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## Developmental aspects of capacities

Commentary on [Chapman & Huffman](#) on *Human Difference*

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**Abstract:** Chapman & Huffman suggest that judgments of human superiority underlie our cruelty to animals. It might be useful to examine how such judgments operate within the human community. Children arguably have a potential for developing “superior” capacities but are outperformed on many tasks by animals. There is a continuum of development in children’s capacities. Perhaps there are interspecies evolutionary continua too. This highlights the complexity of reasoning about humans, animals, and moral inclusion.

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Chapman & Huffman (2018) (C & H) suggest that a propensity for categorizing and ranking the capacities of humans compared to other animals, together with a conviction that humans are unique and/or superior to other species, disposes us to mistreating animals. Not mentioned in C & H’s article are human children, who exhibit developmental promise of later “superiority” in cognition, language, and morality, but while children they may be outperformed by some animals.

Three aspects of C & H’s thesis warrant caution. First, singling out assumptions of superiority in animal cruelty risks oversimplifying the matter. Although other authors have noted (and decried) assumptions of human superiority (e.g., Bernstein, 2015), other criteria for moral consideration have been proposed, such as having interests or experiencing pain (e.g., Rollin, 1981). Second, it is unclear whether C & H are more concerned with rejecting claims of human superiority empirically or with demonstrating their inadequacy as a justification for maltreatment even if they are true. Third, the narrow focus on “cruelty,” without a definition, leaves the reader wondering whether the term encompasses the use of animals for food, clothing, research, etc., and even habitat destruction — arguably an expansion of the common notion of willfully causing pain or distress.

The idea that the sense of human superiority underlies cruelty to animals raises questions about how such convictions might affect human interactions with our own offspring. C & H note that in the past we have rationalized atrocities with humans, even genocide, based on assumptions of tribal or racial superiority, and that when concepts of “personhood” have been revised, social advances have followed. Against the assumption of human superiority, C & H cite evidence that animals can also use tools, build complex structures, and solve complex problems.

They cite Kohler's (1925) evidence that chimpanzees use tools, piling boxes and using sticks to reach suspended food. Yet there is an obvious difference between that and humans building rockets to fly to the moon – between having a rudimentary capacity and an advanced one. Adults probably perceive children as human and therefore superior. But since infants and children often do not exhibit their asymptotic behavioral capacities yet, any assumption of superiority must be based on a *potential* for eventual cognition or behavior in the future.

Adults sometimes treat children cruelly, but is such treatment linked to assumptions of adult superiority? Cross-cultural studies suggest that greater gender inequity is associated with more physical abuse and neglect (e.g., Klevens, Ports, Austin, Ludlow, & Hurd, 2018). It is not known whether such associations are stronger for girls than for boys, as would accord with the notion that social categorization can influence the treatment of children, but evidence of that type may be more pertinent than animal problem-solving capacity to C & H's thesis that assumptions of superiority lead to maltreatment.

Considering children raises questions about what it means to *have a capacity*. If capacity is indexed only by observed behaviors, it must be acknowledged that animals can often out-think infants and children. Raccoons (Stanton, Davis, Johnson, Gilbert, & Benson-Amram, 2017) and chimpanzees (Hanus, Mendes, Tennie, & Call, 2011), for instance, have both been shown to surpass young children in problem-solving in object retrieval tasks. Nevertheless, many of us anticipate that the humans will eventually outstrip the animals in language, cognition, moral reasoning, and so on. Moreover, although they do not yet solve calculus problems or moral dilemmas, infants babble prior to the onset of speech (e.g., Oller, 2000), exhibit adult-like expectations of the physical world (e.g., Spelke & Kinzler, 2007), and prefer helpers to hinderers (e.g., Hamlin & Wynn, 2011). It is tempting to suppose that these precursors distinguish infants from animals for purposes of moral consideration, but growing evidence of animal capabilities, including the examples described by C & H, challenges even this claim *if what matters is behavior that is actually exhibited*. (See the controversy about "theory of mind" abilities, Call & Tomasello, 2008; Krupenye et al., 2016; Penn & Povinelli, 2007).

Does "capacity" refer to potential that actualizes over time during individual development or does it refer only to actual observed behavior? The developmental view is less categorical, with capacities growing along a continuum. Perhaps it can be extended to evolutionary continua across species, in a more complex and nuanced perspective on human "superiority." Beyond the problem of categorization, we need to identify all the human psychological roots of human mistreatment of others, human and nonhuman, adult and child.

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