Play, Creativity, and Gender Schema Flexibility

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ABSTRACT

Research has shown that children as young as age 4 have established gender stereotypes (Bigler & Liben, 2007), and flexible gender schema are positively correlated with creativity (Martin & Ruble, 2004). The current study examined the relationships among creativity, play behaviors, and gender schema flexibility in four-year-olds from Nebraska and Hawaii. The participants sorted pictures of toys to establish a baseline gender schema. They were then exposed to gender stereotyped or counter-stereotyped vignettes and asked to construct an element of the story with blocks. Finally the gender sorting task was repeated to reevaluate their gender schema. The results showed that the most creative children chose more counter-stereotyped toys as their favorites and spent more time engaged in unscripted play.

INTRODUCTION

• Creativity, although easily recognized, is difficult to operationally define, which is why little psychological research has been conducted in this area.
• Creativity is the making of something that is both unique and fitting to the situation (Klaussen, 2010). Creativity requires looking beyond the ways things are normally done, but staying within the scope of social acceptability (Klaussen, 2010).
• Caldera et al. (1999) used block construction to assess building strategies, block use, interest, planning, complexity, and creativity. Creativity was defined as the ability to “break set” and “produce varied solutions using visual materials.” They determined creative children showed an interest in block construction, created complex and varied block structures, and performed well on the Children Embedded Figures Task (Caldera et al., 1999).
• Children have established gender stereotypes and prejudices by age 4, including gender stereotypes (Bigler & Liben, 2007; Leibnich, Hort, & Fogel, 1997). A child that has established gender identity will begin adopting behavior that is associated with his or her gender, including play behavior (Cherney & Donymp, 2010).
• Strict, inflexible gender schema can restrict a child’s actions to only those he or she sees as appropriate for his or her gender, which can have long-lasting effects on future school performance, interests, and career choice (Green, Bigler, & Carterwood, 2004). The preference for artistic activities was related to more complex block play in the study the Caldera et al. (1999).
• Research suggests when children are exposed to stories where characters are depicted in counter-stereotype gender roles, they are more likely to play with traditionally counter-stereotyped toys (Ashton, 1983; Green, Bigler, & Carterwood, 2004).

Hypotheses

The current study hypothesized children who exhibited more creative play behavior would engage in more unstructured play on a daily basis. It was also hypothesized that the ease with which children were willing to change their gender schema after hearing gender counter-stereotyped stories would be positively correlated with more creative play behaviors. External, observable behaviors were measured as indicators of both creativity and gender schema flexibility rather than making assumptions about the internal cognitive processes of the participants.

METHOD

PARTICIPANTS

Forty-two, four-year-old participants (n = 18 females, n = 24 males) were recruited from Omaha, Nebraska (n = 19 children), and Ewa Beach, Hawaii (n = 23 children). (M = 51.92 months, SD = 4.07 months).

PROCEDURE

• Participants sorted 10 pictures of gendered toys into boxes labeled “Boy” and “Girl” to establish each child’s baseline gender schema.
• College students conducted the same sorting task to provide a baseline comparison.
• All participants were read a brief gender neutral vignette, and asked to build a sandcastle with wooden blocks. Play behavior was recorded during this 5 minute session.
• Half of the children were then read a gender stereotyped story, and half were read a gender counter-stereotyped story. Participants were asked to build a component from this story with wooden blocks. Participants’ play behavior during this 5 minute play session was also recorded.
• The initial toy sorting task was repeated upon completion of the second play session to assess how exposure to a gender stereotyped or counter-stereotyped story altered the participants’ gender schema.
• Parents of the participants completed a follow-up survey about their children’s typical play behaviors and toy preferences.

SORTING BY STORY TYPE

Toy Re-Sorting Towards Participant’s Sex Toy Re-Sorting Away From Participant’s Sex

Stereotyped 65% 35%

Counter-stereotyped 47% 58%

DISCUSSION

• “Creative” children listed more counter-stereotyped toys as favorites than non-creative children. Non-creative boys from both locations listed no favorite feminine toys.
• Children showing the most creative behaviors spent more time playing outdoors, participating in recreational activities, and playing with their parents, whereas their “non-creative” counterparts spent more time playing with siblings and more time in early childhood education programs.
• In the toy sorting task, exposure to the stereotyped story led to the reassignment of toys. Children who heard the counter-stereotyped story exhibited more gender flexibility, re-sorting toys away from their gender.
• Children who heard the stereotyped story were more likely to re-sort toys towards their own sex. This sorting created a distribution that adhered more closely to gender stereotypes.
• Data suggests play with toys and in activities that are counter-stereotyped to the child’s gender is associated with increased gender schema flexibility and higher levels of creativity.
• Results also suggest children should be encouraged to spend more time in unstructured activities such as recreational activities and playing outdoors.

REFERENCES