

Debate: Morality is fundamentally an evolved solution to problems of social co-operation

David N. Gellner: Introduction

This debate took place at the Association of Social Anthropologists (ASA) conference in Oxford on 21 September 2018, following the model of the Group Debates in Anthropological Theory at the University of Manchester (GDAT). It brought together and into confrontation two of anthropology's relatively new sub-fields (new at least in their current incarnations), namely evolutionary anthropology and the anthropology of morality and/or ethics. Although organized by a social anthropology professional body, the conference organizers – in line with the wishes of the ASA committee at the time of the call for conference proposals (in 2016) – sought to encourage participation from all forms of anthropology, including archaeology. It was therefore fitting that the debate should pose a question that is of interest across the broad spectrum of anthropology and well beyond, highlighting, we hoped, the venerable anthropological ambition to contribute to the resolution of long-standing and intractable philosophical questions.

The proposition, 'morality is fundamentally an evolved solution to problems of social co-operation', encapsulates a theory developed by Oliver Scott Curry, along with colleagues attached to the Institute of Cognitive and Evolutionary Anthropology (ICEA) and (since 2019) the Centre for the Study of Social Cohesion (CSSC) within the School of Anthropology and Museum Ethnography (SAME) in Oxford. This theory, known as 'morality as co-operation' or MAC, seeks to explain morality in a systematic cross-cultural manner by means of controlled and operationalized comparison (Curry 2016; Curry, Mullins & Whitehouse 2019). It seemed appropriate to ask Oliver to propose the motion and to select his own seconder. As prospective chair of the debate, I approached colleagues who might be interested in opposing the motion from

the perspective of the new anthropology of morality, and the idea of the debate began to take shape.¹

At the outset of the debate, and before any arguments had been heard, an indicative vote was held: thirteen people were in favour of the proposition, six were against, and there were six abstentions. At the end of the debate, another vote was held, which went entirely the other way: four people voted for the proposition, twenty-four against, and two abstained. It would be unwise to read too much into the votes, however. The debate stretched over two sessions with a coffee break in the middle. Many people who were present at the beginning were no longer in the room at the end; many people arrived, other parallel sessions having finished, who were not there at the beginning. (Owing to the sheer number of panels at the conference, it was not possible to clear two plenary sessions for the debate.)

As one might have expected, especially given the framing of Curry's theory as scientific, the debate set up an opposition between a reductionist evolutionary account of morality, on the one side, and a humanist and anti-reductionist stance, on the other (and, depending on your point of view, 'reductionist' should not necessarily be understood negatively; most of the time, reductionist explanation is just what science does and indeed it could be argued to be the glory of science). Is the co-operation of bees or ants anything to do with, or even remotely the same thing as, co-operation by humans? Can the social behaviour of closely related species tell us anything about the social behaviour of humans? If we put aside the insect-human and primate-human comparisons or contrasts, is it possible to compare co-operation and morality across very different societies? Does it make sense to assume that there is a single virtue of generosity or bravery that can be meaningfully compared in very different

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contexts, or even between different generations? Or is comparison simply impossible? Can issues of scale be ignored for the sake of comparison? Do they fatally undermine any attempt to construct systematic comparable datasets, or can they comfortably be accounted for within a scientific theory? If morality is not about co-operation, then what is it about?

Ultimately, whether you find any plausibility in attempts to generalize across time and space, with all the necessary simplifications that requires, may depend on whether you are a natural lumper or a natural splitter. Splitters will always prefer to focus on the cultural and historical differences – which undoubtedly are always there.

Oliver Scott Curry: Proposing the motion

What is morality? Where does it come from, how does it work, what is it for? Are there any universal moral values, or does morality vary radically from place to place? Scholars have debated these questions for millennia; now, thanks to science, we have the answers.

Converging lines of evidence – from game theory, ethology, psychology, and anthropology – suggest that morality is a collection of biological and cultural solutions to the problems of co-operation recurrent in human social life. For 50 million years, humans and their ancestors have lived in social groups (Shultz, Opie & Atkinson 2011). During this time, they have faced a range of different problems of co-operation, and they have evolved and invented a range of different solutions to them. Natural selection favoured adaptations for realizing the tremendous opportunities for mutually beneficial non-zero-sum interaction that social life affords. More recently, humans built on these beneficial biological foundations with cultural innovations – norms, rules, laws – that further boost co-operation. Together, these biological and cultural mechanisms provide the motivation for social, co-operative, and altruistic behaviour; they provide the criteria by which we evaluate the behaviour of others. And, according to the theory of ‘morality as co-operation’ (MAC), it is precisely this collection of co-operative traits – these instincts, intuitions, and institutions – that constitute human morality (Curry 2016).

What’s more, because there are many different types of co-operation (technically, many different stable strategies for achieving superior equilibria in non-zero-sum games), the theory leads us to expect, and can explain, many different types of morality. Kin selection explains why we feel a special duty of care for our families, and why we abhor incest. Mutualism explains why we form groups and coalitions (there is strength and safety in numbers), and hence why we value unity, solidarity, and loyalty. Social exchange

explains why we trust others, reciprocate favours, feel guilt and gratitude, make amends, and forgive. Conflict resolution explains why we engage in costly displays of prowess such as bravery and generosity, why we defer to our superiors, why we divide disputed resources fairly, and why we recognize prior possession.

As predicted by MAC, these seven moral rules – love your family, help your group, return favours, be brave, defer to your superiors, be fair, and respect others’ property – appear to be universal across cultures. My colleagues and I analysed 600 ethnographic accounts of ethics from sixty societies, comprising over 600,000 words (Curry, Mullins & Whitehouse 2019). We found, first, that these seven co-operative behaviours were always considered morally good. Second, we found examples of most of these morals in most societies. Crucially, there were no counter-examples – no societies in which any of these behaviours were considered morally bad. And third, we observed these morals with equal frequency across continents; they were not the exclusive preserve of ‘the West’ or any other region.

For example, among the Amhara, ‘flouting kinship obligation is regarded as a shameful deviation, indicating an evil character’. In Korea, there exists an ‘egalitarian community ethic [of] mutual assistance and cooperation among neighbors [and] strong in-group solidarity’. ‘Reciprocity is observed in every stage of Garo life [and] has a very high place in the Garo social structure of values’. Among the Maasai, ‘Those who cling to warrior virtues are still highly respected’, and ‘the uncompromising ideal of supreme warriorhood [involves] ascetic commitment to self-sacrifice . . . in the heat of battle, as a supreme display of courageous loyalty’. The Bemba exhibit ‘a deep sense of respect for elders’ authority’. The Kapauku ‘idea of justice’ is called ‘uta-uta, half-half . . . [the meaning of which] comes very close to what we call equity’. And among the Tarahumara, ‘respect for the property of others is the keystone of all interpersonal relations’ (all quoted in Curry, Mullins & Whitehouse 2019: 55).

These results suggest that there is a common core of universal moral principles. Morality is always and everywhere a co-operative phenomenon. Everyone everywhere agrees that co-operating, promoting the common good, is the right thing to do.

MAC does not predict that moral values will be *identical* across cultures. On the contrary, it predicts ‘variations on a theme’: moral values will reflect the value of different types of co-operation under different social and ecological conditions. Indeed, it was our impression that these societies did vary in how they prioritized or ranked the seven moral values. With further research, gathering new data on moral values in contemporary societies, we shall be able to explore the causes of this variation (Curry, Jones Chesters & van Lissa 2019).

Further research will also be needed to investigate whether there are additional types of co-operation that can explain additional types of morality; and whether this co-operative account can be extended to incorporate as yet under-theorized aspects of morality, such as sexual and environmental ethics. In this way, through the steady application of scientific method, we will discover whether co-operation fulfils its promise of providing the elusive 'grand unified theory of morality' that at last explains both the commonalities and the varieties of ethical experience.

Joanna Cook: Opposing the motion

In *The Hitchhiker's Guide to the Galaxy*, Douglas Adams tells us that many millions of years ago a race of beings created a super-computer, called Deep Thought, to calculate 'The Answer to Life, the Universe and Everything'. Deep Thought took seven and a half million years to run the program and on the Day of the Answer large crowds gathered to hear what the great computer had come up with. After warning them that they wouldn't like it, Deep Thought revealed that 'The Answer to Life, the Universe and Everything' is . . . 42. The problem, as Deep Thought pointed out to the unhappy beings, was that they had never actually known what the question was. '42' is a perfectly good answer; the problem is that it is not an answer to a question that anyone thought they had asked. Today's proposition, that morality is fundamentally an evolved solution to problems of social co-operation, presents us with a similar kind of answer.

To propose that morality is an evolved solution for co-operation is to explain 'what morality is, where it comes from, how it works and what it is for' (Curry 2016: 44). It is the equivalent of asking under what selective pressure morality arose, through what mechanisms it works, and what function it performs in the perpetuation of human evolution. It is to imagine a set of problems, and a set of dispositions, values, or behaviours as the solution to those problems, each generally of the same category or type though varying in specific content, with each instance of morality being a variant of a basic sort of 'solution'.

I find this representation of morality odd and unlikely. I have a series of objections, which I will seek to keep distinct in the course of what follows. My objections are empirical (I don't think that morality is 'like that'), theoretical (I don't find the argument convincing), and moral (I don't think that people *should* think of morality in this way). I will argue that the proposition is wrong and wrong-headed on three counts: first, it misunderstands the nature of explanation; second, it mischaracterizes co-operation; and, third, it mistakenly portrays morality. I will demonstrate that the consequences of these mistakes

are irrelevance, overconfidence, and functionalist sophistry.

Explanation is not like that

It is a mistake to think that in explaining morality as an evolutionary function we have 'explained morality'. It is one kind of explanation, one that is interesting, but largely irrelevant to the study of morality. The question 'What is morality for?' and the question 'What is the good life?' are different *kinds* of questions, and we need not assume that they will have the same answers. The degree to which any explanation will be sufficient or persuasive depends in part on the question that motivates it and the audience for whom it is intended. Explanation is always motivated – it is always an explanation in answer to a certain kind of question – and so explanation can never be simply *of* a thing (a value, a mood, a process, an organization, etc.). To co-opt an example from Putnam (1978: 42-3; cited in Laidlaw 2007), Professor X is found naked in the girls' dormitory at midnight. Now, this can be explained correctly by saying that (a) he was naked in the girls' dormitory at midnight, so he could not have exited the dormitory before midnight without exceeding the speed of light, and that (b) nothing can travel faster than the speed of light (and certainly not naked professors). This is an explanation for Professor X's night-time location, but it is not an explanation that is relevant to most of the questions that most people would have about the circumstances of his nocturnal adventures.

Neurobiology, cognitive psychology, and Darwinian evolutionary theory provide important insights into panhuman dispositions. Evolutionary developments in social co-operation in our hominin ancestors led to the domestication of fire, collective child-rearing, and co-operative hunting. These may have created strong psychological predispositions towards pro-social behaviour, but they reveal as much about morality as the Neolithic Revolution reveals about the fall of the Berlin Wall or the unifying magnetism of David Hasselhoff. The result of applying this method to the study of morality is a generality that is true, to the extent that it is true (and of course it can be argued that it is false: Haidt & Graham 2007; Haidt & Joseph 2011; see Wong 2006). However, it is irrelevant to any understanding of particularity, and fails to deal with any meaning that morality might have for anyone going about the business of living their lives. Explaining what morality is 'for' would be admirable if it was the answer to a question that anyone had asked, but it is not, and posed in this way the answer may as well be 42.

In this case, the explanation of morality as a solution to a problem is incoherent both because it is an unsatisfactory answer to questions anyone might have about morality, and because it presents a unitary 'Grand Unified Theory of Morality' (Curry, Mullins &

Whitehouse 2019), where no such theory could exist. My suggestion here isn't that one kind of explanation is somehow better or worse than another, but that there are different kinds of explanation, and they do the work of answering different kinds of questions. As such, a theory that explains morality as 'fundamentally' a solution to an evolutionary problem is both myopic and wrong-headed.

In his proposition, our opponent writes: 'Scholars have debated these questions [about the nature of morality] for millennia; now, thanks to science, we have the answers' (see also Curry 2016: 27). But even if we were persuaded that this proposition provided one sufficient explanation of morality (which, I will argue, it doesn't), it must surely be hubris to assert that because something 'scientific' has been said on a subject, that is the final word and nothing else of value may be contributed. That this proposition would pass by excluding most of what we normally mean by morality is important for assessing its persuasiveness. Our opponent tells us that we need find morality 'baffling' (Curry 2016: 27) no longer, because 'now, thanks to science, we have the answers' (above). This works because it both implicitly and explicitly excludes humanistic methods from the study of morality. As Laidlaw (2007) points out, the irony of finding a Grand Unified Theory of Morality in game theory is that it pits cognitive anthropology in a zero-sum relationship with humanist disciplines.

Co-operation is not like that

Putting critiques of the form of the proposition aside, does MAC make logical sense on its own terms? 'Co-operation' is an odd word because its meaning is almost entirely positive. It does not mean 'manipulative', 'orchestrating the will of others'; it does not mean 'lacking in autonomy'. It means 'working together towards the same ends', 'assistance and support', 'mutual benefit'. These are usually seen as positive traits or activities (as our opponents argue); 'co-operation' is understood to be a good thing. As such, 'co-operation' amongst humans is informed by a *normative* meaning, which is different to the meaning of 'co-operation' in evolutionary theory. Human co-operation is rarely a goal or value in and of itself, but rather a consequence of other goals and values as people seek to lead meaningful lives.

My understanding of evolutionary theory is that units of selection may be understood to be in 'competitive interactions' that have 'a winner and a loser', or 'cooperative interactions' that result in 'win-win situations' (Curry, Mullins & Whitehouse 2019: 48). However, only humans may be understood to 'co-operate' or 'compete' in the full human sense of having appropriate *motives*. Most selective competition does not require competitive motives and, as Midgley says: 'Absolutely none of it below the human level can

proceed from dynastic ambition' (1979: 446). All sorts of animals co-operate and respond to the co-operative behaviour of others. Yet bees, ants, and so on, are not thought of as moral in the way that humans are. Eighteenth-century naturalists may have projected their moral values on to the industry of the beehive (Daston 2004), but it is rare today to find anyone who thinks of bees as 'moral' because they co-operate. The 'technical' co-operation of nonhumans is a different order of co-operation to that of humans, informed by moral values, friendship, love, what have you. In this 'non-technical' sense, nonhumans *cannot* co-operate, or compete for that matter. To borrow from Midgley, bees and ants cannot co-operate 'any more than atoms can be jealous, elephants abstract or biscuits teleological' (1979: 439).

It might be countered that the proposition rests on a higher-order theory. Our opponents might concur that bees or ants are not moral, whilst still claiming that they are co-operating, and that human co-operation is of the same order. They may claim that they mean 'co-operation' in the technical sense with reference to humans and that humans have evolved 'morality' in order to make us do the thing that this term describes (whereas bees haven't because they presumably don't need to).

Once one concedes that human 'co-operation' is informed by complex motivation, then it cannot be used to refer to 'technical' co-operation equivalent to that of bees or what have you. Co-operation, when used in a 'non-technical' sense, is already morally loaded. To say that 'morality is fundamentally an evolved solution to problems of social co-operation' is either to shift the way in which one is using 'co-operation' to a sense which incorporates some understanding of complex motivation into the processes of natural selection, or it is to maintain a 'technical' use of the word, and therefore to necessarily discount motivation from the analysis. You can't have it both ways.

Morality is not like that

One problem with today's proposition is that it strongly suggests that an elemental analysis provides an explanation of morality. For example, elsewhere, our opponent has extended today's proposition to develop 'a novel taxonomy of moral values – a "Periodic Table of Ethics"' (Curry 2016: 37). Morality can be divided into its 'elements', which we can study, combine, and experiment with. In the process, 'the study of morality has at last become a branch of science' (Curry 2016: 29). The problem is that morality is not the sort of 'thing' that can have distinct units. This is the same mistake, in a reverse direction, that Aristotelian physics made when it extended an explanation of purpose from humans to inanimate matter: stones do not have purposes, but neither does morality have elements (Midgley 2001). A moment's reflection reveals that

moral concepts, friendship, bravery, humility, and so on, couldn't possibly be thought of as unchanging or remotely stable.

On one level, the level of the proposition, I may identify friendship, commitment, fidelity, and justice in some sort of external way, such that friendship at 50 may be equivalent to friendship at 15, or courage in Papua New Guinea may be thought of as the same 'thing' as courage in the Bronx. For such comparisons to take place, the comparison must be some unit of behaviour, which is taken to be comparable. It is something that is external to the subject, visible in speech or action, and democratic in the sense that all people experience it in the same way and to the same degree. The other sense of knowing what a moral concept means is knowing its value in depth, for example knowing the value of friendship. And that cannot be as democratic as the unitary model would have it because as soon as we introduce words like justice, fidelity, or friendship we necessarily introduce ideas of process and context. For us as historically and culturally located humans, the meaning of moral concepts 'deepens' as we learn. As a concept like friendship is known it is transformed, as are we through the knowing of it. The move is towards the personal, towards the ideal limit, not backwards towards a separable comparable public unit (Murdoch 2001 [1971]: 28).

My moral objection to the proposition is the lurking fatalism that informs it: the idea that moral deliberation, learning, and growth are illusory. Fatalism is seductive because it offers a simple explanation for why I am good, or why I fail to be so; why some people love their neighbours and others don't. The answer is to be found not in personal fallibility or the messy complexity of human life but in an evolved need for co-operation. This is not the calculating prudence of a Hobbesian social insurance policy; we do these things, it is thought, because they are the mechanisms by which the species is perpetuated. If one thing must, by definition, count on the terms with which people understand it, it is surely morality. Otherwise, to tell people that their more decent feelings are not for themselves, that they are the product of powers over which they have no influence, is not to take them at their word. It is to discount human freedom and will. The proposition doesn't explain morality; instead it claims that on morality's own terms, it isn't really there at all.

Conclusion

I am persuaded that humans have some innate adaptive machinery, and that this informs who we are and what we do, but I do not think that morality is *because* of this. I have demonstrated that, on its own terms, the proposition is absurd, since it links the positive moral value of co-operative behaviour to a subject for which

it can make no sense at all: *evolutionary* co-operation. Morality is not a 'solution': it cannot be 'for' something in the way that a deep socket wrench is *for* a ratchet head. Nor can morality be sufficiently accounted for through an elemental analysis: no single explanation of morality can account for the historically specific forms that morality takes, or the work of self-reflection, will, value, judgement, and hope. I can see why a unitary theory might be appealing, or at least it might seem to be appealing until you get the answer: 'co-operation' is no more useful or intellectually or morally satisfying an answer than '42'. Explaining morality as an evolved mechanism for co-operation means that my explanations of myself do not count for themselves, and as such it explains *away* all and any meaning that morality might have, individually or socially.

I propose that my argument, that moral concepts and ways of thinking have meaning in relation to motivation and context in culturally and historically situated life, provides a *better* account of morality than the proposition. To be clear, I am *not* arguing for an alternative explanation of what morality is *for*. I hope to have demonstrated that the question is wrong-headed and could never have a satisfactory answer. However, my approach helps us to account for moral striving, process, and variety. Of course, it would be possible to make an argument like this for any kind of concept: that our concept of the economy, or debt, or exchange, for example, is transformed through our engagement with it (indeed many would say that is basic to anthropological thought). My argument is not that other things couldn't be framed in this way; it is that moral concepts *must* be.

Mark Alfano: Proposing the motion 2

Many thanks for including a philosopher in your debate. I hope that my more normative perspective on this fascinating proposition will be interesting and useful.

In philosophy, we distinguish two aspects of ethics: axiology and deontics. Axiology is the theory of the good: it's meant to describe and explain the values that contribute to a person's welfare, either instrumentally or intrinsically. Deontics is the theory of right action: it's meant to describe and explain what it is for an action, policy, or institution to be obligatory, permissible, or impermissible.

A pair of related sources of values are needs (Weil 2002 [1949]) and capabilities (Sen 1985). On the one hand, needs characterize minimal conditions for human lives to be worth living. Needs range from the most obvious biological constraints, such as air, water, food, clothing, shelter, and touch, to more sophisticated and enculturated necessities. I'm sure that most of us here would feel naked and alone without access to

electricity and Wi-Fi. On the other hand, capabilities characterize the range of powers that transform a life of bare coping to one of flourishing. These include literacy, numeracy, emotional competence, practical reason, friendship, and a modicum of material and political control (Nussbaum 2000). Values answer to needs and capabilities. Something is valuable to the extent that it satisfies needs and supports capabilities, disvaluable to the extent that it frustrates needs and undermines capabilities.

If this is right, then to the extent that there are species-universal needs and capabilities, there will be species-universal values. Owing to our embodiment, finitude, and interdependency, we humans do in fact share many needs and capabilities. For that reason, it should be unsurprising that we also share many of our values. By rooting values in needs and capabilities, we avoid committing the naturalistic fallacy.

Elsewhere (Alfano 2016), I have argued that many values are human universals. This is consistent with the weightings of values differing both between members of distinct communities and between distinct members of the same community. Indeed, my impression is that there tend to be greater intra-community differences than inter-community differences. This perspective is also consistent with the preferred ways of implementing shared values differing from one community to the next. Just as different communities innovate ways to combine carbohydrates, sugars, fats, and fibres to produce the rich and diverse cuisines of the world, so they also innovate ways to combine values to produce the rich and diverse moral codes of the world. Anthropologists are in the business of describing in nuanced and empathic detail this diversity. In so doing, they help to answer Nietzsche's call, in *Beyond good and evil*:

We should admit to ourselves with all due severity exactly *what* will be necessary for a long time to come and *what* is provisionally correct, namely: collecting material, formulating concepts, and putting into order the tremendous realm of tender value feelings and value distinctions that live, grow, reproduce, and are destroyed, – and, perhaps, attempting to illustrate the recurring and more frequent shapes of this living crystallization, – all of which would be a preparation for a *typology* of morals (Nietzsche 2001 [1886]: 186; original emphases).

In this passage, Nietzsche simultaneously recognizes the variance in moralities and posits patterns within the variance. Such patterns are liable to arise because we often face trade-offs among our values. These trade-offs can be individual or social, synchronic or diachronic. I can't satisfy all of my needs and cultivate all of my capabilities simultaneously. Even over the

course of a lucky and well-lived life, no one manages to fulfil all of their sometimes-competing values. And of course, satisfying one person's needs can make it more difficult to satisfy another person's needs. If I eat all the food, you may go hungry.

Game theory is a mathematical abstraction that enables us to model these sorts of trade-off. In particular, the study of non-zero-sum games, in which one person's benefit needn't always come at another person's cost, helps us to think about relationships and encounters in which it's possible for both or all parties to benefit simultaneously. These are the sorts of relationship and encounter in which co-operation is possible, and it is here that the hypothesis of morality-as-co-operation comes into play. In particular, the MAC hypothesis holds that the function of morality is to help people to find, and motivate them to enact, co-operative solutions whenever possible.

What I take Curry, Mullins, and Whitehouse (2019) to have shown is closely connected to these claims.

They argue that there are seven pillars of morality: *family values, group loyalty, reciprocity, hawkish heroism, dovish deference, fairness, and property*. Each of these moral elements helps us to negotiate trade-offs in values that are endemic to the human condition, which is why they are associated with well-studied non-zero-sum games. Such games sometimes have multiple equilibria, which helps to explain why different solutions are visible or prominent in different communities. In addition, the exact implementation of an abstractly characterized solution can differ from group to group and within groups over time. What all solutions must do, however, is help those who play the game to pursue, promote, and protect their values. In other words, these solutions are answerable to whatever needs and capabilities are human universals. Where needs and capabilities differ, we should expect moralities to differ as well. Where the emphases on distinct needs and capabilities differ, again, we should expect moralities to differ as well. Where local conditions differ, we should expect the implementations to differ.

Thus, one reason I find MAC so appealing is that it enables us to predict when we will find agreement and when we will find disagreement. As such, it guards against the cosy cultural smugness that presumes a 'we' who are best, while at the same time avoiding the impotent relativism that affords no perspective from which to criticize any group's moral code, including that of one's own group. Assuming that others might place no value whatsoever on any of the elements identified by Curry's analysis risks repeating moral outrages like the family-separation policy that Australia practised towards Aboriginal children and so-called 'half-castes' who were the offspring of Aboriginal women and their white rapists. In an official report by James Isdell, a travelling inspector in Western Australia

in the early twentieth century, we find the following argument:

In collecting and transporting these waifs the question of separating them from their mothers against their wish is sure to crop up ... I am convinced from my own experience and knowledge that the short-lived grief of the parent is of little consequence ... I would not hesitate for one moment to separate any half-caste from its aboriginal mother, no matter how frantic her momentary grief might be at the time. They soon forget their offspring (Howard 1910: 9).

What Isdell is saying here is that Aboriginal mothers completely lack one of the seven core elements of morality: family values. He bases this claim on the presumption that 'we' are radically and incomparably different from 'them'. From the position of full-blown relativism, it is impossible to criticize this presumption.

Why would Isdell think such a thing? Perhaps he witnessed practices among Aboriginal families that he found strange and objectionable. Perhaps they coped with the grief of the loss of their children in ways he did not recognize as grief. He should, nevertheless, have interpreted their conduct more charitably. In philosophy, one guiding maxim is the principle of charity: in interpreting the utterances and conduct of another person, we should do our best to attribute beliefs, desires, emotions, and values that make sense from that person's perspective (Alfano 2016: 144-7). We should go out of our way not to attribute blatant irrationality, stupidity, or obliviousness to others. In *Fieldwork in familiar places*, Moody-Adams goes so far as to say that 'a judgment or belief can be a moral judgment or belief only if it fits into a complex of beliefs and judgments that, to a substantial degree, resemble one's own moral beliefs and judgments'. She goes on to suggest that the 'interpretation of unfamiliar moral practices is possible only because "ultimate" or "fundamental" moral disagreement is not' (Moody-Adams 1997: 55-6)

The principle of charity thus dictates that, when we come across a moral practice or norm that seems immoral or silly, we should always ask ourselves, 'What recognizable values might this practice serve? How might this norm be fostering co-operation?' We may not find a satisfactory answer in every case. However, if we want to make sense of each other in ways that do justice to our shared embodiment and interdependency, this is the most promising path forward.

Soumhya Venkatesan: Opposing the motion 2

If morality, or judgements of right and wrong/good and bad, were fundamental (foundational or basic) in

solving problems of social co-operation, then co-operative behaviour *would be* moral behaviour.

Let us consider two strong versions of this claim.

1. Morality is a necessary correlate of social co-operation.
2. All morality is geared to resolving problems arising from social co-operation.

Two non-human examples show that neither version of the claim holds up.

Version 1: The so-called 'social spiders' of Panama live in colonies and co-operate to make large webs and thus catch big prey. While researchers are clear that these spiders exhibit various modalities of co-operation – such as co-ordination and synchronization – and that social co-operation is an evolved behaviour, they make no suggestion that morality forms any part of spider sociality and co-operation. In other words, evolved co-operation is possible without morality.

Version 2: Here I turn to an experiment with capuchin monkeys. The attached video link (www.youtube.com/watch?v=-KSryJXDpZo) shows two monkeys each of which is rewarded following successful performance of a task. We see one of the monkeys throwing what can be described as a tantrum because it continues being rewarded with cucumber while the other monkey begins to receive grapes. Here, a notion of right and wrong, or fairness, comes from comparison and perceptions of inequity. The problem is not co-operation, it is comparison. It is an ego-centric emotional response. In other words, the spiders show that co-operation is advantageous, but that it does not have to engage morality. The experiment with the monkeys shows that co-operation can be one of the drivers of morality, but there may be others. Further, a sense of justice does not necessarily promote co-operation – it may just lead to a tantrum! Let us assume that the tantrum succeeds and the monkey gets a grape; it might lead us to conclude that tantrums are moral because they lead to social co-operation!

Let us turn to human societies. I read with interest the papers that inspired this debate and which outline the theory of MAC (Curry 2016; Curry, Mullins & Whitehouse 2019). MAC takes what are deemed to be seven well-established types of co-operation and uses these to explain seven types of morality. Each type of co-operation corresponds to a particular morality. Further, there is explicit recognition that co-operation cannot be taken for granted, but is a problem – one that has to be resolved by positing moral rules. The stage is set for the strong link between morality and co-operation, which Curry, Mullins, and Whitehouse (2019) make by presenting data from sixty diverse ethnographic studies in highly targeted ways, such that

the link between co-operation and morality is strongly established.

There are some methodological issues with the data collection and analysis. For instance, Curry, Mullins, and Whitehouse's (2019) study draws on data that was not collected with MAC theory in mind. This means that we cannot be sure about questions of translation of morally evaluative terms like 'good' or 'bad' and their valences: for example, are they focused on this-worldly behaviours or on other-worldly criteria? As a Tamil-speaker, I know that there are many words for 'the good' in Tamil and that it makes a difference which word people use when. This is also true of other languages. There is no sense that such subtleties were taken into account in the MAC analysis. Secondly, the majority of the ethnographies on which Curry, Mullins, and Whitehouse's (2019) paper is based focus on small-scale societies. This means that the sample is rather tilted towards particular kinds of societies to make more universalist claims. There are also some issues with identification. For example, 'helping group' (their second moral rule) is simply not the same thing as 'group loyalty'. Providing assistance does not equate to pledging allegiance. Further, are the different types of morality to be ordered in some way so that some co-operative behaviours are accorded greater priority than others? By whom? And how? These are themselves moral questions.

Finally, we might want to ask what constitutes the social. In the case of humans, of course, the social is not self-evident, but is imagined, expansive, and heterogeneous. It can include not only the living but also the dead, the yet to be born, and all manner of entities. This leads us to ask: social co-operation with whom? It also leads us to ask questions of time and scale.

These important points do not seem to enter into the fundamental (and I would suggest, 'just-so') association of morality with co-operation. What if co-operative – i.e. according to this theory, moral – behaviour at one scale actually does harm at a larger scale and over a longer duration?

Let me run the above through a couple of case studies. The anti-vaxxer movement in the United States provides us with a compelling example of why morality is not easily reconciled with issues of social co-operation. Maggie Koerth-Baker (2016) writes:

Vaccination is a deeply important part of public health. Whether to vaccinate or not isn't simply a decision you make for yourself or your family, independent of the choices of everyone else. Vaccines work in two ways. They decrease your personal risk of contracting a disease, and they reduce the number of potential hosts and carriers in the population. That means the more vaccinated

people there are, the harder it is for a disease to spread. Vaccines can stop an outbreak before it happens. This so-called 'herd immunity' protects children who are too young to get a vaccine, people who are too sick to get one, and anybody whose vaccination isn't working as well as it should.

Koerth-Baker is interested in why some people prefer not to vaccinate their children even though they are aware of the above. The story she tells us is not one of ignorance about the public health benefits of vaccines. It is one of choice *despite* the public health interest. Such vaccine rejection is also not on the basis of vaccine misinformation. Many anti-vaxxers know that the link between MMR and autism is spurious. They follow the science, but are unwilling to expose their child to the small element of personal risk that all vaccines carry. For instance, the measles vaccine carries a very small risk of encephalitis in children who are immune-compromised. This is very rare, but it is there. One woman quoted by Koerth-Baker says, 'I refuse to sacrifice my children for the greater good . . .'. Another anti-vaxxer mother says (against the argument that vaccinations are important for the population as a whole), 'Hey, wait a minute, my child is important, too!' Both women are unabashedly clear that they are doing the right thing for their children even if it is the wrong thing for the population as a whole. Here, helping family decisively trumps helping group.

The above leads us to ask more interesting questions about values, loyalties, and competing right actions than we get by simply looking for an instance of social co-operation and finding a morality that goes with it. It suggests that there are higher-order moralities that involve making choices between competing goods in ways that themselves have to be justified in moral terms.

My second case study is male-child preference, which is endemic in India. There are economic reasons (e.g. marrying off female children costs a lot of money because of dowry and other resource-intensive demands made on parents of girls), but a key reason for male-child preference among Hindus is the performance of death rituals, both at the time of death and every year for ancestors, named and unnamed. This repays debts to ancestors and thus secures their benevolence and ensures the prosperity of the family. Huge numbers of rituals and pseudo-scientific procedures are performed to ensure the birth of a son. No such procedures exist to ensure the birth of daughters. In the language of 'morality as co-operation theory', we can say that having sons helps the family (co-operation) and constitutes the fulfilment of an obligation to family (morality).

Now, what happens when helping the family in this way leads to sex-selective abortion (which is against the

law, yet is prevalent) or leads to neglect of daughters and greater female mortality? We end up with what has been described as India's 'missing women' problem. According to the 2011 Census of India, there are 940 women for every 1,000 men in India. This means 63 million women are statistically missing.

Shareen Joshi (2014) cites statistical data to demonstrate a correlation between gender imbalance and increased crime. She draws on diverse disciplines – evolutionary psychology, biology, and sociology – to explain this correlation. The overall argument is that men are more likely to commit violent crimes if there are fewer women around. We may be suspicious of an explanation that moves from correlation to causation, but the social problems of India's missing women and of male preference are indisputable across a number of fields. It hampers the abilities of men to move into adulthood via marriage, can cause sexual frustration, increased levels of sexual violence, including forced prostitution of girls, and so on. Attacks on girls threaten family reputation and honour, leading to sequestration of girls within the home and to increased son preference. This is a vicious cycle. What is good for the family – giving birth to sons, not daughters – leads to problems at multiple levels.

It is also difficult to find an evolutionary argument for son preference. Destroying viable fetuses or neglecting live children makes little to no sense in terms of the propagation of genes. Here, in any number of ways, helping family is decisively not helping group. Two forms of co-operation come into conflict. Can they be reconciled? The Indian government and countless NGOs have been grappling with this problem for a long time. The answer is not as simple as the motion might have us believe. There is no input/output machine that allows us to put in the problem of social non-co-operation (whether that of anti-vaxxers, or families who destroy unborn daughters or treat living ones badly) and come out with a morality that will turn non-co-operation into co-operation.

Conclusion

Are there some universal moral tenets, and can we explain them in evolutionary terms as arising to resolve problems of human social co-operation? Perhaps yes, if we restrict ourselves to what we might call first-order morality: that is, basic rules, framed in terms of right and wrong, that enable productive, or at least non-agonistic, relations between people who need to live together and co-operate either all the time (family) or regularly (group). Such rules may be systematized and take on an obligatory nature that might be law-like in application.

Does this encompass all morality: that is, is it enough to think of morality in these terms? I would say,

absolutely not. Indeed, the far more anthropologically and philosophically interesting questions lie in what we might think of as higher orders of morality. These higher orders of morality, which James Laidlaw (2002) terms ethics, are attempts to answer the question: how ought one to live?

Attempts to answer this question individually or collectively involve reflexive scrutiny of first- and higher-order moralities. A focus on ethics can ask how people make choices between competing obligations or groups where these choices are themselves framed as moral. That is to say, people justify their particular choices in terms of right and wrong, values and priorities. Such choices may be contingent, and they may involve compromise. They also usually involve some element of evaluation, education, and persuasion – also made on ethical grounds. They contain elements of practical and abstract reasoning. We can see sustained and systematic questioning of moral systems, particular life projects, or collective movements towards new moralities (e.g. valuing sons and daughters equally). This is all open to anthropological analysis, leading to insights about individual and collective life as it is lived or sought to be lived. It deepens our understanding about the interplay between public and private domains, and between, for instance, politics, education, and religion.

Most importantly, higher-order moralities do not simply 'arise' as evolved solutions to particular problems. They are not mechanistic. Rather, they are the products of *longue durée* projects that move backwards and forwards, gaining purchase at some times and faltering at others (mass vaccination is a good example). People and institutions throw their weight behind or against them; they are subjects of moral education. Changes in sociality and technology affect them. New things that we can do open up new questions of 'What should we do?'

I am thinking here about Sharon Kaufman's wonderful work on end-of-life dilemmas (2000). Her focus is people who are in long-term vegetative states and are kept alive only by technology. There is no 'just-so' story about co-operation and associated morality that can be told about how the person's family, caregivers, or the state should deal with such situations. Any serious attempt to understand such end-of-life decisions must take into account the complexity, cost – emotional, monetary, social, and physical –, and other elements that surround them.

In sum, do I think it is productive to think about morality as co-operation or as fundamentally an evolved solution to problems of social co-operation? No. It is highly reductionist and does not do justice to the complexity of moral and ethical attitudes, behaviours, and reasoning.

Closing statements and responses

Soumhya Venkatesan

There is a theory that biology can be reduced to chemistry; chemistry to physics; physics to mathematics; and mathematics to logic. It is a controversial theory but let us run with it. Would it mean, then, that we can do away with all these disciplines and keep only logic? Or that the insights from one are valuable insofar as they can be pared down to service another? Of course not! Each discipline deepens our understanding of the world in particular ways that are important in their own terms.

We would not thus argue that each of these disciplines exists to serve another, more fundamental discipline. It can do, but that is not why biologists or chemists do what they do.

We are ethnographers and anthropologists for a reason. It is to understand the rich tapestry of human life as it is lived and conceptualized in different times and places. We can, of course, generalize from ethnographic descriptions about commonalities that seem to exist across different human societies. However, positing fundamentals as if they were enough to understand what there is to know about human lives and sociality seems unnecessarily reductive and hubristic, especially when the careful analysis of data by the ethnographer is stripped to its bare bones by reducing it to a set of key words.

There is a reason why a social anthropologist would object to the premises of this motion. Not only is it overly simplistic, it also does not pay attention to tensions and contradictions within the matrix of terms that it identifies as pertaining to morality and employs as such. Knowing that helping family is universally seen as moral and exists fundamentally as a solution to problems of co-operation does not tell us, for instance, who counts as family. It also does not tell us why some kin are unwanted to the point of their destruction. Equally, it does not tell us how helping family and helping group can clash, leading to complex decisions about which to prioritize, and justifications for such decisions. Finally, it does not show the very conscious work that goes into trying to change particular situations, itself phrased in moral terms, and why such attempts might meet with limited or no success.

A good universal or fundamental proposition gives us an 'Aha!' moment. It unifies diverse observations on a subject, or changes the grounds of our understanding. We have to work hard to find counter-examples. Does this proposition do any of that? No! We can immediately discern holes – at different scales, for instance, where a good at one level is not at another. We also note, straightaway, the very many occasions when moralities and ethical projects come into and lead to conflict, not co-operation. Here,

positing some kind of fundamental link between morality and co-operation is unconvincing. Even taking such a link as a heuristic seems to lead more to the narrowing of understanding than to its expansion.

Mark Alfano

Our opponents labour under three misconceptions. First, MAC is a scientific theory. It is not a self-help guide or a how-to manual. Yet Cook says that MAC does not illuminate the 'meaning that morality might have' for ordinary people, and Venkatesan says that MAC does not furnish a 'machine that allows us to put in the problem of social non-co-operation . . . and come out with a morality'. Just as we distinguish between psychology and psychiatry, so we should distinguish between the science of morality and an agony aunt. Both are valuable and yet are distinct. The fact that the former is not the latter is no objection. Indeed, while MAC differs from utilitarianism, this point of clarification is over two centuries old; it can be found in both Bentham (1961 [1789]) and Sidgwick (1907 [1874]). In demanding that MAC provide not only a criterion of rightness but also a tractable, consensus-generating decision procedure, our opponents commit a category error.

The second confusion originates in our opponents' misunderstanding of functionalism. The function of a knife is to cut. It would be silly to question this truism by pointing out that one can cut things without a knife. According to MAC, the function of morality is to foster co-operation. It is silly to question MAC by saying that people can co-operate without being moral. Yet both opponents seem to think that the fact that nonhuman animals co-operate is a knock against MAC. This is entirely consistent with MAC, which says that the function of (human) morality is to foster co-operation. The fact that we use knives to cut while other critters use their claws to cut does not mean that the function of a knife is not to aid in cutting. The fact that we use morality to foster co-operation while other critters use other means to foster co-operation does not mean that the function of morality is not to foster co-operation.

Finally, Cook accuses us of hubris because MAC attempts to explain scientifically something that plays a role in people's lived experience. We recognize that MAC may strike laypeople as mistaken, but so did the germ theory when it was first proposed. The fact that the folk conception of X is inconsistent with the correct scientific theory of X does not undermine the theory. People typically manage to navigate their biological existence well enough to get by. Likewise, people typically manage to navigate their moral existence well enough to get by. It's not an insult to say that the heuristics they rely on are fallible, and they may be grateful for the correction. Our guiding assumption is that the folk are somewhat-reliable guides to *whether* solutions work in contexts with which they are familiar,

but that they are less reliable when it comes to *why* these solutions work. As I've argued elsewhere (Levy & Alfano forthcoming), cultural knowledge is often passed from one generation to another only because it is encased in a chrysalis of falsehoods. Science takes advantage of the folk's contextual reliability while replacing falsehood with sound theory. The evidence base for MAC includes a large and diverse ethnographic dataset, a large and diverse psychometric dataset, and a thorough literature review. This may not be perfect, but it demonstrates more respect for both lay and expert opinion than Cook's insistence on her own unsubstantiated and idiosyncratic conceptions of morality and co-operation.

Joanna Cook

As David Gellner sets out in his introduction, the motion for this debate, that 'morality is fundamentally an evolved solution to problems of social co-operation', was established in the spirit of contributing to long-standing philosophical questions that are of interest across the breadth of anthropology. In my contribution to the debate, I argued against the motion on three points: first that the proposition is irrelevant and over-confident; second, that it is illogical; and, third, that it imposes an unsuitable analytic frame on morality. I argued that if the proposition were to pass, it would displace, and not just supplement, any and all serious humanistic engagement with historical contingency and cross-cultural difference. Furthermore, those who had until now believed themselves to be aspiring to the good, and seeking to live well for its own sake, would be shown not really to be doing so. Belief, desire, passion, reason, and the will would be traduced as what one of our opponents has described as 'prescientific folk ontologies' (Curry 2016: 42).

In his introduction, Gellner writes that it comes down to whether you are a 'lumper' – seeking to find generalizable truths across space and time – or a 'splitter' – seeking humanist and anti-reductionist insights into the situated stuff of human life. In this formulation, Soumhya Venkatesan and I are splitters rather than lumpers: committed humanists who emphasize differences across contexts and scales. Certainly, I made a case for understanding morality in relation to motivation, context, and process. I argued that moral terms are necessarily evaluative and, because those values have history and are transformative, they cannot be taken to be unitary equivalences outside of the lives in which they are lived and the embodied practices through which they are prescribed, cultivated, and required. Yet, I ask myself, am I really a splitter? In emphasizing the processual and contextual nature of morality, do I necessarily discount large-scale cross-cultural comparison or panhuman evolved predisposition?

I would say emphatically not. Comparison at different scales is arguably the meat and bones of our discipline. As Candea writes in his recent work about 'the impossible method', comparison 'comes in a multiplicity of forms which give a procedural common ground to the discipline, shared means for our often irreconcilable purposes' (2019: 16). Comparison is not the same as monocausal explanation. It brings anthropologists together from across the breadth of the discipline and, teasing out the methodological challenges of comparative research, affords the further possibility of contributing to interdisciplinary large-scale inquiry (cf. Astuti & Bloch 2010; 2015; Luhrmann 2017; 2020; Luhrmann, Padmavati, Tharoor & Osei 2015). Though the form of debate lends itself to splitting, between lumping and splitting, perhaps a lumpier and fairer conclusion is that most good anthropology does a bit of splitting and a bit of lumping too.

Oliver Scott Curry

Is morality an evolved solution to problems of social co-operation, as MAC maintains? Our opponents agree that evolution has favoured 'innate', 'panhuman', 'psychological predispositions towards pro-social behaviour', and that co-operation is seen as a positive trait (Cook); that there is a 'strong link' between co-operation and morality, and that these dispositions can explain 'universal tenets' of 'first-order morality' (Venkatesan). So what's left to argue about?

First, Cook claims that no one has ever asked 'what morality is for'. This is simply false. Lots of people have asked this question; and many have answered 'co-operation' (see, e.g., Table 1 in Curry 2016).

Second, Venkatesan argues that spiders co-operate, but spiders are not considered moral, therefore 'morality is not a necessary correlate of social co-operation'. But that was never the argument. MAC argues that morality is the name we give to the specific ways that humans co-operate. Whether we give this name to co-operation in other species is irrelevant.

Third, Venkatesan argues that monkeys are fair, and fairness is not co-operative, therefore not all morality is co-operation. However, the second premise is false. Fairness resolves conflicts over divisible resources (a non-zero-sum bargaining problem); we discuss this under number 6 on our list of co-operative morals. And yes, this problem can be solved by moral emotions, including moralistic anger, a burning sense of injustice, righteous indignation. Incidentally, this is a case where the researchers *do* give the name 'morality' to co-operation in other species (Brosnan 2014).

Fourth, Cook asserts that co-operation is irrelevant to the question 'What is the good life?', and 'fails to deal with any meaning morality might have for anyone going about the business of living their lives'. On the contrary, MAC suggests that the good life is the

co-operative life. Hence living the good life means striving to be loving, loyal, trustworthy, brave, humble, fair, respectful, and so on. It means deliberating and reflecting on such questions as: What's best for me, for my family, for my country? What have I promised, what am I owed? Will I be proud or ashamed of acting in this way? Did she get more than me? Who was here first? The immense value of co-operation in everyday life also explains why studies find that morality means more than any other trait for how we see ourselves and others (e.g. Strohminger & Nichols 2014). MAC predicts that this is what morality will mean irrespective of whatever lay theories people hold. This was certainly our impression when – far from 'exclud[ing] humanistic methods' (Cook, above) – we consulted over 600 ethnographic accounts of morality in everyday life.

Fifth, Venkatesan levels two methodological criticisms: our methods 'in no sense' take into account the subtleties of language, rendering our results unreliable; and these results, based on small-scale societies, may not generalize to large-scale societies. The first charge is simply false. Our study used standard cross-cultural methods to analyse the reports of hundreds of ethnographers, each of whom spoke the local language. While no method is perfect, and mistakes are always possible, Venkatesan provides no criticism of these methods, no reason to doubt the linguistic abilities of the ethnographers, and no evidence that mistakes were actually made, let alone sufficient mistakes to undermine our central finding. On the second point, the aim of our study was to test whether co-operative theories of morality – developed for the most part in large-scale Western societies – applied everywhere, including in small-scale non-Western societies. They do. It is surprising that Venkatesan now questions whether these theories apply in large-scale societies. In any case, they do, as recent studies of moral values in the United Kingdom and the United States attest (Curry, Jones Chesters & van Lissa, 2019).

Sixth, Cook argues that co-operation cannot 'account for the historically specific forms that morality takes' and is 'irrelevant to any understanding of particularity'. On the contrary, MAC predicts that variation in moral values will reflect variation in the value of co-operation under different conditions. It also predicts that, because people in different societies scrutinize, question, discard, and invent new and different ways of co-operating, morality will exhibit local historically contingent variation. So, far from opposing the idea that 'moral concepts . . . have meaning in relation to motivation and context in culturally and historically situated life', MAC explains why they do. In any case, the argument that morality varies in its particulars does not, by itself, establish that its various particulars are not co-operative.

Finally, Venkatesan notes that 'forms of co-operation can come into conflict', and that co-operation at one scale can do 'harm at a larger scale and over a longer duration'. She argues that a 'higher order' non-co-operative theory of morality is needed to adjudicate such conflicts. Yes, it is true that having to choose between different co-operative opportunities gives rise to moral dilemmas (Curry, Mullins & Whitehouse 2019: fn. 3), but no higher non-co-operative theory is needed. Forced, for example, to choose between helping family or helping group, MAC mandates the more valuable co-operative option, the 'greater good'. The choice is justified using the same underlying moral criterion: 'Does this behaviour promote co-operation?'

So, there is agreement about the fundamentals of the proposition, and there are no substantive objections. Co-operation emerges unscathed as the best available explanation of morality. A reasonable audience would surely vote in favour of the motion.

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NOTES

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¹ The text follows very closely what was actually said on the day, but small adjustments have been made in response to suggestions from two anonymous reviewers.

REFERENCES

- ALFANO, M. 2016. *Moral psychology: an introduction*. Cambridge: Polity.
- ASTUTI, R. & M. BLOCH 2010. Why a theory of human nature cannot be based on the distinction between universality and variability: lessons from anthropology. *Behavioral and Brain Sciences* 33, 83-4.
- & ——— 2015. The causal cognition of wrong doing: incest, intentionality, and morality. *Frontiers in Psychology* 6, 136 (available online: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4332309/>, accessed 19 February 2020).
- BENTHAM, J. 1961 [1789]. *The utilitarians: an introduction to the principles of morals and legislation*. Garden City, N.Y.: Doubleday.
- BROSNAN, S.F. 2014. Precursors of morality: evidence for moral behaviors in non-human primates. In

- Empirically informed ethics: morality between facts and norms* (eds) M. Christen, C. van Schaik, J. Fischer, M. Huppenbauer & C. Tanner, 85-98. Cham: Springer International.
- CANDEA, M. 2019. *Comparison in anthropology: the impossible method*. Cambridge: University Press.
- CURRY, O.S. 2016. Morality as cooperation: a problem-centred approach. In *The evolution of morality* (eds) T.K. Shackelford & R.D. Hansen, 27-51. Cham: Springer International.
- , M. JONES CHESTERS & C.J. VAN LISSA 2019. Mapping morality with a compass: testing the theory of 'morality-as-cooperation' with a new questionnaire. *Journal of Research in Personality* **78**, 106-24.
- , D.A. MULLINS & H. WHITEHOUSE 2019. Is it good to cooperate? Testing the theory of morality-as-cooperation in 60 societies. *Current Anthropology* **60**, 47-69.
- DASTON, L. 2004. Attention and the values of nature in the enlightenment. In *The moral authority of nature* (eds) L. Daston & F. Vidal, 100-26. Chicago: University Press.
- HAIDT, J. & J. GRAHAM 2007. When morality opposes justice: conservatives have moral intuitions that liberals may not recognize. *Social Justice Research* **20**, 98-116.
- & C. JOSEPH 2011. How moral foundations theory succeeded in building on sand: a response to Suhler and Churchland. *Journal of Cognitive Neuroscience* **23**, 2117-22.
- HOWARD, R.B. 1910. *Report of the Chief Protector of Aborigines for the year ending 30th June 1909*. Perth: Simpson, Government Printer.
- JOSHI, S. 2014. Missing women and violent crimes in India: more than a correlation? *Georgetown Journal of International Affairs* **15**, 35-43.
- KAUFMAN, S.R. 2000. In the shadow of 'death with dignity': medicine and cultural quandaries of the vegetative state. *American Anthropologist* **102**, 69-83.
- KOERTH-BAKER, M. 2016. Values and vaccines. *Aeon*, 16 February (available online: <https://aeon.co/essays/anti-vaccination-might-be-rational-but-is-it-reasonable>, accessed 19 February 2020).
- LAIDLAW, J. 2002. For an anthropology of ethics and freedom. *Journal of the Royal Anthropological Institute* (N.S.) **8**, 311-32.
- 2007. A well-disposed social anthropologist's problems with the 'cognitive science of religion'. In *Religion, anthropology, and cognitive science* (eds) H. Whitehouse & J. Laidlaw, 211-46. Durham, N.C.: Carolina Academic Press.
- LEVY, N. & M. ALFANO forthcoming. Knowledge from vice: deeply social epistemology. *Mind*.
- LUHRMANN, T.R. 2017. Knowing God. *Cambridge Journal of Anthropology* **35**, 125-42.
- (ed.) 2020. *Mind and Spirit: a comparative theory*. *Journal of the Royal Anthropological Institute* (N.S.) **26**: S1.
- , R. PADMAVATI, H. THAROOR & A. OSEI 2015. Differences in voice-hearing experiences of people with psychosis in the USA, India and Ghana: interview-based study. *British Journal of Psychiatry* **206**, 41-4.
- MIDGLEY, M. 1979. Gene-juggling. *Philosophy* **54**, 439-58.
- 2001. Why memes? In *Alas, poor Darwin: arguments against evolutionary psychology* (eds) H. Rose & S. Rose, 67-84. London: Vintage.
- MOODY-ADAMS, M.M. 1997. *Fieldwork in familiar places: morality, culture, and philosophy*. Cambridge, Mass.: Harvard University Press.
- MURDOCH, I. 2001 [1971]. *The sovereignty of the good*. London: Routledge.
- NIETZSCHE, F. 2001 [1886]. *Beyond good and evil* (eds) R.-P. Horstmann & J. Norman; trans. J. Norman). Cambridge: University Press.
- NUSSBAUM, M. 2000. *Women and human development: the capabilities approach*. Cambridge: University Press.
- PUTNAM, H. 1978. *Meaning and the moral sciences*. London: Routledge.
- SEN, A. 1985. Well-being, agency and freedom. *Journal of Philosophy* **82**, 169-221.
- SHULTZ, S., C. OPIE & Q.D. ATKINSON 2011. Stepwise evolution of stable sociality in primates. *Nature* **479**, 219-22.
- SIDGWICK, H. 1907 [1874]. *The methods of ethics* (Seventh edition). London: Macmillan.
- STROHMINGER, N. & S. NICHOLS 2014. The essential moral self. *Cognition* **131**, 159-71.
- WEIL, S. 2002 [1949]. *The need for roots: prelude to a declaration of duties toward mankind* (trans. A. Wills). London: Routledge.
- WONG, D.B. 2006. *Natural moralities: a defense of pluralistic relativism*. Oxford: University Press.