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ABSTRACT

A study of children's ability to conserve gender identity was made to: (1) investigate whether constancy would be achieved according to the developmental sequence proposed by Kohlberg (1965) and found in subsequent studies; (2) see if the pattern of conservation of referent-type followed the same sequence found in previous studies; (3) assess age differences in constancy attainment; and (4) test whether a pseudoconstant phase exists among children 3 and 4 years of age. Videotaped task materials were designed to be maximally realistic and familiar to young children without being distracting. Verbal demands were minimized, and a "real" versus "pretend" response set was encouraged. Subjects were six preschool boys and six preschool girls. Because of the small sample size, results are presented in terms of percentages of subjects who responded correctly to the questions. Trends in the data resembled findings of previous studies in that the children's responses to the different types of referents followed the same sequence. No sex differences were found. Gender understanding increased with the age of the subject. Subjects' justifications for their answers varied, with some subjects indicating understanding of "true-constancy" and others offering "pseudo-constant" justifications. Unexpectedly, the majority of subjects achieved gender constancy in full. (RH)

GENDER CONSTANCY: A REALISTIC APPROACH

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INTRODUCTION

The origin of sex role concepts and attitudes has received a considerable amount of attention over the past two decades. Underlying any notion of sex role is the concept of gender identity. According to a cognitive-developmental view, the child creates an irreversible, self-identifying category of "male vs. female" or "boy vs. girl" which serves as an organizer of sex role information and behavior. Sex role-realated behaviors and information are then either valued as "like me," or rejected as "not like me."

Previous studies of gender constancy as a cognitive phenomenon have employed innovative and informative techniques aimed at understanding the characteristic patterns and underlying structures. However, these methods have presumed rather sophisticated language comprehension skills in very young children and have either failed to provide visual stimuli, or used stimuli that were highly abstract or "tricky." Most importantly, researchers have failed to take into account the qualitatively different conceptions of "real" and "pretend" that children possess at various stages of development. Consequently, the results of these studies may reflect more the child's ability to differentiate between "pretend" and "real"

than her ability to conceive of gender as a consistent identity notion (Martin & Halverson, 1983). A new method, using videotaped sequences for stimuli and a line of questioning that emphasizes a more realistic interpretation of events was adopted in an effort to eliminate the weaknesses of past methodologies and to reveal a more accurate picture of how gender constancy develops.

A COGNITIVE-DEVELOPMENTAL APPROACH

Biological and environmental factors are clearly involved in sex role acquisition, but the child must also understand what her own sex is and internally structure relevant information that is available to her. Cognitive-developmental approaches cast the child in the role of creator and organizer of her own reality. The child is selective, but her selections are not solely determined by social influence or biological predisposition. Rather, she constructs an irreversible category of gender identity that serves as organizer of information, attitudes, and behaviors, and that will function in the process of determining a sex role.

According to Kohlberg (1966), the child's gender identity can provide a stable organizer of the child's sexual attitiudes only "when <she§ is categorically certain of its unchangeability." Stable concepts of "boy" and "girl" are related to cognitive level, and are believed to be grounded in operational thinking (Kohlberg 1966, DeVries 1969). Thus, the ability to conserve identity in general is a cognitive prerequisite of gender conservation.

PREVIOUS RESEARCH METHODOLOGIES

Research indicates that the acquisition of gender constancy follows a specific sequence. The child first (by about age 2 or 3) acquires the ability to use correctly the labels "boy" and "girl" to refer to self and others. Next, she recognizes the fact that "boys are boys" and "girls are girls" remains stable over time (e.g. boys grow up to be daddies, not mommies). By about age 6 or 7, the child understands that being male or female does not change despite wish (motivation), or despite changes in activity or appearance/dress (constancy). These levels of gender understanding are believed to be acquired in reference to self first, then same-sex others, then opposite-sex others (Kohlberg 1966, Slaby & Frey 1975, Eaton & Von Bargen 1981). Nearly all studies have used the following questions to assess gender constancy with a few slight variations. Children ranging in age from 2 1/2 to 8 years were asked these questions.

Labeling
1) Are you a boy or a girl?
2) Are you a (opposite of previous response)?

Stability
3) When you were a baby, were you a baby boy or a baby girl?
4) Were you ever a little (opposite of previous response)?
5) When you grow up, will you be a mommy or a daddy?
6) Could you ever be a (opposite of previous response)?

Motivation
7) If you wanted to be a (opposite sex), could you be?

Constancy
8) If you played with (opposite sex) toys, what would you be?

9) If you wore (opposite sex) clothes, what would you be?
10) If you played with (opposite sex) toys and wore (opposite sex) clothes, what would you be?

The referent "you" is changed to fit a same sex peer and an opposite sex "other," usually a doll or picture.

A transitional stage has been found (Emmerich, et.al. 1977) in which children answer the most difficult constancy questions (6-10) correctly, but give inappropriate reasons for their judgments. For example, these "pseudo-constant" subjects would respond that the person was still a girl (or boy), but their explanation would refer to a cue in the transformed stimulus that signified the original stimulus classification. For example, a child might say, "She's a girl because of her shoes." "True-constant" children, on the other hand, justify their correct responses with statements pertaining to the permanence of gender.

Previous investigations have used methods that presume rather sophisticated language skills and either fail to provide visual stimuli, or use stimuli that are highly abstract. For example, the most commonly used apparatus for measuring gender constancy has been Emmerich's (Emmerich, et.al 1972) booklet with a schematic drawing of a boy or girl on the front page. Pages are cut horizontally across the neck of the figure. When the lower half is of the page is turned, opposite sex-type clothing and props, such as dolls, are revealed. According to Piaget (1954), perceptual transformations must be performed in order to most accurately assess the child's understanding of gender identity. However, the representational nature of this particular task is misleading to the child: why should she necessarily infer that a change in the bottom half of the page (dress) is less significant

than a turn of the top half (face)? Both seem equally arbitrary and far from the child's real experience.

Not only is this method unrealistic, but it taps only the child's knowledge of OTHERS' identity and not her own. Gouze and Nadelman (1980) and Marcus and Overton (1978) used, respectively, Polaroid snapshots and cardboard frames with a cut out area for the child's face to evaluate the child's own understanding of her own gender identity. However, these methods were still representational and distracting for the subjects.

Researchers have failed to engage the child in a realistic and familiar activity. Because the child's reality is qualitatively different from an adult's, and because a 3 year old's experience differs significantly from a 6 year olds, techniques must be implemented that will maximize the probablilty that that the meaning of the task will be shared by <u>all</u> children who face it. Because of the abstract quality of the stimuli and the sophisticated, hypothetical wording of the constancy questions (e.g. If y girl?), it is likely that children in past studies have responded to what seemed to them a <u>pretend</u> situation (Martin & Halverson 1983). Since younger children do not tend to make the distinction between real and pretend spontaneously, they should be prompted that the task situation is to be responded to as being real.

THE PRESENT STUDY

The purpose of the present study was to investigate children's ability to conserve gender identity provided that:

a) Task materials are designed to be maximally realistic and familiar to young children without being distracting

b) Verbal demands are minimized

c) A "real" versus "pretend" response set is encouraged.

The aspects of conservation behavior of interest were:

a) To investigate whether constancy would be achieved according to the developmental sequence proposed by Kohlberg (1965) and found in all subsequent studies. The sequence would begin with correct labeling being easiest and so mastered earliest, followed by knowledge that gender remains stable over time, and finally the most difficult--that identity is constant across situations and despite contradictory physical appearance.

b) To see if the patern of conservation of referent-type followed the same sequence found in previous studies (gender identity constancy in self first, then in same-sex peers, and finally in opposite-sex peers).

c) To assess age differences in constancy attainment

d) To test whether a pseudoconstant phase exists at this very young age.

It was predicted that these young children would demonstrate a better understanding of gender identity than has been shown in other studies of gender identity conservation, because the present method attempts to improve on past methods.

Method

Description of research participants.--Subjects were 12 children, 6 boys and 6 girls with a mean age of 3 years 11 (47) months and ranged in age from 3 years 2 (38) months to 4 years 7 (55) months. A majority were white with middle class backgrounds. The experimenter and videotape camera person were

white female adults.

Procedure.--The study consisted of two sessions. In session 1, each child and parent(s) were brought to a room that contained a videotape camera, monitor, and a box of props. The child was asked to play some games with the experimenter and was told s/he could watch him/herself "on TV" while playing. Props included, for both boys and girls, a rubber duck that could be placed in a bucket of water, a large rubber ball, a pinwheel hat, and a stuffed animal. For boy subjects, the prop box also contained a straw hat with flowers on it, a long yellow dress with white lace, and a Barbie doll. For girls, additional props were a baseball cap, a "He-Man" long-sleeved T-shirt, and a toy race car.

Following directions given by the experimenter, the children moved about the room and used the props. Although all activities during the session were displayed on the monitor, only the periods in which the subject was wearing opposite-sex clothing and/or playing with an opposite-sex-typed toy were actually RECORDED on videotape. This material comprised the final stimulus tape, to be shown to the subject in session 2.

Session 2 was held two weeks later. Parents were allowed to accompany the child and were later asked to make comments regarding their child's responses. Children were shown 3 different videotapes in counterbalanced order: the one of the subject him/herself, one was of another, same-sex subject who the experimenter called "J.T.," and one was of an opposite-sex subject named "B.C."

Each stimulus videotape was comprised of the following footage:

1) A one minute long sequence in which a child (either the subject him/herself, a same-sex or an opposite-sex peer) appears as s/he normally would--walking, running and jumping. Questions 1-5 listed below were asked during this time.

2) The referent is shown picking up and playing with an opposite-sex type toy (doll or race car). The subject was asked items 6 and 7 during this sequence.

3) The referent takes opposite-sex type clothing out of the prop box, put it on, and "modelled," walking back and forth (questions 8 and 9).

4) The child on tape takes the same clothes from the box, puts them on, AND picks up the opposite-sex type toy and plays with it. Subjects were asked to respond to items 10 and 11 during this final sequence.

It is important to note that subjects could see these transformations in their entirety--clothes and toys did not "magically" appear on the screen.

The experimenter asked the subjects to respond to the following question and counterquestion items:

(FULL LENGTH SHOT OF REFERENT BEFORE ANY TRANSFORMATIONS ARE MADE, APPEARS ON SCREEN, NO SOUND)

Labeling

1) Look. Here you (or "J.T." or "B.C.") are on the TV. Are you (or other referent) REALLY a boy or a girl?

2) Are you really a (opposite of previous response)?

Stability

3) In real life, when you were a baby, were you a baby boy or a baby girl?

4) In real life when you grow up, will you be a mommy or a daddy?

5) If you really wanted to be, could you ever be a (opposite of response to item #1) in real life?

(RUN NEXT SEQUENCE OF VIDEOTAPE: REFERENT HOLDING TOY)

Constancy

6) Here you are again. You're playing with a doll, aren't

you? In real life, are you really a boy here, or are you really a girl here?

7) Why are you really a (repeat response) in real life?

(RUN NEXT SEQUENCE--REFERENT CHANGING INTO OPPOSITE-SEX CLOTHING)

8) Look what you're wearing here. In real life, are you really a boy here, or are you really a girl here?

9) Why are you really a (repeat response) in real life?

(RUN FINAL SEQUENCE--REFERENT WITH TOY AND CLOTHING)

10) Look what you're wearing, and playing with too. In real life, are you really a boy here, or are you really a girl here?

11) Why are you really a (repeat response), in real life?

The word "you" was replaced by "B.C." or "J.T." depending on which tape was currently being shown. The choices "girl," "boy," "mommy," and "daddy," were presented in counterbalanced order. The "why" questions, items 7, 9, and 11, were asked in an effort to assess true- versus pseudo- constancy, and justifications given were analyzed accordingly.

The subjects' responses during session 2 were recorded by the experimenter on data sheets, and were audiotaped as well. A research assistant listened to 3 of the audiotapes, selected by her at random, to measure reliability. Inter-judge reliability was found to be perfect ($r = 1.00$).

Results

Gender constancy.--Because the sample size was so small (N=12), differences of any size between groups would be statistically insignificant. The results will be presented in terms of percentages of subjects who responded correctly to the questions, and general trends will be discussed in the context of planning for future research.

Subjects had to answer every question in a category (labeling, stability, or constancy) correctly to be classified as having achieved that level of understanding of gender identity. Each item WITHIN each category appeared to be of equal difficulty. The percentages of 3 year olds and 4 years olds who answered the items correctly at the various levels of gender understanding are listed in Table 1.

TABLE 1: PERCENTAGE OF 3 AND 4 YEAR OLDS ANSWERING ALL QUESTIONS AT EACH LEVEL CORRECTLY

Level of gender understanding	3 year olds (N=6)	4 year olds (N=6)
Labeling (total)	100%	100%
self	100%	100%
same-sex other	100%	100%
opposite-sex other	100%	100%
Stability (total)	50%	100%
self	67%	100%
same-sex other	50%	100%
opposite-sex other	67%	100%
Motivation (total)	67%	83%
self	100%	83%
same-sex other	83%	83%
opposite-sex other	83%	83%
Constancy (total)	83%	100%
self	100%	100%
same-sex other	100%	100%
opposite-sex other	83%	100%

Five of the 4 year olds (83%) and three of the 3 year olds (50%) responded correctly to all items and were considered to have achieved a complete understanding of gender constancy. The motivation items were the only items missed by subjects in the 4 year old group, while the 3 year olds had difficulty with those and other types of items as well.

Success at each level increased with age, as calculated in months. There were no sex differences, which is not surprising given that none have been found in any other studies on this topic.

As had been predicted, labeling was mastered first. Contrary to results from all previous studies, the stability and motivation items were slightly more difficult for these subjects than the constancy items, at least for the 3 year olds. A larger sample size is needed to determine whether this unusual finding is valid.

Type of referent.--Table 2 describes the pattern of responses in terms of the type of referent: the self, same-sex other, and opposite-sex other conditions.

TABLE 2--PERCENTAGE OF 3 AND 4 YEAR OLDS RESPONDING CORRECTLY TO ITEMS IN SELF, SAME-SEX, AND OPPOSITE-SEX OTHER CONDITIONS

	All questions			Without motivation questions	
	Age 3	Age 4		Age 3	Age 4
Self	67%	83%	Self	67%	100%
Same	50%	83%	Same	50%	100%
Opposite	50%	83%	Opposite	50%	100%

Subjects' responses followed the same pattern as has been found in all previous studies of gender identity: first conservation of one's OWN identity, then conservation of identity of a same-sex peer, and finally, identity conservation of an opposite-sex peer.

Pseudo vs. true-constancy.--The responses to the "why" items (# 7, 9, & 11) designed to assess pseudo vs. true

constancy, were very diverse. Four of the six 4 year olds and one 3 year old gave justifications for their responses which indicated true-constancy. Responses of this type were, for example, "Girls stay to be girls and boys stay to be boys," and "'Cause underneath those clothes I'm still a boy." The rest of the 7 subjects either offered pseudo-constant explanations ("Because she wants to be one," and "Because of her long hair,") or they simply did not answer the question.

Discussion

Trends revealed in the data here resemble findings of previous studies in that:

a) the children's responses to the different types of referents followed the same sequence (self, same-sex, opposite sex peer)

b) there were no sex differences

c) gender understanding increased with the age of the subject

d) subjects' justifications for their answers varied, with some subjects indicating understanding of "true-constancy" and others offering "pseudo-constant" justifications.

The majority of subjects achieved gender constancy in full. However, without a control group, it is impossible to determine what is responsible for the subjects' in this study unusually advanced level of gender understanding. The method of presenting children with realistic, visual stimuli appeared to account for much of the difficulty children have in understanding gender constancy (as it has been defined in previous work), in that all but one of the subjects responded correctly to the constancy items. Other studies (e.g. Emmerich et.al, 1977) claim that this last step--constancy in the face of perceptual transformation--is

not achieved until about age 6 or 7.

There remains the puzzling fact that children in this study (25%) missed the supposedly "easier" stability and motivation items, but responded correctly to the constancy questions--the group of items assumed to be the most difficult. More subjects are needed to determine whether these findings are statistically significant, but the incorrect responses of these subjects may indicate that the developmental process of understanding gender identity is even more complex than preveiously believed.

One possible explanation for this unusual pattern of responding may be that the stability items (i.e. "...will you be a mommy or a daddy?"), and the motivation question ("If you really wanted to be, could you ever be a _____...?"), were the only items for which the children had no concrete, visual stimuli to refer to. Without visual cues, subjects must create an image of "what is possibile," and must differentiate between what is reality in the future ("When you grow up, will you be a mommy or a daddy?"), and what is pretend. This is an additional cognitive demand, making these items more difficult than the constancy and labeling questions, where children are asked only to distinguish between what is reality on the screen, and what is pretend.

One-third of all subjects responded that a person could be either a boy or a girl if s/he really wanted to badly enough. The motivation question, like the stability items, seem to tap into the child's tendency toward a "pretend" mode of responding. Results suggest that the reality-pretend distinction and the creation of a "realistic" mental representation may be the critical factor, and the most difficult for younger children, in

attaining a complete gender identity understanding.

A FINAL NOTE

Another study (MacKain 1986), is underway with a larger sample size (N=40) that employs a similar methodology but that examines the relationship between social experience and cognitive development in children's understanding of gender. How the child creates and uses gender categories may be influenced by any number of factors: parental teaching, modelling, the purchasing of certain toys, or exposure to situations in which children can learn about anatomical differences between males and females. Through the analysis of quantitative data and several case studies, it is hoped that we may come to a more complete understanding of the development of gender identity.

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