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When development constricts our moral circle

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Many people believe that our 'moral circle' expands as we grow up. We first care for family members and friends, then gradually extend this care to distant others. Some scholars argue that this presumed broadening of moral concern is driven by our increasing capacity to recognize, through reason, that the suffering of strangers matters as much as the suffering of those we love. Yet, recent research complicates this story. In several domains, younger children start out with a more expansive moral circle than older children and adults. Younger children are more likely than their older counterparts to judge relationally, physically and phylogenetically distant others as worthy of help or protection. These findings suggest, counterintuitively, that development may not widen our moral circle but may sometimes narrow it. This Perspective raises the possibility that, rather than focusing on overcoming biases against caring for distant others, we should also recognize that, in some domains, we possess an early-emerging tendency to care for them.

Caring about the welfare of distant others is an essential prerequisite to solving some of the world's most pressing problems. Tackling climate change, mitigating global poverty or combating discrimination requires recognizing the moral value of those whom we do not know well or may never meet[1]. One way of thinking about the extent to which humans are willing to extend such concern is the concept of a 'moral circle'[2,3]. The moral circle provides a philosophical framework to describe our understanding of whom we do and do not consider worthy of moral concern, where beings closer to the centre of the circle are considered as of greater moral value than those towards the fringes. Indeed, psychological research has found that, although there is some variability in the configuration of adults' moral circles[4], consistent patterns emerge across cultures. For example, most people care predominantly about close others (friends and family) and less about distant ones (such as outgroups and non-human animals)[4–9].

The past few decades have witnessed increased philosophical attention dedicated to understanding morality through the lens of the moral circle[10]. For example, the philosopher Singer[3] contends that our moral circle has expanded over time: "The circle of altruism has broadened from family and tribe to nation and race, and we are beginning to recognize that obligations extend to all human beings" (p. 120). Critically, Singer and others have argued that this expansion is ethically valuable and that our capacity for rationality drives this expansion to include distant beings[3,11,12]. These philosophical ideas have continued to have social impact. On the one hand, these discussions have persuaded people to consider the gravity of a variety of social issues, including poverty reduction and animal rights[13,14]. On the other hand, these discussions have also sparked a counter-reaction, arguing that—rather than promoting even further moral expansion—we should instead cultivate moral narrowness and uphold an ordered sense of care (*ordo amoris*[15]).

Beyond philosophy, discussions of moral concern also extend to psychology and cognitive science. Some scholars argue that the moral circle expands with age, driven by our growing capacity for rational thought[16–18]. From this perspective (Fig. 1a), we would expect younger children—who are often seen as less rational—to prioritize the welfare of close others far more than that of distant others compared with older children. Much theorizing and empirical research in developmental science provides evidence in favour of this position. In terms of theory, Kohlberg's model of moral development suggests that, as children and

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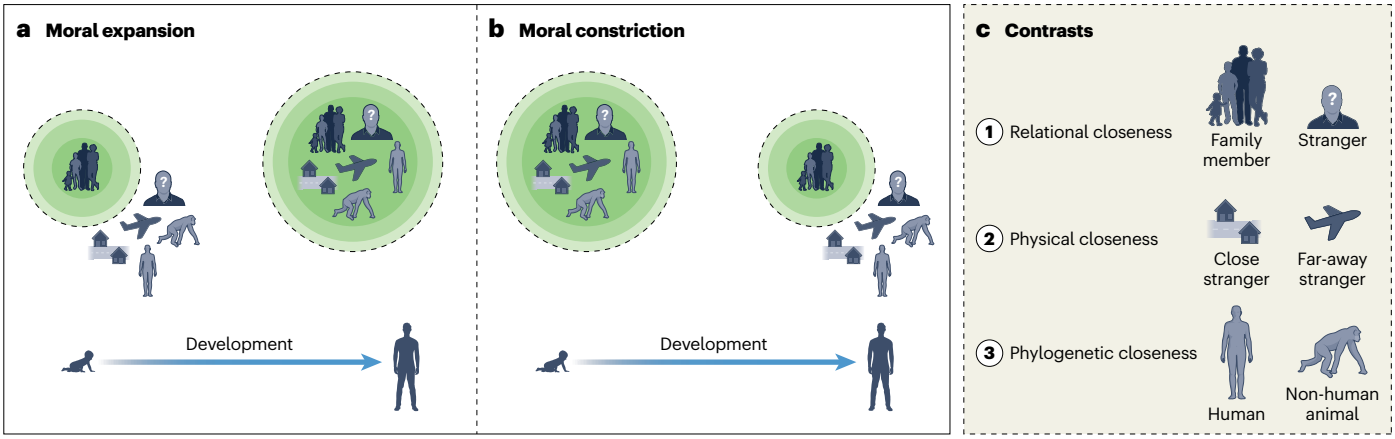

Fig. 1 | Moral expansion and constriction in development. a, Moral expansion. **b**, Moral constriction. **c**, Contrasts along social dimensions. The concentric green circles depict moral circles, with darker green indicating the greatest moral concern, medium green indicating an intermediate level of moral concern and the lightest green indicating a low level of concern. To be clear, we do not think that people necessarily represent moral concern in circular configurations in their minds. Instead, we are using the circles as a way of representing a constricted versus expanded sense of moral concern. We also are not committed to the notion that there are necessarily three moral circles or that moral concern is discrete (rather than continuous).

adolescents mature, they develop the capacity to recognize, through reasoning, that all humans have intrinsic value independent of social convention[19,20]. In terms of empirical work, research finds that children express more concern for strangers with age. As children grow older, they become more likely to donate valued resources, such as stickers, to strangers[21] and to sacrifice their own resources to rectify inequalities affecting others[22]. This expansion of concern also extends to greater endorsement of rectifying inequalities among peers of different racial backgrounds[23] and ensuring equal resource allocation to outgroups[24,25] (for reviews, see refs. 26,27).

Despite this past work, the notion that children express more expansive moral concern with increasing age remains debated. An alternative perspective agrees that children naturally care about close others but challenges the idea that development broadens moral concern to include distant others (Fig. 1b). Instead, some argue that children initially extend concern to both close and distant others, but concern for distant others declines with age[28]. For example, studies have found that toddlers and children readily help even unknown strangers[29–32], and, if anything, this tendency decreases with age[33]. These findings support the claim that a desire to help strangers may be a fundamental to human nature.

In line with this work, the current Perspective spotlights recent findings in developmental science and moral judgement that, in our view, contribute substantial evidence to the view that development has the role of constricting children's moral concern rather than expanding it. In particular, we showcase recent research on children's moral judgements along three social dimensions (henceforth 'contrasts') (Fig. 1c): (1) relationally close versus distant others, (2) physically close versus distant others and (3) phylogenetically close versus distant others. In these cases, younger children tend to judge themselves and others as more obligated to provide direct help to distant others than older children and adults do. Notably, though, even the youngest children often show some discrepancy, just to a lesser degree. Ultimately, we take this emerging body of research as evidence that, in some contexts, development may actually narrow rather than expand children's sense of moral concern for distant others.

Our goal is not to provide an exhaustive review of the extensive and multifaceted literature on moral concern[34–36], as such a task lies beyond the scope of this Perspective. We also do not aim to propose a new theory of moral development, nor do we aim to provide a mechanistic account of moral expansion. Rather, this Perspective highlights recent developmental research that bears directly on discussions about the moral circle, without making normative claims about the ideal scope of children's moral concern. When viewed through this lens, developmental findings suggest that children start out with an expansive moral circle such that they are more inclined to extend concern to distant others than are older children and adults. This possibility challenges a core assumption of influential philosophical views on the nature of moral progress[3,12,16].

Defining moral concern

Moral concern is a multifaceted concept that generally lacks a consistent, agreed-upon definition in either the philosophical or psychological literature, as does the concept of morality in general[37–40]. In the philosophical literature, moral concern often refers to proper consideration of an entity's interests[41]. In psychological research, moral concern is commonly associated with concepts such as welfare, rights, fairness and justice. It is also associated with actions that are considered morally praiseworthy or even obligatory, such as helping others, or those that are prohibited, such as harming others[37,38]. Moral concern can then be indexed via behaviour, emotion, judgement or reasoning. Behaviourally, it may manifest as a willingness to help, share with or inform others[30]. Emotionally, moral concern can manifest as empathy or sympathy in response to others' suffering[42–44]. In terms of judgement, moral concern might be reflected in negative evaluations of those who fail to help, beliefs that someone should or ought to help, or judgements that helping is necessary regardless of the rules or context[45]. Moral reasoning, too, is crucial for determining the scope of moral concern[26]. This is because understanding the reasons behind children's judgements helps to clarify whether they are driven by moral concerns, such as the welfare of others, or by prudential concerns, such as their own safety.

Drawing on these philosophical and psychological conceptualizations, this Perspective examines the scope of children's moral concern. Here we define moral concern as a sense of obligation to help or protect others, and we also focus on children's judgements (rather than behaviour or emotions). Whether development expands or constricts moral concern is then determined by ascertaining whether younger versus older children are more or less likely to endorse an obligation to help or protect distant others. We focus on judgements for two reasons. First, judgements are, by definition, fundamental to understanding the concept of the moral circle—whom we view as deserving help or protection[6]. More broadly, moral judgements are central to moral philosophy, as they reflect the principles and reasoning that guide moral thought, independent of situational constraints. Second, there

is often a gap between moral judgements and behaviours, in both children and adults[46,47]. This may be due to contextual factors, such as the social environment (for example, surrounding norms) or practical constraints (for example, financial barriers). For example, someone may care about climate change but not adopt solar energy because others around them do not or because it is expensive. Focusing on moral judgements thus offers a clearer view of children's perceived obligations, providing a more direct way to map the boundaries of their moral concern.

Because we focus on moral judgements, this Perspective mostly features research with children typically between the ages of 5 and 10 rather than infants or toddlers because it is not until around 4 and 5 that children can readily provide verbal judgements and justifications about others. Moreover, children by the age of 5 have a more robust sense of what it means for something to be morally relevant such that they understand moral obligatoriness and generalizability[48,49]. Throughout this Perspective, we refer to 'younger children' as those in early elementary school (ages 5–7) and 'older children' as those in later elementary school (ages 8–10). Although the studies reviewed differ in the specific age ranges tested and in their methodological approaches, children between the ages of 5 and 10 typically demonstrate a sufficient understanding of key moral concepts to engage with questions about whether someone is obligated to help others.

Relationally close versus distant others

When thinking about the moral circle, the question of our obligation to family is often front of mind. How strong are our obligations to family members in comparison with our obligations to friends or strangers? Some scholars argue that our willingness to spend enormous amounts of money on supporting our own children when those same funds could be directed towards strangers is a moral wrong[14,50]. Yet, many take offence at the claim that we should forgo helping our own family and friends to help more needy strangers[51]. This philosophical conundrum has precipitated an emerging area of research examining the extent to which children and adults favour their own family members over other individuals, including friends and strangers.

In general, adults in the USA judge that people have special moral obligations to their family members—a conclusion supported by numerous experimental studies[52–56]. For instance, adults tend to blame individuals who choose to help a stranger instead of a family member, reflecting the belief that failing to fulfil obligations to close others is morally wrong[56–58]. Although helping distant others is often seen as especially praiseworthy, this positive evaluation holds only when it does not come at the expense of meeting one's obligations to family. Helping a stranger is viewed as a supererogatory act—one that goes above and beyond what morality requires—whereas helping close family members is seen as obligatory: an act that is morally wrong to neglect.

What about children? From the perspective of the expanding moral circle, one might expect children to prioritize kin over non-kin even more than adults, particularly given arguments that children's beliefs and behaviours are fundamentally constrained by biological instincts such as kin selection and reciprocal altruism[16,59]. According to this view, evolutionary pressures should shape children's intuitions to favour relationally close (versus far) others. However, recent empirical research on this topic finds the opposite: younger children are far more likely to endorse helping distant others than are older children and adults—as evidenced by young children's tendency to report similar obligations towards both strangers and family in contrast to greater discernment shown by older children and adults.

To provide one example, Marshall and colleagues[60] examined five- to ten-year-olds' judgements about bystanders' obligations to help others. Children were presented with stories about a child in need who had fallen or was hungry. In each scenario, a bystander was present and varied in their social relationship to the child in need: they were either a parent, a friend or a stranger. Children were then asked whether the bystander was obligated to help. In Western countries (Germany and the USA), distinct age-related patterns appeared. Children of all ages agreed that parents were obligated to help their children. Interestingly, younger children also believed that friends had obligations to help one another, as did strangers. This broader view shifted with age, though, as older children thought that only parents had obligations to help their children.

A different trend was seen in non-Western countries (India, Japan and Uganda). Younger children in these countries, as with their Western counterparts, initially viewed all bystanders as obligated to help. As they got older, cultural differences emerged. Unlike in the USA, older children in India and Japan generally continued to view friends and strangers as having an obligation to help. Moreover, older children in Uganda, unlike their peers in the USA, India or Japan, were even more likely to affirm that friends and strangers had an obligation to help than younger children were. Overall, these findings suggest that, although young children across cultures initially view all individuals as responsible for helping, whether children maintain this expansive view or abandon it is dependent on cultural influences; no children, however, start off thinking that bystanders are not obligated to help and grow to think that they are.

Connecting these findings to the broader literature, other studies examining younger children's obligation judgements have also found that they attend less to social relationships when ascribing obligations than older children[58,61]. For example, when children are presented with two bystanders—one who helped a friend and one who helped a stranger—and asked to judge who is nicer, younger children in the USA do not think one of these individuals is nicer than the other; only older children indicate that the person who helped a stranger is nicer than the person who helped a friend[62]. This finding is consistent with the notion that younger children view individuals, regardless of their social relationships, as obligated to help and therefore do not consider one individual as nicer than the other. However, older children view friends as more obligated to help one another than strangers and therefore judge a helpful stranger as nicer than a helpful friend. Additionally, other work using different methods has found that three- to five-year-old children in the USA think that helping is obligatory regardless of the relational context[48]. Unlike the previous work discussed, this particular research did solicit children's explanations for their judgements. Importantly, children justified helping relationally close and far others by appealing to morally relevant concerns, such as the importance of others' interests ("She needs help").

In summary, recent research in developmental psychology paints a surprising picture of children's moral judgements about the obligation to help relationally close versus distant others. Young children start out with a relatively expansive view: they tend to judge that many people, no matter who they are, have an obligation to help those in need. This view casts a wide net, encompassing individuals beyond their kin. But as children grow—particularly in Western cultures—this broad sense of an obligation to help seems to narrow. Older children increasingly judge helping as something that is required only within close relationships, not as a universal obligation. Notably, there is no evidence that children begin with a narrow view that then expands. Instead, these findings challenge the common assumption that moral concern naturally widens with development. It may be that children start out with an inclusive moral outlook, which is gradually shaped—and in some cases, constrained—by social and cultural influences.

Physically close versus distant others

Thinking about the expansion of our moral circle pertains to the extent to which we increasingly (or decreasingly) consider not only relational closeness but also physical closeness. On this point, emerging research suggests that young children tend to consider physical proximity much less than older children and adults do.

Several studies have shown evidence of a physical distance bias in adults. For example, research has shown that adults feel less obligated

and willing to help others who live far away than those who live close[63–65]. Although these effects were moderated in some cases (for example, in one study the effect did not emerge for identified victims[64]), they show a clear pattern that adults feel more obligated to help physically close than distant others (but see ref. 66).

There is far less research examining this distance bias in children. However, the research that exists paints a clear picture. Marshall and Wilks[67] presented five- to nine-year-old children and adults in the USA with vignettes where an adult needed help and a bystander had the capacity to help. The bystander was either physically close to or far from the adult in need. Across two studies, younger children were more likely than older children and adults to judge the bystander as obligated to help the person in need regardless of physical closeness.

This work also involved soliciting children's reasoning about their judgements. Younger children tended to justify their obligation judgements by appealing to the severity of the situation. That is, younger children appealed to considerations such as the emotions of the person in need ("Because, when people are very, very sad, then another person has to help them so their feeling can feel better") and the gravity of the situation ("She might have broken her leg"). By contrast, older children typically referred to a lack of obligation to help anyone to justify their responses ("Because everyone gets to choose what they want to do"). These explanations demonstrate that all children refer to relevant considerations when justifying their obligation judgements, and such explanations also suggest that the shift from an expansive moral circle to a narrow one may be in part driven by two mechanisms. First, younger children may perceive situations more severely than older children, which then results in younger children expressing a heightened sense of obligation to distant others compared with older children (see refs. 58,68 for related findings). Second, older children may be more influenced by cultural narratives regarding individualism that then influence the extent to which they endorse obligations to help strangers[69,70]. Although the evidence is early, these experiments suggest that young children are more inclined to include distant others in their moral circle than are older children and adults.

In sum, emerging research suggests that young children see helping others as a broad obligation, showing little regard for physical distance. Unlike adults, who often feel more obligated to help those nearby, younger children view people in need—whether close or far—as deserving of help. This shift from an expansive to a narrower moral circle may be driven by age-related changes in how children interpret situations and adopt cultural values around individual choice.

Phylogenetically close versus distant others

The concept of the moral circle encompasses not only humans but also animals. Notably, though, animals represent a slightly different consideration in conversations about the moral circle. It is clear that we do not grant animals the same moral status as people—even strangers or those who are physically distant from us. However, their moral treatment is a topic of great debate and controversy in society, with many arguing that we should treat them better than we currently do[13]. The explicit tendency to prioritize humans over animals, and some animals over other animals, is often described as speciesism—discrimination on the grounds of species category[71].

A growing body of research has documented this tendency in adults. For example, people prioritize humans over all animals—including chimpanzees and dogs—on the basis of species membership alone[72]. This means that this bias persists even when factors such as perceived intelligence, capacity for suffering or social connectedness are controlled for[73]. Research has also shown that we grant less moral concern and feel less empathy towards animals who are more evolutionarily distant from us[74], as well as those we perceive to be less similar to ourselves[75].

The literature with children shows a vastly different pattern. Wilks and Caviola et al.[76] presented five- to nine-year-old children and adults in the USA with hypothetical trade-offs between human and animal lives. Adults consistently prioritized humans over animals. Children, by contrast, valued human and animal lives similarly. For example, they tended to save two dogs over one person, whereas adults saved one person over even 100 dogs. Children valued pigs slightly less than dogs, but they still tended to save ten pigs over one person, whereas adults again saved one person over even 100 pigs. More recently, these findings have been replicated with participants in Poland and Spain and extended to other dilemmas and non-human animals[77,78].

There are also differences in the moral concern children extend to animals typically considered food. Henseler Kozachenko and Piazza[75] presented children and adults with animals traditionally thought of as food or not (for example, chicken versus kakapo) and manipulated whether they were described as intelligent or not. Children were more likely than adults to think it was wrong to harm animals to use as food and less likely to ignore intelligence information about animals typically considered food. Similarly, compared with adults and adolescents, children are also more likely to report that animals should be treated better and are less likely to categorize farmed animals as food[79].

Other work has revealed a similar pattern for children without direct comparisons to adults. For example, Neldner and colleagues[80,81] presented children with an adapted version of the moral expansiveness scale[6]. They found that younger children (around four years) placed a greater number of animals at the centre of their moral circle than older children did, and older children (around ten years) placed a greater number of people at the centre than younger children. Similarly, Hussar and Harris[82] revealed that children judged physical transgressions towards animals as being more morally wrong than the same acts directed towards other children. Crucially, when asked about their reasoning, children in this study tended to refer to the vulnerability of the animals and the unjustified nature of the violence, suggesting a moral motivation for these views.

In sum, it seems that, compared with adults, children are much more willing to extend their circle of moral concern to animals. Whereas adults often prioritize human lives over animal lives, even in trade-offs, young children appear far more willing to value animal lives similarly to human lives. This difference suggests that children naturally extend moral concern more broadly, encompassing a wider range of animals, before social and cultural norms shape a more human-centred moral circle.

Explaining moral circle constriction

We have outlined three contrasts showing how the scope of children's moral concern constricts across development. This pattern was not a foregone conclusion. As noted earlier, there are theoretical reasons to predict that children may have a narrower moral circle and, for example, value family members over strangers (that is, kin selection[59]). Why then do we sometimes see the opposite pattern?

Here we present three proximate explanations. The first is social learning: young children may initially think expansively because they are encouraged by those around them to do so. Indeed, research shows that children learn extensively from social influences[83,84]. Anecdotally, parents and teachers often emphasize helping and caring for everyone. Because younger children find it challenging to consider multiple factors simultaneously[85], adults may favour simpler, inclusive messages about helping others. As children age, however, they may encounter a range of social norms that encourage a narrower moral circle, leading them to adjust their moral judgements accordingly. For instance, children may hear directly from parents, teachers or peers about the importance of cultural values that have a role in shaping moral expansion. These values could include individualism, which emphasizes personal autonomy and self-reliance, or speciesism, which prioritizes human interests over those of animals. In addition to direct messages, children are also attuned to more subtle, non-verbal cues, such as body language[86–88], which could influence their moral views. For example,

adults with more conservative-leaning beliefs tend to endorse a narrower moral circle than liberal-leaning adults[9,89], and parents might convey these values through non-verbal signals that children subsequently pick up on. Similarly, community values, such as generalized trust, may affect children's perspectives; adults who express lower trust in others often endorse a narrower moral circle[8], potentially signalling to children which groups or individuals are valued within their community.

Second, young children may not yet fully grasp the costs and trade-offs associated with helping—that resources are limited and that to help one person may come at the expense of helping another. As they grow older, children may begin to understand that monetary, emotional and temporal resources are limited and therefore constrain our actions. Correspondingly, older children may come to recognize that helping certain individuals may often come at the expense of helping others. This developing awareness of resource limitations and opportunity costs is essential for making more strategic decisions about resource allocation, which may be one factor contributing to the narrowing of the moral circle. Similarly, awareness of the costs and trade-offs may also link to greater awareness of the demandingness of obligations to help. Indeed, this is one of the common criticisms levelled against those who advocate for our obligations towards distant others—that it is too burdensome on the individual[90]. Thus, children's moral considerations may shift with age to include not only who deserves help but also who can be realistically helped within their social and resource constraints.

Finally, it is possible that social experience shapes children's understanding of relevant social concepts, such as distance and severity. Research shows that even infants are sensitive to the contrasts explored here: infants recognize that those who are relationally closer are more likely to respond to each other's distress than those who are relationally distant[91,92], appreciate that a willingness to traverse a long distance signifies an interest in certain objects or agents[93], and recognize that animals are distinct from humans[94]. Nonetheless, it is possible that children's understanding of concepts, such as kinship and physical distance, continues to mature throughout development. For example, children may recognize that friends are different from strangers but not yet fully recognize the special obligations that stem from friendship relative to adults. Additionally, children may recognize that it takes additional effort to reach someone far away but not yet fully appreciate how challenging it could be to help those who live on the other side of the planet. Social experience over the course of development may refine these concepts and correspondingly alter children's and adults' sense of obligation to distant others.

Connection to other developmental theories

Although the goal of this Perspective is to present evidence suggesting that children's moral circles constrict with age across three contrasts, we cannot interpret these findings in isolation from existing developmental theory. Crucially, we wish to clarify that we do not consider the use of the moral circle framework as undermining previous conceptualizations of moral development. We do not view the moral circle as a theory of moral development per se; instead, we see it as a valuable framework for describing research in developmental psychology, while also recognizing its broader philosophical and societal implications.

Importantly, we believe that the moral circle framework can integrate well with established theories of moral development. From a nativist perspective[95], it is plausible that young children have innate predispositions guiding their moral concern towards strangers and non-human animals. However, further research with infants would be needed to make strong claims about the initial scope of humans' moral circle. Other theories also bring evolutionary perspectives to our understanding of children's moral circles. For example, the two challenges framework[96] provides insight into the proximate psychological mechanisms that foster cooperation. This framework suggests that children face two key developmental tasks: learning to generate social benefits through helping others (which occurs early) and learning to regulate when and how those benefits are distributed (which occurs later). When considering the moral circle, it is plausible that younger children make moral judgements on the basis of an early-emerging motivation to help those in need and are thus less discriminating about whom they are helping. With age, children may develop mechanisms that regulate and thus restrict these moral inclinations—such as the emergence of contingent reciprocity. These mechanisms could lead to either an expansion or a constriction of moral concern, depending on cultural context and relevant situational constraints. In some cases, older children may become more selective in extending moral concern (that is, focusing on those with whom they have stronger social ties), which could explain why children's moral circles appear to narrow with age in certain contexts.

Socialization[97] and constructivist theories[98] take a different perspective, highlighting the role of active and intentional interactions with caregivers and peers as central to moral development. Through these interactions, children may come to express concern for distant entities, such as strangers and animals, as they internalize values communicated in these relationships. From this standpoint, the moral circle framework also aligns with social domain theory—a long-standing perspective in developmental psychology[99]. Crucially, this theory differentiates between moral actions, which are universal and tied to principles of justice, and conventional actions, which are context-specific. Some of the studies discussed here do not focus on differentiating between these constructs (although see refs. 48,67,78). As a result, it is possible that we are interpreting some results as indicating moral concern when, from the social domain perspective, it is not clear whether children's judgements are actually a reflection of moral (for example, all suffering is important) or non-moral concern (for example, social norms). We consider more research into children's reasoning about their judgements an important direction for future research. From our perspective, what matters most is that children are indeed extending moral concern; nonetheless, we recognize that there is important value in further understanding the precise reasoning underlying such judgements.

Future directions

Although the studies on moral judgement reviewed here present a sizable advance in terms of our understanding of moral development, many research questions remain. We have already discussed some. For example, there would be great value in understanding moral concern in infancy, in exploring the socialization processes related to moral concern and in further determining children's rationales for their moral judgements. Below, we present additional questions that we hope will serve to guide future research on moral concern in childhood.

First, greater clarity is needed on precisely what judgements index moral concern. Moral concern is a multifaceted concept. Here we have focused on moral judgements, particularly those related to obligations to help and protect. However, moral concern almost certainly extends beyond these concepts to include considerations of respectful treatment, fairness, liberty, autonomy and justice. To provide an example, when the Titanic sank in 1912, women and children were famously prioritized on lifeboats over men. Yet, at that time, women in the USA did not have the right to vote, and child labour laws were weakly enforced. This suggests that believing a group (for example, women and children) should be protected from harm does not necessarily imply that the group is morally valued in other ways, such as being granted equal rights or fair treatment. Because we are limiting the present conversation to judgements about protection and obligations to help, we cannot speak to whether different developmental patterns of moral concern may emerge if moral concern takes on a different conceptualization.

Second, although we have chosen to focus on judgements here, there are other areas of research that contribute to our understanding

of moral concern that we have not discussed at length. Most notably, research in developmental science has also examined different types of judgements as well as children's behaviours. The judgements for relational and physical distance have been made about moral concern for a certain other in isolation (that is, without a trade-off). Research with adults has not only examined judgements about helping or protection in isolation but also shown that adults' sense that we have obligations to close others manifests in situations involving trade-offs[55,57]. Although we have explored moral trade-offs when discussing phylogenetic distance, it is important to see how moral intuitions might vary as a function of the framework of the question. Similarly, regarding behaviour, there is a rich body of literature examining whether children preferentially help close others over distant ones and also how they distribute resources to close others. Furthermore, parts of the debates about the scope of moral concern hinge on questions about behaviour[16,28]. Some of this research reveals an age-related shift where children are increasingly discriminating in their behaviour[33,100–107], whereas other research supports the opposite[108,109]. Related research finds that children are discriminating, yet they do not examine age effects or do not find them[110–112]. In our view, the behavioural findings are not sufficiently clear to draw firm conclusions and instead warrant future attention.

Third, we could broaden our understanding of moral concern by considering additional contrasts and including participants from more diverse backgrounds. In terms of contrasts, the finding that children narrow their moral circle in some domains, such as physical proximity, does not necessarily imply that this pattern emerges for other contrasts. Indeed, developmental science has made substantial inroads in understanding how children reason about our obligations toward outgroup members in terms of race[113] and gender[114] (see ref. 115 for a review). Beyond outgroup members, there is also much to be learned about how children think about the moral value of other beings, such as immigrants[116], plants[117], artificial intelligence[118–120], future generations[121] and those we see as morally 'bad' (such as criminals[122]). By expanding the scope of research, we can better understand whether different contrasts exhibit differential patterns of expansion versus constriction, and why. In terms of participant diversity, we should also broaden the scope of the research participants. Most of the research showcased here was conducted in typically WEIRD (Western, educated, industrialized, rich and democratic) countries[123] (except the familial obligation studies[60]). It is important to examine these judgements in different cultural contexts to be able to make universal claims about the developmental trajectory of our moral circle. Beyond this, it is also important to consider how factors such as socio-economic status, urbanity, religiosity, political orientation and other demographics may bear on the patterns that we have identified. Research has already found that individual differences factors[124] have a key role in shaping the moral circle of adults (for example, political orientation[89]); thus, it is likely they would have a role in shaping the developmental trajectory of the moral circle, too.

Finally, the expanding moral circle perspective proposes two key ideas: (1) that the moral circle tends to expand with development and (2) that this expansion is driven by an increasing capacity for rationality[3]. Although our results challenge the first idea, we do not delve deeply into the second, as it relies on the assumption that the moral circle expands over the course of development. Nonetheless, future research should examine the cognitive factors (such as cognitive reflection[125]), emotional factors (such as empathy[126,127]) and societal influences (such as community trust[8]) that may lead to moral constriction or expansion. Exploring these possibilities is essential for identifying factors beyond age that predict an expanding moral circle.

Conclusion

Here we have highlighted three areas of research that illustrate cases when our moral circle constricts, rather than expands, across development. These findings have two key implications. First, they challenge a narrative in philosophy and psychology that humans are naturally self-interested and morally narrow and that only through rationality can humans come to acknowledge that distant others are worthy of moral concern[16–18]. Instead, these findings suggest that children are equipped to ascribe moral concern to distant others and that the extended process of development and continued socialization may, in some cases, diminish this tendency. Second, these findings challenge a core assumption within the discourse surrounding moral circle expansion. If our moral circle appears to constrict in some cases and expand in others, then conversations about how we compel people to care about various others may require different strategies. Rather than emphasizing how we need to overcome our biased instincts, we can recognize that we have within ourselves the capacity to care about distant others and harness those instincts to motivate our own altruism.

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