

1 Coding scheme

Below is the coding scheme for each question, along with an example provided in Table 1.

Table 1: Example of coding scheme

Main theme	Sub-theme	Definition	Example quote
Relative pose	Behind, Same	The robot is behind the human, and moving in the same orientation	Video showing the robot moving behind the human with the same motion orientation
Robot behavior factors (Q1.1)	Slow	The robot moves at a slow speed	"The robot moves slowly"
PA (Q1.2)	Acceleration	The robot behaved inappropriately because it made a sudden acceleration	"The robot suddenly accelerated towards me without stopping."
Concern (Q1.3)	Unsafe	The robot's behavior triggered human concerns about safety	"It's going to hit me, which makes me feel unsafe."
Preferred adaptation (Q2.1)	Slow down and say sorry	The participant preferred the robot to slow down and apologize	"If the robot can say sorry to me, that would be nice. Action-wise, like slowing down."
Evaluation of the next action (Q2.2)	Slowed down; -2	The robot slowed down after behaving inappropriately	"It slowed down. It's already about to hit me, so strongly inappropriate (-2)."
Evaluation of the 12 adaptations (Q2.3)	-2	The robot adaptation of "continue" is rated -2	"continue", strongly inappropriate (-2)

2 34 types of preferred adaptations

Table 2 presents 34 types of preferred adaptations reported by participants.

Table 2: 34 types of preferred adaptations

Correction	Number	Correction	Number
Away	22	Stop	31
Slowly away	6	Quick stop	11
Quickly away	2	Slowly stop	5
Smoothly away	7	Smoothly stop	3
Perpendicular away	4	Slow down	19
Side	6	Slowly slow down	3
Slowly side	3	Smoothly slow down	2
Quickly side	1	Quickly slow down	1
Retreat	6	Speed up	5
Slowly retreat	3	Slowly slow down and inform	6
Predictable motion	3	Stop, inform	4
Go straight	2	Stop, next to and copy, say sorry	3
Change direction	3	Say sorry, slowly stop	2
Turn right	4	Say sorry, slow down	1
Slowly slow down and ask for expectations	1	Away, inform	2
Speech inform action	5	Retreat and slowly stop	9
Side and stop	6	Slow down & change direction	1