	Judgment and Decision Making 14, 2	2019	1	Moral	7263	Culture & CRT	
Jeffrey Winking & Jeremy Koster	Small-scale utilitarianism: High acceptance of utilitarian solutions to Trolley Problems among a horticultural population in Nicaragua	PLoS, 16(4), e0249345	2021	2	Moral	215	Culture	
Mohammad Atari, Mark H.C. Lai & Morteza Dehghani	Sex differences in moral judgments across 67 countries	Proceedings of the Royal Society B, 287, 20201201	2020	2	Moral	348,660	Gender	

Table 1 (continued)

Authors	Title	Publication Info	Year	Study/Experiment #	Type of Intuitions	# of Subjects	Demographic Feature	Notes
Cameron M. Curtin, H. Clark Barrett, Alexander Bolyanatz, Alyssa N. Crittenden, Daniel M.T. Fessler, Simon Fitzpatrick, Michael Gurven, Martin Kanovsky, Geoff Kushnick, Stephen Laurence, Anne Pisor, Brooke Scelza, Stephen Stich, Chris von Rueden & Joseph Henrich	Kinship intensity and the use of mental states in moral judgment across societies	Evolution and Human Behavior, 41, 5, 415–429	2020	1	Moral	321	Culture	
Florian van Leeuwen, Justin H. Park, Bryan L. Koenig & Jesse Graham	Regional variation in pathogen prevalence predicts endorsement of group-focused moral concerns	Evolution and Human Behavior, 33, 5, 429–437	2012	1	Moral	120,778	Pathogen prevalence	

Table 1 (continued)

Authors	Title	Publication Info	Year	Study/Experiment #	Type of Intuitions	# of Subjects	Demographic Feature	Notes
Sharaf Rehman & Joanna Dzionek-Kozłowska	The Chinese and American Students and the Trolley Problem: A Cross-cultural Study	Journal of Inter-cultural Communication, 20,2, 31–41	2020	1	Moral	122	Culture & Gender	
Edmond Awad, Sohan Dsouza, Richard Kim, Jonathan Schulz, Joseph Henrich, Azim Shariff, Jean-François Bonnefon & Iyad Rahwan	The Moral Machine experiment	Nature 563, 59–64	2018	1	Moral	39,610,000	Culture	
Krzysztof Sekowski, Adrian Ziolkowski & Maciej Tarnowski	Western Skeptic vs Indian Realist. Cross-Cultural Differences in Zebra Case Intuitions	under review	xx	1	Epistemic	415	Culture	
Dillon M. Luke & Bertram Gawronski	Temporal Stability of Moral Dilemma Judgments: A Longitudinal Analysis Using the CNI Model	Personality and Social Psychology Bulletin, <a href="https://doi.org/10.1177/01461672211035024">https://doi.org/10.1177/01461672211035024</a>	2021	1	Moral	195	Personality	

had missed. We stopped soliciting suggestions when our list reached 100 studies, though we certainly do not claim that our list is exhaustive.

In Table 1 you will find 100 studies by 205 different researchers comprising a total sample size of over 40 million participants.<sup>3</sup> Every single one of these studies reports demographic differences in philosophical intuitions, but only four of the papers in which these 100 studies appear are included in the References in Knobe's paper. In addition to being egregiously cherry-picked, some of the studies on Knobe's list actually report findings illustrating an aspect of demographic variation that is particularly important in discussions of philosophical methodology. We'll elaborate on this point in § 3. But first, let's look a bit more closely at the information set out in Table 1.

The first thing to say about Table 1 is that we have followed Knobe's lead in counting studies. Though his paper lists only 26 references, he tells us that he has cited 30 studies. There is no problem here, since many empirical papers report more than one study. On our list, each relevant experiment or study gets a separate line labeled with the number provided by the authors. When a paper reports only one study, we label it study 1. Another score-keeping point focuses on the number of participants. Every study on our list specifies the number of participants whose responses were included in the analysis of the results. That's the number we report in our "# of Subjects" column. Occasionally, when a paper reports several studies, a single person will participate in two or more of them. When that occurs, the same person will be counted two or more times in the "# of Subjects column". As best we can tell, Knobe has used the same rule in counting participants. In counting authors, we adopt the opposite strategy. If an individual is listed as an author on more than one paper on our list, he or she is counted only once. Here again, we believe we are following Knobe's lead. Table 1 includes papers by philosophers, papers by psychologists, and papers by groups that include both psychologists and philosophers. Knobe also cites papers in all three of these categories. Knobe does not tell us how he determined which studies reported participants' responses that counted as "philosophical intuitions". Rather, it seems, he relied on his own judgment. This was, we think, a reasonable policy since there is no agreement in the literature on how philosophical intuitions should be characterized (Cappelen 2012; Weinberg 2014; Machery 2017). We have also relied on our own judgment, and it may be the case that our judgment is somewhat more inclusive than Knobe's. In what we take to be a borderline decision, we have included studies that report differing responses to the Moral Foundations Questionnaire (Graham et al. 2011). So much for ground rules and score-keeping. We turn now to the substance of the studies.

There are two features of the studies on our list that deserve special mention: the wide range of philosophical intuitions investigated, and the wide range of demographic variables whose impact is reported. Let's start with the philosophical intuitions. We have grouped them into broad categories: moral intuitions, epistemic

<sup>3</sup> 40 million is a dramatic total, though it is rather misleading since there are three outliers each of which reports data from over 100,000 participants. But even if we drop these three, the total sample size of the remaining 97 studies is over 93,000 participants.

intuitions, intuitions about reference, intuitions about free will, and others. But under each of these headings there are studies reporting responses to a number of different philosophical intuition probes concerning thought experiments drawn from many different conversations in the philosophical literature. And for all of these, significant demographic variation has been reported. Sometimes the size of the effect associated with a demographic variable is rather small, sometimes it is considerably larger. We do not report “effect size” (a technical notion in statistics) for the studies on our list, because they are not always calculated by the authors of the papers. However, Machery (2017, Ch. 2) *does* report many effect sizes, including some that were not reported in the published paper and had to be calculated from the data provided.

One category of intuitions that we find particularly noteworthy are intuitions about the side-effect effect, one of the first, most important, and most widely studied effects that has been explored by experimental philosophers. As most readers are surely aware, the side-effect effect is more commonly called the “Knobe effect,” since it was discovered by Prof. Knobe. There are *ten* studies on our list that report demographic differences in intuitions evoked in response to Knobe effect scenarios. None of them are mentioned in Knobe’s paper.

The demographic factors explored in the studies on our list are also notably varied. There are studies reporting intuition differences associated with culture, native language, gender, age, personality, religiosity, cognitive style, and other demographic variables.<sup>4</sup> Of particular interest in metaphilosophical discussions are a pair of studies by psychologists Christina Starmans and Ori Friedman.<sup>5</sup> In the first study, they collected judgments about a Gettier case from 950 professors in humanities and science departments at 11 universities in the USA and Canada. They also collected data from 224 lay participants without advanced degrees. In the second study they collected judgments about a “skeptical pressure” case from a total of 835 academics at 25 American and Canadian universities, and from 112 laypeople. There were 75 philosophers among the participants of the first study and 129 philosophers among the participants in the second study. In both studies, they found dramatic differences between the judgments of the philosophers and the judgments of other academics, and comparably dramatic differences between the judgments of the philosophers and the lay participants. “The findings,” Starmans and Friedman note, “suggest that philosophers have a unique set of intuitions about the factors relevant for knowledge that is not shared even among other well-educated pursuers of knowledge” (Starmans and Friedman 2020, 22). What explains this phenomenon? Though Starmans

<sup>4</sup> We have adopted a broad interpretation of what counts as a “demographic” variable that includes personality traits and cognitive styles. All of these features might be used in the sort of metaphilosophical argument that challenges the reliability of philosophical intuitions. One demographic variable that does not appear on our list is race. This is because, to the best of our knowledge, there are no studies exploring racial differences in philosophical intuitions. And, as a helpful referee has pointed out, many publications in other areas (including medicine) fail to report or analyze the racial composition of the groups they have studied.

<sup>5</sup> The studies were first reported in Starmans and Friedman (2014) and are presented in much greater detail in Starmans and Friedman (2020).

and Friedman do not think they can offer a definitive answer, one of the hypotheses they propose is that “the study of philosophy leads to a narrowing of acceptable theories about knowledge that results in a sort of echo chamber of intuitions disconnected from how concepts are used by others” (Starmans and Friedman 2020, 26).

### 3 Why Some of the Studies Knobe Cites Suggest a Demographic Difference that Is of Central Importance in Debates about Philosophical Methodology

The fact that being an academic philosopher apparently affects intuitions in response to philosophical thought experiments suggests that the metaphilosophical implications of some of the studies that Knobe cites are quite different from those he proposes. Consider, for example, the study by Rose et al. (2019) which Knobe describes as finding “a striking lack of impact of stakes on epistemic intuitions.” (Knobe 2019, 32) Knobe is quite right. The study finds “virtually no evidence of a stakes effect on knowledge attribution” in 3530 participants from 19 countries on 5 continents, speaking 15 languages (Rose et al. 2019, 10). But why should one think one *would* find a stakes effect on knowledge attribution. The answer, and the main motivation for the Rose et al. study, is that a substantial number of philosophers, including many leaders in the field, have long insisted that there *is* a stakes effect on knowledge attribution, and have expended considerable time and ingenuity debating how this stakes effect is best explained. What the Rose et al. study establishes is not “the shocking degree to which demographic factors do not impact people’s philosophical intuitions” but the shocking extent to which people in one quite tiny demographic group – professional philosophers – have intuitions that differ from those of people in a wide variety of cultures, including their own. The important metaphilosophical lesson to be drawn is not that philosophical intuitions are “robust across demographic differences” but that they are *not*. Philosophers’ intuitions are often outliers.

The Rose et al. (2019) findings are particularly striking because of the wide range of cultures surveyed. But there are many other studies in which the majority of participants report intuitions that differ from those of many (perhaps most) philosophers, including one recently co-authored by Knobe himself (Tobia et al. 2020). We have assembled a partial list of those studies in Table 2. With a few exceptions, we know of no studies confirming our impression that many philosophers do not share the intuitions reported by most of the participants in these studies.<sup>6</sup> But if we’re right about that, then the studies in Table 2 indicate that professional philosophers are a demographic group whose intuitions differ from those of other people to (as Knobe might put it) a “shocking degree”. And, to borrow Knobe’s words again, “this is an important finding that promises to have profound implications for metaphilosophical questions.”

<sup>6</sup> The exceptions are Sytsma & Machery (2010), Horvath and Wiegmann (2016), and Starmans and Friedman (2020).

**Table 2** A far from complete list of papers reporting studies in which the majority of participants report intuitions that differ from those of many (perhaps most) philosophers

- Buckwalter, W., & Turri, J. (2015). Inability and obligation in moral judgment. *PLoS ONE* 10(8): e0136589. doi:10.1371/journal.pone.0136589.
- De Brigard, F. (2010). If you like it, does it matter if it's real? *Philosophical Psychology*, 23:1, 43–57.
- Haukioja, J., Nyquist, M., & Jylkkä, J. (in press). Reports from Twin Earth: Both deep structure and appearance determine the reference of natural kind terms. *Mind & Language*.
- Hindriks, F. & Douven, I. (2018). Nozick's experience machine: An empirical study. *Philosophical Psychology*, 31:2, 278–298.
- Horvath, J. & Wiegmann, A. (2016). Intuitive expertise and intuitions about knowledge. *Philosophical Studies*, 173, 2701–2726.
- Kim, H., Poth, N. Reuter, K. & Sytsma, J. (2016). Where is your pain? A Cross-cultural comparison of the concept of pain in Americans and South Koreans. *Studia Philosophica Estonica*, 9.1, 136–169.
- Knobe, J., & Fraser, B. (2008). Causal judgments and moral judgment: Two experiments. In W. Sinnott-Armstrong (Ed.), *Moral Psychology, Volume 2: The Cognitive Science of Morality*. Cambridge: MIT Press, pp. 441–447.
- Reuter, K., & Sytsma, J. (2018). Unfelt pain. *Synthese*, published online, April 2019, <https://doi.org/10.1007/s11229-018-1770-3>.
- Reuter, K., Phillips, D. & Sytsma, J. (2014). Hallucinating pain. In J. Sytsma (Ed.), *Advances in Experimental Philosophy of Mind*. London: Bloomsbury.
- Rose, D., Machery, E., Stich, S. & 43 additional authors (2019). Nothing at stake in knowledge *Nous*, 53, 1224–247. doi: 10.1111/nous.12211.
- Sytsma, J. & Machery, E. (2010). Two conceptions of subjective experience. *Philosophical Studies*, 151, 299–327.
- Tobia, K. P., Newman, G. E., & Knobe, J. (2020). Water is and is not H<sub>2</sub>O. *Mind & Language*, 35(2), 183–208.
- Turri, J., Rose, D & Buckwalter, W. (2017). Choosing and refusing: doxastic voluntarism and folk psychology. *Philosophical Studies*, published online Sept. 6, 2017. DOI 10.1007/s11098-017-0970-x
- Weijers, D. (2014). Nozick's experience machine is dead, long live the experience machine! *Philosophical Psychology*, 27(4), 513–535.

## 4 On Replication Studies: What Gets Replicated, and What Doesn't

Before concluding, a few sentences on replication studies are in order. In recent years, replication failures have become a major issue in psychology and in other disciplines (Chambers 2017; Machery 2020, 2021). Of the three sections in Knobe's paper citing work that supports his "robustness" hypothesis, the Replication Studies section is the longest. In that section he cites five papers that report failed replications of studies that had found demographic differences. However *all* the studies that could not be replicated were originally reported in just two papers: Weinberg et al. (2001) and Buckwalter and Stich (2013). It is true and important that a number of studies reported in those two papers could not be replicated, and no study that failed to replicate is included in Table 1. But it is also worth noting that those two papers were very explicit in posing a challenge to the widespread practice of using intuitions as evidence in philosophy, and thus they were, and were intended to be, *very* provocative. The controversy these papers generated acted as a lightning rod, drawing attention to the studies and motivating other researchers to attempt replications.

By contrast, none of the studies Knobe cites in his sections on Cross Cultural Studies and Developmental Studies challenged doing business as usual in philosophy, and none of them provoked much controversy. Thus they were *not* lightning rods attracting replication. And, to the best of our knowledge, there has never been a published attempt to replicate *any* of the studies that Knobe cites in those two sections. Thus, while two papers that report studies finding demographic differences in philosophical intuitions include studies that could not be replicated, we have no idea whether any of the studies Knobe cites in support of his robustness thesis can be replicated, because no one has ever tried.<sup>7</sup>

## 5 Conclusion

It's time to conclude. For the reasons we have set out in the previous four sections, we believe that Knobe's conclusion about the "robustness" of philosophical intuitions across demographic groups is not supported by the evidence. He cites thirty studies reporting no demographic differences; we have cited a hundred studies that do. But in addition to being unsupported by the evidence, we think Knobe's conclusion runs the risk of having a negative impact on research both in philosophy and in psychology. We are also concerned that Knobe's paper may have a negative impact outside of the academy.

To explain our concern, a bit of history will be helpful. About a quarter of a century ago, psychologists began to report that there are important cultural differences in cognitive and perceptual processes that had been assumed to be human universals, and this work led to the emergence of the field of cultural psychology.<sup>8</sup> Fifteen years later, Henrich et al. (2010) published a widely cited article pointing out that the vast majority of work in psychology relied on data from "WEIRD" participants – people from cultures that are Western, Educated, Industrialized, Rich and Democratic – and that most of these participants are undergraduate students in a small number of Western countries. Henrich et al. went on to argue that the findings of cultural psychologists often showed that WEIRD people are outliers, and that university undergraduates are outliers among the outliers. So while we know a great deal about the psychology of Western university undergraduates, we know much less little about the psychology of the rest of humanity. Though it is still the case that most psychological research relies on WEIRD participants, the situation is gradually improving. A substantial number of psychologists have recognized that generalizing from data about WEIRD undergraduates to conclusions about robust or innate features of the human mind can be seriously problematic, and the once tiny field of cultural psychology has become an important part of the discipline (Heine 2020).

<sup>7</sup> Failed replications should also be examined carefully. For instance, Machery et al. (2020) have shown that Cova et al.'s (2021) failed replication of Grau and Pury (2014), which reported that variation in intuitions about reference and about love were systematically related, was a false negative due to an insufficient sample size.

<sup>8</sup> For a classic overview of early work in this tradition, see Nisbett (2003).



The branch of experimental philosophy that explores demographic differences in philosophical intuition was inspired, and guided, by the founders of contemporary cultural psychology, most notably Richard Nisbett. A central concern was that much of analytic philosophy relies on the intuitions of professional philosophers who were (and still are) predominantly WEIRD, white and male, and have all spent long periods in what Starmans and Friedman describe as an “echo chamber of intuitions disconnected from how concepts are used by others.” The current situation in philosophy is similar to the situation in the early years of cultural psychology. There is some evidence that there may be important demographic differences in a broad range of philosophical intuitions. And there is a growing recognition that if there are demographic differences, this may pose a serious challenge to familiar philosophical methods. But at this point, we know very little about the scope of these demographic differences, and we know next to nothing about how stable they are or about the processes that bring them about. And if Professor Knobe’s cherry-picked portrait of the literature, and his well-deserved reputation as the leading figure in experimental philosophy convinces other researchers that philosophical intuitions are robust across demographic differences and that they may well have an innate basis, we may never find out.<sup>9</sup>

In recent years, philosophers have become increasingly aware of the problems engendered by undervaluing or ignoring the views of women, people of color and other marginalized groups. If Professor Knobe convinces the experimental philosophy community that most philosophical intuitions are robust and that we need not worry about demographic differences, it will impede the exploration of demographic differences in philosophical concepts and slow the process of exposing and coming to grips with the problems that result when the concepts of marginalized people, and the world views that incorporate those concepts are ignored. In some cases the impact of these problems may be largely confined to the very small world of academic philosophy. But in other cases, the impact is much wider and vastly more important. So there is a great deal at stake in this debate.

## References

- Beebe, J., R. Qiaoan, T. Wysocki, and M. Endara. 2015. Moral objectivism in cross-cultural perspective. *Journal of Cognition and Culture* 15: 386–401.
- Buckwalter, W., and S. Stich. 2013. Gender and philosophical intuition. In *Experimental philosophy*, ed. J. Knobe and S. Nichols, vol. 2. Oxford: Oxford University Press.
- Cappelen, H. 2012. *Philosophy without intuitions*. Oxford: Oxford University Press.
- Chambers, C. 2017. *The seven deadly sins of psychology: A manifesto for reforming the culture of scientific practice*. Princeton: Princeton University Press.
- Cova, F., B. Strickland, A. Abatista, A. Allard, J. Andow, M. Attie, J. Beebe, R. Berniūnas, J. Boudeseul, M. Colombo, F. Cushman, R. Díaz, N. van Dongen, V. Dranseika, B.D. Earp, A.G. Torres, I.R.

<sup>9</sup> One referee encourages us to speculate on what future research will find. But we are inclined to think that such speculation would be premature. What’s needed now is a lot more empirical work of the sort that Knobe’s paper may discourage.

- Hannikainen, J.V. Hernández-Conde, W. Hu, et al. 2021. Estimating the reproducibility of experimental philosophy. *Review of Philosophy and Psychology* 12: 9–44.
- Graham, J., B.A. Nosek, J. Haidt, R. Iyer, S. Koleva, and P.H. Ditto. 2011. Mapping the moral domain. *Journal of Personality and Social Psychology* 101: 366–385.
- Grau, C., and C.L. Pury. 2014. Attitudes towards reference and replaceability. *Review of Philosophy and Psychology* 5 (2): 155–168.
- Heine, S. 2020. *Cultural psychology*. Fourth ed. New York: W. W. Norton.
- Henrich, J., S. Heine, and A. Norenzayan. 2010. The weirdest people in the world? *Behavioral & Brain Sciences* 33 (2/3): 1–23.
- Horvath, J., and A. Wiegmann. 2016. Intuitive expertise and intuitions about knowledge. *Philosophical Studies* 173: 2701–2726.
- Kingsbury, J., and T. Dare. 2017. The philosophical use and misuse of science. *Metaphilosophy* 48 (4): 449–456.
- Knobe, J. 2019. Philosophical intuitions are surprisingly robust across demographic differences. *Epistemology and the Philosophy of Science* 56 (2): 29–36. <https://doi.org/10.5840/eps201956225>.
- Machery, E. 2017. *Philosophy within its proper bounds*. Oxford: Oxford University Press.
- Machery, E. 2020. What is a replication? *Philosophy of Science* 87 (4): 545–567.
- Machery, E. 2021. A mistaken confidence in data. *European Journal for Philosophy of Science* 11 (2): 1–17.
- Machery, E., C. Grau, and C.L. Pury. 2020. Love and power: Grau and Pury (2014) as a case study in the challenges of X-phi replication. *Review of Philosophy and Psychology* 11 (4): 995–1011.
- Nisbett, R. 2003. *The geography of thought*. New York: The Free Press.
- Rose, D., Machery, E., Stich, S. & 43 additional authors (2019). Nothing at stake in knowledge. *Noûs*, 53, 1 224–247. <https://doi.org/10.1111/nous.12211>.
- Starmans, C., and O. Friedman. 2014. *No, no, KNOW: Academic disciplines disagree about the nature of knowledge*. Austin Texas: Presented at the session on Commonsense Beliefs and Lay Theories at the Society for Personality and Social Psychology.
- Starmans, C., and O. Friedman. 2020. Expert or esoteric? Philosophers attribute knowledge differently than all other academics. *Cognitive Science* 44: 7. <https://doi.org/10.1111/cogs.12850>.
- Tobia, K.P., G.E. Newman, and J. Knobe. 2020. Water is and is not H<sub>2</sub>O. *Mind & Language* 35 (2): 183–208.
- Weinberg, J., S. Nichols, and S. Stich. 2001. Normativity and epistemic intuitions. *Philosophical Topics* 29: 429–460.
- Weinberg, J. 2014. Cappelen between rock and a hard place. *Philosophical Studies* 171: 545–553.
- Williamson, T. 2019. Armchair philosophy. *Epistemology and the Philosophy of Science* 56 (2): 19–25. <https://doi.org/10.5840/eps201956223>.

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