CLASTA 2024 – XIV EDIZIONE
Milano, 17-18 Maggio 2024 – Università degli Studi di Milano Bicocca

Ilaria Grazzani, Elisabetta Conte*, Edoardo Datteri*, Alessandro Pepe**

*Dipartimento di Scienze Umane per la Formazione ‹‹R. Massa››, University of Milano-Bicocca, Milano, ITALY
Lab-PSE http://labpse.it/ - ilaria.grazzani@unimib.it

La teoria della mente nell'infanzia: la competenza comunicativo-linguistica c'entra?/

Theory of mind in infancy: does the communicative-linguistic competence matter?

Background and research questions

Currently, there are mixed findings about infants' and toddlers' capacity to attribute false beliefs to others (Baillargeon et al., 2018). The debate about children's implicit theory of mind (ToM) has extended to identity tasks, which require understanding others' beliefs about different identities of an object.

- The present study applies eye-tracking technology to investigate toddlers' implicit ToM in a novel unexpected-identity task.
- By measuring children's reactions in true- (TB) and false-belief (FB) conditions, we assessed whether there were significant differences in participants' looking times as a function of condition.
- By measuring children's communicative-linguistic competence, we investigated whether there were significant associations with their performance at the identity task.

Method

Participants: 66 toddlers aged 20-24 months (*Mage*=22, *SD*=1.44).

Materials:

- PVB (Caselli et al., 2016) measuring toddlers' communicative and linguistic level:
- a double-sided puppet (wolf and granny on the two sides, respectively);
- 2 videos created ad hoc, adapted from the identity test devised by Butterfill & Apperly (2013);
- eye-tracker (Tobii Pro Nano, sampling rate of 60 Hz).

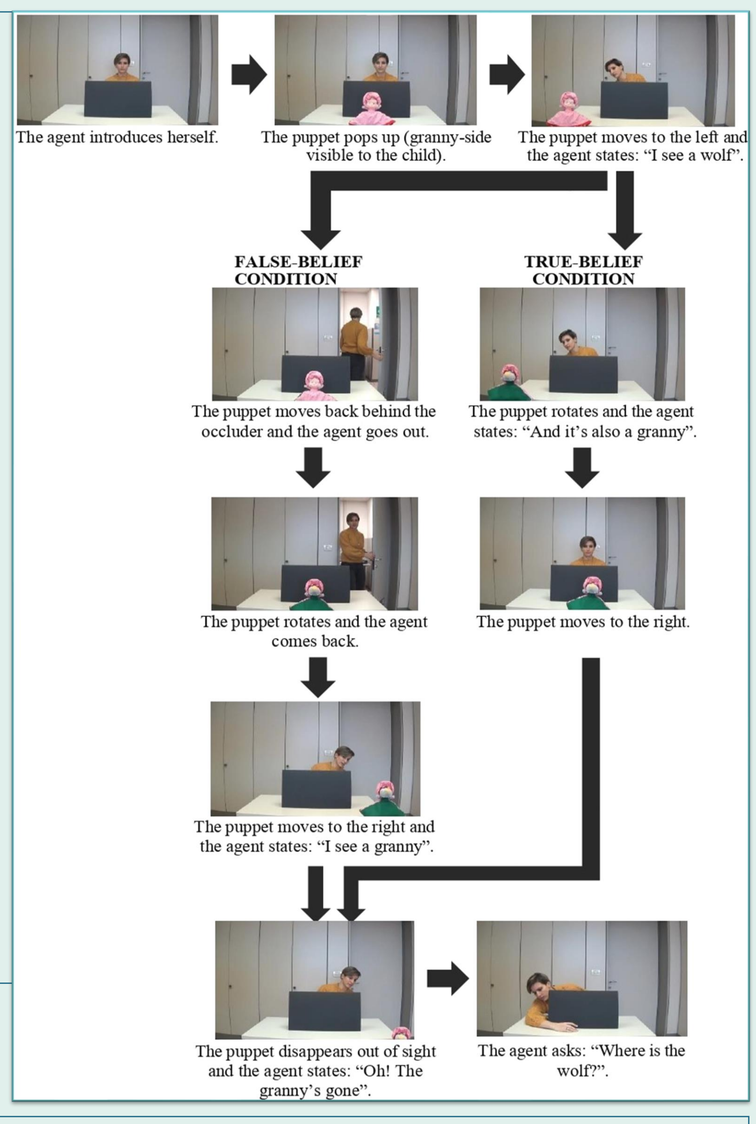
Paradigm: violation-of-expectation

Research design: within-subject (i.e., everyone watched the 2 videos).

Procedure:

- Familiarization phase. The puppet was displayed for about 30 seconds to each participant, showing the two identities;
- Testing. In the FB condition, the agent's behavior is coherent with her state of knowledge. In the TB condition, the agent's behavior contradicts her state of knowledge (i.e., the child's expectation is violated). Videos were presented in counterbalanced order.

Coding: the area of interest (AOI) covering the critical aspects of the scene



Results

Preliminary analyses:

*ANOVA showed different patterns of looking behaviors in TB and FB conditions, regardless of trial sequence
-longer looking times to the agent's face in the TB condition, as compared to FB (F=6.02, p=.017, η^2=.10);

*Correlation analysis showed no correlation between toddlers' performance at the identity task and their communicative and linguistic competence.

		True-Belief Condition		False-Belief Condition	
		M	SD	M	SD
Looking time (in seconds)	Face	4.76	1.97	4.17	1.89

Conclusions

The preliminary findings (analyses are still ongoing) would support the view that toddlers, from the second year of life, attribute FB to others concerning the dual identity of an object. Importantly, this early competence would be independent from the linguistic domain. In terms of theoretical explanations, these results support a 'one-system account' according to which toddlers possess genuine ability to represent the mental state of false belief of an agent.