The development of role concepts, as revealed in the ways in which children of different ages conceptualize specific occupational roles, is presented. The conceptualization of roles was studied in groups of 10 boys and 10 girls each from the first, third, and sixth grades. The mean ages of the groups were 6.9, 8.9, and 11.9 years, respectively. Each subject's original response to each of five role concept formation situations was assigned to one of the three following categories: (1) Non-relevant, Irrelevant Response, (2) Concrete Role Identification, and (3) General Role Functions. Differences in type of role conceptualization were analyzed by means of a chi square. The analysis showed that (1) in the youngest group, conceptualizations fell primarily into the category of Concrete Role Identification; (2) in the two older groups, more than half of the responses fell into the General Role Function category, the number being highest for the oldest group. For all groups, the number of children classified as primarily giving non-relevant responses was minimal. No significant differences due to sex were found. It is concluded that there appears to be a developmental progression from role concepts based on concrete-specific acts and details to those based on general abstract functions. (DB)
Role is sometimes considered as a class of behavioral expectations defined by a general or abstract set of functions or traits (e.g., the statement, "A policeman is someone who upholds the law"). In contrast, from a developmental point of view, it would be expected that a role concept, like any concept, would be realized in qualitatively different ways depending on the developmental status of the individual. Such developmentalists as Werner (1937, 1948), Piaget (1969), and Bruner (1966) have posited a sequence of concept development based on three general modes of functioning: proceeding from concepts based on sensori-motor functioning, to those stemming from perceptual functioning, and finally to concepts characterized by abstract modes of functioning. The first two modalities, the sensori-motor and the perceptual, are characterized by a dependence on motor behavior and a strong tie to the concrete perceptual attributes presented by the immediate situation. The organization of experience in such a manner results in concepts that have as their primary content specific acts or perceptual details (e.g., the conceptualization of the role of a policeman as "Someone who shoots crooks," or as "Someone who wears a blue uniform").

The attainment of the third, or abstract mode of thought results in "true concepts" not tied to the immediate situation; such abstract thought is ingredient in the ability to use and create general ideas about the world in a diverse and flexible manner. For example, the conceptualization of the role of a policeman as "Someone who upholds the law" would be seen as representative of this third,

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relatively abstract mode of thought. A role concept, from this point of view, is seen as a rule-like means of organization by which a person characterizes himself and others; as such, concepts of role would be expected to manifest a sequence of development paralleling concept development in general.

The concept of role has been used as an explanatory construct in such areas as social perception (Emmerich, 1959, 1961; Brim, 1957) and sex identification (Brown, 1956; Hartley, 1960; Kagan, 1964). Other studies (Feffer, 1959, 1960, 1966; Flavell, 1968), influenced by the works of Piaget and G. H. Mead, have focused more specifically on the study of role behavior and development. These latter studies concentrated on the cognitive bases of role interaction, emphasizing the particular cognitive achievements necessary for role, or reciprocal interaction with others. The work of Feffer and Flavell stresses, as does the present study, the importance of viewing role behavior within the context of the overall cognitive functioning of the individual. However, relatively few studies have investigated specifically the development of role concepts; the present study was designed to address this question, as revealed in the ways in which children of different ages conceptualize specific occupational roles (e.g., policeman, scientist).

Qualitatively different modes of conceptualization can be revealed in a task requiring the individual to subsume a group of objects with diverse characteristics under a general class. In the present study, a modification of this general method was devised to be appropriate for young children and for the kinds of stimuli utilized. On a given trial, a child was presented verbally with two "objects" (i.e., proper names), and told that they belonged to the same general "class" (i.e., they shared the same general occupational role). The child was then told that the first person named engaged in some specific kind of activity, and that the second person named engaged in a second, different specific kind of activity. Both activities were appropriate to the particular
occupational role they shared (e.g., two artists, one who paints, and one who makes statues). The child was then asked how the two people were alike. The purpose of this method was to force the child, in effect, to "define" an occupational role, when he could not simply rely on the role-name itself. In such a situation, one type of reason for the similarity may be based on those characteristics which reflect the individual's specific interactions with the objects, or on related perceptual characteristics of the objects. Such responses would be regarded as concrete-specific concepts. In contrast, responses based on general rules which are not tied to specific interactions with the objects, and which are not founded on purely perceptual attributes, would be regarded as abstract concepts.

There is much evidence indicating that concept development in general is characterized by a progression from relatively concrete-specific concepts to relatively abstract concepts; it is expected that an examination of the development of role concepts will reveal a parallel developmental progression. Such a progression, if found, may be accounted for by specific environmental circumstances. For example, in role learning it may be that there is a strong environmental emphasis on concrete-specific classifications. Early in life children are taught roles by the specific behaviors and visible attributes associated with a role. The policeman is someone who "directs traffic and wears a blue uniform with a badge," rather than someone who "upholds the law." Piaget (1965) has pointed to the child's attention to concrete specific consequences of acts, rather than to the intentions underlying them. If this is indeed the case, it is not surprising that a young child considers a role in terms other than general abstract goals and functions. The older child's increasing ability to use abstract functions and intentions allows for the eventual emergence of a role concept that transcends specific behaviors and perceptual details.
METHOD

Subjects

Groups of 10 boys and 10 girls each were drawn from the first (Group I), third (Group II), and sixth grade (Group III) of an elementary school in an upper-middle class suburb of Boston. The mean ages of the groups were 6.9 years, 8.9 years, and 11.9 years, respectively. The children were taken from their classrooms during the school day and seen individually by a female examiner.

Procedure

Each S was given the following general instruction:

We'd like to see what you think about certain things. I am going to ask you some questions, and I would like you to tell me what you think. There are no right or wrong answers, it's what you think that is important. OK?

The following sample item was then read:

Dr. Smith and Dr. Johnson are both doctors. Dr. Smith puts casts on broken legs, Dr. Johnson operates on people's eyes. But how are they the same? How are they alike?

If the child responded that they were both men or both doctors he was asked "In what important way are they the same?" If his response was not an abstract function, he was told, "They both keep people healthy." The purpose of the sample item was to acquaint the subject with the task, and to break any set toward giving concrete responses or difference responses rather than similarities.

After the sample item all subjects were verbally given the following five roles concept formation situations:

Policeman: "Mr. Jones and Mr. Thomas are both policemen. Mr. Jones goes after robbers, Mr. Thomas gives parking tickets. But how are they the same, how are they alike?"

Scientist: "Mr. Richards and Mr. Stevens are both scientists. Mr. Richards builds rocket ships, Mr. Stevens is trying to see how deep the ocean is. But how are they the same, how are they alike?"
Soldier: "Sergeant Davis and Sergeant Bennet are both soldiers. Sergeant Davis flies a plane, and Sergeant Bennet shoots a cannon. But how are they the same, how are they alike?"

Student: "Bill Adams and Jimmy Carlin are both students. Bill goes to school to play the piano, and Jimmy is finding out how to do math problems better. But how are they the same, how are they alike?"

Artist: "Mr. Evans and Mr. Gordon are both artists. Mr. Evans paints, and Mr. Gordon makes statues. But how are they the same, how are they alike?"

This same order was used for all children. If the child simply repeated the role title or said they were both men, he was asked, "Yes, but in what other way are they the same?" If the response was ambiguous, the child was told "Tell me a little more about this." After all five role concept formation situations were administered, the child was told that he would be asked about some of the things he said. If the child's original similarity did not appear at the level of a general function, he was asked for an additional similarity. More specifically, the child was asked to deal again with the similarity of the two role figures, given the inapplicability of his original similarity. For example, if he had said that the policemen were alike because they "both shoot crooks," he would be asked how they would be alike if one did shoot crooks but the other policeman did not. The purpose of this procedure was to see if a pressed inquiry could elicit a higher level response.

Scoring

Each S's original response to each of the five role concept formation situations was assigned to one of the following three categories.

A. Non-relevant, Irrelevant response - Responses that do not provide a similarity, are irrelevant, or simply repeat the item information. Example: "I once saw an artist," "both policemen (no further elaboration)."

B. Concrete Role Identification - Two types of responses fall in this category, those based on perceptual details, and those based on specific acts.
1) Perceptual detail - Response is based on some perceptual detail associated with role, may be a visual attribute associated with the person, or a physical characteristic of the environment in which that role is performed. Example: "They both wear a badge," "They both work in police headquarters."

2) Specific act - Response indicates a specific act that the role occupants engage in. In a sense, this kind of response is a single exemplification of the general role function. Example: "Both direct traffic," "Both take tests."

C. General Role Functions - Response indicates the use of an abstract function or goal. Describes a general purpose or goal of a role. It is not an action but some purpose or function that can be true of a variety of actions. Example: "They enforce the law," "They try to add to what we know."

All responses were scored by two judges without knowledge of S's age. An examination of the reliability for the scoring indicated 80% agreement between judges. Differences between the two judges were arbitrated and agreement reached on the best category for a particular response. The most numerous category for a child was taken as the dominant type of role concept for that child.

RESULTS

Differences in type of role conceptualization were analyzed by means of a chi square. The age groups were found to differ significantly ($\chi^2 = 20.55$, $p < .001$).

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The conceptualizations of children in the youngest group, Group I, fell primarily into the category of Concrete Role Identification, with few S's attaining conceptualizations qualifying as a General Role Function. This is in contrast to Groups II and III. In these two older groups, more than half of the children's responses fell into the highest category, General Role Function, the
number being highest for the oldest group. For all groups, the number of children classified as primarily giving Non-relevant responses was minimal.

Examination of the responses given in the inquiry conducted after the initial procedure indicated few changes in type of response. Only about 9% of the 300 responses changed category, and only four children changed in their dominant classification. In general, change occurred most in those cases where originally a Non-relevant response was given. This small amount of change is taken as an indication that the initial responses were probably not attributable to a "set" toward concrete responding, nor to confusion as to the requirements of the task.

Additional analysis of the two sexes across all age groups indicated no significant differences due to sex. Although the size of the sample did not permit statistical analysis of differences attributable to sex at the various age levels, examination of the results did not reveal any major sex differences.

Results were examined for a possible effect of different role titles on the type of role conceptualization. Again, the size of the sample did not permit statistical analysis. In general, the student role had the highest frequency of conceptualization at the level of General Role Function. This role, and the role of the scientist to a lesser degree, contrasts with the roles of policeman, soldier, and artist; for these latter roles relatively few 2's provided the higher conceptualization. The soldier and artist roles had the highest frequency of conceptualization at the Concrete Identification level. Additional differences related to role type appear when the effects of sex of subject are also included. Girls appear to reach a higher level of conceptualization than boys on the scientist and student roles, while boys appear to be superior to girls on the soldier role. The roles of policeman and artist do not indicate any major differences between the two sexes.
DISCUSSION

The examination of the development of children's conceptualization of various roles appears to parallel general conceptual development. That is, there appears to be a developmental progression from role concepts based on concrete-specific acts and details to those based on general abstract functions.

There has been some tendency to segregate the child's "social" development from those findings and approaches dealing with "cognitive" processes and events. Certainly, there are differences in the content of experiences that may make this a meaningful distinction. However, it is necessary to acknowledge that the means of knowing used by the child in experiencing and organizing the world of objects are also operative when applied to people and social events. There have been indications that the "cognitive" approach to "social" phenomena has been fruitful in other areas; for example, such an approach to the problems of impression-formation (e.g. Kaplan and Crockett, 1968) has provided a better understanding of the perception and processing of information about another. Similarly, it is felt that an examination of the development of role concepts will prove more fruitful than, for example, a view of role as a static entity which is "acquired" in toto at some given point during development.

The ability to integrate diverse information about another is dependent to a major degree on the availability of higher-order concepts for subsuming discrepant details. The economy of the attainment of a higher-level role concept is that it allows a diversity of behaviors occurring in a variety of contexts to be organized in a meaningful and consistent way, having a well-defined significance. For the child with a concrete-specific notion of a particular role, this economy of functioning is limited. Individuals are overly identified with specific role behaviors or perceptual attributes, and the ability to view role and role occupant as different does not exist for the young child. If one "catches crooks," then one must be a policeman, and vice-versa. Thus, the ability to see
an individual as an occupant of various roles, or one role as encompassing many kinds of behaviors is limited. Interaction with others, then, by necessity must be more rigid, and the organization of social experiences relatively less flexible.

There is some suggestion that the type of role conceptualization may be dependent on the particular role title. A factor here may be role relevance, and familiarity with the particular role. This is indicated by the generally higher-level responses of all subjects to the student role compared with other roles, and by the superior performance of boys compared with girls on the soldier role. The findings point to the possibility that further studies may isolate experiential factors that accelerate role concept development.

Many implications stem from differences in role conceptualizations. It can be expected that young children, who conceptualize roles at the Concrete-Identification level, will be less consistent in their perception of and response to role figures. These children may demonstrate less certainty in responding. Finally, children who conceptualize roles at the Concrete-Identification level may have more difficulty interrelating roles and thus more difficulty in understanding role relations or role reciprocity.
TABLE 1

DISTRIBUTION OF THREE AGE GROUPS FOR TYPE OF ROLE CONCEPTUALIZATION

<table>
<thead>
<tr>
<th>Type of role conceptualization</th>
<th>Age Groups</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I</td>
<td>II</td>
</tr>
<tr>
<td>Non-relevant</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Concrete-Identification</td>
<td>15</td>
<td>9</td>
</tr>
<tr>
<td>General Role Function</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

\( \chi^2 = 20.55, \text{ df } = 4, p < \cdot 001 \)


