

Children's Search for Gender Cues

Cognitive Perspectives on Gender Development

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ABSTRACT—*Young children search for cues about gender—who should or should not do a particular activity, who can play with whom, and why girls and boys are different. From a vast array of gendered cues in their social worlds, children quickly form an impressive constellation of gender cognitions, including gender self-conceptions (gender identity) and gender stereotypes. Cognitive perspectives on gender development (i.e., cognitive developmental theory and gender-schema theory) assume that children actively search for ways to make sense of the social world that surrounds them. Gender identity develops as children realize that they belong to one gender group, and the consequences include increased motivation to be similar to other members of their group, preferences for members of their own group, selective attention to and memory for information relevant to their own sex, and increased interest in activities relevant to their own sex. Cognitive perspectives have been influential in increasing understanding of how children develop and apply gender stereotypes, and in their focus on children's active role in gender socialization.*

KEYWORDS—*gender development; gender stereotypes; cognitive theories*

Erin, a 4-year-old, explained to her aunt about a drawing she had done: "The ones with eyelashes are girls; boys don't have eyelashes."

In an Italian restaurant, a four-year-old noticed his father and another man order pizza and his mother order lasagna. On his way home in the car, he announced that he had figured it out: "Men eat pizza and women don't." (Bjorklund, 2000, p. 361)

Children are gender detectives who search for cues about gender—who should or should not engage in a particular activity, who can play

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with whom, and why girls and boys are different. Cognitive perspectives on gender development assume that children are actively searching for ways to find meaning in and make sense of the social world that surrounds them, and they do so by using the gender cues provided by society to help them interpret what they see and hear. Children are wonderfully skilled in using these cues to form expectations about other people and to develop personal standards for behavior, and they learn to do this very quickly and often with little direct training. By the age of 5, children develop an impressive constellation of stereotypes about gender (often amusing and incorrect) that they apply to themselves and others. They use these stereotypes to form impressions of others, to help guide their own behavior, to direct their attention, and to organize their memories.

The first cognitive theory of gender development was Kohlberg's (1966) cognitive developmental approach, which was based on the ideas of Piaget. Kohlberg's theory emphasized the active role of the child in gender development, and proposed that children's understanding of gender concepts influences their behavior, and that this influence becomes more pronounced once children reach a relatively sophisticated understanding of gender—knowing that a person's sex is stable and unchanging. In the 1970s, a new group of cognitive approaches to gender emerged—gender-schema theories. Gender-schema theory is based on the idea that children form organized knowledge structures, or *schemas*, which are gender-related conceptions of themselves and others, and that these schemas influence children's thinking and behavior. Although similar to Kohlberg's theory in the assumption that children play an active role in gender development, gender-schema theory assumes a more basic understanding of gender is all that is required to motivate children's behavior and thinking. Gender-schema theory was further elaborated with contributions from developmental and social psychologists (Liben & Bigler, 2002; for reviews, see Martin, Ruble, & Szkrybalo, 2002). Over time, these two cognitive perspectives—that is, cognitive developmental and gender-schema theories—have been influential in promoting the idea that children actively construct gender on the basis of both the nature of the social environment and how they think about the sexes. Other perspectives also have incorporated cognitive mechanisms to account for gender development (e.g., Bussey & Bandura, 1999).

MAJOR THEMES OF COGNITIVE THEORIES OF GENDER DEVELOPMENT

We believe that cognitive theories of gender development are characterized by three central features.

The Emergence of Gender Identity and Its Consequences

A central tenet of cognitive approaches is that there are immediate consequences of children's recognition that there are two gender groups and that they belong to one of them. These consequences are both evaluative and motivational-informational.

Evaluative Consequences

Considerable research with diverse kinds of social groups suggests that an individual evaluates a group positively as soon as he or she identifies, even in a very minimal way, with that group (see Ruble et al., in press). For instance, children as young as 3 years of age have been shown to like their own sex more than the other. Similarly, young children attribute more positive characteristics to their own sex than to the other (see Ruble & Martin, 1998). One of the most powerful developmental phenomena is children's striking tendency to segregate by sex when they can choose play partners (Maccoby, 1998). Young children seldom play exclusively with members of the other sex. Evaluative consequences of group identification are particularly likely when group membership is salient (e.g., when groups differ in appearance) and when it is made functionally significant by authority figures; both of these conditions are true for gender (Bigler, Jones, & Lobliner, 1997).

Motivational and Informational Consequences

The emergence of gender identity and growing understanding of the stability of social group membership affects children's motivation to learn about gender, to gather information about their gender group, and to act like other group members (Ruble & Martin, 1998). For example, experimental studies using novel toys find that at an age when children have achieved gender identity, they pay more attention to and remember more information relevant to toys they believe are appropriate for their own gender group than for toys they believe to be for the other sex (Bradbard, Martin, Endsley, & Halverson, 1986).

Once they recognize their gender group, children make broad assumptions about similarities within the gender groups and about differences between girls and boys. In numerous studies, children have been found to use the sex of a person to form impressions and make judgments about him or her (e.g., judgments about whether they would like the person, what the person may like to do, and what the person is like). For instance, using gender stereotypes, a girl may not approach a new neighbor who is a boy because she suspects that he will not share her interests. By acting on their assumptions about what other members of their gender like to do, children further differentiate the sexes.

Active, Self-Initiated View of Gender Development

When cognitive theorists refer to the motivational consequences of self-identification as a boy or girl, they mean something quite specific. Gender identification produces a new motivation that is initiated by and emanates from the child. This motivation involves the child's deliberate efforts to learn about a social category that he or she is

actively constructing as part of a process of finding meaning in the social world.

Perhaps the clearest evidence for this kind of active construction is found when the process goes awry and children draw faulty conclusions about gender distinctions and show distorted perception of and memory for gender-role-inconsistent information. There are numerous examples of such errors in the literature. In one study, after being shown equal numbers of pictures of people engaged in gender-stereotypic activities (e.g., a girl sewing) and gender-inconsistent activities (e.g., a boy cooking), children were three times more likely to misremember the inconsistent than the stereotypic pictures. For example, instead of remembering that they had been shown a picture of a *girl* sawing wood, children reported having seen a picture of a *boy* sawing wood (Martin & Halverson, 1983). Children also seem to want to generate or exaggerate male-female differences, even if none exist. In our own studies, it has been difficult to generate neutral stimuli because children appear to seize on any element that may implicate a gender norm so that they may categorize it as male or female. Experimental research also suggests that young children are quick to jump to conclusions about sex differences, even on the basis of only a single instance. For example, when 3-year-olds were told that a particular boy likes a sofa and a particular girl likes a table, they generalized this information to draw the conclusion that another girl would also like the table (Bauer & Coyne, 1997).

Developmental Patterns

A major feature of cognitive theories of gender is an emphasis on developmental changes in understanding of gender, which may be accounted for by children's changing cognitive abilities (e.g., abilities to classify on multiple dimensions) and their evolving understanding of concepts. Because of such changes, the relative strength (rigidity) of children's gender-related beliefs and behaviors is predicted to wax and wane across development. The early learning of gender categories and associated attributes (stereotypes) appears to set off a sequence of events that results in, first, very rigid beliefs (that only boys or only girls can do or be something), which are followed by more flexible, realistic beliefs (that either sex can do almost anything). Specifically, considerable evidence suggests that gender stereotyping shows a developmental pattern that can be characterized by three ordered phases (Trautner et al., 2003):

- First, children begin learning about gender-related characteristics. This phase takes place mainly during the toddler and preschool years.
- Second, the newly acquired gender knowledge is consolidated in a rigid either-or fashion, reaching its peak of rigidity between 5 and 7 years.
- Third, after this peak of rigidity, a phase of relative flexibility follows.

This phase pattern (see Fig. 1) received striking support by an analysis of data collected on a sample of children over a period of 6 years (Trautner et al., 2003). The children reached peak rigidity in their gender stereotypes at age 5 to 6, then showed a dramatic increase in flexibility 2 years later (i.e., at age 7 or 8). Moreover, although the children varied considerably in their maximal levels of rigidity at age 5 to 6, there was little difference in levels of flexibility by age 8. These findings provide strong support for a cognitive perspective by

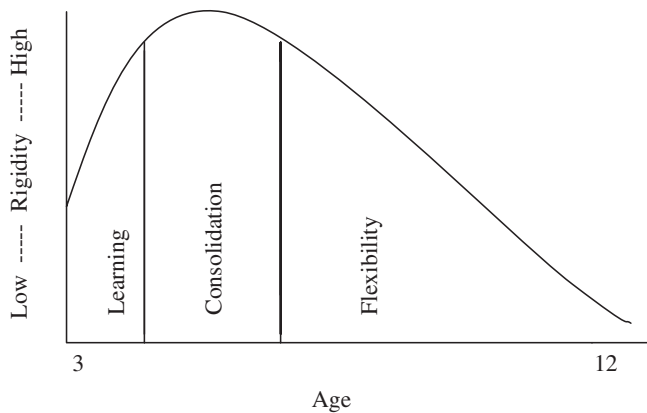


Fig. 1. A model of phase changes in the rigidity of children's gender stereotypes as a function of age.

showing that all children take basically the same path of waxing and waning of stereotype rigidity across development, despite variations in when the path begins and what level it reaches. Although this developmental sequence of gender stereotyping is no doubt associated with more general cognitive processes and abilities, such as understanding of gender constancy and categorization and classifications skills, the exact mechanisms underlying changes in gender stereotyping are not yet fully understood.

Gender-related preferences and behaviors show more mixed developmental patterns than stereotyping (Liben & Bigler, 2002; Ruble & Martin, 1998), with some showing clear rigidity in preschool (Maccoby, 1998) and others showing little developmental change in rigidity (Serbin, Powlishta, & Gulko, 1993). These differences are probably due to varying influences of socialization, biological, and cognitive developmental factors.

On the basis of an extensive review of the literature, we have recently suggested the following developmental hypothesis: The consequences of gender identity may differ at different levels of understanding. Specifically, lower levels of understanding (recognizing one's sex) may serve to orient children to the importance of gender, thereby increasing their in-group biases and their motivation to attend to information about gender, whereas higher levels of understanding (recognizing the invariance of the category) may heighten children's behavioral responsiveness to gender-related social norms (Martin et al., 2002). A parallel hypothesis has received support in research on ethnic-related identity and consequences, but the hypothesis remains to be tested for gender (Ruble et al., in press).

THE EARLY ORIGINS OF GENDER

Researchers have been fascinated for years with questions about the early origins of gendered behavior and thinking. The two most pressing issues are, at what age do children begin to think of themselves and other people in terms of gender, and how do these gender cognitions influence their behavior and thinking?

Development of Gender-Based Perceptual Discriminations

In the quest to understand the earliest origins of gender development, researchers have been conducting studies with infants and toddlers.

The latest research on this topic has yielded surprising findings: Six-month-old infants can distinguish the voices of women and men, and most 9-month-olds are able to discriminate between photographs of men and women. Even more surprising is that between the ages of 11 and 14 months, infants learn to recognize the associations between women's and men's photographs and their voices (e.g., that men's faces "go with" low voices), showing that they can form associations across sensory modalities. These studies suggest that by the time children can talk, they have in place perceptual categories that distinguish "male" from "female" (for a review, see Martin et al., 2002).

Linking Thought and Behavior

If cognitions play a role in guiding behavior, one would expect that the onset of gender-related cognitions precedes behavior that reflects sex differences. Developmental trends tend to support this pattern, but not always. For instance, girls show preferences for dolls and boys for transportation toys at a very early age, before gender cognitions develop. Yet most sex differences do not become apparent until after age 2, when children have at least rudimentary gender cognitions.

Do young children's gender cognitions actually influence behavior? Specifically, do children who recognize their gender identity or know gender stereotypes behave in more gender-differentiated ways than children who do not recognize gender identity or know gender stereotypes? Establishing clear causal linkages between knowing about gender and acting on the basis of that knowledge has been challenging (Martin et al., 2002). In natural settings, it is difficult to assess the role of cognition because patterns of behavior are also influenced by children's prior experiences. Nevertheless, a few longitudinal analyses have shown that once children know gender stereotypes, their personal preferences become more gender typed (Miller, Trautner, & Ruble, in press).

These links have also been studied in the laboratory by giving novel toys or activities gender-related labels, either directly (e.g., "I think that boys like this toy better than girls") or subtly (e.g., "this is a test to see how good you would be at mechanics or operating machinery"). Such studies have shown that children pay more attention to toys and activities that they believe are for their own sex than to toys and activities they think are for the other sex. Similarly, children have better memory for, perform better with, and have greater expectations of success with toys and activities they think are for their own sex. Essentially, these studies illustrate that when a toy or activity is stereotyped, with either overt or covert cues, children respond according to whether the toy or activity is appropriate for their own sex.

FUTURE DIRECTIONS

In conclusion, several lines of evidence support cognitive theories of gender development. First, children's growing knowledge about and identification with gender categories has evaluative and motivational consequences. For instance, knowledge of gender stereotypes is linked to behavior, especially in carefully designed experimental and correlational studies. Second, children show developmental changes in stereotyping that parallel other cognitive developmental changes. Third, knowledge about gender categories may be found in primitive forms in infancy, well before the emergence of many gender-typed behaviors.

However, many fundamental questions remain to be tackled by future research. For example, it is not yet known at what age children begin to identify with gender in some form. Is it possible that toddlers have developed gender preferences based on primitive gender identities by the time they are able to talk? Researchers also do not know what processes underlie the waxing and waning of rigidity and flexibility in gender beliefs and behaviors. Do socialization processes interact with cognitive-developmental factors to determine when children attend to gender information and adopt rigid beliefs about it?

Recently, interest in integrating multiple perspectives on gender has been heightened by research on children and adults who either have a mismatch between their biological sex and their gender identity or are born with ambiguous genitalia. Collaborative efforts with biologically oriented theorists could address such important issues as whether there is a critical or sensitive period for gender identity and how social, biological, and cognitive factors affect its development. How, for example, do the gender-identification processes unfold for children born with ambiguous genitalia? What cues might children use to lead them to conclude that their gender is different from their biological sex? Are there interpersonal and mental health consequences of whether or not they forge a clear identity as one sex or the other? Such questions have been asked for decades, and have critical implications for health and mental health, but convincing answers have remained elusive.

Recommended Reading

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