

REPLY

Play is nature’s way of teaching cooperation: a reply to ‘Building a cooperative child: evidence and lessons cross-culturally’ by Tanya Broesch and Erin Robbins

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In the target article, [Broesch and Robbins \(2023\)](#) have summarized well, with cross-cultural evidence, ways that parents, teachers, and others who interact with children can foster a cooperative orientation in children by helping them to: (1) take the perspective of others; (2) expand their self-concept to include their social connections; (3) gain secure attachments with caregivers through shared positive emotions; and (4) internalize norms of kindness. Here, I wish to add the suggestion that a highly effective way to “build a cooperative child” is to provide the child with ample opportunities to play freely with other children, away from direct adult control. The authors mention peer play in passing, as a means by which children develop a theory of mind, but do not discuss the much larger role of peer play in promoting cooperation.

Play has been defined by play scholars in a variety of ways ([Gray, 2013a](#)), but for our purpose here, the primary defining characteristics are that play is an activity that is: (1) self-chosen and self-directed; and (2) intrinsically motivated (done for its own sake rather than for some reward outside of the activity itself). Some refer to this as “free play,” but in my lexicon and that of many other play scholars, if it is not free, it is not play. With these defining characteristics, social play (play involving two or more individuals) is necessarily cooperative, that is, an activity in which two or more individuals strive together for a common purpose.

Since play is freely chosen, play among two or more individuals must begin with a cooperative agreement to play. In nonhuman animals, the agreement is sealed through nonverbal signals of intent to play, such as the “play bow” in dogs and other canids

and the “play face” in primates (Bekoff, 2004). In humans, including even young children, play is commonly preceded and accompanied by much verbal negotiation and compromise to find agreement on what and how they will play (for an extended example involving preschool children, see Furth, 1996).

Since play is its own reward, a primary goal of all play is to keep the play going. To do that, players must attend to the needs and desires of all the players, not just their own. A fundamental freedom in play is freedom to quit, and players who are made unhappy will quit, thus ending the play. The natural punishment for not cooperating, or not attending to others’ needs, is that play ends and the noncooperator is left alone. Therefore, play teaches youngsters to attend to the signals of happiness and unhappiness in their playmates, and to make corrections in their play to keep the play going (Gray, 2013b).

There is, in fact, a great deal of evidence that one of the major evolutionary functions of play in mammals generally, and humans specifically, is to promote peace and cooperation among members of social groups (Gray, 2019; Palagi, forthcoming). The following is a list of some of that evidence:

- Wolves and other carnivores that hunt large animals cooperatively in packs play more than do carnivores that do not hunt cooperatively (Cordoni, 2009). The play appears to create and help maintain the bonds needed for cooperative hunting.
- Our close ape cousins the bonobos play much more with one another than do our equally close cousins the chimpanzees. Bonobos are much more peaceful and cooperative with one another, and therefore able to live in larger and more fluid social groups, than is the case for chimps (Palagi, forthcoming). Similarly, research has shown that different species of macaque monkeys vary in the degree to which they are “egalitarian” (cooperative and tolerant) versus “despotic” (aggressive and steeply hierarchical) and that the former are more playful than the latter (Ciani et al, 2012). For both the ape and macaque examples, play promotes cooperative, long-term bonding among colony members in the more egalitarian species.
- Band hunter-gatherer societies are the most cooperative, nonhierarchical human societies that have been found by anthropologists (Lee, 1988; Ingold, 1999). In fact, another name for such societies is “egalitarian societies.” In these societies, cooperation and sharing are essential for survival. Elsewhere, I have compiled evidence supporting the thesis that these are also the most playful human societies ever found and that their playfulness promotes their ability to cooperate (Gray, 2009; 2014). Their religious practices are playful, their ways of maintaining order in the band are playful, and their hunting and gathering are conducted playfully. Most relevant to the present discussion, children in these cultures have far more opportunity to play with one another than is the case for children in adjacent farming societies, which are more hierarchically organized (Draper, 1988; Bock and Johnson, 2004; Gray, 2012). Anthropologists have also reported that band hunter-gatherer societies are the only known societies that do not have competitive games (Sutton-Smith and Roberts, 1970). All their games are cooperative in nature. Trying to “win,” that is, trying to prove yourself better than someone else, is essentially a taboo in these societies.
- Studies in modern Western societies indicate that children who have more opportunity for play with one another have more friends and better social skills

than do otherwise similar children with less opportunity for play (Hüttenmoser, 1995; Lehrer et al, 2014). Other studies have revealed that adults who recall more childhood play are more socially successful, as adults, than are those who recall less such play (Greve and Thomsen, 2016).

- In systematic observations at an alternative democratic school where children are regularly free to play independently of adults, I found that even when they played games with a competitive structure (such as basketball or soccer), they cared little about winning (Gray, 2013b). They all tried to play well because that is what made it fun, and they sometimes cheered wildly when their team scored a point, but in the end, nobody cared who won. Moreover, they made many concessions to younger and less skilled players to make it fun for everyone. The great amount of play at the school seemed to contribute to highly cooperative relationships among the students there. This is also the way I and others my age remember the pickup games we played in our youth, decades ago, in which we bonded with friends in the neighborhood. It is only when adults take over that such games turn from play to contests. When adults direct the action and a trophy is on the line, the game is no longer play.

In today's world, it is valuable to inform or remind parents, educators, and policymakers about the crucial roles of children's play in promoting not only cooperation but also children's immediate happiness and long-term mental health. Over the past several decades, opportunities for children to play feely have declined precipitously, and so has their mental health (Gray, 2011; Gray et al, forthcoming). The decline in play has come as: schooling has become ever-more competitive and time-consuming; children have been put increasingly into competitive adult-directed activities even when not in school; concern for measurable "achievement" has overwhelmed our understanding that the most valuable lessons for children come from their own self-chosen unquantified activities; society has become ever-less tolerant of children freely playing in public spaces; and parents and policymakers have become ever-more fearful of potential dangers to children playing freely outside.

Elsewhere, I and colleagues have reviewed multiple lines of evidence that the decline of play and other self-directed activities is a major cause of the record levels of anxiety, depression, and suicide we see among school-aged children today (Gray et al, forthcoming). Much of the suffering comes from a sense of alienation, that is, a loss of the connectedness with others that is generated through play. A strong sense of connection to others is valuable not only in promoting cooperation but also in promoting the mental health of individuals. As US Surgeon General Vivek Murthy (2020) has pointed out, we are suffering from an epidemic of loneliness. Practical ways of bringing more peer play into children's lives in today's world can be found at the websites of the nonprofit organizations Let Grow (see: <https://letgrow.org/>) and the National Institute for Play (see: www.nifplay.org/).

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Conflict of interest

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