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A Set of Communicative and Noncommunicative Action Video Stimuli for Human-Robot Interaction Research

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Abstract

In this study, we present a stimulus set that contains 80 action videos depicting 40 action exemplars (communicative and non-communicative), each performed by a social robot and a female actor with the same manner, timing, and number of repetitions. We describe the creation of the video stimuli, the normative tests conducted to validate the stimulus set (N=438), and the data annotation process. We compute an H score for each action based on entropy, which takes into account the homogeneity of the intended labels for the observers of the actions. We also report the confidence level of the participants and the frequencies of the action classifications. We discuss the implications of the results of this unique and standardized source that is suitable to use in various research areas in cognitive science, not limited to human-robot interaction but also social cognition and cognitive neuroscience.