

# Moral Judgment and Cooperation in Children with High-functioning Autism

Autism is a neurobiological disorder that is characterized by deficits in social interaction, impairments in communication and language, as well as restricted/repetitive behaviors and/or interests. Lack of responsivity to social emotional cues or reciprocal engagement is commonly seen as a main characteristic of individuals with autism spectrum disorder.

Lots of studies found that children with autism have deficits in the theory of mind (ToM) and empathy. Moral judgment, the ability to judge one's own and others' behavior as right or wrong, is considered to be closely related to ToM. In addition, empathy is typically considered as a necessary component of developing moral agents. However, as an important aspect of social functioning, moral judgment has rarely been explored in the study of autism. On the other hand, children's abstract moral reasoning about agents in hypothetical stories is closely related to their daily pro-social behavior. Do children with high-functioning autism (HFA) judge other's morality correctly? Do they exhibit different moral behavior towards people they judge as morally nice versus those they judge as morally naughty?

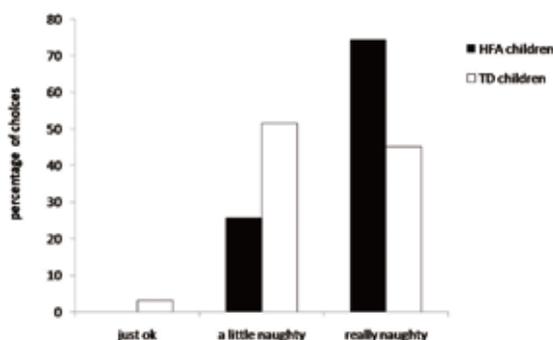


Fig. 1. HFA and TD children's moral judgment in naughty condition story. Both could judge other's morality correctly in naughty condition, and HFA children might even have more rigid criteria for harm to the victim.

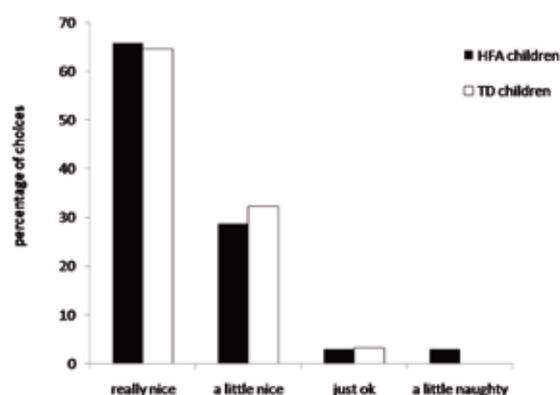


Fig. 2. HFA and TD children's moral judgment in nice condition story. Both could judge other's morality correctly in nice condition. There was no significant difference in the judgment of other's nice morality between HFA children and TD children.

To answer these questions, Prof. ZHU Liqi and her colleagues from the Institute of Psychology first recruited 38 children with HFA aged between six to 12 years. As only 31 of the 38 HFA children completed the prisoner's dilemma game, 31 typically developing (TD) children were then recruited, who were matched to the HFA children based on their age and gender. There was no significant difference between the two groups of children in terms of IQ.

They tested children with HFA on both antisocial and pro-social acts to determine whether they could make both kinds of moral judgments correctly compared to TD children. After making moral judgments properly, participants were asked to interact with protagonists, whom they judged as either nice or naughty before, in the ten rounds of prisoner's dilemma game.

The researchers found that both HFA children and TD ones could make correct moral judgments, and HFA children might have even more rigid criteria for what constitutes a 'naughty' act than TD ones. HFA children's cooperation was similar when they played with partners

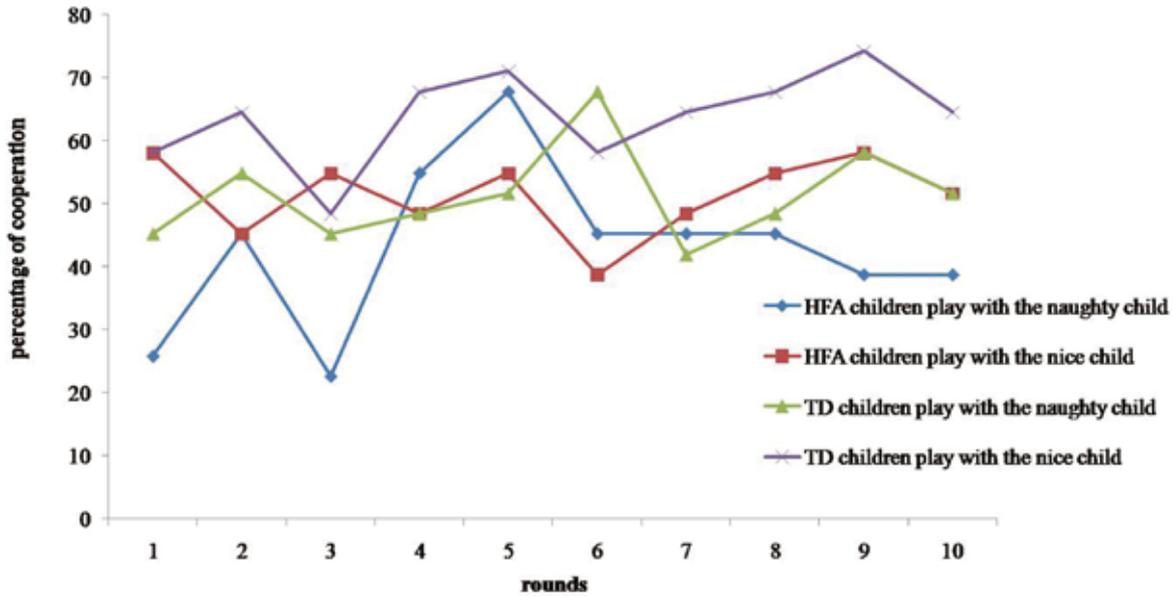


Fig. 3. Percentage of choosing cooperative responses when HFA and TD children played with nice child and naughty child across the ten rounds of the PDG.

of different moralities, while TD children showed higher cooperation when they played with a morally nice child than that when they interacted with a naughty child. Therefore, HFA children's cooperation was not influenced by partner's morality, while TD children's cooperation might be prompted by partner's nice morality.

This study gave an important insight into HFA children's moral judgment and moral behavior.

This project was supported by the National Natural Science Foundation of China, the National Basic Research Program, the Chinese Academy of Sciences and the Institute of Psychology.