

AvE Supplementary Material

1 Additional Gridworld Experiments

In the main paper we highlight the most interesting scenarios where assistance is necessary: where the human is trapped by immovable boxes in either the corner or center of the grid. We also tested other initializations as follows:

Human in Corner — Success %, (Mean Steps)	LG Set	SG Set	NG
GI (known)	87%, (1.79)	100% , (1.79)	
GI (unknown)	86%, (1.79)	88%, (1.82)	
Empowerment			100% , (2.13)

Table 1: Random initialization of the human’s position, the goal’s position, and the position of two blocks. Results averaged across 100 trials. GI – goal inference with either a (known) goal in the goal set or an (unknown) goal missing from the goal set. Large Goal (LG) Set considered every possible space as a goal, Small Goal (SG) Set only considered two possible goals, and No Goal (NG) is our method.

Human in Corner — Success %, (Mean Steps)	LG Set	SG Set	NG
GI (known)	89%, (3.25)	100% , (3.25)	
GI (unknown)	89%, (3.25)	96%, (3.25)	
Empowerment			100% , (3.73)

Table 2: Human randomly initialized in any corner and goal randomly initialized. Blocks initialized to be one space away from trapping the human. Results averaged across 100 trials. GI – goal inference with either a (known) goal in the goal set or an (unknown) goal missing from the goal set. Large Goal (LG) Set considered every possible space as a goal, Small Goal (SG) Set only considered two possible goals, and No Goal (NG) is our method.

2 User Study Results

Please see the attached `AvE User Study Results Video.mp4` for recorded clips from the user study.

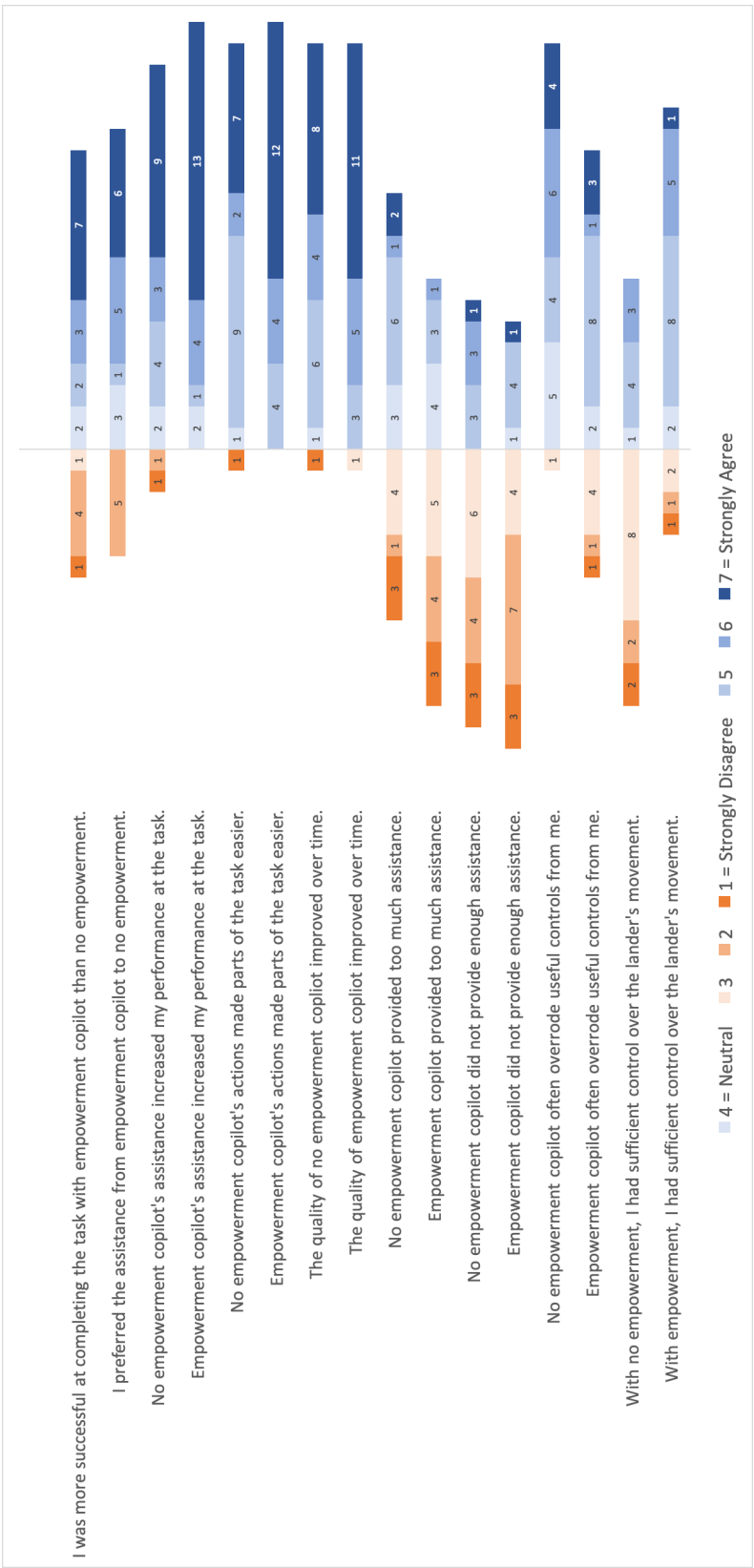


Figure 1: Survey responses from Lunar Lander User Study