

Cooperative Thinking

Much, if not most, of the creative work in which humans engage is not done individually, but rather collaboratively, as individuals put their heads together to solve novel problems. Infants, toddlers, and young preschoolers—the children we have been mostly discussing so far—are only capable of such mental coordination in very simple problem contexts, for example, in pulling in a board together. But by the time they are five or six years old, young children understand beliefs, and this means that they are now capable of putting their heads together with others in new ways by jointly attending to and coordinating their respective beliefs.

The process of jointly attending to and coordinating beliefs provides the impetus for a new cognitive activity: reason-giving. To argue for and justify their beliefs in the face of potential criticism, children relate to their partners the reason why they believe as they do, and they come to respect the reasons that others give for their beliefs, sometimes even changing their own beliefs as a result. Reasons and justifications serve to connect beliefs causally and logically and, in the end, to ground them in the culture's rational norms. Just as beliefs may be normatively evaluated as true or false, reasons may be normatively evaluated as valid or invalid based on their causal or logical connections to beliefs that we all share in cultural common ground. Although young children, perhaps especially in Western cultures, may sometimes engage in such cooperative thinking with adults, the prototypical situation is with coequal peers, because in this case it is especially clear that no one has the right answer ahead of time. As young children transition to school age, they become able to engage productively in collaborative problem-solving in which two or more coequal peers generate ideas and solutions to problems that none of them could have generated on their own.