One of the key human characteristics is our tendency to help others, by sharing such resources as money and food with people in need or by comforting people in trouble. As adults, we do this regularly, often without obvious personal gain and occasionally even when such behavior will cause us trouble. It is often assumed that such altruistic behaviors are cultural in origin: our parents taught us moral rules, for example, or rewarded us for being nice to others. Moreover, many people think that altruistic behaviors are uniquely human, that other animals don't act in these ways because they live by selfish purposes only and don't have parents who teach them how to be an altruist.

However, several scientific findings suggest that human altruism has deeper roots than we previously thought. Specifically, my colleagues and I have conducted studies showing that human children act altruistically from a very early age, before social experiences, such as being taught cultural rules, could have significantly influenced their development. By studying young children, we can determine which altruistic behaviors we're capable of early in our lives, and then we can follow the development of those tendencies as they combine with cultural rules and moral education. Thus we can get answers to a question that has been debated since the times of the philosophers Thomas Hobbes and Jean-Jacques Rousseau: is altruism a result of social rules that were adopted to control our selfish nature (as Hobbes believed)? Or, as Rousseau supposed, do we have a natural tendency to care about others?

Early in their lives, children are eager to find out why people do what they do and how they do it, and they observe things with surprising intelligence. Here's an example: when oneyear-olds watch someone use a unique tool or press buttons on a device that creates an amazing effect, they can distinguish what the person did on purpose and what was an accident. When it's their turn to use the tool or press the buttons, they don't copy everything the person did but only what the person intended to do. Children are intention readers, not just behavior copiers. This intention-reading capacity is useful: when children learn by observing others, they separate the useful from the useless and imitate only those aspects of another person's behavior that are worth copying.

What occurred to me was that another area in which intention reading is essential is helping. In order to help someone with a problem, the helper has to be able to identify what the person is trying but failing to achieve. Would young children use their intention-reading capacity not only for their own purposes (How does this tool work? Which button makes the TV turn on?), but also to help others? For example, when someone drops something and reaches for it, will young children understand that the dropping was an accident and the other person is now trying to pick the object up? Will they help? The opportunity to answer these questions came when I was testing a one-year-old boy in a study on social play, crawling on the floor with him so as to be an appropriate play partner. When a ball accidentally rolled out of my reach and I pretended to be unable to reach it, the boy stood up, picked up the ball, and put it in my hand.

This moment inspired a set of studies investigating altruistic behavior in young children. What became apparent from these studies is that children help others in various ways and begin doing so early in life. My colleague and I created several situations in which eighteen-month-old children observed an experimenter performing an action when suddenly a problem occurred that prevented him from achieving his goal. We found that the children helped without being asked, receiving a reward, or being praised for their efforts. They picked up objects an experimenter had dropped on the ground and was unsuccessfully reaching for. They opened the doors of a cabinet when the experimenter couldn't do it because he was carrying a pile of magazines he was trying to put inside. They helped put a book back on top of a pile after it had slipped off. After they'd learned how to open a certain box and they saw the experimenter accidentally drop a spoon into the box through a hole and squeeze his hand through the hole in an attempt to get it, they used their newly acquired technique to open the box and get the spoon for him. The children seemed able to determine whether help was needed or not and could do so in a variety of situations, exhibiting the intelligent intention-reading capacities that emerge early in childhood.

(Adapted from "Children's Helping Hands," by Felix Warneken in Future Science: Essays from the Cutting Edge, edited by Max Brockman, Vintage Books, New York, 2011, pp. 17-19)