

Speciesism and Tribalism: Embarrassing Origins

François Jaquet

This is a penultimate draft.

Please cite the published version that can be found [here](#).

Abstract: Animal ethicists have been debating the morality of speciesism for over forty years. Despite rather persuasive arguments against this form of discrimination, many philosophers continue to assign humans a higher moral status than nonhuman animals. The primary source of evidence for this position is our intuition that humans' interests matter more than the similar interests of other animals. And it must be acknowledged that this intuition is both powerful and widespread. But should we trust it for all that? The present paper defends a negative answer to that question, based on a debunking argument. The intuitive belief that humans matter more than other animals is unjustified because it results from an epistemically defective process. It is largely shaped by tribalism, our tendency to favor ingroup members as opposed to outgroup members. And this influence is distortive for two reasons. First, tribalism evolved for reasons unrelated to moral truths; hence, it would at best produce true moral beliefs accidentally. Second, tribalism generates a vast quantity of false moral beliefs, starting with racist beliefs. Once this intuition is discarded, little evidence remains that speciesism is morally acceptable.

Speciesism has always been a central notion in animal ethics. The claim that it is morally wrong was already pivotal in the book that opened this field of research, Peter Singer's *Animal Liberation* (1976). And, even though this claim is now accepted by a majority of animal ethicists, it is still debated over forty years later. This debate might understandably give a newcomer to the domain the impression of a stalemate. Despite rich and intense discussions, the lines have not moved much. Arguments, objections, and rejoinders have become increasingly complex, making the specialized literature even more specialized. But there is not much hope that this dispute will come to an end anytime soon. Critics of speciesism are not about to change their minds, and neither are their opponents. Or so one might suspect.

When a philosophical dispute seems stuck in an impasse, a promising approach is to appeal to debunking arguments—arguments to the effect that a critical belief in the dispute is unjustified because it stems from an irrelevant influence. This is the approach I want to take in this paper. More specifically, I will challenge the belief that humans matter more than other animals by arguing that it results from “tribalism,” an evolved tendency to favor ingroup members as opposed to outgroup members.

Here is the program: First, I am going to summarize the speciesism debate. Next, I will provide a brief introduction to debunking arguments in general and a sketch of my argument in particular. I will then show the influence of tribalism on speciesist beliefs and argue that this influence is epistemically problematic. After that, I will address a possible objection and discuss the relation between this argument and another one I developed elsewhere.

1. The Speciesism Debate

Speciesism is best defined as discrimination based on species membership (Horta, 2010). Just as racists are people who, in their practical deliberations, give more or less weight to individuals' like interests depending on their race, speciesists are people who, in their practical deliberations, give more or less weight to individuals' like interests depending on their species.¹ Suppose taking a nap is good for Kate the cat to some extent and taking a bath is good for Hugh the human to the same extent. Kate's interest in taking a nap and Hugh's interest in taking a bath are alike in the relevant sense. On the present definition, speciesists would nonetheless give Hugh's interest more weight than Kate's in their practical deliberation.

Once speciesism is construed along these lines, it very much appears that most people are speciesists. On the face of it, they seem to discriminate on the basis of species membership, giving more weight to humans' interests than to the like interests of other animals. Indeed, it is a straightforward observation that most people treat animals in all sorts of ways in which they would never treat their conspecifics. For nothing in the world would they eat human meat, wear human leather, or visit human zoos—yet they eat meat, wear leather, and visit zoos.

Some reject this empirical claim and maintain that, upon closer inspection, we do not discriminate against animals. We grant equal consideration to all similar interests; the fact is simply that humans have a stronger interest in not being exploited. Or, according to a related line of objection, we do discriminate against animals but not on the basis of species. Instead, we discount their interests because they lack some typically human feature—they are not rational, self-conscious, or capable of language. On either assumption, most people are not speciesists.

Unfortunately, these descriptions of people's moral psychology are inconsistent with the existence of so-called "non-paradigmatic humans," humans whose interests are not particularly sophisticated because their mental capacities do not exceed those of many animals. That we would refuse to farm and kill severely mentally disabled humans to eat their flesh or wear their skin is obviously unobjectionable—this is an understatement. But it is evidence of our speciesism (Caviola et al., 2019; 2012). Since we favor humans regardless of their interests and mental abilities, it must be acknowledged that we discriminate on the basis of species membership.

This is not to say that we are doing anything wrong. In fact, some authors concede everything I have just said and yet defend the status quo, arguing that

¹ A reviewer for this journal suggested including a normative element in the definitions of racism and speciesism, which would then be characterized as *unjustified* discrimination based on, respectively, race and species. As I have criticized this move elsewhere (Jaquet, 2019b), I will stick to a descriptive account. Nothing substantial I will say hinges on this point.

“speciesism is not only plausible; it is essential to right conduct” (Cohen, 1986: 867). In this view, speciesism does resemble racism in that it is a form of discrimination, but it differs from racism in that it is a *justified* form of discrimination. While we owe the same consideration to all humans regardless of their race, we owe them more consideration than we do other animals. Importantly, the main piece of evidence for the latter claim is the corresponding widespread intuition. Richard Posner puts it bluntly: “I do not feel obliged to defend this reaction; it is a moral intuition deeper than any reason that could be given for it” (Posner & Singer, 2001: Part 2, §4; see also Nozick, 1983; McCloskey, 1984).²

By contrast, antispeciesists hold that animals’ interests matter no less than the like interests of humans. On reflection, the claim that humans have a higher moral status has counterintuitive implications, too. For instance, it would have nothing to object to our neglecting the interests of pacific and intelligent aliens (Rachels, 1990: 183–184; DeGrazia, 1996: 60). It also has moral status depend on a merely biological feature—namely, species membership. Yet, such features appear to be irrelevant. Intuitively, the consideration you are owed does not depend on your skin color, sex, or weight (Rachels, 1990: 183; McMahan, 2005: 61, 2002: 214; Jaquet, 2020).

A plausible diagnosis of this debate is that its participants simply have different intuitions. That they do rely on their intuitions is of course unexceptionable. According to most moral epistemologists, intuition is our primary form of evidence in ethics. Moral propositions are plausible to the extent that they appear to be true or cohere with other moral propositions that do (Rawls, 1971; Huemer, 2005; McMahan, 2013). Still, this diagnosis may warrant the concern that we have reached a cul-de-sac, for there is not much we can do as philosophers when a disagreement reduces to a conflict of intuitions. Recent discussions in other domains nevertheless suggest one option: appealing to debunking arguments.

2. Debunking Arguments—A Recipe

Most people believe that humans matter more than other animals. It is certainly possible that the best explanation of this belief lies in its truth—in the moral fact that humans matter more than other animals. Maybe, that is, we access this fact via moral intuition, and a satisfactory account in animal ethics must accommodate this specific intuition (Kagan, 2016: 7). Another possibility, though, is that this belief is due to an irrelevant influence, which would make it an appropriate target for a debunking argument. So, let us see what debunking arguments are and how they operate.

Sunday morning. As Pam gets home after a night out, she has a visual

² Most speciesist philosophers do defend their reaction. However, their defenses do not ground it in more intuitive propositions. For example, it is not self-evident that entities that belong to a kind whose typical members are persons count more than those that do not (Cohen, 1986; Scanlon, 2000), nor is it especially intuitive that beings who possess the genetic basis for moral agency count more than those who do not (Liao, 2010). These defenses of speciesism are best construed as attempts to make sense of a deeply intuitive belief.

experience of a kangaroo sitting at the kitchen table. She naturally forms the belief that a marsupial broke into her house. Suddenly, however, she remembers that she ingested mushrooms earlier—highly hallucinogenic mushrooms indeed, of a kind that provokes hallucinations involving marsupials in particular. This genealogy of Pam’s belief undermines its epistemic status. Not that it makes this belief *false*—for all we know, a marsupial might have broken into Pam’s house. But it makes it *unjustified*. In the epistemological vernacular, this genealogy is a “debunking explanation” of Pam’s belief and a suitable basis for a “debunking argument” against it.

Debunking arguments always have two components. The first is a causal claim: a certain belief results from a certain process. In our case, Pam’s belief is based on the visual experience she had while under the effect of a hallucinogenic drug. The second component is an epistemic claim: the process in question is epistemically defective with respect to this type of belief. In our case, visual experience while under the effect of a hallucinogenic drug is a defective basis for perceptual beliefs. From this combination of claims, we can conclude that the belief in question is unjustified (Kahane, 2011: 111; Nichols, 2014: 731; Sauer, 2018: 30).

Debunked beliefs are unjustified rather than false because their genealogy acts as an *undercutting* defeater (Pollock, 1987: 485). Suppose Pam’s home is equipped with a perfectly reliable alarm system, which did not activate tonight. This piece of evidence would outweigh the evidence provided to Pam by her visual experience. It would constitute a *rebutting* defeater for her belief and provide her with a reason to disbelieve that a marsupial broke into her house. In the absence of such a system, however, the only defeater for her belief is the fact that it is based on a defective process. And, while this fact undercuts her visual evidence, it does not rebut her belief. While it deprives her of a reason to believe that a marsupial broke into her house, it gives her no reason to disbelieve that.

What is it that makes defective processes defective? This is a contentious matter, which we need not settle here. Most often, we can agree *that* a process is defective without agreeing upon *why* it is defective. Here are nonetheless a couple of suggestions, by way of illustration. According to some philosophers, a process is defective insofar as it is unreliable—that is, disposed to generate a significant ratio of false beliefs (e.g., Goldman, 1979; Machery, 2017: Chap. 3). According to others, a process is defective insofar as the beliefs it generates are not based on the available evidence (e.g., Cohen, 1984). In any case, it is fairly safe to assume that evidence that a process is unreliable is evidence that it is defective (Enoch, 2010: 423; Nichols, 2014: 746).

We can distinguish two kinds of evidence that a process is unreliable. On the one hand, evidence that a process would at best generate true beliefs accidentally is evidence of its unreliability. We have such evidence when “there is simply no connection whatsoever between [a] means of forming a belief and the truth” (Kahane, 2011). Consider the beliefs inspired by Paul the Octopus’s predictions during the 2010 FIFA World Cup. Although true, these beliefs were based on a defective process. On the other hand, evidence that a process has so far generated a significant quantity of false beliefs is evidence that this process is unreliable. Here, one can think of beliefs based on wishful thinking, horoscopes, or hallucinations.

Debunking arguments have appeared in various spheres of philosophical

investigation—from the metaphysics of causation and the philosophy of religion to grounding theory (see Korman, 2009 for an overview). This is not surprising considering the potential of these arguments to shed a new light on persistent problems. Still, it is in moral philosophy that they are primarily employed. In this context, two types of debunking arguments must be distinguished: *global* debunking arguments aim to undermine all moral judgments, whereas *local* debunking arguments target a proper subset of moral judgments.

Most global debunking arguments are evolutionary: they are premised on the claim that evolution endowed our ancestors with a capacity to form moral beliefs that was then passed on from generation to generation (Joyce, 2007). Evolution does not care in the least about moral truth, however. It selected for the moral sense not because this capacity helped our ancestors access moral truths but because it provided them with a fitness advantage—it made them better at spreading their genes. This is evidence that all our moral beliefs result from an unreliable process, one that would at best generate true beliefs accidentally. Consequently, all our moral beliefs are unjustified. I mention global debunking arguments only to set them aside. For the time being, I will assume that some moral beliefs are justified and that these arguments fail to show the contrary. (More on this in section 7.)

Some local debunking arguments are evolutionary, too: they purport to show that certain moral beliefs are unjustified because they were shaped by evolution. This strategy is typical of utilitarians, who rely on it to debunk characteristically deontological beliefs, such as the standard response to the footbridge variant of the trolley problem (Greene, 2008, 2014; Singer, 2005; de Lazari-Radek & Singer, 2012; Wiegman, 2017). Other local debunking arguments are not evolutionary. Incidentally, one such argument targets the speciesist belief that human interests matter more than the like interests of other animals, which it explains by the cognitive dissonance we feel because we love animals and yet harm them (Jaquet, 2019a). We shall come back to this argument in section 8.

The argument I will propose also targets this speciesist belief, but it is partly evolutionary. I will argue that this belief is unjustified because it is shaped by tribalism—our evolved tendency to favor ingroup members as opposed to outgroup members—which is an epistemically defective process with respect to moral beliefs, in the sense, elucidated above, that we have evidence of its unreliability. In sections 4–6, I will proceed to defend this argument’s causal and epistemic components. Before that, however, let us see what tribalist psychology consists in.

3. What Is Tribalism?

Our social world is a highly complex web of intertwined relations. We all belong to broader or narrower and often overlapping “tribes”: we are members of a university, supporters of a soccer team, fans of a rock band, speakers of a language, citizens of a country, parts of a culture, believers in a god, adherents of a political party, or whatnot. As a first approximation, we can define tribalism as the tendency to favor individuals who belong to one’s social circles as compared to those who do not. On this construal, tribalism amounts to “selfishness at the level of the group” (Greene, 2013: 66–67).

Far from being seldom, this tendency is generally considered a human

universal. As Joshua Greene puts it:

One thing is clear from both common sense and boatloads of social scientific research: We humans pay exquisitely close attention to where people reside in our egocentric social universes, and we tend to favor people who are closer to us. (Greene, 2013: 50)

We are wired to divide the social world into ingroup members and outgroup members and to give special weight to the interests of the former. In all likelihood, the universality of tribalism is due to its evolutionary origins. (More on this in section 5.)

Some authors construe tribalism in a more complex fashion, one that does not reduce it to a disposition to discriminate against outgroup members. Thus, in a synthesis of the literature on tribalism, Édouard Machery explains:

It involves emotions (such as disgust and sometimes hatred at the members of outgroups or outrage when their behavior violates ingroup norms), preferences (typically, but not always, a preference for interacting with the members of one's own groups), stereotypes and prejudices (which underlie expectations about ingroup members' interactions with outgroup members), and normative cognition (people often have different norms governing interactions with ingroup and outgroup members). (2016: 88)

Especially relevant for us is the last item on this list: normative cognition. Tribalism goes beyond discounting the interests of outgroup members in practice; it includes the moral belief that their interests should receive less weight. As Machery puts it, “different norms govern our interactions with us and them: what we intuitively owe people tracks this distinction” (Machery, 2016: 94).

Roughly, tribalism operates in three steps (Machery, 2016: 90). First, we detect salient groups in our social environment. We sort out groupings that are socially relevant and those that are not. Second, we identify ingroup and outgroup members, relying on markers of group membership. The list of these markers is open ended: skin color (Gil-White, 2001), language (Kinzler et al., 2007), clothing (Kurzban et al., 2001)—these properties and many more are cues that we use to determine who is in and who is out.

It does not take more than this for humans to start discriminating. As Henri Tajfel and John Turner observe, “the mere perception of belonging to two distinct groups—that is, social categorization per se—is sufficient to trigger intergroup discrimination” (1986: 281). Finally, then, we reason about tribes. By making inductive generalizations based on group membership, we ascribe such-and-such essential properties to members of such-and-such groups. Not only that. We also dehumanize outgroup members—that is, we deny them capacities supposedly typical of, and unique to, humans, such as cognitive sophistication, socialization, refinement, and a moral sensibility (Leyens et al., 2001; Haslam, 2006). And, crucially for our purposes, we discriminate against them and form the moral beliefs that would make this form of discrimination justified.

A striking feature of this whole process is how little the nature of the groups in question matters. No matter which social circle is salient in your circumstances,

which group you happen to think of as yours, you will favor those who belong to it as compared to those who do not. This has been observed in experimental settings, where even trivial, ad hoc intergroup categorizations lead to discrimination against outgroup members (Tajfel & Turner, 1986: 282).

Another remarkable feature of our tribalistic psychology is that we do not just care more about the interests of ingroup members than we do about the interests of outgroup members. What we care about, really, is the difference between ingroup and outgroup members:

Within the pattern of responding in terms of in-group favoritism, maximum difference (MD) is more important to the subjects than maximum in-group profit (MIP). Thus, they seem to be competing with the out-group, rather than following a strategy of simple economic gain for members of the in-group. (Tajfel & Turner, 1986: 282)

A famous experiment illustrates this phenomenon (Billig & Tajfel, 1973). Participants were split into two groups on an explicitly random basis. Each participant was then instructed to allocate money to all others anonymously. As it turned out, the subjects would rather give less money to ingroup members than more money to outgroup members.

Admittedly, participants in these experiments did not go so far as to harm each other significantly. They disadvantaged other participants only in negligible ways. But these studies are meant to shed light on much more serious phenomena, such as wars and genocides. If even trivial categorizations explicitly created for the purpose of an experiment limited in time prompt people to discriminate against outgroup members, it is not hard to guess the impact of ingroup/outgroup categorization along lines that are salient in everyday social life.

4. Tribalism and Speciesism

Now that we have a clearer understanding of tribalism, let us see how it relates to speciesism and assess the causal component of our debunking argument. Psychologists have long focused their investigations on humans and intrahuman relationships, ignoring our interactions with nonhuman animals (Amiot & Bastian, 2015: 7). It is only recently that they have started investigating the psychology of speciesism. A central postulate in this research field is that human-animal relations can be modeled within the framework of ingroup/outgroup psychology. As Catherine Amiot and Brock Bastian put it in their overview of this literature:

Social psychological theories of intergroup relations provide insights into how humans interact with animals in terms of their group membership.... If animals are viewed as an outgroup in the same sense that members of other cultures, religions, or nationalities are regarded as outgroups, then psychological research on intergroup relations and “us” versus “them” dynamics are relevant to how people perceive and treat animals. (2015: 30)

In light of this, one might suspect that speciesism is one of the many facets of our tribalistic psychology (Plous, 1993, 2003). And, indeed, this hypothesis has received an impressive amount of empirical support, which I will now briefly

review.

We just saw that tribalism operates in three steps: first, we identify the salient groups in our social environment; then, we classify ingroup and outgroup members; finally, we adopt distinct attitudes towards the two. We will now see that our relations with animals fit this pattern perfectly. To begin with, the division between humans and other animals is as salient as it could get. It is a common observation that we draw a sharp distinction between humans and other animals, and there is strong evidence that this way of dividing our environment is both universal and innate. Thus, young children’s belief that humans are not animals has been documented in many cultures. And it takes a great deal of formal education—and tenacity—to get them to change their minds (Carey, 1985).

Interestingly, it is not just that children care about species membership per se, distinguishing humans from chimpanzees, as well as cats from dogs and cows from chickens. T. J. Kasperbauer remarks:

Infants appear to start by classifying animals at the highest superordinate level of “animal,” suggesting that attunement to animals is psychologically more fundamental than classification by species. There is also some evidence to indicate that this superordinate level bias persists into adulthood. (2017: 19)

In our worldview, then, it is not so much species boundaries that matter as the boundaries of the human species. Although we do distinguish between different nonhuman species, we primarily divide the world into two main groups: humans and nonhumans.

Tendayi Viki and colleagues (2006) provide additional evidence that animals are construed as an outgroup. In a series of six studies, their participants consistently associated animal words with outgroup names more than they did with ingroup names. Thus, in one experiment, British subjects were presented consecutively with two paper sheets. On the right-hand side of these pages was a randomized list of animal words (such as “pet” and “wild”) and human words (such as “person” and “citizen”). On their left-hand side, one contained a list of typically English names (such as “Edward” and “Mary”) and the other a list of typically French names (such as “Armand” and “Yvette”). When instructed to draw a line between each name on the left and the most suitable word on the right, participants connected French names with animal words more frequently than they did English names.

When it comes to the human-animal divide, the second step in tribalistic psychology—identifying ingroup and outgroup members—is straightforward. Much time has passed since our last common ancestor with other living creatures on Earth disappeared, so telling whether something is a human is an easy task. There are countless markers for membership in the human species: we have a specific morphology, walk on our two feet, talk articulate languages, wear clothing, et cetera. Of course, some humans are atypical in some of these respects—some had a limb amputated, are mute, or practice nudism. But never ever do we meet an entity that, as far as we can tell from a glance, might or might not belong to *Homo sapiens*.

At this stage, we have all the ingredients to move to the final step—adopting

certain attitudes towards animals. And, as it happens, we do have the attitudes that should be expected on the present view. First of all, we make inductive generalizations and ascribe essential properties to individual animals based on their membership in the category “animals” (Setoh et al., 2013; Kasperbauer, 2017: 16). We also dehumanize animals, denying them features such as agency, higher cognition, and sophisticated emotions (Kasperbauer, 2017; Haslam et al., 2008). More significantly for our purposes, we discriminate against animals and form the moral beliefs that would justify this form of discrimination—that is, we come to believe that human interests matter more than the like interest of other animals (Awad et al., 2018; Caviola et al., 2019). Overall, our attitudes to animals are precisely how we would expect them to be were they shaped by tribalism.

The present account can also easily explain why we treat some animals better than others and ascribe them a higher moral status. Here is Kasperbauer on this topic:

[Animals] also possess physical features that lead us to prefer some animals over others. Some animals more closely resemble members of human ingroups than others, and this influences both our mentalizing and our moral treatment of them. Animals exist on a spectrum of resemblance to humans, leading us to treat apes, for instance, differently than we do armadillos or alligators. (2017: 70)

Thus, Scott Plous (1993) and Rae Westbury and David Neumann (2008) notice that people’s empathy towards abused animals varies depending on phylogenetic similarity: the closer an abused animal is to humans, the more we will feel empathy towards him or her. Besides, in an investigation of people’s willingness to punish animal abusers, Jon Waerstad and colleagues (2002) observed that, when participants expressed moral concern for animals at all, their concern was limited to species that are nearest to humans.

Of course, our attitudes to animals do not depend solely on degrees of resemblance. Other factors come into play. Still, *ceteris paribus*, we tend to favor animals who resemble us. This should come as no surprise if our attitudes to animals are shaped by our tribalistic psychology. As Amiot and Bastian put it,

perceiving similarities between humans and animals (rather than perceiving how distinct humans and animals are as social groups) implies that animals become closer to the human ingroup and more proximal targets of our concern. (2015: 31).

We use similarities and differences in physical appearance to classify animals as being closer to or further from the ingroup. And, once this is done, we treat them accordingly and form corresponding moral beliefs. This is tribalism all the way through.

Let us take stock of the elements presented in the last two sections. Human beings are tribalistic. We have a robust tendency to divide our social environment into various, more or less salient ingroups and outgroups. The more salient these groupings are, the more we favor ingroup members and discriminate against outgroup members. As it happens, a very salient ingroup is the human species,

which leads us to treat our conspecifics better, to empathize with them more, and to grant them a higher moral status than nonhuman animals. In sum, speciesism is largely a manifestation of our tribalism.

5. The Evolution of Tribalism

Now that I have lent support to my debunking argument's causal claim, let us move on to its epistemological claim: the process of forming a moral belief based on tribalism is defective. One might think it evident that tribalism's impact on our moral beliefs is adverse because it is evident that tribalism is morally objectionable (Sauer, 2018: 85). But, in principle, a belief-forming process can be immoral and yet epistemically appropriate—for instance, the morally horrendous experiments conducted by the Nazis during World War II make certain beliefs about hypothermia justified (Gillam, 2015). I will nonetheless argue that this is not the case with tribalism.

As we saw in section 2, evidence of unreliability, and thus of defectiveness, comes in two varieties: evidence that a process is simply disconnected from the truth of the beliefs it produces and evidence that a process has so far produced many false beliefs. I am going to provide both kinds of evidence against the process leading from tribalism to speciesist beliefs. In the present section, I will argue that this process is disconnected from moral truth because tribalism is a product of evolution. Then, in the next section, we will see that tribalism generates plenty of false beliefs.

Recall that most ethical debunking arguments are evolutionary in the sense that they purport to show that some of our moral beliefs are unjustified because they were shaped by evolution. Global evolutionary debunkers maintain that our whole moral sense evolved, whereas local evolutionary debunkers hold that selective pressures influenced some proper subset of our moral beliefs only. All nevertheless agree that the evolutionary genealogy of a moral belief undermines its epistemic status by painting the process leading to its formation as unreliable.

Evolutionary debunkers do not maintain that evolution supplied us with mostly false moral beliefs—this would be question begging since their opponents usually defend most of the beliefs that are supposedly shaped by evolution. Evolutionary debunkers merely claim that, given that evolution selects for attitudes that enhance our genetic fitness, and considering that our moral beliefs improve our genetic fitness regardless of their truth, the process leading from evolutionary forces to moral beliefs is disconnected from moral truth. It would at best generate true beliefs accidentally. And this is evidence of its unreliability.

Some philosophers answer that evolution does track moral truth, albeit indirectly (Enoch, 2010; Wielenberg, 2010). They argue along the following lines. Evolution “aims at” the replication of our genes, and survival is an efficient means to this end. As a result, we believe that survival is morally good. But this belief is true: survival *is* morally good. Evolution therefore leads us to form true beliefs. This is not the place to discuss such rejoinders. Suffice it to mention the common objection that they beg the question (Vavova, 2015). Our belief that survival is morally good cannot be taken for granted in this context as it is one of the most promising targets for evolutionary debunking arguments.

From now on, I will therefore assume that moral beliefs shaped by evolution are unjustified because evolution does not track moral truth. My main ambition in

this section will be to convince you that tribalism was shaped by evolution—such that, a fortiori, speciesist beliefs themselves were shaped by evolution.

For a significant part of their evolution, modern humans lived in tribes, small-scale societies of a few thousand individuals. These cultural units are characterized by shared information, distinctive practices and norms, and a strong sense of loyalty and cooperation. There is good evidence of their existence dating back at least 50 000 years (Klein, 1999; Richerson & Boyd, 1998, 1999, 2005). But they may have emerged much earlier—100 000 years back, our ancestors already used symbolic markers akin to the markers sported by present-day tribespeople (Machery, 2016: 90). Nowadays, tribes have mostly disappeared and have been replaced with larger groups such as nation-states (Machery, 2016: 89).

The domination of this tribal form of social organization over 500, if not 1 000, centuries imposed some serious selective pressures on our species. And these pressures resulted in the evolution of a new psychology adapted to tribal life, one that facilitates the identification of, and trust in, fellow ingroup members with whom one has never interacted before (Richerson & Boyd, 1998, 1999, 2005; Machery, 2016: 90). It is most likely this cognitive system we see at play today in intragroup cooperation and intergroup conflicts, even though contemporary social units are no longer proper tribes.

The hypothesis that tribalism evolved is plausible in light of the early emergence of tribal forms of social organization. But there is more going for it. Additional support stems from the fact, already mentioned, that tribalism is universal (Brewer, 1979; Brown, 2004). Despite significant cultural differences, human beings favor ingroup members and discriminate against outgroup members worldwide. It is also worth stressing that tribalism can apparently not be blamed on education since even infants distinguish ingroup members from outgroup members and show a marked preference for the former (Kinzler et al., 2007). As revealed by implicit association tests, humans of all ages associate outgroup members with negative thoughts. Finally, research on the evolution of altruism is also relevant: “some mathematical models indicate that altruism within groups could not have evolved without hostility between groups” (Greene, 2013: 69).

Of course, grey areas remain. While it seems clear *that* tribalism evolved, the jury is still out on *how* it evolved. Evolutionary psychologists keep debating whether tribalism is an adaptation (Moya, 2013; Moya & Boyd, 2015) or a by-product (Van den Berghe, 1978, 1981; Kurzban et al., 2001). Luckily, we can bracket this issue. To the extent that speciesist beliefs are shaped by tribalism, which, in turn, is somehow shaped by evolutionary forces, speciesist beliefs are shaped by evolution. If evolution is disconnected from ethical truth, this means that they are unjustified.

6. Tribalism and False Beliefs

Maybe you believe that evolution tracks ethical truth. *Contra* evolutionary debunkers of all stripes, you are confident that it pushes our moral judgments in the right direction. Or maybe you are generally more impressed by debunking arguments based on proximal processes than you are by debunking arguments based on distal processes such as evolution (O’Neill, 2015). In either case, you were probably unmoved by the previous argument. Let me try again with another, which does not presuppose that evolution distorts our moral beliefs.

Besides its connection with tribalism, speciesism correlates with other forms of prejudice, such as racism, sexism, and homophobia. The more people accept speciesist claims, the more they accept other discriminatory claims (Amiot & Bastian, 2015: 34; Caviola et al., 2019; Costello & Hodson, 2014; Dhont et al., 2014; Hodson & Costello, 2012). On reflection, this is unsurprising since a standard account of intrahuman prejudices traces their origin to tribalism. On these accounts, intrahuman prejudices are expressions of our tendency to favor ingroup members. As soon as we treat some boundary as socially relevant, our tribalistic psychology intervenes, we categorize individuals as either ingroup members or outgroup members, and we start discriminating against the latter (Machery, 2016: 95). In the words of Elizabeth Culotta, “much of the conflict we see today erupts because ‘we’ are pitted against ‘them’” (2012: 825).

The common tribalistic root of these forms of discrimination and of the corresponding moral beliefs makes perfect sense of their correlation. It also supports the claim that our speciesist beliefs are based on an unreliable process. If tribalism generates so many false beliefs, then speciesist beliefs are unjustified insofar as they are based on it. In what follows, I will focus on the case of racism because this is where tribalism’s effects have been most thoroughly investigated, with many theorists holding that racism is a modern manifestation of tribalism (Gil-White, 2001; Machery & Faucher, 2005a, 2005b; Kelly et al., 2010; Machery, 2016).

Earlier, I explained that tribalism operates in three steps: identification of a salient group, classification into ingroup and outgroup, and adoption of certain attitudes. As will become apparent, we follow these three steps in our relations with other racial groups. For a start, race is among the most salient differences in the modern world (Greene, 2013: 51). In the words of Daniel Kelly and colleagues:

People classify themselves and others on the basis of physical, putatively racial properties and seem to assume that these classifications group together people who share important biological properties (and perhaps also important psychological and moral properties). (2010: 439–440)

Moreover, this pattern appears to be present across cultures and ages (Kelly et al., 2010: 441–442; Mallon, 2010: 277–279). While some social constructionists hold that racial categorization is a recent phenomenon, contingent upon historical and political settings, certain data cast doubt on this hypothesis. It would seem that, in classical Greece and the Roman Empire, people already categorized their social environment in terms of phenotypic properties they assumed to correspond to biological categories (Isaac, 2004; but see Jackson Jr., 2017, for a different take on the historical data).

Additionally, humans identify races as salient groups early on in their development. Even young children categorize human beings according to race, especially when racial features are presented verbally (Hirshfeld, 1996). Thus, in a series of four experiments, white American three-year-olds showed a preference for white faces, while Taiwanese toddlers preferred Taiwanese faces (Dunham et al., 2013). Remarkably, racial categorization in children cannot be traced to upbringing. As Édouard Machery and Luc Faucher explain, “it does not result

from their parents' explicit teachings. Most parents do not teach explicitly racist distinctions. When they do, young children's racist attitudes tend not to reflect those of their parents" (2005b: 1217; see also Kelly et al., 2010: 442; Branch & Newcombe, 1986; Aboud & Doyle, 1996).

So, racial categorization looks like a human universal. This is not surprising given that the very concept of race seems to be shaped by tribalism—which we have seen to be universal among humans. Indeed, people appear to construe races as they do tribes. In particular, we tend to essentialize races, ascribing people properties on the basis of their race membership, just as our ancestors tended to essentialize tribes (Gil-White, 2001; Machery & Faucher, 2005a, 2020).

To better understand why we do that, we must turn to the second step of the tribal thinking process, where we sort our conspecifics into different races by using various markers. It is worth noting that these racial markers—from skin color to body shape and hair type—resemble tribal markers. And, just like tribal markers, they are thought to be inherited by children from their parents. In short, “we essentialize races because we mistakenly ‘think’ they are ethnic groups” (Gil-White, 2001: 534).

Once we have identified races as salient social groups and sorted people into ingroups and outgroups accordingly, we are ready to move to step three and acquire distinct attitudes towards members of one's own race and members of other races. Again, this is exactly what happens. We saw earlier that dehumanization is a prime manifestation of tribalism. As a matter of fact, most of the literature on this topic concerns racism. Thus, it is well known that racists at times explicitly deny black people membership in the human species (Goff et al., 2008; Haslam, 2006: 25; Haslam & Loughnan, 2014: 408). But, beyond such explicit exclusion, we generally hold negative attitudes towards racial outgroups. In the last two decades, implicit association tests have been particularly instructive in this respect. They repeatedly show that white people, for instance, pair positive words with white faces and negative words with black faces (Greene, 2013: 51–52). Some people consciously hold racist beliefs. But implicit racial biases are present even in those who appear entirely unprejudiced in self-report studies (Kelly et al., 2010: 452).

One might hope that our beliefs and behavior remain unaffected by these unconscious biases. This is not the case. Here are two telling examples reported by Kelly and colleagues (2010: 457–458). First, when they send equally good résumés to an employer, applicants whose names sound typically white receive 50 percent more invitations to interviews than applicants with black-sounding names. Strikingly, putative “equal-opportunity employers” are no less prone to racial discrimination than the rest (Bertrand & Mullainathan, 2004). Second, a statistical analysis of no fewer than twelve seasons of the National Basketball Association (NBA) games established that both black and white referees are more inclined to call fouls on players of the other color (Price & Wolfers, 2010). All this strongly suggests that implicit biases have significant effects on beliefs and behaviors.

Before concluding this section, let me link all this to my claim that tribalism generates a significant ratio of false beliefs. We can distinguish two types of beliefs. On the one hand, our discussion of implicit biases indicates that tribalism generates many false *nonmoral* beliefs. Thus, it leads white employers to falsely believe that this black applicant is less qualified than that white applicant, and it

leads NBA referees to falsely believe that this other-color player committed a foul while that same-color player did not. By contrast, nothing indicates that tribalism leads us to form (m)any true nonmoral beliefs.

On the other hand, tribalism generates a bunch of false *moral* beliefs. I have not talked much about these because they are harder to investigate empirically. Most people do not readily report believing that black lives matter less—and, for the most part, they speak honestly, one would hope. But some people hold such beliefs nonetheless. In light of the material presented above, it seems quite clear that their beliefs are largely due to a more general ingroup favoritism that, in the end, amounts to tribalism. By contrast, it is much less clear that tribalism leads us to form (m)any true moral beliefs.³

To wrap things up, let us assess the road traveled. In section 4, I defended the causal claim that speciesist beliefs are largely shaped by tribalism. In the last two sections, I provided two kinds of evidence that this belief-forming process is unreliable: first, tribalism evolved, which suggests that it is disconnected from moral truth, and, second, tribalism generates a high ratio of false to true beliefs anyway. Both kinds of evidence support our debunking argument's epistemic claim: forming moral beliefs on the basis of tribalism is a defective process. By combining our causal and epistemic claims, we can conclude that speciesist beliefs are unjustified.

7. The Objection from Overgeneralization

Local debunking arguments often meet an objection from overgeneralization. The worry is that the explanation on which they rest might apply equally to many beliefs beyond their target, including the beliefs they were intended to support in the first place. This objection was most forcefully stated by Guy Kahane:

If you cite an off-track causal influence on an interlocutor's belief that *p* in order to increase support for your view that not-*p*, you should, at the minimum, first rule out that your own belief was shaped by this or a similar influence. (2011: 113)

³ One might object that tribalism does produce a whole range of true moral beliefs—namely, beliefs about special duties. Intuitively, we owe our loved ones more than we do strangers. Some amount of partiality for friends and family members seems not merely permissible but required. But isn't this intuition one more manifestation of our tribalistic psychology? And, if so, does this not show that many moral beliefs generated by tribalism are perfectly fine? Is it so plain, then, that moral beliefs based on tribalism are unjustified? My response will be twofold.

First, remember that tribalism's function is to foster cooperation within large groups whose members do not know each other. For smaller social units, other psychological mechanisms take place. Thus, beliefs in special obligations are arguably due to kin altruism (in the case of family members) and reciprocal altruism (in the case of friends) rather than tribalism. Second, we should not take these beliefs for granted. Just like tribalism, kin altruism and reciprocal altruism are the products of evolution. The moral beliefs that were shaped by these mechanisms might therefore be unjustified (de Lazari-Radek & Singer, 2012).

Here is what this means in our context: if the belief that speciesism is wrong is subject to the same kind of irrelevant influence that shapes speciesist beliefs, then the game is draw. Both positions are equally undermined, and our debunking argument proves powerless against speciesism.

At first glance, this objection sounds reasonable. I presented two kinds of evidence that speciesist beliefs are due to an unreliable process: they are based on tribalism, a psychological trait that evolved and that generates many false beliefs. An objector might maintain that all moral beliefs are distorted by the very same kind of bad influence: all moral beliefs, that is, are based on a psychological trait that evolved and that generates many false beliefs. This trait is our moral sense.

On the one hand, some philosophers argue that our capacity to make moral judgments evolved (Joyce, 2007). Assuming, as we are, that evolution does not track moral truth, this means that our moral beliefs are at best accidentally true—hence that our moral sense is unreliable. On the other hand, our moral sense produces many false beliefs—not that we can easily tell which, but the prevalence of moral disagreements entails that false moral beliefs are pervasive (Brandt, 1944). This, too, is evidence that our moral sense is unreliable. Either way, our local debunking argument turns into a global debunking argument. If speciesist beliefs are unjustified, then so are all moral beliefs, including the belief that speciesism is wrong.

That much must be acknowledged: *if* our moral sense is unreliable—because it evolved or because it generates many false beliefs—*then* all our moral beliefs are unjustified. Fortunately, the antecedent of this conditional is controversial, to say the least. Against the first line of objection, many philosophers deny that our moral sense evolved, maintaining instead that moral cognition is part of a broader evolved cognitive system (Huemer, 2005; Machery & Mallon, 2010; FitzPatrick, 2014). On one such view, this system is a priori cognition. The intuition that stealing is wrong and the intuition that $2 + 2 = 4$ differ in content: one is about a moral proposition; the other, about an arithmetical proposition. But their mode is the same; they are the exact same kind of attitude. And, importantly, while a priori cognition was undoubtedly shaped by evolution, it most likely was *because it tracks truth*.

Michael Huemer stresses this point with an analogy:

Why do we have the ability to see stars? After all, our evolutionary ancestors presumably would have done just as well if they only saw things on Earth. Of course, this is a silly question. We can see stars because we have vision, which is useful for seeing things on Earth, and once you have vision you wind up seeing whatever is there sending light in your direction, whether it is a useful thing to see or not. Likewise, once you have intelligence, you wind up apprehending the sorts of things that can be known by reason, whether they are useful to know or not. (2005: 216)

Intelligence gave our ancestors an evolutionary advantage by providing them with a reliable access to a priori truths such as $2 + 2 = 4$. And we simply apply this inherited capacity to the moral realm. To be clear, I am not trying to convince you that our moral sense did not evolve. All I am saying is that the evidence that it did

is much weaker than the evidence that tribalism evolved. While speciesist beliefs are at best accidentally true, this is not clearly the case for all moral beliefs.

What about the second line of objection? Does the prevalence of moral disagreement show that our moral sense is similar to tribalism in that it produces many false beliefs and is therefore unreliable? My rejoinder will not surprise those most familiar with moral epistemology. To begin with, one should be careful not to overestimate the amount of moral disagreement. Moral thought and discussion naturally focus on controversial issues. But this should not obscure the fact that most people agree on many ethical questions (Huemer, 2005: 131).

That being said, there is more ethical than empirical disagreement, and this disparity suggests that moral intuition is less reliable than observation. But notice two things. First, this does not mean that moral intuition is unreliable, only that it is less reliable than observation. This acknowledgment warrants not that we endorse global moral skepticism, but rather that we exercise caution whenever we rely on moral intuitions to support moral claims. Second, this weaker reliability is not specific to moral intuitions; it is a feature of all intuitions. Indeed, while disagreement may be more widespread in moral matters than it is on most empirical issues, it is no more widespread in moral philosophy than it is in metaphysics, epistemology, or philosophy of religion (Huemer, 2005: 141; Shafer-Landau, 2003: 220; Kaspar, 2012). Since the ratio of false-to-true ethical beliefs is arguably no greater than that of false-to-true philosophical beliefs, it does not provide evidence that our moral sense is unreliable.

In a nutshell, the evidence that all our moral beliefs ensue from an unreliable process is much weaker than the evidence that our speciesist beliefs ensue from an unreliable process.⁴

8. Another Cause of Our Speciesist Beliefs

This is not the first debunking argument to target speciesist beliefs. I have recently argued that these beliefs are unjustified because they are largely due to cognitive dissonance (Jaquet, 2019a). By default, meat eaters do not want to harm animals unnecessarily, yet they do so when they consume meat. This “meat paradox” puts them in an uncomfortable state of dissonance, which they naturally try to escape. To do so, they could adjust their behavior to their moral belief and adopt a vegetarian diet. But most of them rather map their moral belief onto their behavior: they start to believe that animals’ interests do not matter much. Based on the epistemic claim that cognitive dissonance is an irrelevant influence on our beliefs, I conclude that speciesist beliefs are unjustified.

So, which is it that we owe our speciesist beliefs to: tribalism or cognitive dissonance? The good news is we need not choose. These explanations complement each other very neatly once we take note that beliefs come in degrees. Notice first that they are compatible. Suppose that speciesist beliefs are explained by cognitive dissonance. Without cognitive dissonance, that is, we would not

⁴ This observation is even more credible once we recall the obvious fact that our speciesist beliefs *are* moral beliefs. Because they are moral beliefs, the evidence of unreliability provided by their origin in tribalism really adds to the (weak) evidence of their unreliability qua moral beliefs. They are less justified than other moral beliefs to the extent that they are shaped by tribalism.

believe that humans matter more than other animals—in terms familiar to epistemologists, our credence in this speciesist claim would not be above 0.5. This is compatible with our speciesist beliefs’ being also influenced by tribalism, perhaps significantly so. As far as we know, it might even be that our speciesist beliefs are explained by tribalism as much as they are by cognitive dissonance. In other words, it might be that, without tribalism, we would not believe that humans matter more than other animals—our credence in the speciesist claim would not be above 0.5.

While some evidence points in that direction, this claim is not essential to my point, which is that tribalism has a significant influence on speciesist beliefs. Its impact might not be so strong as to *cause* these beliefs. Maybe tribalism simply increases a credence in the speciesist claim that would be above 0.5 in its absence anyway. That is certainly a possibility, but not one that damages the spirit of my argument much. Should this be the case, the present genealogy of our speciesist beliefs would nonetheless undermine their epistemic status considerably. As Shaun Nichols points out, “if we know that S’s belief that P depends to some extent on defective process Q, then we can conclude that S’s belief that P is unjustified to the extent that it depends on process Q” (2014: 731). Speciesist beliefs are presumably unjustified to quite a large extent due to tribalism’s influence on them.

Whether or not the strong claim is true, the present argument combines with my previous argument to make a powerful case that speciesist beliefs are unjustified. Nichols adds that “whatever amount of credence in P is uniquely contributed by defective processes, that amount of credence is unjustified” (2014: 731). Say C_1 is our actual credence in the speciesist claim, C_2 is the part of this credence contributed by cognitive dissonance, and C_3 is the part of this credence contributed by tribalism. The amount of credence contributed by defective processes would then be at least $C_2 + C_3$. And this amount would be unjustified. The justified credence for the speciesist claim would therefore at best reduce to $C_1 - (C_2 + C_3)$. This value is likely below 0.5, making speciesist beliefs overall unjustified. In any event, it must be far lower than the current credence among defenders of speciesism.

Conclusion

From the standpoint of moral epistemology, tribalism is a hallucinogenic drug. Consider Mushroom Pam. Her belief that a marsupial broke into her house is based on her visual experience of a kangaroo sitting at her kitchen table, which, for all she knows, might well have been caused by the mushroom she ingested. After all, these mushrooms are known for causing hallucinations—and hallucinations involving marsupials in particular. In light of this, Pam should abandon her belief. Likewise, the belief that humans matter more than other animals is based on the corresponding intuition, which, for all we know, might well result from our tribalism. After all, this cognitive trait is known for generating false discriminatory intuitions—and speciesist intuitions in particular. In light of this, we should abandon this belief.⁵

⁵ Whether we *will* is a separate matter—there is no doubt that some people are strongly attached to their speciesist beliefs, to the point that any argument will be

Interestingly, tribalism is likely to generate particularly strong speciesist intuitions among philosophers who partake in the speciesism debate. That is because the influence of our tribalistic cognitive system depends on how salient the relevant groupings are in our social environment. The more salient a grouping is, the more we classify individuals along its boundaries and discriminate against outsiders. Now, while species membership is always salient, it is *especially* salient when we discuss the ethics of speciesism. Indeed, this discussion is entirely framed around the concept of species and the notion that “we” are humans and “they” are other animals. These considerations warrant *extra* suspicion vis-à-vis speciesist intuitions in this context.

Of course, this does not yet mean that all interests matter equally regardless of species membership. I mentioned in section 2 that debunking explanations act as *undercutting* rather than as *rebutting* defeaters. Pam’s realization that her belief that a marsupial broke into her house is based on a defective process deprives her of her initial reason to believe that a marsupial broke into her house. But it gives her no reason to disbelieve that a marsupial broke into her house. Likewise, while the realization that our speciesist beliefs are based on a defective process deprives us of our initial reason to believe that humans matter more than other animals, it gives us no reason to disbelieve that humans matter more than other animals.

In ethics, however, undercutting defeaters have a potential that they lack in most other domains. And this potential derives from the central role of intuition in moral epistemology. Ethical thinking primarily consists in seeking coherence among our intuitive moral judgments. When these judgments cohere well together, there is not much need for moral philosophy. But that is seldom. Often enough, our intuitive moral judgments are mutually inconsistent. In such circumstances, the discovery that one is unjustified tilts the balance in favor of another.

I already mentioned the main intuitions that are put to work in animal ethics. On the one hand, human interests appear to matter more than the like interests of other animals. This intuition is evidence that speciesism is morally fine. On the other hand, it seems that we should not treat intelligent and pacific aliens the way we do animals and that merely biological properties are ethically irrelevant. And these intuitions are evidence that speciesism is wrong. Now, if the former intuition is untrustworthy because it is due to epistemically defective processes, this leaves us with the latter two intuitions, from which we can provisionally conclude that speciesism is wrong. Speciesism is wrong.

References

- Aboud, F. E., & Doyle, A. B. (1996). Parental and peer influences on children’s racial attitudes. *International Journal of Intercultural Relations*, 20, 371–383.
- Amiot, C. E., & Bastian, B. (2015). Toward a psychology of human–animal relations. *Psychological Bulletin*, 141(1), 6.
- Awad, E., Dsouza, S., Kim, R., Schulz, J., Henrich, J., Shariff, A., Bonnefon, J.-F., & Rahwan, I. (2018). The moral machine experiment. *Nature*, 563(7729), 59–64.
- Bertrand, M., & Mullainathan, S. (2004). Are Emily and Greg more employable

ineffective in their case. They will not do what they should. The epistemically rational agents among us, by contrast, will abandon this belief.

- than Lakisha and Jamal? A field experiment on labor market discrimination. *American Economic Review*, 94(4), 991–1013.
- Billig, M., & Tajfel, H. (1973). Social categorization and similarity in intergroup behaviour. *European Journal of Social Psychology*, 3(1), 27–52.
- Branch, C. W., & Newcombe, N. 1986. Racial attitude development among young Black children as a function of parental attitudes: A longitudinal and cross-sectional study. *Child Development*, 57, 712–721.
- Brandt, R. B. (1944). The significance of differences of ethical opinion for ethical rationalism. *Philosophy and Phenomenological Research*, 4(4), 469–495.
- Brewer, M. B. (1979). In-group bias in the minimal intergroup situation: A cognitive-motivational analysis. *Psychological Bulletin*, 86(2), 307.
- Brown, D. E. (2004). Human universals, human nature & human culture. *Daedalus*, 133(4), 47–54.
- Carey, S. (1985). *Conceptual change in childhood*. Cambridge, MIT Press.
- Caviola, L., Everett, J. A., & Faber, N. S. (2019). The moral standing of animals: Towards a psychology of speciesism. *Journal of Personality and Social Psychology*, 116(6), 1011–1029.
- Cohen, C. (1986). The case for the use of animals in biomedical research. *The New England Journal of Medicine*, 315, 865–870.
- Cohen, S. (1984). Justification and truth. *Philosophical Studies*, 46(3), 279–295.
- Costello, K., & Hodson, G. (2014). Explaining dehumanization among children: The interspecies model of prejudice. *British Journal of Social Psychology*, 53, 175–197.
- Culotta, E. (2012). Roots of racism. *Science*, 336, 825–827.
- DeGrazia, D. (1996). *Taking Animals Seriously: Mental Life and Moral Status*. Cambridge University Press.
- de Lazari-Radek, K., & Singer, P. (2012). The objectivity of ethics and the unity of practical reason. *Ethics*, 123, 9–31.
- Dhont, K., Hodson, G., Costello, K., & MacInnis, C. C. (2014). Social dominance orientation connects prejudicial human–human and human–animal relations. *Personality and Individual Differences*, 61–62, 105–108.
- Dunham, Y., Chen, E. E., & Banaji, M. R. (2013). Two signatures of implicit intergroup attitudes: Developmental invariance and early enculturation. *Psychological Science*, 24(6), 860–868.
- Enoch, D. (2010). The epistemological challenge to metanormative realism: How best to understand it, and how to cope with it. *Philosophical Studies*, 148(3), 413–438.
- FitzPatrick, S. (2014). Moral realism, moral disagreement, and moral Psychology. *Philosophical Papers*, 43(2): 161–190.
- Gillam, L. (2015). Is it ethical to use data from Nazi medical experiments? *The Conversation*, <https://theconversation.com/is-it-ethical-to-use-data-from-nazimedical-experiments-39928>.
- Gil-White, F. (2001). Are ethnic groups biological “species” to the human brain? Essentialism in our cognition of some social categories. *Current Anthropology*, 42(4), 515–553.
- Goff, P. A., Eberhardt, J. L., Williams, M. J., & Jackson, M. C. (2008). Not yet human: Implicit knowledge, historical dehumanization, and contemporary consequences. *Journal of Personality and Social Psychology*, 94(2), 292.

- Goldman, A. I. (1979). What is justified belief? In *Justification and knowledge* (pp. 1–23). Springer, Dordrecht.
- Greene, J. D. (2008). The secret joke of Kant’s soul. *Moral psychology*, 3, 35–79.
- Greene, J. (2013). *Moral tribes: Emotion, reason, and the gap between us and them*. Atlantic Books.
- Greene, J. D. (2014). Beyond point-and-shoot morality: Why cognitive (neuro)science matters for ethics. *Ethics* 124(4), 695–726.
- Haslam, N. (2006). Dehumanization: An integrative review. *Personality and Social Psychology Review*, 10(3), 252–264.
- Haslam, N., Kashima, Y., Loughnan, S., Shi, J., & Suitner, C. (2008). Subhuman, inhuman, and superhuman: Contrasting humans with nonhumans in three cultures. *Social Cognition*, 26(2), 248–258.
- Haslam, N., & Loughnan, S. (2014). Dehumanization and infrahumanization. *Annual Review of Psychology*, 65, 399–423.
- Hirschfeld, L. A. (1996). *Race in Making: Cognition, Culture, and the Child’s Construction of Human Kinds*. Cambridge: MIT Press.
- Hodson, G., & Costello, K. (2012). The human cost of devaluing animals. *New Scientist*, 2895, 34–35.
- Horta, O. (2010). What is speciesism? *Journal of Agricultural and Environmental Ethics*, 23, 243–266.
- Huemer, M. (2005). *Ethical Intuitionism*. New York: Palgrave Macmillan.
- Isaac, B. H. (2004). *The Invention of Racism in Classical Antiquity*. Princeton, NJ: Princeton University Press.
- Jackson Jr, J. P. (2017). Cognitive/evolutionary psychology and the history of racism. *Philosophy of Science*, 84(2), 296–314.
- Jaquet, F. (2019a). A debunking argument against speciesism. *Synthese*, 1–17.
- Jaquet, F. (2019b). Is speciesism wrong by definition? *Journal of Agricultural and Environmental Ethics*, 33(3), 447–458.
- Jaquet, F. (2020). What’s wrong with speciesism. *Journal of Value Inquiry*, online first.
- Joyce, R. (2007). *The Evolution of Morality*. Cambridge: MIT Press.
- Kagan, S. (2016). What’s wrong with speciesism? *Journal of Applied Philosophy*, 33(1), 1–21.
- Kahane, G. (2011). Evolutionary debunking arguments. *Noûs*, 45(1), 103–125.
- Kaspar, D. (2012). *Intuitionism*. A&C Black.
- Kasperbauer, T. J. (2017). *Subhuman: The Moral Psychology of Human Attitudes to Animals*. Oxford University Press.
- Kelly, D., Machery, E., & Mallon, R. (2010). Race and racial cognition. *The moral psychology handbook*, 433–472.
- Kinzler, K. D., Dupoux, E., & Spelke, E. S. (2007). The native language of social cognition. *Proceedings of the National Academy of Sciences*, 104(30), 12577–12580.
- Klein, R. G. (1999). *The Human Career: Human Biological and Cultural Origins*. Chicago: University of Chicago Press.
- Korman, D. Z. (2019). Debunking arguments. *Philosophy Compass*, e12638.
- Kurzban, R., Tooby, J., & Cosmides, L. (2001). Can race be erased? Coalitional computation and social categorization. *Proceedings of the National Academy of Sciences*, 98(26), 15387–15392.

- Liao, S. M. (2010). The basis of human moral status. *Journal of Moral Philosophy*, 7(2), 159-179.
- Leyens, J. P., Rodriguez- Perez, A., Rodriguez- Torres, R., Gaunt, R., Paladino, M. P., Vaes, J., & Demoulin, S. (2001). Psychological essentialism and the differential attribution of uniquely human emotions to ingroups and outgroups. *European Journal of Social Psychology*, 31(4), 395–411.
- Machery, E. (2016). The evolution of tribalism. In J. Kiverstein (ed.), *The Routledge Handbook of Philosophy of the Social Mind* (pp. 104–117). Routledge.
- Machery, E. (2017). *Philosophy Within Its Proper Bounds*. Oxford University Press.
- Machery, E. & Faucher, L. (2005a). Social construction and the concept of race. *Philosophy of Science*, 72, 1208–1219.
- Machery, E. & Faucher, L. (2005b). Why do we think racially? Culture, evolution and cognition. In H. Cohen and C. Lefebvre (Eds.), *Categorization in Cognitive Science* (pp. 1009–1033). Amsterdam: Elsevier.
- Machery, E. & Faucher, L. (2020). The folk concept of race. In A. Wikforss and T. Marques (Eds.), *Shifting Concepts: The Philosophy and Psychology of Conceptual Variability*. Oxford: Oxford University Press.
- Machery, E., & Mallon, R. (2010). Evolution of morality. In J. M. Doris (ed.), *The Moral Psychology Handbook*. Oxford: Oxford University Press.
- Mallon, R. (2010). Sources of racialism. *Journal of Social Philosophy*, 41(3), 272–292.
- McCloskey, H. J. (1984). Respect for human moral rights versus maximizing good. In R. G. Frey (ed.), *Utility and Rights*. Oxford: Basil Blackwell, pp. 121–136.
- McMahan, J. (2002). *The Ethics of Killing: Problems at the Margins of Life*. Oxford: Oxford University Press.
- McMahan, J. (2005). Our fellow creatures. *The Journal of Ethics*, 9(3–4), 353–380.
- McMahan, J. (2013). Moral intuition. In H. LaFollette & I. Persson (eds.), *Blackwell Guide to Ethical Theory* (pp. 103–121). John Wiley and Sons.
- Moya, C. (2013). Evolved priors for ethnolinguistic categorization: A case study from the Quechua-Aymara boundary in the Peruvian Altiplano. *Evolution and Human Behavior*, 34, 265–272.
- Moya, C. & Boyd, R. (2015). Different ethnic phenomena can correspond to distinct boundaries. *Human Nature*, 26, 1–27.
- Nichols, S. (2014). Process debunking and ethics. *Ethics*, 124(4), 727–749.
- Nozick, R. (1983). About mammals and people. *New York Times Book Review*, 27.
- O’Neill, E. (2015). Which causes of moral beliefs matter? *Philosophy of Science*, 82(5), 1070–1080.
- Plous, S. (1993). Psychological mechanisms in the human use of animals. *Journal of Social Issues*, 49, 11–52.
- Plous, S. (2003). Is there such a thing as prejudice toward animals? In S. Plous (ed.), *Understanding Prejudice and Discrimination*. New York: McGraw-Hill, pp. 509–528.
- Pollock, J. L. (1987). Defeasible reasoning. *Cognitive Science*, 11(4), 481–518.
- Posner, R. A., & Singer, P. (2001). Animal rights. *Slate.com*, June 12.

- http://www.slate.com/articles/news_and_politics/dialogues/features/2001/animal_rights/_2.html.
- Price, J., & Wolfers, J. (2010). Racial discrimination among NBA referees. *The Quarterly Journal of Economics*, 125(4), 1859–1887.
- Rachels, J. (1990). *Created from Animals: The Moral Implications of Darwinism*. Oxford University Press.
- Rawls, J. (1971). *A Theory of Justice*. Cambridge: Harvard University Press.
- Richerson, P. J. & Boyd, R. (1998). The evolution of human ultra-sociality. In I. Eibl-Eibesfeldt and F. K. Salter (Eds.), *Indoctrinability, Ideology and Warfare* (pp. 71–96). New York: Berghahn Books.
- Richerson, P. J. & Boyd, R. (1999). Complex societies: The evolution of a crude superorganism. *Human Nature*, 10, 253–289.
- Richerson, P. J. & Boyd, R. (2005). *Not by Genes Alone: How Culture Transformed Human Evolution*. Chicago: University of Chicago Press. [SEP]
- Sauer, H. (2018). *Debunking Arguments in Ethics*. Cambridge University Press.
- Scanlon, T. (2000). *What We Owe to Each Other*. Belknap Press.
- Setoh, P., Baillargeon, R., & Gelman, R. (2013). Young infants have biological expectations about animals. *Proceedings of the National Academy of Sciences of the United States of America*, 110, 15937–15942.
- Shafer-Landau, R. (2003). *Moral Realism: A Defence*. Oxford University Press.
- Singer, P. (1976). *Animal Liberation*. London: Jonathan Cape.
- Singer, P. (2005). Ethics and intuitions. *The Journal of Ethics*, 9(3–4), 331–352.
- Street, S. (2006). A Darwinian dilemma for realist theories of value. *Philosophical Studies*, 127(1), 109–166.
- Tajfel, H. & Turner, J. C. (1986). The social identity theory of intergroup behavior. *Psychology of Intergroup Relations*, 5, 7–24.
- Van den Berghe, P. L. (1978). Race and ethnicity: A sociobiological perspective. *Ethnic and Racial Studies*, 1, 401–411.
- Van den Berghe, P. L. (1981). *The Ethnic Phenomenon*. New York: Elsevier. [SEP]
- Vavova, K. (2015). Evolutionary debunking of moral realism. *Philosophy Compass*, 10(2), 104–116.
- Viki, T., Winchester, L., Titshall, L., Chisango, T., Pina, A., & Russell, R. (2006). Beyond secondary emotions: The infra-humanization of groups using human-related and animal-related words. *Social Cognition*, 24, 753–775.
- Waerstad, J., Hobbins, T., Wirrel, J., Hunstone, M., Foy, E., Allen, M., & Wikner, B. (2002). Human-to-animal similarity and participant mood influence punishment recommendations for animal abusers. *Society & Animals*, 10(3), 267–284.
- Westbury, H. R., & Neumann, D. L. (2008). Empathy-related responses to moving film stimuli depicting human and non-human animal targets in negative circumstances. *Biological Psychology*, 78, 66–74. [SEP]
- Wiegman, I. (2017). The evolution of retribution: Intuitions undermined. *Pacific Philosophical Quarterly*, 98(2), 193–218.
- Wielenberg, E. J. (2010). On the evolutionary debunking of morality. *Ethics*, 120(3), 441–464.