

Production of Symbolic Play in Children with Autism: A Case of Triune Representation

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Background: There is considerable empirical evidence for deficits in pretend play in children with autism compared with children with developmental delay (DD) and typically development (TD). We referred Tomasello and his colleagues's suggestion (Tomasello, Striano, & Rochat, 1999) and used the "triune representation" point of view to measure the child's symbolic play behaviors.

Objectives: The purpose of this study was to (1) examine the production of symbolic acts in structural play condition; (2) explore the patterns of social looking of symbolic acts in functional and symbolic play conditions.

Methods: Based on the perspective of "triune representation," a modified paradigm from Striano, Tomasello, and Rochat (2001) was tested to 17 children with autism (mean chronological age [CA] = 69 months, mean mental age [MA] = 56 months), 17 MA-matched children with DD and 19 children with TD. Two experiments were arranged. In experiment 1, examiner (E) introduced the doll house divided into four rooms with appropriate prop sets and used the three pairs of actors, including replica dolls (a toy man and toy woman), instrumental objects (a pencil and a scissors), and natural objects (a rock and a stick) to play. Experiment 1 consisted two phases: baseline and testing phases. In baseline phase, examiner introduced the doll house and encouraged the child to use each of the three actors set in turn. Each pair can play in the doll house for two minutes. In testing phase, examiner modeled with the action prompt or verbal direction first and then encouraged the child to play each pairs of actors for two minutes. We measured child's symbolic acts spontaneously in the Action and Language conditions. In experiment 2, children were given the "functional sets" (i.e., doll + bed and pegboard + hammer) and "symbolic sets" (i.e., doll + block and pegboard + brush) randomly to play in front of examiner. We counted the child's looking behaviors during/after he/she engage in the functional and symbolic acts with object.

Results: (1) In experimental 1, there was a significant difference of symbolic acts among the three groups in the baseline phase and the children with autism displayed fewer than those children with two control groups. After examiner's modeling, children with autism imitated less symbolic acts and displayed lower novel symbolic acts comparing with the two controls. (2) In experimental 2, children in the three groups revealed no significant difference on the frequencies of looks to examiner during/after performing functional acts. However, the children with autism displayed less looks to examiner than children with DD and TD after they displayed symbolic acts.

Conclusions: Using the perspective of "triune representation" to measure the spontaneous symbolic play acts, children with autism not only showed impairments on symbolic production but also displayed fewer social looking for social communication. The theoretical and clinical implications were discussed.

Keywords: *autism, social looking, symbolic play, triune representation*