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SPECIESISM AND THE PSYCHOLOGY OF ANIMAL EXPLOITATION

Kristof Dhont¹ & Gordon Hodson²

Paper published in Nature Reviews Psychology

Dhont, K., & Hodson, G. (2026). Speciesism and the psychology of animal exploitation. *Nature Reviews Psychology*. <https://doi.org/10.1038/s44159-026-00585-8>

Abstract

Human dominance over other animals—expressed through exploitation, consumption, and exclusion from moral concern—is a widespread feature of societies. However, this dominance contrasts with deep emotional bonds toward certain animals, especially companion animals, revealing a moral hierarchy in which human-assigned categories and functional roles shape how animals are valued and treated. In this Review, we synthesise psychological research on speciesism—the belief system that places humans above other animals and morally ranks animals based on their species and the roles humans impose upon them. We outline how people think about and evaluate different animals, how cognitive biases sustain moral disengagement, and how meat and animal-product consumption exemplify these dynamics in everyday life. We then review the ideological foundations that support speciesist beliefs and consider how speciesism intersects with other forms of prejudice shaped by dominance-based ideologies. Finally, we outline promising directions for future research, policy, and psychological practice. Ultimately, recognising speciesism as a powerful and pervasive belief system is essential for understanding human moral cognition and for building more ethical, sustainable, and just relations with other animals.

¹ School of Psychology, University of Kent, Canterbury, UK. ² Department of Psychology, Brock University, St. Catharines, Ontario, Canada
Email: K.Dhont@Kent.ac.uk

1. INTRODUCTION

Most people care deeply about other animals at least in principle, or at least about some animals. People share their homes with dogs and cats, are captivated by dolphins at play, and feel moved when they see lionesses or bonobo mothers tenderly caring for their young. However, these warm sentiments coexist with everyday involvement in practices that harm other animals on an enormous scale, most notably the eating of animals, often without much reflection. This striking gap between what people feel about animals and how animals are treated reflects a powerful psychological pattern¹⁻³.

Mounting research shows that humans navigate their relationships with other species through a belief system known as speciesism⁴⁻⁶. In its original philosophical formulation, speciesism referred to the assumption of human supremacy over other animals^{5,7,8}. Speciesism is defined more broadly in contemporary psychological research as a belief system that positions humans as superior to other animals and legitimises the differential moral evaluation and treatment of animals based on their species and human-defined roles^{7,9}. This conceptualisation captures both the prioritisation of human interests and the moral hierarchy among non-human animals. Importantly, these hierarchies are not determined by species membership alone, but also by social categories that cut across species, for example, animals categorised as ‘pets’, ‘food’, ‘pests’, or ‘wildlife’^{2,10-14}. Speciesism thereby operates as an ideological framework that structures hierarchies of moral concern and shapes how people perceive animal minds, evaluate harm to animals, and maintain a sense of moral coherence in contexts of animal use and exploitation¹⁵⁻²⁰.

Within this broader framework, specific subsets of speciesist beliefs exist to support particular domains of animal use, such as eating animals⁷. Carnism refers to beliefs that normalise the categorisation of certain animals as food and justify their killing for human consumption^{21,22}. Empirically, animal consumption, particularly meat consumption, has generated a substantial body of psychological research that provides extensive evidence about how speciesism is cognitively, motivationally, and socially maintained. Conversely, veganism can be understood as an ideology and lifestyle that opposes speciesist beliefs and practices and is most visibly expressed through dietary choices that exclude products derived wholly or partly from animals²³⁻²⁵.

Meanwhile, scientific advances across ethology, animal cognition, and philosophy have intensified ethical reflection on how animals are used

and valued in human societies. An extensive body of work demonstrates that many non-human animals possess complex cognitive, emotional, and social capacities^{26,27}. Evidence for diverse forms of learning, cooperation, empathy, and communication across species undermines long-standing assumptions about human exceptionalism²⁸⁻³⁰. However, despite the accumulating scientific evidence for animal consciousness and rich mental lives, many large-scale practices of animal exploitation are firmly embedded in human societies. These practices include industrial animal agriculture, commercial fishing, animal experimentation, entertainment, and clothing production, and involve the routine confinement and killing of billions of animals each year. The persistence of these practices reflects entrenched self-serving biases that protect human interests. People selectively process information about animal minds, engage in motivated reasoning to justify animal exploitation, and downplay the mental capacities of animals. Such patterns illustrate how speciesism operates not only through explicit beliefs about human superiority^{7,31-33} but also through everyday cognitive processes that sustain moral disengagement and legitimise animal exploitation and consumption^{1,20,22,32,34}.

In this Review, we first examine how people think about and morally rank species based on human utility, and how systematic cognitive biases sustain moral disengagement. Next, we focus on the psychology of animal product consumption as a quintessential everyday expression of speciesism and highlight how motivated reasoning preserves moral integrity and how psychological and motivational factors vary between dietary groups. We then turn to the ideological and personality foundations that foster speciesist beliefs and justify human superiority. Finally, we integrate evidence linking speciesism with other forms of prejudice and dominance. Together, these lines of research show how speciesism reflects and perpetuates self-serving hierarchies that shape moral cognition, sustain exploitation, and constrain the expansion of moral concern beyond the human species. We conclude by identifying key directions for future research and practical implications for promoting more ethical and sustainable human–animal relations.

The research reviewed here is heavily concentrated in Western, educated, industrialised, rich and democratic (WEIRD) societies³⁵. We therefore avoid assuming that the empirical patterns identified are universal and specify the cultural context when findings from non-Western settings are available. Although emerging evidence suggests that speciesist beliefs are widespread, their expression and justification are likely shaped by socio-cultural, economic, and religious contexts^{17,36,37}. In synthesising this literature, we

prioritised convergent quantitative evidence and studies using diverse non-student samples to identify robust and generalisable patterns within the existing research base.

2. MORAL EVALUATION OF ANIMALS

Research suggests that judgments about the extent to which animals are granted moral standing are shaped by intuitive perceptions of their minds, emotional reactions to their appearance and behaviour, and culturally ingrained norms about the social and functional roles animals are expected to serve. These processes rarely reflect animals' actual capacities; instead, they reflect the cognitive shortcuts and social meanings that guide moral evaluation. Understanding how these tendencies determine the perceived moral worth of animals and how such perceptions are sustained is essential for explaining why moral concern is so unevenly distributed across species.

2.1. THE PERCEIVED MORAL WORTH OF ANIMALS

Within contemporary moral psychology and analytic philosophy, moral standing is widely understood to rest on mind perception, which is the attribution of internal states that make an entity worthy of moral concern^{38–41}. Two dimensions of mind perception are central to these judgments: experience and agency. Experience (often discussed in terms of sentience) refers to the perceived capacity to feel pleasure, pain, and other affective states. This emphasis on sentience echoes a long-standing philosophical tradition based on the moral relevance of suffering⁴² and contemporary utilitarian accounts^{5,8,43}. Agency refers to perceived cognitive sophistication such as the capacity to think, reason, plan, or act intentionally. This dimension aligns with philosophical traditions that have historically associated moral standing with rationality and autonomy^{8,44}.

Psychological research consistently supports the central role of these two dimensions in shaping the perceived moral worth of animals. Across experimental and cross-sectional research, animals regarded as more sentient and emotionally capable, or as more intelligent or agentic, are systematically attributed greater moral worth and judged as less appropriate to harm, eat, or exploit^{16,45–48}. These findings highlight that attributions of both experience and agency serve as foundational psychological cues through which people infer an animal's moral significance. Cross-cultural evidence further suggests that the associations between sentience beliefs and speciesist attitudes are context-

sensitive. In a large-scale study ($n = 20,996$) spanning 23 countries, stronger belief in animal sentience was associated with lower speciesism in Western countries ($\beta = -.26, p < .001$) but this association was substantially weaker and in the opposite direction, albeit statistically significant ($\beta = .04, p = .023$), in Eastern countries¹⁷.

Beyond mind perception, a range of additional cues also shape moral evaluations. Characteristics such as beauty, cuteness, similarity to humans, familiarity, and perceived dangerousness influence people's intuitive judgments about whether an animal 'matters' morally^{48–53}. These cues often correlate with assumptions about animals' experience, agency, or harmfulness, suggesting that their influence might partly reflect broader inferences people draw about an animal's inner life^{54,55}. In this way, traits such as attractiveness or familiarity might act as mental shortcuts for judging animals' sentience or intelligence, even when those traits do not accurately reflect animals' objective characteristics. As such, moral evaluations might sometimes be guided by surface-level impressions rather than consideration of animals' morally-relevant capacities.

Crucially, evidence indicates that moral regard for other animals is shaped not only by their intrinsic characteristics, but by the roles that humans assign to animals. Social and functional categories such as 'companion', 'food', 'wildlife', or 'pest' systematically structure how much mind, moral worth, and protection people grant to different animals^{3,11,13,45,46,56}. Companion animals (such as cats and dogs) typically occupy the top of this moral hierarchy, followed by appealing wild animals, that is, wildlife perceived as charismatic or aesthetically attractive (such as dolphins and chimps). By contrast, farmed animals (for example, cows and chickens) and low-status wildlife, that is, wildlife perceived as unattractive, dangerous, or as pests (for example, bats and snakes) receive markedly less concern, even when they possess comparable cognitive or emotional capacities^{11,13}. These differences in moral concern are often sustained by socially-shaped beliefs about which animals are capable of feeling, thinking, or suffering that might not necessarily be congruent with scientific evidence.

The hierarchical divisions between animal categories and people's beliefs about them are also inscribed in everyday language. Scholars have long noted that ordinary discourse represents some animals as persons and others as objects or commodities, which reinforces their unequal moral status^{21,56–59}. Large-scale corpus analyses of billions of English words drawn from diverse media sources provide evidence for this pattern: Humans and companion animals are associated with linguistic markers of value and concern, whereas farmed

animals and those seen as pests are framed in more indifferent or instrumental terms¹². Related evidence from computational research shows that AI systems (including image recognition models, word embeddings, and large language models) trained on human-generated text and images reproduce these asymmetries and more readily associate farmed animals with harm, consumption, and instrumental use than companion animals or humans⁶⁰. Such linguistic patterns indicate that speciesism is a pervasive collective phenomenon that is embedded in shared cultural ways of talking and thinking about animals^{61,62}.

Analyses of media coverage, industry communication, and public debates further show that animals are portrayed in role-specific ways (for example, as food products, family members, or public nuisances), with certain characteristics emphasised and others downplayed depending on their assigned role^{63–65}. For instance, farmed animals are often described in terms of production, efficiency, and yield, whereas companion animals are more frequently portrayed in terms of personality, emotion, and individuality. Research examining how people talk about meat consumption similarly shows that individuals draw on culturally familiar narratives (such as appeals to tradition, necessity, or natural order) when explaining or justifying their dietary practices^{20,66}.

In sum, moral distinctions between animals are organised around socially-defined roles that structure how their minds, traits, and uses are perceived, communicated, and justified.

2.2. COGNITIVE PROCESSES THAT SUSTAIN MORAL DISTANCE

Beliefs about animal minds arise not only from intuitive impressions and cultural categories, but also from the cognitive processes through which people encode, store, and update information about other animals. Across several studies conducted in the UK, people showed systematic distortions in how they remembered and revised information about animal cognition^{67,68}. Specifically, when meat-eaters learned about animals' cognitive abilities, they recalled less information about the mental capacities of farmed animals compared with companion animals and compared with vegetarians and vegans⁶⁷. At a one-week follow-up, participants across dietary groups recalled less information about mental capacities across animal types; this shift was stronger among meat-eaters compared to vegetarians and vegans. These findings are consistent with a broader cultural tendency to represent animals as less mentally complex than they are.

Complementing these memory distortions, people also exhibit biases in how they update their beliefs about animal minds. That is, they adjust their views more readily when new evidence suggests that animals lack mental capacities than when it suggests they possess them⁶⁸. This asymmetry is substantially attenuated—and in many cases absent—when the same evidence concerns humans. Together, these tendencies produce a consistent underestimation of animals' minds relative to the evidence available. Such cognitive biases might make it harder for people to recognise animals' capacities even when confronted with clear information, thereby helping to maintain moral distance and justify speciesist practices, especially animal consumption.

3. THE PSYCHOLOGY OF CONSUMING ANIMALS

Eating animals is one of the most pervasive and socially normalised expressions of speciesism in contemporary societies. Carnism—an ideological system organised around the domination and killing of animals for food and the defence of meat consumption—embeds this practice within everyday moral life^{21,22}. Many people who disapprove of animal suffering nevertheless consume animals, which creates a conflict between moral concern and routine practice. When this conflict becomes salient, it generates psychological tension consistent with the core dynamics of cognitive dissonance^{69,70}, a phenomenon termed the meat paradox^{3,71}. Such discomfort motivates efforts to reduce dissonance^{34,72,73}. Comparable moral conflicts and resolution strategies extend to other animal products (and the people who consume them) as well, such as dairy, eggs, and fish. More broadly, the consumption patterns of different dietary groups reflect general orientations toward human–animal relations.

3.1. MORAL CONFLICT IN MEAT CONSUMPTION

Because changing behaviour is often perceived as difficult, most people resolve tension associated with the meat paradox by adjusting how they think about animals or about their own role in harming them. These motivated shifts give rise to a range of psychological defence strategies that enable individuals to maintain everyday eating habits that would otherwise violate their values^{3,59,71,74–77}. Research converges on two broad types of strategies used to manage meat-related cognitive dissonance: dissonance-avoidance mechanisms, which shield people from morally troublesome information before conflict arises, and dissonance-reduction mechanisms, which justify or minimise the moral implications of consuming animals^{34,73}.

A key form of dissonance avoidance involves simply keeping morally troubling information out of view. Industrial animal agriculture is organised to ensure that consumers rarely encounter the individuals behind their food: farms and slaughterhouses are geographically remote, operate behind closed doors, and largely absent from everyday media or conversation^{59,73}. Sanitised portrayals of farming together with limited public access shield consumers from the realities of animal suffering. This engineered invisibility not only reduces the likelihood that moral conflict will arise but also protects harmful practices from scrutiny, criticism, and accountability^{78–80}. In doing so, such invisibility helps sustain the psychological distance that enable consumers to continue participating in practices to which they might otherwise reject.

Avoidance also operates internally through selective information exposure^{73,81}. Studies indicate that people who are more committed to eating meat are more likely to avoid evidence that farmed animals are sentient or intelligent: they choose not to read such information, avoid engaging with it when offered, or terminate exposure prematurely⁸². Importantly, this avoidance is specific to the kinds of facts that would increase moral conflict: more committed meat-eaters are not more likely to avoid information about companion animals or information that suggests that farmed animals are unintelligent. This pattern of motivated disengagement is consistent with work on wilful ignorance, whereby individuals deliberately or strategically choose not to seek or use information when they expect this information to challenge preferred beliefs, evoke negative emotions, or imply the need for behavioural change⁸³. In the context of meat consumption, information about farmed animals' complex mental capacities can challenge beliefs that downplay their capacity to suffer, evoke guilt or discomfort about eating animals, and imply the need to reduce or eliminate meat consumption^{73,81,82}. Thus, avoidance functions as a pre-emptive moral defence that enables people to maintain everyday eating habits without confronting the ethical implications.

When information exposure cannot be fully avoided, research shows that people often show a motivated pattern in how they use the information they do encounter. Evidence from studies conducted in the UK and China indicates that information portraying animals used for food as more (vs. less) intelligent increases moral concern, but only when this information does not threaten dietary behaviour; otherwise, people selectively discount or minimise the information rather than integrate it into their judgments^{84,85}. Consistent with this pattern, cross-sectional and experimental evidence further suggests that individuals who are more strongly

committed to eating meat are more likely to strategically downplay the role of animal agriculture in zoonotic disease risk and to express less support for policies that implicate factory farming⁸⁶.

Another way of avoiding moral conflict is through dissociation, or the loosening or obscuring of the connection between meat and its animal source^{87,88}. Such dissociation can be passive or active⁸⁹. Passive dissociation reflects the ease with which modern food environments keep the animal–meat link out of mind. For example, processing and packaging make it unlikely that consumers spontaneously think of animals when purchasing or eating meat. Experimental research shows that this implicit distancing can be disrupted by presenting meat in minimally processed forms, with visible animal features, or alongside an image of a living animal, which increase discomfort and decrease willingness to eat meat compared to conditions in which meat is highly processed or presented without visible animal features or an image of an animal^{88,90}. However, the strength of this effect might depend on prior exposure and familiarity with unprocessed meat or salient animal features⁹¹. For example, presenting a roast with the pig's head led to less dissociation and willingness to eat the meat compared to presenting the same roast without the pig's head; this effect was stronger in the United States, where such exposure is relatively uncommon, than in Ecuador, where consumers are more frequently exposed to unprocessed meat⁹².

By contrast, active dissociation involves deliberate mental avoidance. People might intentionally suppress thoughts about the animal's life or death, avoid reminders of animal origins, or compartmentalise welfare concerns to protect their eating habits^{89,93}.

When avoidance is not possible and people are confronted with the animal origins of their food or with evidence of animal suffering, they often turn to dissonance-reduction strategies that adjust their beliefs rather than their behaviour. One central strategy is denying or minimising animals' mental capacities, which makes the act of eating them seem less morally troubling^{3,71,94}. This process parallels dehumanisation or mind denial in human intergroup contexts^{95,96}. Experimental research with meat-eaters shows that categorising an animal as food (vs. not categorising it as food)^{45,97,98}, making individuals' own meat consumption salient (vs. making fruit consumption salient)⁴⁵, or having participants consume meat (vs. nuts)⁹⁴ reduces attributions of sentience, intelligence, and capacity for suffering, thereby decreasing moral standing. These shifts in mind attribution operate as a flexible moral buffer: the less that animals are thought to feel or think, the less that harming them carries moral implications.

Indeed, mind denial contributes to omnivores' tendency to ascribe farmed animals fewer mental capacities than vegetarians and vegans^{46,99–101}.

A closely related and mutually reinforcing strategy is dichotomisation—the division of animals into those that are cared for and those that are eaten^{21,73}. This split provides the categorical structure within which mind denial operates, enabling people to maintain affection for companion animals while remaining indifferent toward animals used for food^{11,21,93}. Denying the minds of farmed animals strengthens these boundaries, which makes the distinction feel morally justified.

Beyond altering perceptions of animals themselves, people also engage in cognitive rationalisation of meat eating^{20,102–104}. Empirical work has identified four justifications—eating meat is natural, normal, necessary, and nice²⁰—that are used to legitimise consumption and preserve a positive moral self-view²¹. Evidence from large cross-cultural samples indicates that these rationalisations are endorsed in both Western and Eastern countries, although their strength varies across contexts¹⁷. These same justifications can also function as broader motivational reasons for eating meat, rather than only as post-hoc rationalisations, depending on whether they are expressed in response to moral challenges to meat consumption or as general reasons for eating meat^{105,106}.

Relatedly, survey research shows that people appeal to beliefs that position humans at the top of a natural hierarchy, frame meat consumption as part of cultural tradition, fate, or divine design, or minimise the suffering inherent in animal agriculture to rationalize eating meat^{22,103,107–109}. Such rationalisations ease guilt and moral discomfort while leaving dietary patterns intact^{34,73}.

Collectively, these avoidance and dissonance-reduction strategies resolve moral conflict not by altering consumption but by reshaping how people construe animals and the act of eating them.

3.2. MORAL CONFLICT IN DAIRY, EGG, AND FISH CONSUMPTION

There is a strong emphasis on meat within psychological research (likely reinforced by framing moral conflict as the 'meat paradox'^{3,34,71} or 'meat-related cognitive dissonance'^{73,77}). Far less attention has been given to other animal products such as dairy, eggs, and fish. However, work from the past three years shows that comparable moral conflicts and resolution strategies extend to these products as well, including among people who often reject meat on ethical grounds

but continue to consume dairy or eggs (vegetarians), or fish and other animal products (pescatarians)^{93,108}.

Across these groups, qualitative and survey evidence shows that many dairy and egg consumers endorse consumption-justifying beliefs^{93,108,110,111} (Figure 1a), deny harm in the production process⁹³ (Figure 1b) or portray dairy and eggs as nutritionally indispensable^{93,110}. Such consumers also show dissociation tendencies that distance dairy or eggs from animals (for example, cows and chickens)^{93,112}.

Moral conflicts typically intensify when the hidden realities of non-meat animal agriculture become salient. Experimental evidence indicates that highlighting the harms inherent in dairy production (such as calf separation, repeated impregnation, and eventual slaughter) can elicit defensive responses among dairy consumers similar to those documented among meat consumers in meat contexts, including reduced mind attribution and moral concern for dairy cows¹⁸.

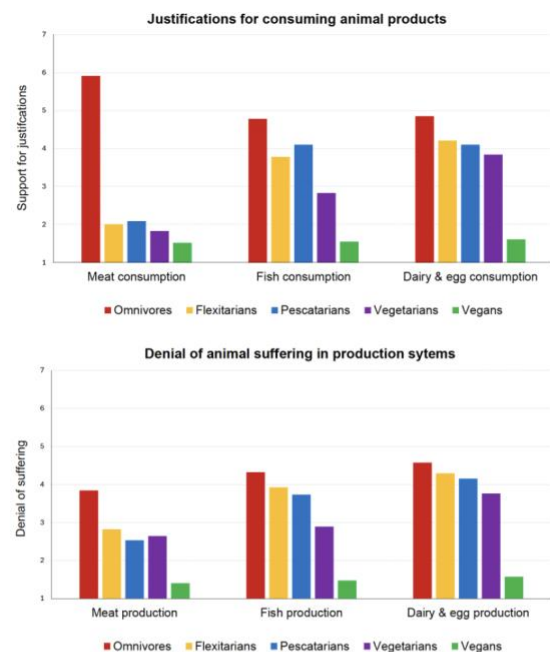


Figure 1. Support for animal products and denial of animal suffering across dietary groups. A) Support for product-specific justifications and b) denial of animal suffering in the production of different animal products across dietary groups. Product-specific justifications and denial of animal suffering closely track the animal products individuals consume. Omnivores show consistently high support for product-consumption justifications and high denial of suffering across meat, fish, dairy and eggs, whereas vegans report the lowest scores across products. Vegetarians and pescatarians express relatively low support for meat-related justifications and denial of suffering but relatively higher support for dairy and egg-related justifications and denial of suffering (vegetarians) and for fish, dairy, and egg-related justifications and denial of suffering (pescatarians). Part A and B adapted from ref⁹³, CC-BY 4.0 (<https://creativecommons.org/licenses/by/4.0/>).

Comparable effects occur outside food contexts. Framing animals as laboratory subjects reduces mind attribution compared to naturalistic descriptions, indicating that mere placement within an exploitative role is sufficient to shift judgments of animals' cognitive and affective capacities¹¹³.

Fish consumption presents a distinct case within this broader pattern. Qualitative research suggests that pescatarians often manage their conflict by emphasising the dissimilarity between fish and mammals, minimising fish suffering, or avoiding vivid depictions of fish slaughter¹¹⁴. Quantitative evidence mirrors this pattern. Compared with omnivores, vegetarians, and vegans, pescatarians attribute the lowest moral worth (Figure 2a), sentience (Figure 2b) and intelligence (Figure 2c) to fish and other aquatic animals used for food. In other words, they selectively downgrade the minds of the animals they continue to consume^{46,115}. These findings suggest that targeted downgrades might enable pescatarians to preserve a coherent moral self-concept while maintaining practices that cause harm. Strikingly, both pescatarians and vegetarians also tend to display within-species moral flexibility, such that they attribute less moral worth, sentience, and intelligence to dairy cows than beef cows, and to layer hens than broiler chickens⁴⁶. These selective downgrades are not evident among omnivores or vegans, indicating that the pattern tracks the specific products people consume. Thus, dissonance around 'ethical' diets can be managed not by eliminating harm but by reshaping how the harmed animals are perceived.

Taken together, research on dairy, egg, and fish consumption show that moral conflict is not eliminated simply by reducing or avoiding meat. Instead, different dietary groups engage in different constellations of motivated beliefs, dissociation tendencies, and speciesist assumptions.

3.3. PSYCHOLOGICAL SIMILARITIES AND DIFFERENCES BETWEEN DIETARY GROUPS

Dietary groups differ not only in the animal products that they consume; these consumption patterns reflect broader orientations toward human-animal relations. Across several comparative studies dietary exclusion of animal products was systematically associated with lower endorsement of speciesist beliefs (including human supremacy and acceptance of animal exploitation; Figure 3) and greater moral concern for animals^{46,101,108,115–118}. Omnivores tend to express the highest levels of speciesism and lowest concern for animals, closely followed by (and not always significantly different from) flexitarians (individuals who

follow a flexible, plant-forward eating style that focuses on plant-based foods while occasionally consuming meat or fish) and pescatarians^{46,108,116}. By contrast, vegetarians and vegans endorse lower speciesism and express stronger moral concern than omnivores, flexitarians, and pescatarians for a wide range of animals. Vegans in particular stand out: they extend moral consideration broadly across species, reject animal exploitation most strongly, and exhibit consistently positive attitudes toward animals^{46,93,116,118,119}. In other words, dietary patterns and identities track underlying moral worldviews about human-animal relations.

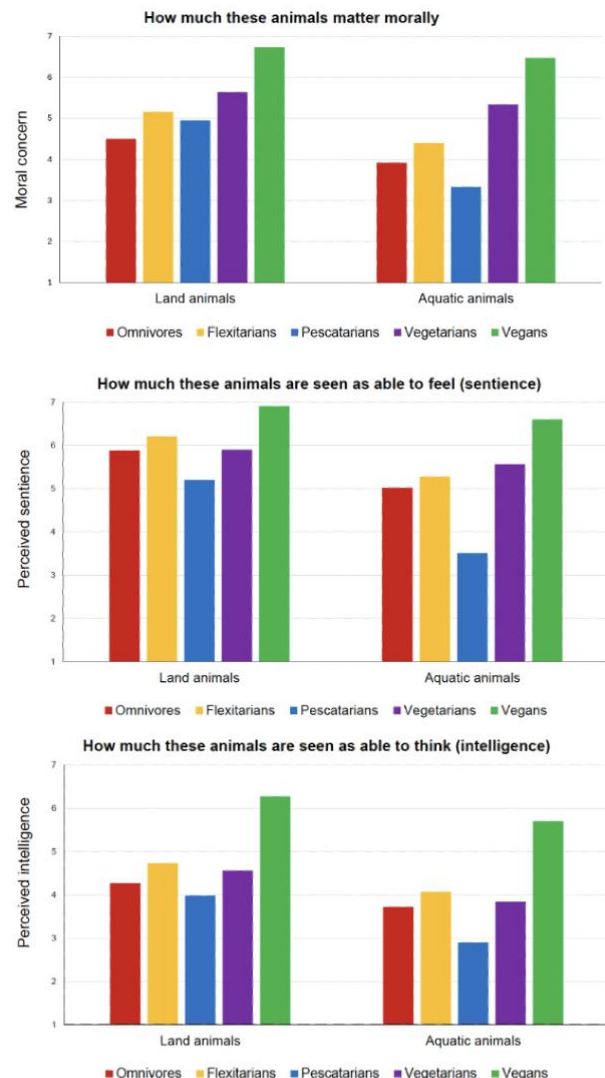


Figure 2. Moral concern and mind attribution to land and aquatic animals across dietary groups. A) Moral concern, b) perceived sentience and c) perceived intelligence for land and aquatic animals across dietary groups. Pescatarians attribute lower moral concern, sentience, and intelligence to aquatic animals used for food than to farmed land animals, and lower levels overall than all other dietary groups. Data from ref⁴⁶.

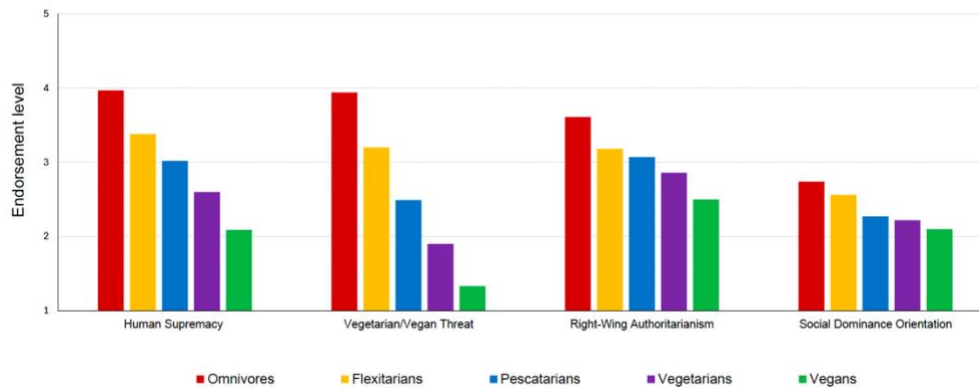


Figure 3. Dietary group differences in beliefs and ideologies. Endorsement of human supremacy, vegetarian and/or vegan threat, right-wing authoritarianism and social dominance orientation across dietary groups. Omnivores show the highest endorsement and vegetarians and vegans consistently have the lowest levels of endorsement across all constructs. Data from ref¹¹⁶.

These attitudinal differences are mirrored in distinct motivational profiles that help explain both dietary choices and the stability of those choices over time. Health, environmental, and animal-rights motives for dietary choices are evident across dietary groups, but their relative importance diverges sharply^{115,120–125}. Omnivores and pescatarians tend to prioritise health over environmental and animal-rights motives, whereas vegetarians and vegans prioritise environmental and animal-rights motives^{115,120,122}. Notably, vegans apply these ethical commitments most consistently across all animal products, whereas vegetarians apply these ethical concerns more selectively and treat dairy and egg consumption as less morally problematic than meat consumption^{119,120}. Differences in moral concern for animals and in human-supremacy beliefs partly account for these motivational differences¹¹⁹.

Compared to vegans, vegetarians tend to experience weaker moral emotions around animal-product consumption¹⁰⁸, feel less morally obligated to follow their diet¹²³, and identify less strongly with their dietary group^{123,126}. Similar motivational and identity differences are also observed between vegetarians and vegans in Saudi Arabia¹²⁷. Vegetarians further report receiving less social support for plant-based diets and perceive more practical barriers (including higher costs, inconvenience, and limited availability) than vegans, which might weaken commitment to plant-based eating¹¹⁹. Moreover, animal-rights and environmental motives, rather than health motives, tend to be more reliable predictors of reduced commitment to consuming meat, dairy, and egg products, underscoring their potential importance for sustaining long-term reductions in animal-product consumption^{120,121}. Thus, motivational orientations help translate dietary identity into behavioural consistency, such that individuals grounded in anti-speciesist values and animal ethics

show the strongest and most enduring commitment to plant-based diets. As such, veganism is not merely a dietary choice but often constitutes a politicised social identity embedded in broader social movements²⁵.

Taken together, these attitudinal and motivational differences show that dietary patterns are not merely consumption choices but express deeper ideological commitments about hierarchy, equality, and who is worthy of moral concern. The same continuum reflected in speciesism and animal-rights motives is evident across broader belief systems^{7,9,31,116,128}.

4. IDEOLOGICAL FOUNDATIONS OF SPECIESISM

Psychological differences between individuals from different dietary groups do not develop in isolation. Rather, they unfold within broader sociocultural and economic systems that heavily incentivise the continued exploitation of animals. Industry-led narratives, pro-livestock scientific discourse, and policy frameworks routinely normalise animal consumption and downplay its ethical and environmental costs, thereby sustaining the cultural and economic status quo in which animal products remain central^{129–132}. These structural forces shape public discourse and reinforce prevailing ideological beliefs about human–animal relations, meat consumption, and plant-based diets. Against this backdrop, ideological worldviews and personality traits play a critical role in determining whether people actively endorse, question, or resist dominant norms surrounding animal use and consumption.

Compared to broad personality traits, ideological beliefs sit closer to specific attitudes and prejudices^{133–135}, which makes them particularly relevant for understanding speciesism. One of the most robust

ideological predictors of speciesism is social dominance orientation—the preference for group hierarchies and acceptance of inequality^{136,137}. Although originally conceptualised to explain human intergroup attitudes, social dominance orientation has since been extended to the interspecies domain^{31,32,116,138}. Across numerous studies conducted in North America and Europe, individuals higher in social dominance orientation report stronger speciesist and carnist beliefs, greater willingness to exploit animals, and are less likely to feel solidarity with animals or support animal rights^{7,22,31–33,116,138–148}. Individuals higher in social dominance orientation also tend to report greater negativity toward vegetarians and vegans (Box 1) and resistance to plant-based alternatives^{32,116,128,149,150}. Social dominance orientation is likewise associated with commitment to consuming not only meat but also dairy, eggs, and fish, which can symbolically affirm dominance values and serve as a form of pushback against ideologies that challenge the dominant societal position of animal-product consumption, such as veganism (Figure 4)^{32,116}. Consistent with these patterns, meat eaters tend to score higher in social dominance orientation than those who avoid meat (Figure 3)¹¹⁶. In short, preferences for group-based dominance and inequality extend beyond human groups and shape how people legitimise and engage in the exploitation of other animals.

Right-wing authoritarianism is a related but distinct construct that captures preferences for conventional social norms, submission to authorities, and support for aggression to enforce norms^{151,152}. Like social dominance orientation, right-wing authoritarianism is implicated in many forms of human outgroup prejudice^{153,154}, and also has implications for human-animal relations, albeit in less generalised ways.

Higher right-wing authoritarianism is associated with greater meat consumption^{32,128}, commitment to consuming meat, dairy, eggs, and fish¹¹⁶, stronger endorsement of carnist ideology²², and lower solidarity with animals¹³⁹. Such patterns might partly reflect defensive responses to vegetarianism and/or veganism, which can be perceived as challenging traditional norms around meat and animal-product consumption (Figure 4)^{32,116,128,150}. These tendencies are mirrored in dietary patterns. Right-wing authoritarianism levels tend to be highest among omnivores, followed by flexitarians, pescatarians, and vegetarians, with vegans showing the lowest levels of right-wing authoritarianism (Figure 3)¹¹⁶. However, associations between right-wing authoritarianism and speciesism and human supremacy beliefs tend to be weak or non-significant, especially when controlling for social dominance orientation^{32,116,140}. Overall, individuals who are more tradition-oriented and authority-oriented are more inclined to defend culturally established practices of animal use such as eating meat, rather than endorse broader speciesist beliefs that legitimise animal exploitation.

Political conservatism is also associated with greater speciesism¹⁵⁵, even after statistically controlling for social dominance orientation and right-wing authoritarianism³¹. A large-scale (n = 20,996) 23-nation study found that conservatism was associated with greater speciesism as well as stronger endorsement of the beliefs (eating animals is natural, normal, necessary, and nice) that rationalise harming and eating animals, and these associations were comparable across Western and Eastern country clusters¹⁷. Consistent with these findings, those who more strongly endorse conservative ideology also show stronger endorsement

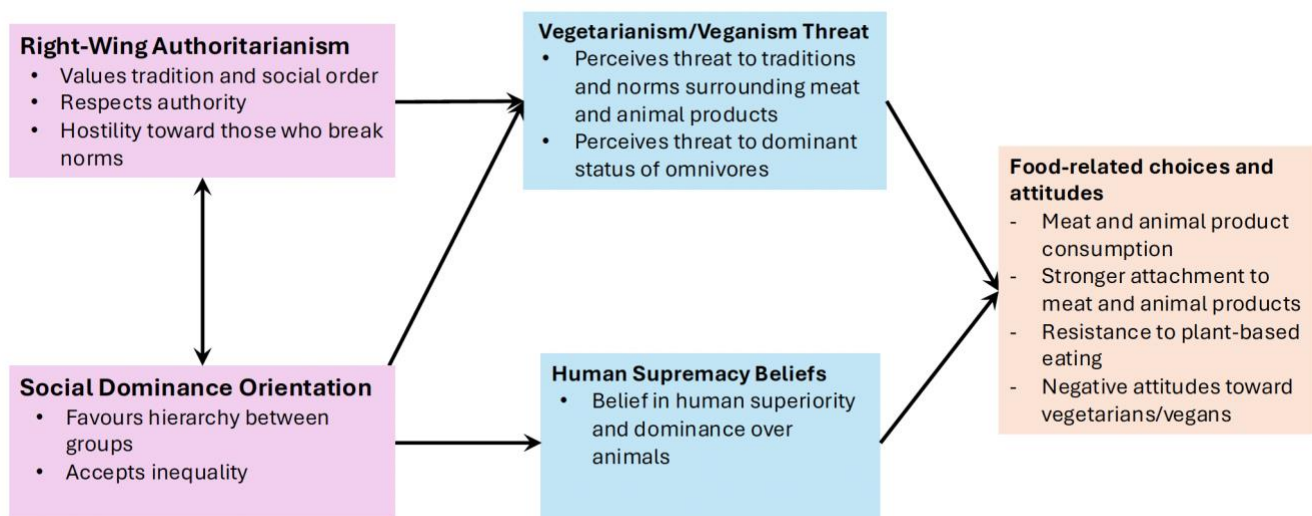


Figure 4. Ideological roots of resistance to plant-based eating. Ideological orientations that emphasise social order and tradition (right-wing authoritarianism) and group-based dominance (social dominance orientation) foster perceptions that vegetarianism and veganism threaten cultural traditions and omnivore status, as well as beliefs in human superiority over animals. These threat perceptions and supremacy beliefs, in turn, shape food-related choices and attitudes, including meat attachment, resistance to plant-based diets, and negative attitudes toward vegetarians and vegans.

of carnist ideology and lower support for animal rights^{22,155}. Survey evidence from former and current vegetarians and vegans in the US further shows that individuals who more strongly endorse conservative ideology are more likely to lapse back into meat consumption after attempting to quit compared to individuals who more strongly endorse liberal ideology, in part because their initial motives for quitting are less likely to be rooted in justice concerns¹⁵⁶. However, results from five large-sample studies (total $n = 9,385$) that investigated attitudes toward food system reforms in Switzerland indicate that although individuals on the political left express greater concern for farmed animal welfare than individuals on the political right, individuals on the political right tend to prioritise animal welfare equally or slightly more than other considerations such as domestic food production, food prices, and farmers' income. Such findings indicate that animal welfare is also relatively important among those on the political right in Switzerland¹⁵⁷. These results suggest that interventions to promote food system reforms could emphasise animal welfare considerations to appeal to individuals across the political spectrum¹⁵⁸. Indeed, individuals on the political right tend to under-recognise the role of factory farming in zoonotic disease risk⁸⁶ and its contribution to the climate crisis¹⁵⁹, suggesting that raising awareness on these points could increase support for policy measures that address these issues.

In addition to ideological orientations, basic personality traits also help explain why some people endorse greater speciesist beliefs than others. Nationally representative studies from the US show that individuals who are less open to new experiences, less agreeable, or more emotionally stable (low neuroticism) tend to report stronger speciesist beliefs¹⁶⁰ and show less support for farmed animal welfare legislation¹⁶¹. Except for the neuroticism finding, these personality patterns are consistent with evidence that openness and agreeableness are the traits most strongly linked to ideological orientations such as social dominance orientation, right-wing authoritarianism, or political conservatism, and correspond closely to how these broad personality factors predict human outgroup prejudices^{153,162}. These patterns are reflected in behaviour as well: meta-analytic evidence demonstrates that vegetarians and vegans typically score higher in openness and agreeableness than omnivores¹⁶³.

Relatedly, personality tendencies marked by manipulation, callousness, and self-centredness, such as psychopathy, Machiavellianism, narcissism, and sadism, are associated with greater speciesism and higher meat consumption¹⁴⁸. Likewise, antagonistic dispositions (the low end of agreeableness) and broader antisocial traits such as callousness and entitlement are

associated with greater speciesism and less sympathy for animal rights^{143,160}. Some of these tendencies also map onto broader ideological patterns. For example, antisocial and antagonistic traits are positively associated with group dominance desires expressed in social dominance orientation^{164,165}. Conversely, those who are more empathic tend to report lower levels of speciesism^{7,33,143,147}. A further contributor to speciesism is the degree to which people feel connected to other animals. Individuals who identify more strongly with animals through solidarity, pride, or a sense of human-animal similarity tend to show lower speciesism and a greater desire to protect animals, and avoid meat consumption^{139,166}.

Ultimately, the mix of dominance-driven and entitlement-driven dispositions, alongside more traditional and closed-minded orientations, helps explain why attitudes toward animals vary across individuals and why challenges to dominant consumption norms can elicit defensive reactions.

5. SPECIESISM AS AN INTERGROUP PHENOMENON

The relationship between social dominance orientation and right-wing authoritarianism and speciesism suggests that speciesism is intertwined with prejudices towards human outgroups. This notion is not new: parallels between speciesism and other systems of oppression were identified as early as 1975 (ref⁵) and feminist theorists have documented how patriarchal structures underpin exploitation toward both women and animals^{167–169}. What is new is the growing empirical recognition within psychology that these domains are interconnected^{59,170,171}. Contemporary research shows that attitudes that legitimise the exploitation of animals reliably correlate with prejudices toward human outgroups, including racism, sexism, and anti-LGBT sentiment^{7,31,172}, indicating that speciesism is an intergroup phenomenon rooted in preferences for social hierarchy and ingroup superiority.

This idea is formalised in the social dominance human-animals relations model³¹, which offers an integrative account of why speciesism is consistently associated with human outgroup prejudices. Across several studies, individuals who express stronger prejudices against ethnic minorities or other low-status groups also show higher levels of speciesism, and this association consistently reflects group-based dominance motives (social dominance orientation) as a shared ideological driver^{31,144,172}. When social dominance orientation is taken into account (that is,

statistically controlled for), associations between human-directed prejudices and speciesism typically attenuate or disappear^{7,31,172}, indicating that preferences for hierarchies and group-based inequalities underpin both forms of prejudice. This pattern is specific to social dominance orientation and does not extend to other right-leaning orientations such as right-wing authoritarianism or political conservatism³¹. Evidence from large probability samples further supports this pattern, showing that prejudices against human groups (for example, racism) are positively associated with human-supremacy beliefs ($n = 56,759$ participants from 46 European countries) and endorsement of meat consumption ($n = 1,566$ Dutch participants)¹⁷³. Taken together, hierarchy-enhancing ideologies function as the psychological ‘glue’ that aligns prejudices against both marginalised human groups and non-human animals.

A clear illustration of these interconnections emerges in the domain of gender^{167,174}. Individuals who endorse stronger beliefs in men’s supremacy over women also tend to endorse stronger beliefs of human supremacy over other animals, associations that are partly accounted for by dominance motives (social dominance orientation)¹⁷⁵. These dynamics are especially evident in the cultural association between meat and masculinity. Meat has long symbolised power, strength, and dominance in Western contexts^{167,174,176,177} where men continue to eat more meat than women and are less likely than women to adopt vegetarian or vegan diets^{178–182}. Evidence from 23 countries further indicates that men report higher meat consumption than women across cultural contexts, but this gender gap is larger in countries characterised by higher human development and greater gender equality³⁶. The meat–masculinity link is continually reinforced by advertisements and media that portray meat as powerful or essential for manliness and frame meat avoidance as weak or feminine^{103,167,179,183,184}. Consequently, vegetarian or vegan men are often viewed as less masculine^{174,185,186} and less attractive¹⁸⁷ than omnivorous men and are evaluated more negatively than vegetarian or vegan women¹⁵⁰, consistent with perceptions that they deviate from traditional gender expectations^{174,179}. These gendered associations extend to plant-based meat alternatives: identical dishes are judged as less masculine and less appealing when labelled as plant-based meat rather than as real meat, and these effects are larger among individuals higher in sexism¹⁸⁸. Overall, these patterns demonstrate that gendered dominance motives help sustain both speciesist beliefs and a continued commitment to meat consumption.

Human-animal relations are also critical to understanding how people dehumanise human groups^{5,59,171,189}. According to the interspecies model of

prejudice, representing human outgroups as animal-like depends on distancing humans from animals in the first place. Survey and experimental studies with Canadian children and adults show that perceiving humans and animals as highly dissimilar is associated with dehumanising human outgroups such as immigrants, which in turn fuels prejudice^{190–193}. Encouraging participants to reflect on how animals are similar to humans—thereby ‘elevating’ animals rather than lowering humans—increases moral concern for human outgroups¹⁹⁴. Similarly, exposure to editorials that emphasise animals’ similarity to humans increases perceptions that immigrants are fully human and reduces anti-immigrant prejudice compared to messages that emphasise humans’ similarity to animals or human-animal differences¹⁹³.

The perceived human-animal divide also helps explain why those who reject the idea that humans evolved from other animals are more prejudiced toward human groups; those who disavow evolution see animals and humans as fundamentally distinct, which in turn predicts greater racism, homophobia, and other outgroup prejudices¹⁹⁵. At the same time, anthropomorphic portrayals might inadvertently promote anthropocentric reasoning^{196,197}, obscure animals’ species-specific characteristics and needs¹⁹⁸, or encourage misinterpretation of their behavioural signals¹⁹⁸.

Given the tight connections between speciesism and human outgroup prejudices, techniques that reduce human prejudice might also reduce speciesism. For instance, imagining contact with a dog or cow has been shown to increase self-other overlap with animals and to enhance prosocial attitudes toward animals in general¹⁹⁹. Shifting how people categorise animals can have similar effects. Reading or writing editorials that emphasise animals’ similarity to humans (essentially re-categorising animals as part of a broader ingroup) increases concern for animals and reduces speciesism compared to a condition that emphasises human’s similarity to animals or a control condition¹⁹⁴. Finally, video-based tasks that cultivate bias awareness and animal perspective-taking (such as imagining the world from an animal’s perspective or considering human–animal role reversals) tend to reduce speciesism and lower intentions to eat meat and dairy compared to no-intervention control conditions^{200,201}. In sum, practices that broaden group boundaries or deepen empathic engagement show considerable promise for reducing speciesism.

A related proposal is the ‘pets-as-ambassadors’ idea, which suggests that close, positive relationships with companion animals might spillover to

animals more generally^{202,203}. Although there is little research testing this idea and causal (or longitudinal) evidence is lacking, initial findings offer some support. For instance, people who report more frequent and positive interactions with companion animals show greater self-other overlap with companion animals and lower anxiety about engaging with other animals, both of which predict more favourable attitudes toward animals in general²⁰². Representative data from Canada echo this pattern: individuals with companion animals identify more strongly with animals, show greater concern for the environment and human outgroups, and tend to consume less meat compared to individuals without companion animals²⁰³. However, these patterns of results might reflect self-selection biases and many people who deeply ‘care’ for their companion animals nonetheless show few qualms about exploiting and harming other animals¹.

Humans are masters of rationalisation and justification, and are largely willing to live with the psychological disconnect between their companion animals and the many other animals they routinely use or consume^{2,21,59,73}. Ultimately, reducing speciesism will require targeted interventions as well as long-term, strategic efforts that challenge dominant cultural worldviews that cast animals as commodities and instead promote more powerful, compelling narratives and worldviews that recognise animals as sentient individuals with lives of their own.

6. SUMMARY AND FUTURE DIRECTIONS

Speciesism functions as a broad belief system that centres on the assumption of human superiority over other animals, organises moral hierarchies across species, and sustains everyday practices of animal exploitation. People systematically morally rank animals based on human utility, selectively perceive animal minds, and use motivated reasoning to maintain moral comfort in the face of harmful practices such as animal product consumption. These cognitive tendencies are reinforced by cultural and structural contexts that normalise exploitation, as well as by ideological dispositions that valorise hierarchy, dominance, and traditional norms, thereby reinforcing beliefs in human exceptionalism. Speciesism also manifests in social relations, emerges alongside prejudice toward those who challenge dominant consumption norms such as vegetarians and vegans (Box 1), and reflects the same dominance-based worldviews that shape human intergroup biases. Collectively, this body of work makes clear that speciesism is an interconnected psychological system that links motivated cognition,

ideology, intergroup dynamics, and cultural processes to constrain the expansion of moral concern beyond the human species.

Despite rapid progress, speciesism research has been historically concentrated in industrialized Western contexts, which limits understanding of how cultural and religious beliefs shape human-animal relations across societies. However, emerging cross-cultural research, including multi-nation datasets and studies conducted in East Asia and Latin America, suggests that several psychological mechanisms (for example, ideological correlates and meat-rationalisations) are observed across contexts. At the same time, their strength and expression vary meaningfully across cultural settings, suggesting that cultural, institutional, and potentially religious norms shape how attitudes toward animals are formed and justified^{17,37,92,204–206}. These dynamics are particularly visible in the domain of animal consumption. Qualitative work shows that individuals experience moral tension surrounding meat consumption in both Australia and India, but the strategies used to manage this tension are embedded within distinct socio-cultural and religious frameworks²⁰⁷. For instance, in India, where Hindu and caste-based traditions historically value vegetarianism, people who eat meat might hide this behaviour, restrict it to certain social contexts, or separate it from their public identity²⁰⁸. Overall, however, cross-cultural research is limited, and more systematic work is needed to clarify which aspects of speciesism and animal consumption generalise across societies and which are shaped by specific cultural, economic, or religious traditions.

Equally important is the need for developmental and longitudinal work. Very little is known about how children learn to morally rank animals, how early exposure to animal use shapes motivated cognition, or how dominance-oriented worldviews emerge and solidify across adolescence (Box 2). Longitudinal studies following children, adolescents, and adults over time would clarify the developmental origins and stability of speciesism and reveal age windows where interventions might be especially effective.

A key priority for future research is determining how to effectively reduce speciesism, expand moral concern, and shift dietary behaviour across diverse segments of the population. Because ideological orientations, political identities, and cultural norms can shape how people respond to information about animals, research should identify which framings, messengers, and psychological mechanisms are most effective for different audiences, including those with stronger dominance-based or traditional worldviews.

Motivational and opportunity factors such as ethical awareness about animal welfare and features of the physical food environment (for example, defaults or menu design) tend to be the most consistent drivers of plant-based choices^{209,210}.

However, policy-oriented research remains scarce²¹⁰, overall effect sizes of existing interventions to reduce meat and animal-product consumption tend to be small and no single approach has been well-validated²¹¹. Effects are even highly heterogeneous among the most promising approaches such as real-world nudging. Default-based interventions (such as displaying only plant-based options in cafeterias and providing meat dishes only upon request²¹²) can substantially reduce meat consumption, whereas information-based nudges (such as providing information about the environmental impact of meat consumption) often have little impact and might even backfire²¹³. To build a more cumulative and policy-relevant science, future work should test how structural interventions interact with psychological processes, map which animal-welfare and plant-based policies different groups are likely to support, and use longitudinal and field-based designs to assess behavioural persistence and potential compensatory

responses (for example, replacing beef with increased chicken or fish consumption), as well as the conditions under which interventions succeed or fail.

Advancing human–animal relations requires an integrated and future-oriented research agenda. Theory and research on speciesism should be situated within broader theories of moral cognition, inequality, and social change, tracing how moral boundaries develop, shift, and expand across the lifespan and across cultures. Such a research agenda includes examining how public attitudes, institutions, and collective identities can be mobilised toward recognising animals as individuals with their own interests rather than as resources for human use. By integrating diverse and multidisciplinary perspectives, psychology is uniquely positioned to describe the forces that sustain exploitation as well as illuminate the conditions under which societies can meaningfully expand their moral circles. At the same time, the implications of research on speciesism extend to the ethical obligations of psychology itself, which invites reflection on how the discipline’s own practices and assumptions might reinforce human supremacy (Box 3). Ultimately, such work can help cultivate more just and compassionate relations with other animals.

BOX 1. SOCIAL REACTIONS TO VEGETARIANS AND VEGANS

Speciesism is not only reflected in attitudes toward animals but is also maintained through social responses to those who challenge dominant practices of animal use. Because vegetarians and vegans are typically motivated by ethical concerns and express care for animals^{120,119,122,214}, their dietary behaviour can be perceived as criticising mainstream speciesist norms. In many Western meat-centred contexts, this moral challenge might lead to perceptions that vegetarians and vegans are socially deviant and threatening^{32,116,149,150}, thereby increasing prejudice toward vegetarians and vegans and stereotypes that vegetarians and vegans are arrogant, self-righteous, or unconventional^{150,215,216}. However, these stereotypes are often ambivalent and include positive traits such as being moral, compassionate, or principled^{215–217}.

This pattern reflects a broader phenomenon of ‘do-gooder derogation’, whereby people react negatively and defensively to those who are perceived as morally superior^{218,219}. This reaction is often triggered by the moral position associated with vegetarians and vegans^{220,221}. By refraining from eating animals, vegetarians and vegans might implicitly signal a moral stance that highlights meat-eaters’ choices, which might provoke irritation, defensiveness, and hostility among meat eaters^{77,150}. Evidence from Turkey, where meat consumption is culturally and religiously normative, also indicates that vegetarians and vegans report greater perceived discrimination than meat-eaters and flexitarians²²². Consistent with this dynamic, qualitative research shows that some vegetarians and vegans downplay moral motivations and emphasise personal reasons for their diet in mixed-group interactions, suggesting that openly framing abstinence in moral terms can intensify social tension²²³. Navigating these tensions might carry interpersonal and wellbeing-related costs for some vegetarians and vegans, including experiences of social strain and disapproval in everyday contexts²²⁴.

Individuals who endorse hierarchy-enhancing and tradition-oriented worldviews (for example, higher levels of social dominance orientation and right-wing authoritarianism) are particularly likely to express negative attitudes toward vegetarians and vegans^{128,149,150,215}. Some meat eaters even form an explicit anti-vegan identity characterized by markedly higher social dominance orientation, speciesism, and endorsement of traditional male-role norms compared to other meat eaters²²⁵. Thus, prejudice toward vegetarians and vegans is closely intertwined with broader ideological commitments that legitimise existing hierarchies and culturally normative practices.

Taken together, these findings indicate that, at least in the contexts studied so far, social resistance to vegetarians and vegans can stabilise speciesist norms by discouraging or delegitimising moral challenges to animal use.

BOX 2. THE EMERGENCE OF SPECIESISM

How humans come to view and morally evaluate other animals is central to understanding speciesism across the lifespan. Developmental research consistently shows that children aged 5–11 years generally make less speciesist and less anthropocentric moral judgments than adults, and grant animals broader and more egalitarian consideration^{226–229}. Children aged 1–6 years show strong interest in animals and readily extend moral concern to them^{230–232}. In moral dilemmas pitting humans against animals, children aged 5–9 years prioritise humans far less strongly than adults and many choose to save multiple animals (for example, ten dogs or ten pigs) over one human, whereas adults overwhelmingly prioritise human lives and choose to save just one human over 100 animals²²⁸. Similar patterns emerge on attitudinal measures: 9–11-year-old children tend to score lower on speciesism and judge pigs, dogs, and humans as equally deserving of good treatment, whereas adults elevate humans and dogs above pigs²²⁶. Adolescence could be a turning point: emerging evidence indicates that adolescents aged 10–17 years tend to score higher on speciesism than adults²³³.

Children also differ from adults in how they reason about animals that are used instrumentally in human societies, especially as food. Children (9–12 years) are less likely to think of farmed animals as ‘food,’ judge meat eating as less morally acceptable, and rely more heavily on moral arguments centred on animal suffering when evaluating the acceptability of harming or eating animals compared to adults^{226,234}.

Although direct developmental evidence is limited, theoretical accounts propose that as children gain a clearer understanding of how animals are raised and killed for food, they might confront new moral tensions and increasingly rely on dominant rationalisations (such as the ideas that eating animals is natural or necessary) to resolve this conflict²³⁵. Consistent with this view, by adolescence (ages 10–17 years) many young people begin to appeal to arguments that eating animals is natural, necessary, or otherwise socially expected, and this period is marked by a notable decline in moral concern for farmed animals^{233,236}.

Taken together, existing evidence suggests that speciesism emerges and strengthens with age, potentially reflecting increasing awareness of cultural practices surrounding animal use and an increasing need to justify these practices. However, these developmental conclusions remain tentative. Current findings rely almost entirely on cross-sectional comparisons between age groups, which cannot reveal how speciesist beliefs, moral concern, or meat-related justifications unfold within individuals over time. Longitudinal research is therefore essential for determining whether shifts across childhood and adolescence stem from socialisation into dominant norms, increasing food-systems knowledge, cognitive maturation, or early-emerging dispositional factors linked to personality or ideology. Without tracking when young people first confront tensions between caring about animals and consuming them, it also remains unclear how cognitive dissonance develops or why trajectories diverge between people. Identifying when and how children learn about animals, food production, and cultural norms will be crucial for explaining how speciesist beliefs take shape over time.

BOX 3. MORAL RESPONSIBILITIES FOR PSYCHOLOGICAL SCIENCE

Speciesism poses profound moral challenges for society and the scientific community. For example, the American Psychological Association (APA) Ethics Code opens with Principle A (Beneficence and Nonmaleficence): “Psychologists strive to benefit those with whom they work and take care to do no harm... [and to safeguard] the welfare of animal subjects of research” (APA, 2017). However, many psychological procedures (as in other disciplines, such as medicine) directly conflict with the basic principle to do no harm^{238–240}. Researchers might administer drugs, perform surgeries, confine or underfeed animals, and deny them instinctive behaviours. At the end of many studies, animals are often euthanised or decapitated rather than allowed to live out their natural lifespan. Intensifying these ethical concerns, findings from animal-based research are often difficult to translate reliably to humans, even in basic physiology and medicine, let alone psychology^{241–245}. In practice, the mandate to ‘do no harm’ is often overridden by assumptions that animal suffering is justified for human benefit, which reflects the logic of human supremacy that underlies speciesism.

Other aspects of the APA ethics code also warrant modernisation and expansion so that the circle of concern and protection extends beyond humans to include animals and thereby reduce speciesism. Principle D (Justice) defines fairness exclusively in terms of access and benefit for people: “Psychologists recognize that fairness and justice entitle all persons to access to and benefit from the contributions of psychology...” (APA, 2017). This is an overly narrow scope for justice concerns that narrowly focuses on access to outputs and services and overlooks the broader systems of injustice that bind harm to humans and other animals together. As research increasingly shows, speciesism is interwoven with racism, sexism, homophobia, and other ideologies of group-based dominance^{7,9,31,144,169}. Narrowing justice to humans alone is both conceptually outdated and ethically insufficient: efforts to advance social justice for all people will be hampered as long as structures that legitimise harm to animals are maintained.

The treatment of research animals also runs counter to the spirit of Principle E (Respect for People’s Rights and Dignity), which emphasises dignity, autonomy, and protection from prejudice. Extending these values to include animals by recognising their capacities, interests, and right to self-determination would bring the discipline’s moral commitments into closer alignment with modern scientific understanding and reduce speciesism within psychological practice.

Beyond psychology, speciesism has far-reaching implications for scientific and educational institutions more broadly. The continued reliance on animal-based products—whether in procurement, campus life, or academic conferences—stands in stark contrast to growing scientific evidence of widespread animal sentience and the capacity of many species to experience pain, distress, and complex emotional states²⁶. These ethical concerns intersect with a broader body of findings showing that animal-based food production contributes disproportionately to environmental degradation, biodiversity loss, and pandemic risk^{246–249}. Substantial reductions in the use of animals, particularly in food systems, are critical for meeting climate targets and staying within planetary boundaries^{248,250–252}. When universities and research institutions fail to align their practices with this knowledge, they risk undermining the very evidence they generate and teach²⁵³. Institutions that position themselves as leaders in scientific progress and social responsibility therefore have a unique opportunity to model change by reducing their dependence on animal-based products, actively promoting plant-based alternatives, and signalling a commitment to sustainability and to extending moral consideration to animals as sentient beings.

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