To examine the link between deaf children's language abilities and their knowledge of, attitudes toward, and self-endorsements of cultural gender stereotypes, 46 deaf children between the ages of 5 and 12 years were given measures of gender-related attitudes, knowledge, and self-interests. Teachers were asked to rate children's ability with signed and oral communication and their relative reliance on the two systems. Results showed that deaf children are highly knowledgeable regarding cultural gender stereotypes from an early age, and that this knowledge is independent of language ability. Findings also suggest that gender-related attitudes develop independently of language ability. Language ability is, however, related to deaf children's gender-related self-endorsements, in that those children rated as having lower language abilities were more likely to endorse masculine occupations and activities. Further research should explore the possibility that linguistic ability is important in the dissolution of stereotypes, and should consider the relative contributions of verbal and nonverbal sources to gender stereotypes. (HB)
Deaf Children's Sex-Role Stereotypes as a Function of Language Ability

Corinne J. Lewkowicz and Lynn S. Liben
Department of Psychology
The Pennsylvania State University

Abstract

The present investigation examined the link between deaf children's language abilities and their knowledge of, attitudes toward, and self-endorsements of cultural gender stereotypes. Forty-six deaf children between the ages of 5 and 12 years were given measures of gender-related attitudes, knowledge, and self-interests. Teachers were asked to rate children's ability with signed and oral communication, and their relative reliance on the two systems. Results indicate that deaf children are highly knowledgeable regarding cultural gender stereotypes from an early age, and that this knowledge is independent of language ability. The results also suggest that gender-related attitudes develop independently of language ability. Language ability is, however, related to deaf children's gender-related self-endorsements, in that those children rated as having lower language abilities were more likely to endorse masculine occupations and activities. Possible explanations for these findings are discussed, as are implications and suggestions for further research.

Introduction

Research with hearing children suggests that there is a developmental progression in their knowledge and acceptance of sex-role stereotypes (Ruble & Stangor, 1986; Signorella, Bigler, & Liben, in press). Specifically, knowledge of gender-related stereotypes increases monotonically with age, is virtually complete by around five years of age, and shows few individual differences. Gender-related attitudes, however, follow a different developmental progression: children are most highly stereotyped at around age five, develop increasingly flexible attitudes with age, and show individual differences in the level of stereotyping ultimately reached. Although there has been extensive research on the development of gender stereotypes in some populations of children, there has been little work in special populations.

One population that is of considerable interest is deaf children because the linguistic channel is typically restricted for parental transmission of cultural information. That is, approximately 90% of deaf children have hearing parents who are therefore unlikely to share a common language with the child during the child's early years. Additionally, while most parents and their deaf children do ultimately develop a common language, there are differing degrees of success in their efforts: some parents and their children develop a rich communicative system, while others struggle to achieve successful communication. Of interest is whether deaf children nevertheless learn the gender stereotypes of the majority culture while they are young, presumably largely through information gathered from nonverbal sources. Research with deaf adults suggests that they are more highly gender-stereotyped than their hearing peers, and are indeed more likely to enroll in traditionally sex-appropriate academic programs (Dodd, 1977; Kolvitz & Ouellette, 1980; Anderson & Krueger, 1982). There is, however, scant developmental research to suggest when or how such stereotypes emerge or function. Should evidence suggest that young deaf children are also highly gender stereotyped, it
may be important to intervene early, before educational decisions are made that preclude later choices.

In the present paper we describe data on deaf children's gender-related knowledge, attitudes, and self-endorsements in relation to their ability with signed and oral communication, as well as to their relative reliance on signed versus oral communication for everyday purposes. From a theoretical perspective, the present investigation offers a unique opportunity to explore the relationship between language and the development of sex-role stereotypes. From a practical perspective, results from investigations such as this may be used in the development of educational curricula to help children learn that their consideration of occupations and activities need not be based on gender, but rather on interest, ability, and training.

Methods

Subjects. Subjects were 23 boys and 23 girls (ages 5-7 years: N=13; 8-9 years: N=21; 10-12 years: N=12) attending Total Communication (TC) programs, or programs in transition between TC and American Sign Language. All children were identified by their school systems as having hearing losses of at least 75 decibels in their better ear. In addition, teachers of the children as well as a second adult familiar with the children were asked to complete a brief questionnaire regarding each child's language abilities. Further, 30 mothers and 24 fathers of these children completed two questionnaires, and 22 mothers and 1 father participated in a semistructured videotaped interaction with their child, the purpose of which was to provide information on how parents and their children communicate, both in general and with regard to gender-related topics (the parent data, however, are not included in the present investigation).

Materials. Children were asked to complete a shortened, slightly modified version of the Children's Occupations, Activities, and Traits questionnaire (COAT) (Bigler, Yekel, & Liben, 1991). In this measure, children were asked to indicate their
gender-related knowledge, attitudes, and self-endorsements for several occupations and activities that vary in gender-traditionality. Specifically, children were asked to rate 5 stereotypically masculine occupations, 5 stereotypically feminine occupations, 5 gender neutral occupations, 6 stereotypically masculine activities, 7 stereotypically feminine activities, and 5 gender neutral activities. The scales differed only in their response options: knowledge was assessed by asking the children who they thought usually engaged in the occupation or activity (men or women); attitudes were assessed by asking children who they felt should participate in the occupation or activity (men, women, or both); and self-endorsements were assessed by asking the children how much they would be interested in each occupation or activity (not at all, a little, medium, or a lot).

There were several dependent measures of interest in this investigation: the proportion of traditionally sex-typed items correctly identified in the knowledge component of the task; the proportion of items identified as appropriate for both men and women (thereby indicating nonstereotyped attitudes) in the attitudes component of the task; and the proportion of items identified as being of at least medium interest in the self-endorsements component of the task (computed separately for traditionally masculine items, traditionally feminine items, and gender-neutral items). All items were presented pictorially, as were the response options.

A teacher and another adult familiar with each child were asked to rate the child's ability to communicate with 1) signed and 2) oral communication (on three-point scales ranging from low to high), as well as 3) the child's relative preference for signed versus oral communication for everyday purposes (on a 5-point scale, ranging from total reliance on signed communication to total reliance on oral communication).
Results/Discussion

Language ratings. As in earlier research (Lewkowicz, 1988), ratings by the teacher and second adult were highly correlated on all three measures of language ability (signing ability: \( r=0.86 \); oral ability: \( r=0.81 \); relative reliance: \( r=0.90 \)). Based on teacher ratings, children were divided into two groups: children rated as having a high level of ability in either signed or oral communication were classified as having a higher overall language ability (\( N=24 \)); all other children were classified as having a lower overall language ability (\( N=22 \)). No significant age-related differences were found in overall language ability, signing ability, oral ability, or relative reliance.

Gender-related knowledge, attitudes, and self-endorsements. The data showed that deaf children are highly knowledgeable about the gender-related stereotypes of the culture from an early age, regardless of language ability. This finding is consistent with research with hearing children that suggests that children have a firm knowledge of gender-related stereotypes as early as five years of age. Indeed, the children in the current investigation made very few "errors", that is, they rarely assigned a culturally stereotyped item to the "wrong" sex. Specifically, the majority of children made no more than one or two errors, and no child made more than four errors. The proportion of correct responses ranged from 91% to 97% in the various subject groups.

The results further suggest that the development of gender-related attitudes is also independent of language, in that children rated as having higher overall language abilities responded comparably to those rated as having lower overall language abilities when asked to decide who should engage in a variety of occupations and activities. Similarly, children's differential dependence on sign language and oral language was unrelated to attitudes. The mean number of "both" responses for the 15 occupations (10 of which are traditionally gender stereotyped) was 6.20; the mean number of responses that specified one sex or the other was 8.80. The mean number of "both" responses for the 18 activities (13 of which are traditionally gender stereotyped) was 9.74; the mean number of sex-
specific responses was 8.26. These means suggest that children made use of all three response options (i.e., men, women, and both men and women), and therefore did not simply treat this as a knowledge measure.

There were, however, significant effects of language ability and sex on children's gender-related self-endorsements. Analyses revealed that children rated as having lower overall language abilities endorsed significantly more masculine occupations and activities than did children with higher overall language abilities. There were significant sex effects as well, in that boys endorsed more masculine items than girls, and girls endorsed more feminine items than boys. No other main effects or interactions were significant.

It is interesting that children rated as having lower overall language abilities were more likely to endorse masculine occupations and activities. It is unclear why language ability would relate to children's gender-related self-endorsements, but not to their gender-related attitudes. Further, that these effects were restricted primarily to masculine self-endorsements is puzzling. It is possible to speculate that the nature of the occupations or activities may have some relevance here, in that (for example) children may perceive the feminine and neutral occupations (e.g., feminine: teacher, nurse; neutral: grocery store checkout clerk, cook in restaurant) as requiring more verbal abilities, and perceive the masculine occupations (e.g., truck driver, firefighter) as more language independent. Or, and theoretically perhaps more interesting, it may be that those children who lack a "good" communication channel base their interest in occupations and activities on their actual appeal (with the masculine occupations and activities having more inherent appeal), rather than on perceptions of societal approval or disapproval (i.e., they have not yet been told what occupations or activities they are "supposed" to endorse, and therefore endorse occupations and activities that hold more interest for them regardless of cultural stereotypes). Further research is needed to examine these possibilities.
Conclusions/Implications

In conclusion, the results of the present investigation are important in helping to explore verbal versus nonverbal transmission of gender-related information. Language ability does not appear to be related to children's gender-related knowledge, suggesting that nonverbal information is perhaps more important than verbal information in the development of this knowledge. Further, the results suggest that children may develop their gender-related attitudes independent of linguistic channels. It is possible, however, that linguistic ability is important in the dissolution of these stereotypes, in that active challenging of gender-related stereotypes would need to occur through verbal means. Further research is needed to explore this possibility, and to examine more explicitly the relative contributions of verbal and nonverbal sources to gender stereotypes. Analyses have been planned to address the latter, with a larger sample of deaf and hearing children. Specifically, analyses are planned to explore children's gender-related knowledge, attitudes, and self-endorsements as a function of parental attitudes (which are presumed to be transmitted verbally), and parental gender-related behaviors (e.g., chores engaged in around the home). Analyses have also been planned to examine the effect of parent-child communication on the development of children's sex-role stereotypes. It is possible that it is not so much a question of the child's overall ability to communicate with signed and/or oral communication, but rather a question of the parent and child's ability to communicate effectively together that ultimately determines the development of the child's sex-role stereotypes.
References


