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Do you like a robot that makes mistake? Preliminary study on changing evaluations of a robot that makes mistake in collaborative task

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Abstract

This study explores the human evaluation of a robot's behavior when it makes a mistake during a collaborative task, particularly concerning the success or failure of the individual. We conducted an experiment where an interactive robot collaborated with participants to estimate and report the number of balls and rods in 2D/3D models built using magnetic balls and rod toys. The participants were also required to provide their estimates, and occasionally both made mistakes because of time constraints and parts that were invisible from different views. The experimental results showed that participants evaluated the robot's failures more favorably when they failed than when they succeeded. This suggests that the participants' outcomes may have influenced their perception of the robot's behavior. These findings contribute to the development of a robot that fosters better relationships with humans and deepens our understanding of the psychological effects involved in evaluations within social interactions.

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