

Situational model in shy children: How multimodal behavior can inform us?

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ABSTRACT

Children make sense of a situation in which an interaction takes place. However, even in a simple observations, we see temperamental differences with which children enter in a dialog. In the presentation, we propose to see the sense-making as an interplay of the situation, task, partner, and dialog. We will unfold the interplay along two re-analyses of a study, in which we assessed children's turn-timing and related it to the parental report on their shyness. In the original study (Tolksdorf, 2024), children at the age of 4–5 years interacted with a social robot (NAO) for the purpose of learning new color adjectives. The training took place on three consecutive sessions. In the last two sessions, children were further tested by the robot on their word recall. Overall, we could relate children's reaction times to the robot's instruction to their scores on shyness, as reported by the parents (Tykhonenko et al., submitted). In addition, because two types of training intervention were compared to each other on the third session, we could further analyze how shy vs. less shy children cope with a new task. We then compared how children respond to their partner when the task changes in comparison to a familiar one (Tykhonenko et al., 2024). Our results, based on grouping children by shyness level, indicate that shy children's turn-timing was consistently characterized by higher latencies compared to the less shy children across sessions and tasks, particularly when introduced to a new task. Correlational analysis, accounting for the full shyness spectrum, confirmed this trend. Linking to research suggesting that shy children are more sensitive to the situation (Mink, Henning, & Aschersleben, 2014), we suggest that research on shy children can inform us about the various models that vary individually and need to interplay for making sense of a situation.

Keywords: Turn-timing; shyness; child-robot interaction; situational sense-making.

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