TELEVISION AND CHILDREN'S IMAGES OF OCCUPATIONAL ROLES

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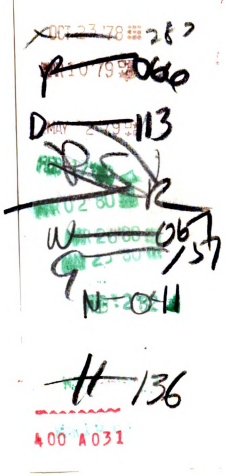

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ABSTRACT

TELEVISION AND CHILDREN'S IMAGES
OF OCCUPATIONAL ROLES

By

Gary Robert Heald

There is much still unknown about the processes of socialization in this culture. The nature of learning about occupational roles, in particular, is a relatively uncharted area due to the complexity of the societal work roles, as well as the multiplicity of information sources now available. This study examines the occupational socialization phenomenon by focusing on organizing principles that lead to consistency in the ways that individuals perceive work roles, and by exploring some of the effects of learning about occupational roles from "primary" as opposed to "secondary" information sources. Primary information sources are those sources that are shared by large societal aggregates (e.g., mass media), with the primary sources providing largely undifferentiated messages. In contrast, secondary sources (e.g. family, friends) are more idiosyncratic and individualized thus allowing diverse, specialized information to be learned.

The essay begins with a discussion of "incidental learning" as it relates to children and adolescents. Learning in this paradigm centers on the acquisition of images, not isolated facts, about occupational roles. Special attention is given the part that the self-concept plays in image perception.

Ten hypotheses are drawn out of this as to specific personal, relational and material characteristics that individuals use to distinguish occupational roles. The theoretic section then addresses the consequences of learning about work roles from a shared, primary source such as television. Hypotheses are offered as to the effects of this primary information source on cultural homogenization, occupational stereotyping, status conferral and individual perceptions of work role distributions.

The research hypotheses were tested through a survey of 210 fourth, sixth and eighth grade students. Using a combination of paired-comparison and unidimensional measures, fifteen occupational roles were studied. Seven occupations were chosen due to their emphasis in the television medium; the remaining eight, while not emphasized in TV programming, were chosen owing to their use in previous research.

Multivariate analyses revealed that eight of the ten hypothesized attributes were as predicted in contributing to occupational images held by children. Counter to expectations, examination of the occupational images held by male versus female, and lower as opposed to upper socioeconomic children revealed no consistent patterns. Also contrary to hypotheses are the results indicating that learning about occupational roles from primary as compared to secondary information sources does not lead to greater cultural homogenization. The hypothesis of a stereotyping effect received mixed,

inconclusive support. There is evidence, however, that persons receiving a proportionally larger part of their information from primary sources tend to have more stereotypic views of occupational roles. The hypothesis of a status conferral effect traceable to receiver dependence on primary information sources was not sustained. Predictions that primary sources can influence perception of occupation role distributions were confirmed. Conditional analyses further demonstrated partial support for predictions that this effect is greatest where secondary information about work roles is relatively absent.

The relationships found between exposure to primary versus secondary information sources and subsequent perceptions of occupational roles are intriguing. Investigators of social role imagery, however, would do well to seek additional antecedent and intervening variables as the amount of variance now accounted for in the dependent variables is still quite small. Equally important, considerable attention should be given to methodological issues surrounding the multidimensional scaling of cultural perceptions, and especially the problem of ascertaining the amount of variance surrounding points in conceptual spaces.

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Gary Robert Heald

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This one is for Mary

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CHAPTER I

INTRODUCTION

Problem Area

Learning about diverse occupational roles represents an important aspect of children's socialization. Theories of child development buttressed by empirical research argue the significance of work role information for children beginning around the third and fourth grades (Van Hoose and Leonard, 1966; Smith, 1968; Thompson, 1969). Children's occupational socialization, however, is not as straightforward as might be expected. The complexity and sheer number of different occupations are part of the problem; there are in excess of 20,000 separate occupational roles (Hollander and Parker, 1969). Moreover, unionization and child labor laws limit children's learning by barring them from work settings (Ausubel, 1954; Borow, 1973). Compounding this are contemporary living patterns that separate home and work environments.

Children do not fare much better in learning about different occupations from authoritative sources at school. Goodson (1968) reports that occupational information in school libraries is often dated and narrowly focused on a few jobs (e.g., "policeman," "post office worker," "secret

serviceman"). Amos and Grambs (1968) join Goodson in concluding that a large portion of the occupational material available in schools will not, or cannot, be read by the children that need the information most. Educational curriculums, in addition, infrequently contain classes designed to inform children about occupational roles; less than half of the U.S. high schools provide vocational guidance of any form (Lathrop, 1974).

Finally, surprisingly limited communication about occupational roles occurs between children and their parents. In numerous studies adolescents report talking to each other about occupations and careers far more often than they confer with older, more knowledgeable sources (Woelfel, 1972; Woelfel, 1976).

DeFleur (1964) plus Hollander and Parker (1969) have suggested that much of children's occupational learning occurs through mediated communication. In particular, DeFleur (p. 57) has proposed that occupational socialization "takes place largely through accidental or haphazard exposure to a variety of learning sources. Among these, the mass media appear to play a major role." The following essay weighs the impact of learning about occupational roles from these common, shared information sources.

Primary Versus Secondary Information Sources

Of concern are the effects of social learning in "primary" as opposed to "secondary communication systems."

Following the lead of Woelfel (1976), primary systems will here entail sources of information that are shared by large social aggregates, with the primary sources providing undifferentiated messages. In contrast, secondary systems will refer to tailored information sources which allow diverse, specialized learning. For this discussion, information gained from television will serve as an example of learning from a primary source. Learning from varied interpersonal discussions and direct experiences will constitute instances of learning from secondary sources. Secondary sources will be considered mainly for purposes of comparison.

Chapter II begins by introducing a paradigm of incidental learning. This paradigm centers around children and young adolescents. It is proposed that children's learning from the primary source television is largely incidental. The processes of perception and learning by contiguity are discussed. Learning in this paradigm concerns the acquisition of images, not isolated facts, about occupational roles. Attention then focuses on the occupational attributes that conceivably are central to incidental learning. In this section the importance of the individual's self-concept is addressed. Finally, consideration is given the nature of the effects that are linked to learning about occupations from a shared primary information source.

Chapter III details an empirical study conducted to test hypotheses that emerge in the theoretic discussions of the

first chapter. The survey questionnaire, the sample and administration procedures are described. Ethical issues associated with the survey are addressed. This chapter concludes with an overview of the statistical analyses.

The results of the empirical study are contained in Chapter IV. Each hypothesis is restated, empirical findings are presented as tests of the predictions. The results are interpreted, with decisions then made as to the tenability of the hypotheses.

A final section, Chapter V, summarizes and discusses the empirical results. Conclusions are drawn as to what this investigation reveals about children and the effects of their social learning from primary as opposed to secondary information sources. Here, also, future research is considered.

CHAPTER II

THEORETIC PARADIGM

Television: A Primary Information Source For Children

Three things concerning children and television are well documented by Maccoby (1954); Himmelweit, Oppenheim and Vince (1958); Schramm, Lyle and Parker (1961); Roberts and Schramm (1971); Liebert, Neale and Davidson (1973). First, children watch a lot of TV. Close to one-sixth of their waking hours are spent in this manner. Second, children watch the breadth of programming offered. In addition to child-oriented programs, situational comedies, drama, variety and action-adventure shows are common to their television diets. Third, children watch TV to be entertained. They attend to this medium because they are amused by its content. These three factors spark the observation that children have extensive contact with the adult world as depicted on this primary source. Furthermore, it is the combination of these factors that gives rise to a particular form of learning.

Specifically, much of children's learning from TV appears to be "incidental" in nature. It is relatively uncommon for children to seek information in television; most learning from TV takes place when the child "goes to television for entertainment and stores up certain items of information

without seeking them" (Schramm, et al., 1961:75). Krugman and Hartley (1970) describe this as "passive" learning, as it is "typically effortless . . . and characterized by an absence of resistance" to the material presented. Other researchers have posited incidental learning to involve recall of material nonessential and often irrelevant to the plot of the program (cf., Hale, Miller and Stevenson, 1968; Collins, 1970). Thus there are behavioral and content qualities of the phenomenon collectively indicating that incidental learning entails the unintentional learning of peripheral information in a media presentation.

Empirical studies have isolated conditions where incidental learning is most likely to occur. Schramm, et al., (1961) report that television absorbs the attention of young children and it is this capacity to capture attention, combined with the presentation of novel materials, that results in incidental learning. As the initially novel topic becomes "old stuff," however, children cease to pay close attention (Brodbeck, 1955). Maccoby (1963) similarly suggests that children's learning from television portrayals will be greatest in areas where interpersonal information is lacking and in areas where there are few "real-life experiences." Learning from this common, shared information source is thus thought to be most pronounced where other sources are limited.

A second group of researchers have concluded that there is a curvilinear relationship between age and incidental

learning from mass media presentations (cf., Hale, et al., 1968; Collins, 1970). Holding exposure constant, incidental learning has been shown to steadily increase for children from age eight through age twelve. Among children in the seventh and eighth grades there is a noticeable decline, however. This nonmonotonic relationship has been attributed to increases in older children's learning abilities, with early adolescents additionally beginning to focus attention on the central elements of media programs.

These two sets of studies shed light on the domain of incidental learning, but they do not reveal the logic of the phenomenon. For example, little attention is afforded the fact that implicit in the proposition of incidental learning is the premise that learning can occur in the absence of "detectable reinforcement."[1] This merits consideration.

Debates abound between factions as to the necessary conditions and processes of learning. In one particular camp are the theories by Mowrer (1960) and Sheffield (1961) which argue for learning by contiguity. The central position is that repetitive, contiguous presentations of stimuli result in cognitive associations. Mowrer's paradigm is especially relevant due to his notion that "an image is a conditioned sensation . . ." (p. 171). An individual responds to a new stimulus as it "acquires an image" of another stimulus with which the individual is familiar. Consistent with this are recent essays by Roberts (1971), Schramm (1973) and Danes (1975)

which posit that mass communications linking environmental objects principally affect audience "beliefs," "pictures," "images" of reality. But what is the process leading to image perception?

Image Perception

Several scholars have hypothesized that the act of perception is essentially a matter of differentiation in which an individual notes similarities (or dissimilarities) in objects with regard to underlying attributes (cf. Bruner, 1964; Woelfel, 1974). The process is in large part the same whether the objects of attention are concrete (e.g., people) or abstract (e.g., social roles). Ultimately, it is the aggregate of the discerned similarities between environmental objects along the chosen attributes that constitutes an overall perception of the objects--an image of reality.

An example will clarify this. Occupational roles can be differentiated along various attributes. The overall similarity between the occupations along the attributes yields a picture, an image of the work world. Consider the following matrix of hypothetical data.[2]

	Income	Prestige	Self Determination	Formal Training	Work Conditions
Fireman	3	4	3	3	4
Mail Carrier	4	3	4	4	3
Physician	1	1	1	1.5	2
Professor	2	2	2	1.5	1

This matrix represents a rank ordering of four occupations along the five different attributes. The rank-orderings demonstrate that physicians and university professors are appreciably more alike than are medical doctors and mail carriers. Clearly, the similarity of occupations can be evaluated along a single attribute. But looking across both a range of occupations and attributes, the intricacy of the work world emerges.

There is a wide variety of attributes that can be used to discriminate a single object or class of objects. The previous studies reveal that the attributes noted are at times as much a function of the perceiver as the perceived (Yarrow and Campbell, 1963; Dornbusch, Hastorf, Richardson, Muzzy and Vreeland, 1965). There furthermore appears to be consistency in the attributes a perceiver uses to differentiate objects (Hastorf, Richardson and Dornbusch, 1958). In light of this and owing to the focus of this essay, it becomes crucial to address three questions. (1) What is the organizing principle that leads to consistency in the attributes an individual uses to differentiate occupational roles? (2) What are the common attributes that different persons use to distinguish occupational roles? (3) What attributes are conceivably stable across groups?

The answer to the first question is alluded to in Schilder's (1942) treatise on perception and thought. Schilder contends that consciousness of external objects is

"necessarily connected to self-observation." In the case of children perceiving occupational roles, the reasons why this is true are compelling.

Children are paramountly concerned with themselves. Possibly the clearest evidence of this appears in their language behavior--much of young children's speech is "egocentric" (Piaget, 1955; Vygotsky, 1962). Beginning around age eight egocentric speech declines. The decline, however, does not mark an end to children's interests in themselves. As Vygotsky describes it, this is where "individualized" activity begins; with the development of vocabulary, children's abilities to differentiate themselves increase, plus their thoughts become qualitatively more precise. This notion of individualization has considerable overlap with social-psychological theories of self-concept and self-perception.

Self-Perception

It is difficult to pinpoint a conceptual definition of "self-concept" and a best discussion of its development. For some theorists, the self is a structure, for others it is a process (Woelfel, 1967). One school of thought offers that the self is stable, a second contends that it is situational and still a third posits that it is both (Kuhn, 1964; Gordon, 1968; Mahoney, 1973). One of the few things for which there appears to be near unanimity is the belief that the self evolves from the individual's information about himself.

This information, moreover, is thought to relate the individual to objects in his environemnt.

Self-conception, then, is a special case of perception. Woelfel (1967:43-44) details the "conditions of self-knowledge" as follows:

> The process of knowing who one is is a process of definition . . . [and] the process of definition . . . consists in differentiation and association of the individual with other objects. An individual identifies himself in terms of his conception of his relationship to the objects of his experience. The self-conception, then, is the sum of the individual's conceptions of his relationships to objects.

Likely most important here is the belief that self-knowledge develops in a societal context. Individuals from a single society not only encounter similar objects to use in self-definition, other societal members assist the individuals in self-object definitions through communication (Cooley, 1902; Mead, 1934). Some uniformity in the process is, therefore, to be expected.

In the case of maturing children one of the classes of objects that inevitably must be dealt with involves social roles. Of this category, occupational roles are especially notable. Empirical research has demonstrated that children three to six years of age already know that there are different occupational roles and realize that both men and women fill them (Beuf, 1974). There is additionally, reason to believe that even quite young children begin to relate themselves to occupational roles (Moore, 1969).

How children see themselves in relation to different occupational roles varies. Where there is some conceivable uniformity, however, is in the attributes they use to differentiate the roles and themselves. There are three reasons for this expectation. First, there are attributes common to both self-concepts and occupational roles that are formed by societal norms and mores. To cite an example, there are socially defined aspects of the individual's sex that correspond with the "sex appropriateness" of different occupations. Numerous theorists have, secondly, noted the importance of the self-concept in vocational interests and choices (cf., Bordin, 1943; Super, 1953; Gonyea, 1961; Holland, 1963). Finally, empirical research into the principal categories of self-conception has yielded several "dimensions" that parallel attributes resulting from a distinct body of research on occupational role perceptions.

A central issue, then concerns the specific aspects of the self-concept that become salient for children in their perceptions of occupational roles.[3] A word of forewarning is called for here. The research on the self-concept that is considered in the succeeding pages is context-free. Mahoney (1973), among others, has shown that self-reported aspects of the self-concept vary considerably from condition to condition. As will be noted, several attributes thought to constitute self-identification, while not highly salient in general, do conceivably become more important in the context of

discerning occupational roles and the self.

The following discussion will demonstrate the parallels between the attributes emerging from empirical research on self-conception and occupational role perceptions. This portion of the essay will be divided into three parts. Separate sections will be devoted to personal, relational and material attributes that designate points of intersection between the two bodies of literature. As these parts deal with points of intersection, there is limited direct research confirming the propositions to be offered. Pertinent evidence is drawn from diverse literatures to back the tenability of the arguments.

Personal Characteristics of Self-Perception

One of the first traits learned which remains inextricably tied to self-concept is the individual's "sex." Children as young as seventeen months--and certainly by the age of three years--know their sex (Rabban, 1950; Money and Ehrhardt, 1973). From these early ages children recognize that they are similar to some people and different from others with respect to this characteristic. Gordon (1968) furthermore found that sex was the third most frequently mentioned characteristic a sample of adolescents ascribed to themselves. Mahoney (1973) has indicated that sex is one of the attributes that individuals more often use in repeated self descriptions.

Olshan (1970) examined the structure of third, sixth and ninth graders' perceptions of ten social roles (e.g., mother, teacher, fireman). Sex emerged as a major dimension that sixth and ninth graders used to differentiate the role holders. Beuf (1974) determined that children are aware of the "sex appropriateness" of occupational roles portrayed on television. Miller and Reeves (1976) likewise concluded that sex was an attribute young viewers used to distinguish television occupational roles with the sex attribute proving to be more salient for males than females.

These studies warrant the conclusion that sex is one aspect of the self-concept that children use to distinguish occupational roles. The sex attribute is more important in perceptions by males than females.

H_1 Children distinguish occupations on the basis of the sex of the role holders.

H_{1a} Male children distinguish occupations more on the basis of sex than do female children.

In terms of the number of people using the category and the consistency with which it is utilized over time, the individual's "sense of competence" is also one of the most pervasive aspects of the self-concept as measured by the "Twenty Statements Test" (TST) (Gordon, 1968; Mahoney, 1973). Competence, here, is a subjective evaluation of the general ability to cope effectively with varying situations. Self-descriptive terms that coincide with this category include "intelligent," "talented," "skillful" (Gordon, 1968:129).

Holland (1963) asked 638 high aptitude boys and girls to complete a set of sentences with a single word. The sentences took the form: "Physicists are _____." and rotated the occupations engineer, physicist, teacher, accountant, business executive and artist in the stem position. Of the responses obtained, there was a tendency to evaluate occupations in terms of general abilities. In excess of thirty percent of all adjectives describing engineers and physicists, plus more than twenty percent of the evaluations of accountants and artists, referred to their competence. Eleven percent of the adjectives describing business executives and five percent describing teachers dealt with the capabilities of the role holders. Olshan's (1970) study of children yielded similar results. Third, sixth and ninth graders alike differentiated social role holders in terms of perceived intellectual abilities. It is therefore offered that competence is a second personal attribute that children use to differentiate occupational role holders.

H_2 Children distinguish occupations on the basis of the perceived competence (intelligence) of the role holders.

The "sense of moral worth" also appears as a major aspect of the self-concept. This theoretic dimension, Gordon (1968:127) contends, parallels "Baldwin's formulation of the ethical socius" and "Mead's idea of self-respect." Sense of moral worth is variously conceptualized as the perception of "moral standing" and the "adherence to a valued code of moral

standards . . ." with the category often represented in the TST by the self-descriptive adjectives "bad," "good," etc. (Gordon, 1968; Mahoney, 1973). Utilizing diverse samples, Gordon (1968) found that as few as twenty-two percent and as many as forty percent of the respondents expressed moral worth in their self-descriptions.

Much along the same line, Olshan's (1970) examination of the dimensionality of children's perceptions revealed a "good-bad" attribute. Again, students in all three grades appeared to use this evaluative property in distinguishing the different social roles. A comparable finding is reported in Reeves' (1976) study of children's perceptions of fourteen television characters.

A final personal characteristic that appears to be salient for self-conception and occupational role perception is thus found in the discernment of moral worth.

H_3 Children distinguish occupations on the basis of the perceived moral worth (goodness) of the role holders.

Relational Characteristics of Self-Perception

Gordon's (1968) and Mahoney's (1973) conceptualization of "self-determination" identifies an initial relational characteristic of the self-concept. Self-determination, here, refers to the relative ability of the individual to define goals, to behave and to otherwise freely act. The frequency with which this characteristic is self-reported varies considerably; Gordon (1968) indicates that responses fitting

this category result from between twenty-three and fifty-five percent of the subjects in different samples.

This complex attribute is amplified by Weinstein's (1956) discussion of "authority." Weinstein reports that children are sensitive to the authority of occupations with regard to power over self and over the activities of others, too. Stone and Church (1973) propose that the desire for autonomy is in part learned from parents. This is supported by Weinstein's observations that as children grow older the meaning of authority changes to also imply "personal responsibility." He goes on to suggest that for upper "socioeconomic status" (SES) children, power over "one's own decision" is more important than being "boss." Weinstein's research shows that the importance of occupational authority in general is negatively related to social status. DeFleur (1964) similarly demonstrated the importance children assign to "power" in evaluating different occupations. No status differences were found by DeFleur. This study, however, conceptualized power solely in terms of power over other people.

An initial relational characteristic common to self-identification and occupational role perceptions is thus found in the construct authority. Power over self and power over others represent constituent elements of this construct. It is tentatively offered that upper SES children value and therefore note autonomy more than lower SES children.

H_4 Children distinguish occupations on the basis of the perceived authority of the role holders.

H_{4a} Upper socioeconomic status children distinguish occupations more on the basis of the perceived autonomy (who receives orders) of role holders than do lower socioeconomic status children.

As mentioned earlier, societal members assist the individual in deciding who and what type of person he is. Other persons help the individual define relationships between self and physical as well as psychological objects. Both Gordon (1968) and Mahoney (1973) conceptualize a category of "judgments imputed to others" (i.e., impressions and attitudes toward the individual as perceived by the individual). Attributes such as "popularity," "respect," and "love" are examples.

Research indicates that, overall, this is one of the less consistent aspects of the self-concept. There are reasons, nonetheless, for proposing children's use of this attribute in role perceptions. First of all, while other people's judgments are important to most everyone at one time or another, developmental psychologists agree that for children and adolescents peer evaluations are of great concern (cf., Stone and Church, 1973; Adams, 1973). Yarrow and Campbell's (1963) study reveals the significance that "social" and "interaction" categories play in young people's descriptions of others. Much along the same line, an evaluative trait of "few friends-many friends" is reported by Olshan

(1970). Again, this characteristic emerged as a significant aspect of children's discriminations of roles such as teacher, fireman, etc. This leads to the proposition that children distinguish occupational roles with respect to judgments imputed to others.

H_5 Children distinguish occupations on the basis of the perceived popularity (degree liked) of the role holders.

Very closely related is a still more general category of the self-concept that is described as "interpersonal style." Gordon (1968:130) defines this as the "individual's typical manner of acting." Interpersonal style includes tendencies to be introverted as opposed to extroverted, and dispositions to be demanding versus supporting.

Creason and Schilson (1970) interviewed 121 sixth-grade youngsters concerning their vocational preferences. Respondents were asked to express their interests and the reasons behind their choices. The children's reasons for aspiring toward the diverse occupations were grouped into seventeen categories. The reasons given most were nondescript statements (e.g., "I like it."). The second most frequently given answers indicated the children's interest in helping other people. This finding is in line with Rosenberg's (1957) and Borow's (1973) observations that children show clear interest in occupations that "help" other people. It is thus offered that a third relational attribute along which children distinguish occupational roles concerns the

occupations' apparent contributions to others.

H_6 Children distinguish occupations on the basis of perceptions of how much the role holders help other people.

Material Characteristics of Self-Perception

There is consensus that James (1892) helped pioneer the idea that "material resources" contribute to self-identification. Material referents can be holdings such as cars, clothes and money or they can be abstract possessions such as "a secure future" (Gordon, 1968). In situations of general self-description, references to "material possessions and resources" are infrequent, though they do occur.

The significance of material referents is much greater in relation to occupational roles. DeFleur (1964) found that for children the material benefits accruing to occupational role holders were second in importance only to power. Material benefits, nonetheless, do not appear to be uniformly important among children. Weinstein (1956) examined the effects of the children's SES on perceptions of the importance of occupational income. As status increased the importance of income decreased. These results parallel reports by Centers and Cantril (1946) and Bendix and Lipset (1953) which propose that persons lacking material possessions note this deficiency and express greater interest in having material objects.

A parallel set of possessions and resources is found in the environmental settings associated with different occupations. Work conditions constitute some of the more visible role attributes. Referring once again to Weinstein's (1956) survey, there is evidence that children's social status is positively related to the value assigned to work conditions. "Factors such as dress, cleanliness of work, control over working time" were significantly more important for upper class respondents.

The following conclusions are consequently tenable. Material possessions and resources associated with occupational roles are salient in children's perceptions. The incomes associated with different occupations constitute an attribute that is more critical for lower SES children. Higher socioeconomic status children differentiate occupations in terms of work conditions.

H_7 Children distinguish occupations on the basis of the perceived income of role holders.

H_{7a} Lower socioeconomic status children distinguish occupations more on the basis of perceived income of role holders than do upper socioeconomic status children.

H_8 Children distinguish occupations on the basis of the perceived work conditions of role holders.

H_{8a} Upper socioeconomic status children distinguish occupations more on the basis of work conditions of role holders than do lower socioeconomic status children.

Mahoney (1973) observes that "social status" can appear as an attribute of the individual's self-concept in the form of a categorical designation (e.g., "Middle Class") or by comparative references (e.g., "from a family of lower status than most college students"). Either way, the individual's social status still is a benefit resulting largely from an occupational role. Children must deal with status both in its derived and earned forms (Ausubel, 1954). A child's social status is initially a derived characteristic stemming from his relationship with his parents. As the child grows older, the requirement to establish anew one's social status becomes increasingly obvious.

Various scholars have examined the issues of occupational prestige and work role aspirations (cf. Reiss, et al., 1961; Haller and Miller, 1963). Investigations by Galler (1951) and Steward (1959) have confirmed the expectation that even children are aware that different statuses and importance are ascribed occupations. Simmons (1962) found that children's occupational status rankings corresponded significantly with adult rankings. For fourth-grade boys there was a Spearman rho of +.87 and a rho equal +.54 for girls. There was a r_s of +.94 between adult occupational status rankings and the rankings by eighth-grade boys and girls. Gunn (1964) adds support to Simmons' conclusions that children are sensitive to the status associated with different occupations and rank occupations in a manner very nearly

identical to adults.

H_9 Children distinguish occupations on the basis of the perceived status (importance) of the role holders.

To summarize briefly, the discussion has thus far centered first on television as a primary source which disseminates undifferentiated messages to children. Among the undifferentiated messages are portrayals of the adult world, including occupational roles. The discussion has furthermore projected a paradigm of incidental learning. Of special concern are the images that children obtain about various vocations. An attempt has been made to identify major attributes that children use to discriminate occupational roles. The self-concept has been posited as an organizing principle that leads to the use of ten attributes in distinguishing work roles. Four of the attributes are variously significant in perceptions by children of different sexes and socioeconomic backgrounds.

Accepting tentatively the proposals of what elements constitute the structure of children's occupational perceptions, a central issue of this essay can be pursued. The theoretic essay has detailed a model depicting how children conceivably gain impressions about occupational roles. Attributes at the foundation of the occupational images have been proposed; of interest then is how information sources affect children's perceptions of occupations along these attributes. Specifically, in what ways--if any--does the

learning about occupational roles from television influence viewer images of the adult work world?

Primary Sources and Cultural Homogenization

It is important to recall that television is significant here, as it represents a class of information sources. Television is an instance of a primary source which provides "standardized" messages and "distributes common information to many persons at once . . ." (Woelfel, 1976:69).

Laswell (1948) contends that one of the principal functions of communication systems is the "transmission of social inheritance." This is a maintenance function designed to stablilize societies. Oral communication was initially sufficient for this task, but this was before societies mushroomed in size and complexity. Consequently, the mass media have become basic to the transmission of a common social heritage; some scholars refer to this as the emergence of "media societies" (Peterson, Jenson and Rivers, 1965; Schramm, 1973).

Referring specifically to the transmission of common occupational information by television, DeFleur and DeFleur (1967) have described this maintenance function as one of "homogenization." Persons that watch the same media programming are thought to gain fundamental information. In the case of children viewing various occupations on TV, it is decisively important that they are often denied direct access to work environments. What most children know about

some occupations, and indeed what some children know about most occupations, comes from their television experiences. The result is that television in principle serves to equalize occupational knowledge, at least concerning the limited set of work roles covered in popular programming.

The significance of this hypothesized effect is considerable. There have been numerous discussions of the disparity of occupational knowledge within social systems. Appreciable differences have been noted between male and female children's occupational knowledge, with similar inequities reported between children from advantaged and disadvantaged social backgrounds (cf., Simmons, 1962; Amos and Grambs, 1968). To the large extent that television is accessible to persons of varying sex and SES, it would be expected to reduce these inequalities, especially among those subgroup members who receive a proportionally larger part of their occupational information from TV.

Two surveys have sought to substantiate the existence of the hypothesized homogenization effect. DeFleur and DeFleur (1967) evaluated children's knowledge about occupations the researchers classified as "personal contact occupations" (e.g., teacher, mailman), "television contact occupations" (e.g., lawyer, reporter), and "general cultural occupations" (e.g., bank president, electrical engineer). The adjectives "personal contact," "television contact," and "general cultural" referred to the expected sources of

of information. Children ranging in age from six to thirteen years old were interviewed. The results indicated no significant differences between male and female respondents' knowledge about television contact occupations. Boys still knew more than girls about the general cultural occupations, however. Differences were also found in knowledge levels of distinct social classes. Children at the bottom of the class structure knew less about the three sets of occupations than did upper SES children.

Kawashima (1971) replicated the DeFleurs' study; this second survey was conducted in Japan. Kawashima reports significant differences between male and female children's knowledge about television contact occupations. Differences were also found in knowledge levels between upper and lower SES children. Again, males and upper SES children were shown to know more about occupational roles.

These studies would appear to cast doubt on the reality of the proposed homogenization effect. Were it not for one factor this clearly would be the case. The studies share a common problem; neither investigation associated actual viewing behavior with occupational knowledge. DeFleur and DeFleur, as well as Kawashima, reported bivariate analyses showing a positive relationship between occupational knowledge and general TV viewing by the total samples. In the analyses comparing males versus females, and upper versus lower classes, actual exposure to television programming

featuring the occupational roles was not controlled.

The general proposition is that television is a source of societal information and persons watching the same programming gain much of the same information. This proposition gains greater plausibility with a slight modification. Persons from distinct subgroups that receive common information from television should develop similar impressions as the shared source becomes their primary or single source of information.[4]

H_{10_a} There will be greater homogeneity in the occupational images held by male and female children with shared single sources of information than in the occupational images held by male and female children with mixed sources of information.

H_{10_b} There will be greater homogeneity in the occupational images held by lower and upper SES children with shared single sources of information than in the occupational images held by lower and upper SES children with mixed sources of information.

The immediately preceding discussion taps one of the potential aspects of homogenization. But possibly the more theoretically interesting effect does not center around the reduction of social differences, but rather on a more subtle result of learning from a common source.

Primary Sources and Stereotypes

In Lippman's (1922) discussion of "public opinion" he spoke of the "pseudo-environments" that are created by the mass media. Lippman felt that the "real environment [was]

altogether too big, too complex and too fleeting for direct acquaintance" and this left man in a susceptible condition (p. 16). To describe the result of this condition Lippman borrowed the phrase stereotyping. As originally used, "a stereotype was the plate made by taking a mold of a printing surface and casting type from it" (Peterson, Jenson and Rivers, 1965:23). Lippman offered that since the public was receiving much of its information about the world from the same media, the public's minds were similarly being molded to see the world in a certain way. This idea can be extended to other forms of mediated information where direct experience is limited. With reference to occupational roles the effect is not only that aggregate perceptions of distinct groups are made similar by media exposure, but also that for group members receiving their information from the same source perceptual differences are minimized altogether.

A voluminous literature now exists on the causes, the processes, and the results of stereotyping. Despite this, there is still disagreement as to what is a stereotype in a social-psychological sense (Brigham, 1971). Looking across the stereotyping research, several conceptual patterns become evident.

From the outset, stereotypes are thought to be "generalizations" about objects falling into particular categories such as races, ethnic groups, occupations (Vinacke, 1949; Brigham, 1971; Dipboye and Anderson, 1961). Some researchers

have conceptualized stereotypes as "overgeneralizations" or "incorrect" (cf., Katz and Braley, 1935; Centers, 1951). Investigators have often addressed stereotyping in nominal categories reflecting extremes (cf., Katz and Braley, 1935; Walker, 1958). Finally, conceptualizations indicate that stereotypes require group agreement (LaViolette and Silvert, 1951; Fishman, 1956).

These patterns in conceptual definitions of stereotypes deserve some comment. Specifically, the second and third characteristics evoke extremely complex issues. To pose an example, some might find it difficult to know when a generalization is in fact an overgeneralization. Beyond this, the statement that a generalization is incorrect also requires some standard to guide evaluations. Vinacke (1949) and Fishman (1956) are among those researchers that have expressed concern for this requirement. Brigham (1971), moreover, has argued the rarity with which objective standards are available. Therefore, the inclusion of invalidity as a criterion in the conceptual definition of stereotypes seems unwarranted.

In like manner, there is little good reason to address stereotypes as nominal phenomena. The categorical study of stereotyping has obvious limitations: (1) To have subjects evaluate groups in nominal categories tends to force generalizations (Brigham, 1971). (2) Such generalizations are often forced to appear at attribute extremes. (3) A categorical

approach precludes understanding the degree to which objects must be stereotyped as extremes for major consequences to result.

Thus for the remainder of this discussion the term stereotypes will refer to generalizations for which there is group consensus. Degrees of stereotyping will describe the amount of variation in group consensus. Within this conceptualization the issue is not whether television programming portrays occupations stereotypically (though there is evidence that this is in fact the case). The crucial factor is whether the reception of information from a shared single source leads to greater homogeneity of perceptions along selected attributes (i.e., reduced variation about the average).

A cultural subgroup (e.g., viewers of programs "X") could conceivably be made more stereotypic in their perceptions by witnessing a common TV model or set of TV models. If this subgroup's primary or single source of occupational information is a TV program or set of programs, it would be expected that their perceptions about the occupation would be similar. The assumption is that for audiences viewing the same range of models, their perceptions will cluster around the averages of attribute portrayals.

An additional feature of this perspective on stereotyping suggests the feasibility of a primary source reducing stereotypes, too. Primary sources should also be able to increase

the variance in perceptions. Consider the situation where societal members have stereotypic views of a particular occupation. The portrayal of that occupation on television in a counter-stereotypic fashion ought to shift the beliefs of viewers. Thus for the culture as a whole, there would be an increase in perceptual variation. Research by Atkin and Miller (1975), plus Miller and Reeves (1976), gives credence to this argument.

H_{11} There will be greater stereotypic views of occupational roles by children with shared single sources of information than by children with mixed sources of information.

Primary Sources and Status Conferral

Switching to more individualized effects, a third potential outcome revolves around the result of a primary source gaining social standing itself. Societal views of television are well summarized by Greenberg and Roloff (1974). This primary source has achieved credibility and prestige. These achievements are potentially passed on to the information and topics it portrays. Referring principally to the news media, Lazarsfeld and Merton (1948) argue that the media "confer status" on issues and groups merely by giving them recognition. This contention is bolstered by Hovland's (1954) description of the "halo" effect of the media, plus Klapper's (1960) discussion of the "prestige native to the media" and how persons appearing in the media gain public

"stature."

Lemert (1966) proposes that Lazarsfeld and Merton's notions of status coincide with the concept of credibility as defined by Berlo, Lemert and Mertz (1966). Empirical evidence is provided supporting the position that media attention can enhance credibility. In a later article Lemert (1969) enlarges the status domain to include "prominence." Prominence was operationalized in part by measuring subjects' perceptions of how "important" were persons appearing in the media. Again, empirical evidence confirms the hypothesis that media coverage increases audience perceptions of prominence.

Returning to occupational roles, Moore (1969) notes television's glamorization of selected occupations. Programs featuring characters in work roles frequently show the major characters as doing exciting things. In addition, there is little question that media-emphasized occupations (e.g., doctor, lawyer, police officer, paramedic) are shown as helping other people and contributing to society. Such repeated occupational portrayals are analogous to Lemert's conceptualization of prominence (i.e., "important"). Thus there is reason to propose that media emphasis of selected occupational roles enhances viewer perceptions of role prominence.

A single study by Dominick (1974) has pursued the hypothesis that television emphasis of occupational roles results in status conferral. Dominick surveyed a group of

elementary school children to establish their perceptions of the "prestige" associated with the roles of police officer and private detective. Prestige is not defined; there is brief mention that the respondents ranked ten occupations (only two of which are listed).

The results of this survey do not confirm Dominick's argument that "exposure to crime and police shows" should lead to "greater prestige [being] attributed to law enforcement occupations" (p. 7). Dominick concluded that part of the results were due to the high prestige all youngsters attributed to police officers and private detectives. The median ranking for police officer was "2.07"; a median rank of "2.60" was given private detectives. The highest prestige rank possible was "1.0." Beyond this, Dominick reports that "the relative lack of variation may have reduced the correlation" between viewing behavior and perceived prestige (p. 9).

The high prestige rankings reported by Dominick are puzzling. Investigators previously cited have demonstrated the overall accuracy of children's perceptions of occupational status. It would be helpful to know what were the other eight occupations. In sum, it is not clear just how adequate is this test of the status conferral proposition. A clearer test is warranted. Such a test would require (1) a range of occupational roles, (2) measures of children's exposure to specific television programming and (3) a scale establishing the perceived importance of each media-emphasized

occupation. Recalling that status was one of the attributes hypothesized to contribute to children's occupational images, it is offered that:

H_{12_a} The greater children's exposure to television programming emphasizing an occupational role, the greater the perceived relative importance of that occupation.

H_{12_b} Among children receiving proportionally more occupational information from television, the greater the exposure to television programming emphasizing an occupational role, the greater the perceived relative importance of that occupation.

Primary Sources and Perceived Role Distributions

A second aspect of role prominence gains significance in the context of children's images of the work world as a whole. The repeated emphasis of selected occupations by primary sources makes them highly conspicuous. This becomes all the more certain when one considers the diversity and range of work roles as compared to television occupational portrayals. To quote DeFleur:

> It is clear that it would be exceedingly difficult for a young viewer to obtain much accurate information about the distribution of occupations by watching his television screen. We have noted the concentration of occupations related to the law, the preoccupation with upper status jobs, the infrequent representation of ordinary work roles and the imbalance of the sexes (1964:65) [emphasis added].

Other scholars have reported comparable inaccuracies in television job portrayals (cf., Katzman, 1972; Seggar and Wheeler, 1973; Downing, 1974; Tedesco, 1974; Miller and

Reeves, 1976). It is conceivable that the one area where occupational role distributions are most discrepant is in the number of men holding law enforcement, medical, or other professional positions (Katzman, 1972; Seggar and Wheeler, 1973; Tedesco, 1974). Similarly, women are infrequently shown holding occupations other than standard jobs such as nurse or secretary (Seggar and Wheeler, 1973).

This writer performed a content analysis of occupational roles appearing on prime-time television. Analyses covered the programming offered by the three major networks during the Fall 1975 and Winter 1976 seasons. The TV viewing behaviors of fourth, sixth and eighth graders in the Grand Ledge, Michigan area were also surveyed (Wakshlag and Korzenny, 1976).

The prime-time shows viewed most by children biased the distribution of occupations held by men and by women. Specifically, more than forty percent of the employed men were shown in the roles of police officer, physician, private detective, fireman/paramedic and lawyer. Police officer was the most frequently portrayed male occupation, this role represents in excess of twenty percent of all occupations held by men. Doctors accounted for seven percent of the male roles, lawyers accounted for two percent. Finally, barely four percent of the employed men were pictured as part of the factory labor force.

In excess of fifty percent of the women with identifiable vocations were depicted as housewives, nurses and teachers. Housewives constituted the largest single group, but sixty-nine percent of all females were still shown as working outside of the home. Nursing accounted for sixteen percent of the female occupations. In terms of "nonstandard" female work roles, four percent of the employed females were police officers, two percent were lawyers. One show portrayed a woman as a paramedic.

As before, the major consequences of these portrayals stem from the condition where undifferentiated messages constitute a substantial portion of a receiver's information about a topic.

H_{13_a} The greater children's exposure to repeatedly emphasized occupational roles on television, the greater the perceived number of persons thought to have the occupations.

H_{13_b} The greater children's exposure to occupational roles held by women on television, the greater the perceived number of women thought to have the occupations.

H_{13_c} Among children receiving proportionally more occupational information from television, the greater the exposure to occupational roles held by males and females on television, the greater the perceived number of males and females thought to have the occupations.

Summary

This essay has generated a detailed paradigm. The following is argued: Many children are isolated from the

work world's realities. The vastness of the occupational arena initially precludes clear understanding of this area by children. Legal and normative sanctions combined with living patterns further restrict many children's opportunities to directly witness different occupations. Additionally, parental and educational sources often provide relatively limited occupational information.

Children and adolescents do have extensive contact with adult occupations as depicted on the primary source television. Moreover, through this entertainment-motivated contact, children conceivably gain assorted information. They potentially note, for instance, which jobs are held by the different sexes, which jobs carry authority, which jobs reap material benefits, etc. Not all children learn about occupational roles in this manner. There are both environmental and developmental factors that define the limits of incidental learning.

The process of incidental learning is essentially one of perception and learning by contiguity. Viewers perceive the occupational roles shown on TV by noting similarities of the roles along underlying attributes. This association of the occupations to each other, combined with perceptions of their positions along the underlying attributes, yields a picture, an image of the work world.

The attributes children use to differentiate the various TV occupations are numerous. There is good reason to believe,

nonetheless, that in part children use salient aspects of their self-concepts to discriminate occupational roles. Three categories of self-identification are of importance here.

(1) Personal Characteristics (i.e., sex, sense of competence, sense of moral worth).

(2) Relational Characteristics (i.e., self-determination, judgments imputed to others, interpersonal style).

(3) Material Characteristics (i.e., material possessions and resources).

Within these categories the attributes sex, self-determination and material possessions are differentially important depending on the sex and socioeconomic standing of the perceiver.

In terms of these underlying attributes, learning about occupational roles from a single shared source influences viewers' images in two ways. First, viewing should equalize occupational knowledge across the sexes and distinct social classes--at least concerning media-emphasized occupations. Learning from a common source, secondly, ought to minimize variations in perceptions along the salient attributes. This amounts to stereotyping of media-emphasized occupations.

The communication source likewise influences receiver perceptions of the information. Where the shared primary source has gained an air of exclusiveness, topics dealt with should gain prominence. With respect to television, viewers'

perceptions of the prominence of a set of occupations should be enhanced by learning about the roles from television. This should be especially true where information from secondary sources is relatively absent. Finally, it is offered that learning about the work world from television results in a biased perceptual image of the distribution of occupations. Content analyses reveal substantial inaccuracies in television's attempts to "mirror" the work environment. Again this hypothesized effect is contingent on availability of information from other sources.

Notes

1. Danes (1975) provides a succinct summary of the arguments surrounding theories of reinforced versus contiguous, conscious as opposed to unconscious, learning.

2. Woelfel's (1974) theory of occupational choice contains a similar matrix. He demonstrates these principles using a "dummy coding" system. Woelfel's discussion further addresses the utility of multidimensional analyses in occupational research.

3. Three recent articles are relevant to this question. Each offers a set of conceptual categories that attempt to "capture major dimensions" of self-conception. The category system by Stone, Dunphy and Ogilvie (1967) contains ninety-nine concept categories. Gordon (1968) identifies thirty categories; an equal number is found in Mahoney (1973). The Gordon and Mahoney categories are parsimonious and heuristic for the present topic.

4. The term "shared source" will be used to designate the condition where respondents report near exclusive and relatively high exposure to occupations through a primary information source. A "mixed sources" condition will denote contact with primary and secondary information sources, or solely secondary sources of occupational information.

CHAPTER III

METHODOLOGY

This chapter details the research procedures used to test the hypotheses offered in the previous discussion. A beginning section describes the survey protocol and its development. Results of a series of pilot studies are reported; these studies guided the empirical operationalizations of key variables. The survey sample and administration procedures are discussed next. Ethical considerations associated with these research procedures are reviewed. A final section is devoted to the discussion of statistical analyses.

Survey Questionnaire

A survey questionnaire with six distinct parts was employed for this study. The beginning of the questionnaire contained "paired-comparison" items designed to yield a representation of children's images of occupational roles. Fifteen occupational roles were compared. Based on content analyses of prime-time television in the 1975 Fall/Winter season, seven occupations were chosen due to their media emphasis (i.e., police officer, doctor, nurse, private detective, paramedic, truck driver and lawyer). Eight additional occupations appear with varying frequency on television. The

work roles (i.e., housewife, teacher, banker, mail carrier, secretary, janitor, mechanic and factory worker) are not emphasized in TV programming, however. These eight roles were ultimately chosen on the bases of their use in previous research (cf., DeFleur and DeFleur, 1967; Kawashima, 1971) and to give a sex, a status as well as an occupational activities (situs) balance to the questionnaire.

Pilot studies with children ages nine to twelve provided guidelines for developing the paired-comparison items. Two issues were of major concern. Initially, in writing these questions, of importance was the choice of words that children understand as well as the choice of familiar adverb modifiers to express degrees of difference. Of parallel interest was the identification of a continuum along which children could meaningfully order objects in terms of perceived similarity. These preliminary inquiries revealed (1) that children frequently use the words "alike" and "different" in combination with modifiers "a little," "very much" and "completely" in describing objects' similarities and (2) that children can consistently discriminate objects along a six-point continuum with a neutral phrase fixed as the seventh point. The paired-comparison response categories and questions used in this study appear in Appendix "A," pages 112-130.[1]

A second set of unidimensional scales was constructed to identify the underlying structure of children's occupational role perceptions. Ten personal, relational and material

attributes defined in the previous chapter were operationalized using five-point response categories. Each of the occupational roles was evaluated with respect to the attributes. Appendix "A," pages 131-146, contains the items.

Five-point scales were used to measure children's frequency of interpersonal discussion about the topic occupations. Respondents were asked how often their parents and friends talked about each of the work roles. A parallel set of questions asked how often the respondents saw people with the different jobs. The interpersonal discussion as well as the direct contact items are indicators of exposure to "secondary" sources of information about the work roles. The specific questions appear in Appendix "A," pages 147-149.

A fourth group of questions tapped respondents' perceptions of the number of people actually holding work roles that are repeatedly emphasized in television programs. Police officers and doctors are the two male-dominated roles most heavily portrayed in current TV programming; nursing constitutes the major female work role--second only to housewife. These questions took the form: "If you saw 25 people, how many would be police officers?" Subjects were allowed to write in answers ranging from 0 to 25.

A subset of questions asked for perceptions of the number of females in "non-standard" occupations. These items had a similar format to the previous three questions, though they focused on the work roles of police officer, paramedic and

lawyer. Page 150 of Appendix "A" contains these questions.

Nielsen ratings for the Lansing region combined with three television-viewing studies conducted in Grand Ledge, Michigan, were used to isolate particular programs for TV exposure measures. Specific shows were chosen for inclusion in this questionnaire if they actively portrayed an occupational role of interest and if the programs were viewed regularly by twenty percent or more of the area children. "Kate McShane" was an exception to this latter criterion; this short-run series, nonetheless, was included owing to its presentation of a woman working as a lawyer. The final list of shows included eleven prime-time series and two locally syndicated programs (see Appendix "A," page 151). Children answering the questionnaire indicated approximately how many times each month they watch the individual prime-time shows and how often each week they view the syndicated programs.

Demographic information was obtained concerning the child's sex, age, grade in school and parents' occupations (Appendix "A," pages 112, 151). Questions were also asked concerning the number of color TV sets as well as the number of bedrooms in each respondent's home, how many automobiles the child's family had and finally whether the child owned a 10-speed bicycle (Appendix "A," page 151). Questions of this nature have been used in previous studies to measure family affluence when surveying young children.[2]

Before administering the total questionnaire, selected portions were pre-tested with thirty children in a combined

fifth- and sixth-grade classroom in Lansing. This pre-test supported the expectation that children would be able to deal with the survey items. With few exceptions, the fifth and sixth graders could read the questions without assistance. Moreover, they answered the paired-comparison, the unidimensional attribute and the viewing behavior questions intelligibly.

Sample

To test the research hypotheses the questionnaire was administered to nonprobability, cluster samples of elementary and middle school students in Grand Ledge, Michigan. Grand Ledge is situated six miles west of Lansing. The 1970 Census indicates 6032 people living in this community; furthermore, a detailed demographic breakdown reveals that Grand Ledge in many ways mirrors the structure of a diversified midwestern community. Comparing Grand Ledge with Lansing, the economic and labor structures are very similar; there are appreciable differences in the average household sizes and the racial make-ups, however. The average household in Grand Ledge contains 3.21 persons as compared to 3.67 in Lansing; less than one percent of the Grand Ledge population is a racial minority in contrast to 10.1% in Lansing.

Four classes of fourth graders, three classes of sixth and three classes of eighth graders were surveyed. A total of 260 students participated. Of the total, thirty-one questionnaires were incomplete--twenty-eight students were absent on

one of the two days that the instrument was administered, three students left substantial portions of their questionnaires blank. This left a total of 88 fourth-, 71 sixth- and 70 eighth-grade survey protocols in completed form. To equalize grade sample sizes, eighteen of the fourth-grade questionnaires and one of the sixth-grade forms were randomly deleted. The resulting data set contained 210 cases representing seventy respondents in each grade.

A breakdown of the sample reveals these characteristics. There is an equal number of males and females; the average age is 145.3 months (12.11 years). Comparing grade by sex distributions the following results:

	Fourth grade	Sixth grade	Eighth grade	Total
Females	37	37	31	105
Males	33	33	39	105
Total	70	70	70	210

It is readily apparent that there are relatively minor differences between the gender breakdowns of the respondents in each grade level. There are more females in the lower and more males in the upper grades.

Age in Months

	Mean	Maximum	Minimum
Females	143.16	193	114
Males	147.48	188	114

Age in Months

	Mean	Maximum	Minimum
Fourth grade	120.40	134	114
Sixth grade	145.00	158	138
Eighth grade	170.53	193	163

There are similarly small differences in the age distributions for the two sexes and in the three grade levels. The average age of the male respondents is slightly higher, but there are no substantial aberrations to be contended with in the statistical analyses.

Survey Procedures

The total questionnaire was quite long. Its length, however, was reduced for individual subjects by using a randomization technique for the paired-comparison and unidimensional attribute items. .Each respondent was asked to make paired-comparison and attribute judgments for the seven media-emphasized roles and a subgroup of the remaining occupations. The media-emphasized occupations were evaluated by 210 respondents and the remaining eight work roles were evaluated by 105 respondents.

Additionally, due to the length of the instrument the survey was divided into two sessions. Group administration required between 20 and 40 minutes on two consecutive days. The questions were read aloud to fourth graders; sixth- and

eighth-grade students worked by themselves. All survey questions were answered independently by the children. In the unusual instance where subjects had difficulties, the problems were handled on an individual basis by a survey administrator or an assistant.

Some mention is called for as to the ethical considerations associated with this study of human subjects. Three factors are of prime importance here: (1) respondent anonymity, (2) respondent consent and freedom from coercion, and (3) respondent debriefings. Concerning the first point, subjects were guaranteed that their answers would be treated confidentially. Identifying labels were removed from the questionnaires. All analyses have been conducted and reported with grouped data.

Permission slips were sent home to the parents of the elementary school students. An example of the permission form can be found in Appendix "B." The Principal of the middle school chose not to send home permission slips though the forms were offered by the research administrator. None of the parents at one of the elementary schools asked that their children not answer the questionnaire. A small number of children at the second elementary school did not participate as requested by their parents.

At the beginning of each administration it was announced that the survey was not a test; the children were told that they did not have to answer the research instrument. Moreover,

the children were told that if there were any questions that they objected to, they were to leave those questions blank.

After the survey was completed each of the middle school classes was debriefed. The Principals at both elementary schools decided against a debriefing session for the fourth graders. A final debriefing in the form of a report detailing the results of this study has been promised the administrators at the three participating public schools. Appendix "C" contains a statement affirming this survey's compliance with all school policies regarding the use of school children as participants in research projects.

Statistical Analyses

Central to the first eight hypotheses are the principles and assumptions of "multidimensional scaling." Psychological distance is the fundamental concept, with distance corresponding to the degree of perceived similarity among objects (Helm, Messick and Tucker, 1959). Similar objects, in other words, are thought to be psychologically closer to one another than are dissimilar objects. Paired-comparison judgments for all possible pairs of objects yield a similarity matrix which can be arrayed in a dimensional space using any one of several multidimensional scaling programs. The computer program Galileo (version 3.9) is utilized in this study (Serota, 1974).[3]

The statistical analyses for this initial section are conducted at an aggregate level. Analyses are performed for

the total sample as well as for subgroups composed of males-females, upper socioeconomic status-lower socioeconomic status subjects.[4] Perceived similarity values for the fifteen occupations are averaged across subjects in the total sample and the four subgroup conditions. These mean similarity values are used to generate conceptual spaces representing the work roles along as many as N-1 dimensions. The occupational roles represent points in the spaces--these points are located by referencing the occupations' coordinates along the N-1 dimensions.

For the total sample the Galileo program generated a "normal solution" with thirteen dimensions in the "real" (Euclidian) space. All of the dimensions provide information about the interrelationships of the occupations, but there is typically a point of marginal return. A "scree test" is often used to indicate the maximally informative dimensions, but for this sample there was no point ("elbow") at which the eigen values declined sharply (Tatsuoka, 1971; Barnett, 1976). The total sample was therefore randomly divided in half and normal solutions were generated for each half. These dimensional structures were then rotated to a least-squares best-fit. Zero-order correlations were computed between the corresponding dimensions thus producing a measure of reliability. The first six dimensions were reliable at levels greater than +.966. Correlations between the seventh dimensions were +.823, for the eighth dimensions "r" equaled +.615. It was decided

that the remainder of the multidimensional analyses would be performed using the highly reliable, first six dimensions which accounted for eighty-four percent of the variance in the MDS space.

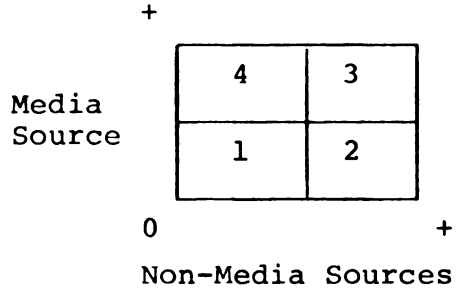
The mean values of the occupations on the unidimensional attributes were also computed in the total sample, male-female and upper SES-lower SES conditions. In the five conditions the mean attribute values for the occupations were then statistically regressed on the first six dimensions. The resulting multiple correlations indicated the degree to which the attributes were present in the multidimensional spaces; the standardized beta weights revealed the attributes' positions with reference to the six dimensions. Hypotheses one through nine were tested in this fashion.

Indices were then constructed for measures of exposure to television versus non-television sources of information about occupational roles. All indices were additive with the constituent variables standardized. Indices of general media exposure to the occupational roles, interpersonal discussions about occupations and direct contact with occupations were furthermore weighted using factor score coefficients.[5]

Similar procedures were followed in computing indices of exposure to TV programs with specific occupational content. Once again, for the index of shows representing programs focusing on police officers, weights were assigned to the five programs using factor scores. The remaining indices contained

no more than two items. No weights were assigned in these instances.

To test Hypothesis 10, which concerned the homogenization of societal members, the interpersonal discussion and the direct contact indices were summed. This created a non-media sources index. A 2 x 2 matrix was then computed using the general media exposure index (media source) as the ordinate and the non-media source index as the abscissa.



The quadrants were fixed by dividing each index at its median. Respondents fitting in quadrant four were noteworthy for two reasons. (1) They had indicated that they frequently viewed TV programs emphasizing the seven occupational roles. (2) Relatively speaking, these respondents' families and friends infrequently discussed the occupations, and the respondents infrequently saw persons with the seven work roles. This quadrant was labeled a single source condition; in relative terms these respondents shared a common "primary" source of information and had less opportunity to gain information from "secondary" sources. Persons fitting in quadrants one, two

and three received a greater proportion of their occupational information from "secondary" sources. These three quadrants were labeled a mixed sources condition.

Within the single source vs. the mixed sources conditions the subjects were divided according to gender and affluence. Multidimensional spaces with the seven media-emphasized occupations were generated for males, females, lower and upper SES subjects. Hypothesis 10 was tested by correlating the spatial configurations and the mean distances between spatial concepts for demographic subgroups in the single source versus mixed sources conditions.

A parallel procedure was followed to examine the hypothesis of a stereotyping effect (H_{11}). Initially, for the total seven media-emphasized occupations, comparisons were made between respondents in single versus mixed sources conditions. The average variances around the similarity estimates for the occupations in the conceptual spaces were compared across single and mixed sources conditions. Next, for each specific occupation a 2 x 2 matrix was generated, thus dividing respondents into single as opposed to mixed sources conditions for individual work roles. Comparisons were made between the two source conditions by computing F-tests for homogeneity of variances around the mean attribute ratings for each occupation.

Tests of the remaining two hypotheses required a shift from aggregated to non-aggregated data. Zero-order

correlations were computed between frequency of viewing particular television programs emphasizing occupational roles and the perceived "importance" of the particular occupations (H_{12}). Conditional analyses were conducted dividing the sample in half. The respondents were separated according to whether they were above or below the median in exposure to non-media sources about each specific occupation. This represents a slight modification of the single-mixed sources paradigm, as there was but one median split for these analyses.

The final hypothesis (H_{13}) was tested by zero-order correlations between frequency of viewing specific TV programs dealing with work roles and the perceived distributions of persons holding the media-emphasized occupations. Where statistically significant correlations were found, corrections were made for attenuation to give a more accurate estimate of the sizes of the relationships in the population.[6] Here again, conditional analyses were performed dividing the sample at the median score on the non-media sources indices for each occupation.

An alpha level of $p < .05$ was established prior to analyses. Statistical values and significance levels of data counter to hypotheses are not reported.

Notes

1. These questions are arranged by topic for purposes of presentation here. In the actual questionnaire, questions from page 112 did come first, followed by the measures on pages 113-130. Items tapping respondents' perceptions of the number of people actually holding different work roles (page 150) were then asked. Subjects finished the questionnaire for the first day by indicating their frequency of contact with secondary sources (pages 147-149) and their relative SES standing (page 151).

   The questionnaire on the second day began with the measures found on pages 131-146. Exposure levels to specific shows were asked next (page 151). The subjects then handed in their questionnaires and received a shorter booklet repeating previous questions as a check on reliability--particularly the reliability of questions asked the previous day.

2. The researcher is indebted to the directors and members of the Children and Social Television Learning (CASTLE: MSU) research team for these survey measures.

3. Galileo (version 3.9) is an improved version of the computer program described in Serota's thesis. Largely through the efforts of Richard A. Holmes and Michael J. Bonkowski this program has been tailored to meet the needs of communication researchers. Documentation of this program is available through:

   Communication Research Services, Inc.
   P. O. Box 1024
   East Lansing, MI 48823

   Finally, the contributions of Michael Cody and Rick Holmes to this study need to be recognized. They were of great assistance in the analyses of the Galileo spaces.

4. Socioeconomic status was measured by a weighted, summed index of the affluence measures described on page 153. Questions about the parents' occupations proved to be nearly useless, children do not appear to know what their parents do at work. Weights were assigned to the SES scales using factor score coefficients (see the following note). Lower-upper SES was decided by using a median split on the weighted index.

5. Rationales and techniques for deriving factor score coefficients can be found in Nie et al. (1975), as well as Seibold (1975). The weighting coefficients for each variable correspond to the variable's loading on the underlying factor. The composite index results by multiplying the standardized variable by its respective factor score coefficient and then summing all of the variables which define the underlying factor.

6. Corrections for attenuation are performed to obtain estimates of strength of relationships in the population. Measurement error reduces the size of a correlation. The formula provided by Nunnally (1967:218) corrects for the unreliability of measures.

$$\bar{r}_{12} = \frac{r_{12}}{\sqrt{r_{11}\ r_{22}}}$$

If both scales were perfectly reliable, $\bar{r}_{12}$ would be the expected correlation. The correlation can be made for one of two variables by placing that variable's reliability coefficient under the radical.

CHAPTER IV

RESULTS

The empirical findings of this study are presented in a manner approximating the order that the research hypotheses were offered. Hypotheses are restated, descriptive and inferential statistical results are then reported as they support or fail to support the predictions. An overview of these results is presented in conclusion.

Early in the first chapter it was proposed that children differentiate occupational roles along three personal attributes.

H_1 Children distinguish occupations on the basis of the sex of the role holders.

H_2 Children distinguish occupations on the basis of the perceived competence (intelligence) of the role holders.

H_3 Children distinguish occupations on the basis of the perceived moral worth (goodness) of the role holders.

Respondents evaluated the fifteen occupational roles along these three attributes using unidimensional measures. The six multidimensional coordinates for each occupation were then correlated with unidimensional means of each occupation on these attributes. Standardized regression weights found in Table 1 indicate the degree of association between

mean attribute ratings and the six orthogonal dimensions. Multiple correlations appearing in an extreme right-hand column indicate the degree to which the attributes are present in the multidimensional space.[1]

An examination of Table 1 reveals that the occupations' personal attribute ratings are significantly related to the occupational loadings on at least two of the three initial dimensions. More importantly the multiple correlations are .82, .93 and .94 for the "sex," "intelligent" and "good" attributes, respectively. The latter two coefficients are statistically significant; the multiple "r" for the sex attribute approaches but fails to meet the alpha level for rejecting the null hypothesis with the six-dimensional solution. All three multiple correlations are squared and corrected for shrinkage.[2] In an ideal sampling situation these final coefficients are estimates of the amount of variance in the first six dimensions of the population space accounted for by the personal attributes.

In sum, intelligence and perceived goodness of the occupational roles appear to be major attributes in children's evaluations of occupations. There is limited evidence that sex is used as an attribute in differentiating work roles. This attribute is substantially less important, however.

Hypotheses 4, 5 and 6 concerned relational attributes associated with work roles. It was predicted that children would discriminate between occupations on the bases of (4)

Table 1. Standardized Regression Weights for Six Orthogonal Dimensions Used to Predict Mean Occupation Ratings on Personal, Relational and Material Attributes for Total N.

	D_1	D_2	D_3	D_4	D_5	D_6	R	R^{2b}
Personal								
Sex (female - male)	.49*	.24	-.59*	-.06	-.11	-.03	.82	.48
Intelligent	-.72*	-.01	-.27	.03	-.53*	.01	.93*	.80
Good	-.68*	-.44*	-.34*	.01	-.33*	-.11	.94*	.83
Relational								
Gives orders	-.71*	-.09	-.14	-.34	-.11	.23	.84	.54
Receives orders	.58*	.00	.64*	.13	-.09	.04	.88*	.64
Liked	-.38*	-.48*	.11	.47*	-.22	-.32	.87*	.63
Helps others	-.65*	-.33	-.42*	-.01	-.25	-.09	.88*	.65
Material								
Rich	-.47*	.38*	-.24	.27	-.50*	-.22	.89*	.68
Nice work conditions	-.91*	.05	.24*	.24*	-.15	-.04	.98*	.94
Job importance	-.64*	-.11	-.53*	.03	-.11	-.15	.86*	.60

*$p < .05$

[b]This is the squared multiple correlation after correction for shrinkage. (N = 15)

which work roles gave and received orders, (5) which role holders were generally liked by other people and (6) which occupations helped other people. Results found in Table 1 again indicate that the attributes are all significantly related to one or more of the first three dimensions. The multiple correlation for the "give orders" attribute closely approaches, though fails to achieve, statistical significance. The remaining variables "receives orders," "liked" and "helps others" appear as attributes of considerable weight in children's evaluations.

A final group of predicted attributes concern material and resource benefits associated with jobs. It was proposed that:

H_7 Children distinguish occupations on the basis of the perceived income of role holders.

H_8 Children distinguish occupations on the basis of the perceived work conditions of role holders.

H_9 Children distinguish occupations on the basis of the perceived status (importance) of role holders.

Regression analyses, again in Table 1, provide evidence supporting these hypotheses. Multiple correlations for the "material" attributes are above .85; all are significant by the conservative statistical tests with eight degrees of freedom. In particular, work conditions are highly related to children's estimates of similarity in work roles. Wealth and job importance are similarly of value in accounting for the variance in children's occupational role perceptions.

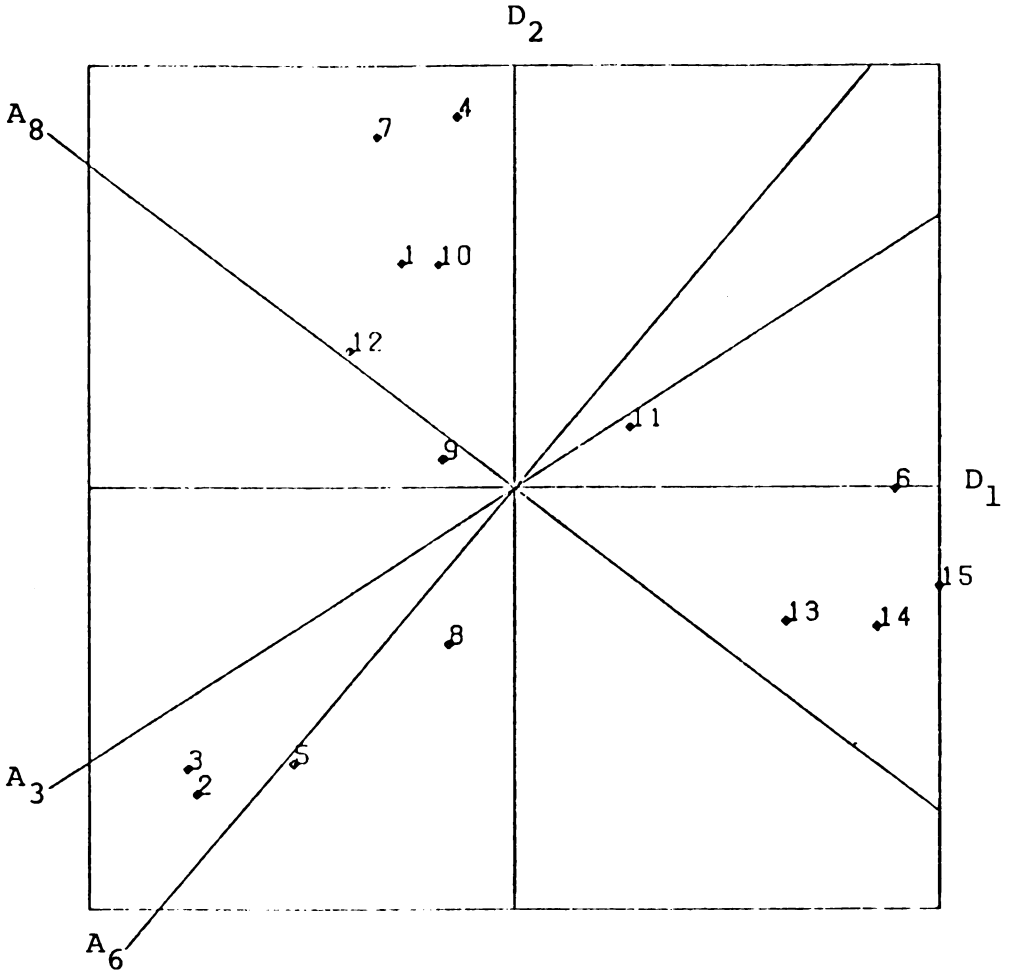
A graphical representation of the attributes having statistically significant correlations with dimensions one and two in the Total N space can be found in Figure 1.

Three attributes have been sketched into the two-dimensional plane; the designating symbols have been placed at the positive ends of the attributes. Locations of the occupations on a trait can be established by drawing a vertical axis from the attribute line to each work role in the space. The closer the role's location to the designating symbol, the greater the mean value of the occupation along that attribute.

Figures 2 and 3 contain graphical representations of the attributes significantly related to the first and third plus the second and third dimensions. Once more, these plots correspond to the statistical configuration identified in Table 1. The graphical configurations allow visual inspection of occupation-trait spatial images held by children.

Subordinate hypotheses were offered in relation to four of the attributes. Hypothesis 1_a proposed that males would distinguish occupations more on the basis of sex than females.

Table 2 allows comparisons of the standardized regression weights for the two sexes. Clearly, there is no support for Hypothesis 1_a. The multiple "r" is .82 for males and .81 for females in the six-dimensional solution. Further exploratory examination of the multiple correlations for the



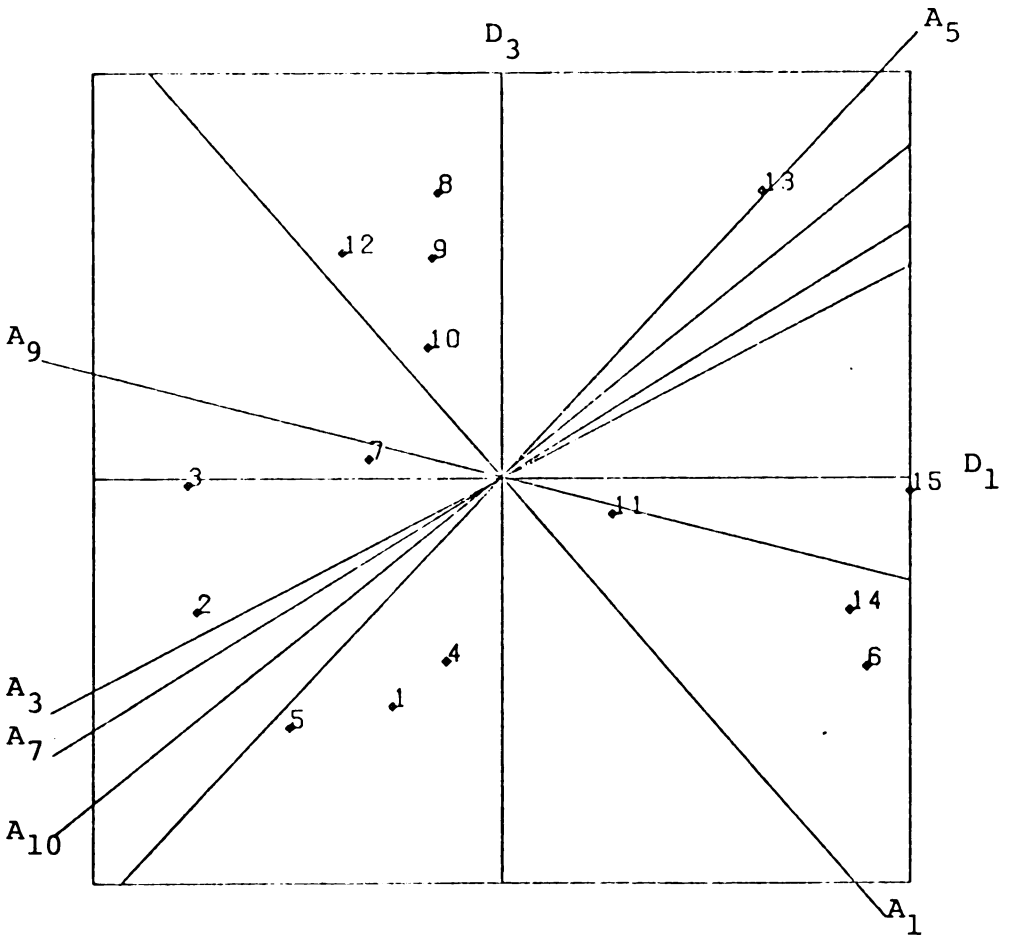
A_3 Good

A_6 Liked

A_8 Rich

1 Police Officer
2 Doctor
3 Nurse
4 Private Detective
5 Paramedic
6 Truck Driver
7 Lawyer
8 Housewife
9 Teacher
10 Banker
11 Mail Carrier
12 Secretary
13 Janitor
14 Mechanic
15 Factory Worker

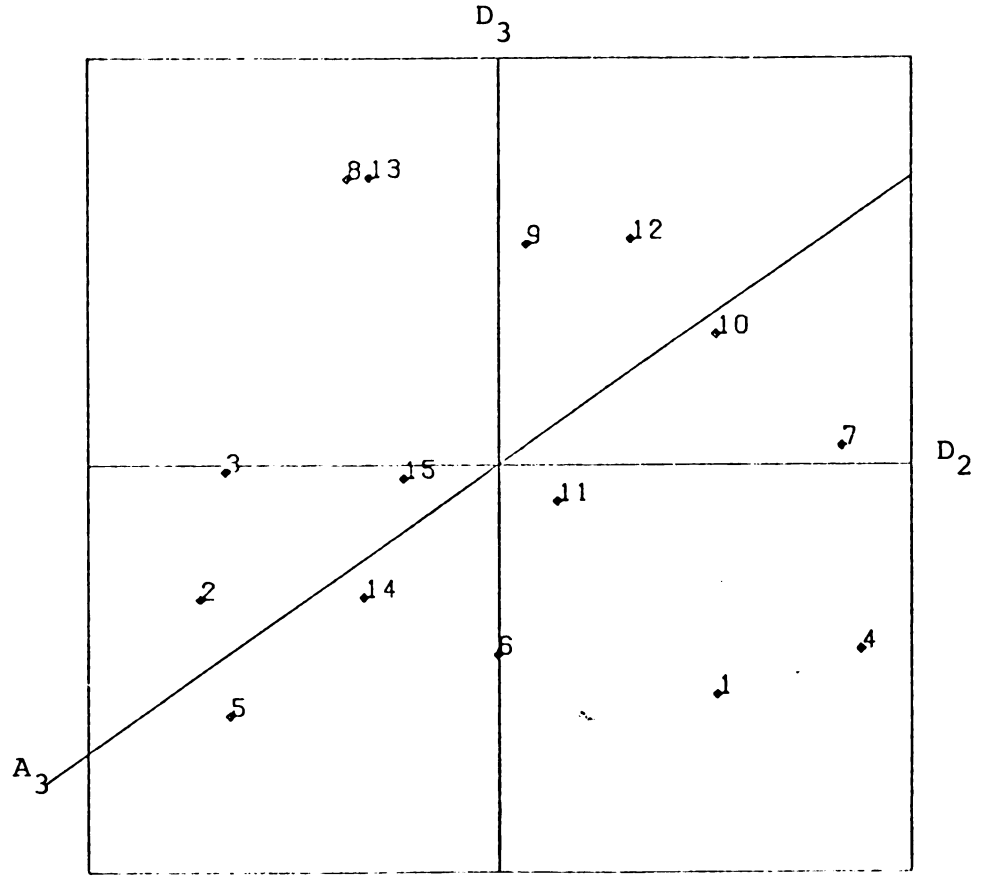
Figure 1. Graphical Representation of Three Attributes on Dimension One and Dimension Two of the Conceptual Space for the Total Sample.



A_1	Sex (female - male)	A_7	Helps others
A_3	Good	A_9	Nice work conditions
A_5	Receives orders	A_{10}	Job importance

1	Police Officer	8	Housewife
2	Doctor	9	Teacher
3	Nurse	10	Banker
4	Private Detective	11	Mail Carrier
5	Paramedic	12	Secretary
6	Truck Driver	13	Janitor
7	Lawyer	14	Mechanic
		15	Factory Worker

Figure 2. Graphical Representation of Six Attributes on Dimension One and Dimension Three of the Conceptual Space for the Total Sample.



1	Police Officer	8	Housewife
2	Doctor	9	Teacher
3	Nurse	10	Banker
4	Private Detective	11	Mail Carrier
5	Paramedic	12	Secretary
6	Truck Driver	13	Janitor
7	Lawyer	14	Mechanic
		15	Factory Worker

Figure 3. Graphical Representation of One Attribute on Dimension Two and Dimension Three of the Conceptual Space for the Total Sample.

Table 2. Standardized Regression Weights for Six Orthogonal Dimensions Used to Predict Mean Occupation Ratings on Unidimensional Attributes Among Male vs. Female Subjects.

		D_1	D_2	D_3	D_4	D_5	D_6	R	R^{2b}
Sex (male → female)									
	Male	.46*	.21	-.63*	-.06	-.07	-.03	.82	.48
	Female	.51*	.28	-.54*	-.07	-.09	.06	.81	.46
Intelligent	Male	-.62*	-.07	-.33*	-.04	-.58*	-.14	.92*	.77
	Female	-.76*	.02	-.19	.12	-.36*	.20	.89*	.67
Good	Male	-.45*	-.50*	-.42*	-.05	-.32*	-.32*	.91*	.73
	Female	-.75*	-.33	-.21	.11	-.24	.02	.89*	.67
Gives orders	Male	-.66*	-.06	-.18	-.37	-.14	.31	.85*	.57
	Female	-.74*	-.11	-.12	-.29	-.10	.16	.83*	.52
Receives orders	Male	.67*	-.03	.57*	.10	-.18	-.02	.90*	.70
	Female	.46*	.00	.69*	.12	.05	.06	.84	.54
Liked	Male	-.29	-.53*	-.04	.40*	-.19	-.43*	.87*	.63
	Female	-.46*	-.40*	.25	.51*	-.22	-.17	.88*	.65
Helps others	Male	-.53*	-.31	-.47*	-.04	-.37	.06	.86*	.60
	Female	-.68*	-.32	-.33	.06	-.18	-.15	.85*	.57
Rich	Male	-.35	.30	-.32	.21	-.49*	-.42*	.88*	.65
	Female	-.57*	.42*	-.13	.31	-.37	.07	.87*	.63
Nice work conditions	Male	-.85*	.01	.26*	.27*	-.17	-.21*	.97*	.91
	Female	-.92*	.06	.21*	.21*	-.09	.06	.98*	.94
Job importance	Male	-.53*	-.13	-.64*	.03	-.07	-.17	.86*	.60
	Female	-.67*	-.10	-.40*	.05	-.14	-.08	.81	.46

*$p < .05$

[b]This is the squared multiple correlation after correction for shrinkage. (N = 15)

nine attributes indicates no dissimilarity pattern between sexes. The attributes "receives orders" and "job importance" do seem to be of greater importance for males--R^2 differences are substantial between the sexes along these two attributes. Aside from this, the breakdown by sex largely replicates the finding in the first table.

Three subordinate hypotheses were proposed concerning differences between subjects from varying SES backgrounds.

H_{4_a} Upper socioeconomic status children distinguish occupations more on the basis of the perceived autonomy (receives orders) of role holders than do lower socioeconomic status children.

H_{7_a} Lower socioeconomic status children distinguish occupations more on the basis of perceived income of role holders than do upper socioeconomic status children.

H_{8_a} Upper socioeconomic status children distinguish occupations more on the basis of work conditions of role holders than do lower socioeconomic status children.

Comparisons found in Table 3 do not support the three hypotheses. Contrary to previous research, lower SES respondents (in this sample at least) distinguish occupations more on the basis of receiving orders than do upper SES respondents. The wealth associated with the fifteen work roles is more important in the occupational perceptions of more affluent respondents--the "rich" attribute has an R of .91 for upper SES children as opposed to an R of .83 for lower SES children.

Table 3. Standardized Regression Weights for Six Orthogonal Dimensions Used to Predict Mean Occupation Ratings on Unidimensional Attributes Among Lower vs. Upper SES Subjects.

		D_1	D_2	D_3	D_4	D_5	D_6	R	R^{2b}
Sex (female → male)									
	Lower	.49*	.16	-.61*	-.09	-.07	-.09	.81	.47
	Upper	.46*	.33	-.57*	-.01	-.14	.00	.82	.49
Intelligent	Lower	-.71*	-.06	-.28*	.03	-.47*	-.28*	.94*	.83
	Upper	-.72*	.01	-.24	.03	-.51*	.10	.92*	.76
Good	Lower	-.65*	-.45*	-.39*	.00	-.24	-.24	.95*	.84
	Upper	-.68*	-.42*	-.27	.00	-.37*	-.04	.92*	.76
Gives orders	Lower	-.69*	-.16	-.13	-.36	-.21	.11	.84	.55
	Upper	-.71*	-.05	-.13	-.30	-.08	.23	.82	.48
Receives orders	Lower	.59*	.03	.63*	.28	-.08	.03	.91*	.74
	Upper	.57*	-.01	.62*	.03	-.08	.04	.84	.55
Liked	Lower	-.36	-.34	-.03	.57*	-.01	-.33	.82	.49
	Upper	-.39*	-.57*	.16	.37*	-.29	-.29	.89*	.69
Helps others	Lower	-.60	-.30	-.51	-.02	-.19	-.32	.92*	.76
	Upper	-.67	-.34	-.30	-.04	-.22	.05	.84	.55
Rich	Lower	-.51	.36	-.19	.31	-.30	-.28	.83	.53
	Upper	-.45	.39	-.25	.22	-.57	-.22	.91*	.74
Nice work conditions	Lower	-.93	.08	.18	.21	-.07	-.06	.98*	.92
	Upper	-.88	.00	.30	.24	-.20	-.02	.98*	.94
Job importance	Lower	-.60	-.10	-.58	-.04	-.12	-.32	.90*	.72
	Upper	-.68	-.14	-.45	.10	-.03	-.05	.84	.53

*$p < .05$

[b]This is the squared multiple correlation after correction for shrinkage. (n = 15)

Finally, there are no differences between subjects' perceptions of occupations along the work conditions attribute when SES comparisons are made. These findings are incongruent with studies reviewed earlier. Breakdowns by SES, much like the sex variable, mainly demonstrate the similarities between subgroups and replicate Total N results.

Having established the general commonality of attributes contributing to children's perceptions of work roles, the analyses shifted next to the core issues of this study. Specifically, interest centered on the effect of children's receiving their occupational information from a "primary" source (television) on their overall images of the work world. This was examined by contrasting the occupational images held by respondents receiving information principally from a single institutional source (television) with the images held by respondents reporting mixed sources of information.

It was argued earlier that there ought to be greater homogeneity in the occupational images held by children with shared sources of information; television was proposed as a common source available to both males and females, upper and lower SES children. Thus it was hypothesized that:

H_{10_a} There will be greater homogeneity in the occupational images held by male and female children with shared single sources of information than in the occupational images held by male and female children with mixed sources of information.

H_{10_b} There will be greater homogeneity in the occupational images held by lower and upper SES children with shared single sources of information than in the occupational images held by lower and upper SES children with mixed sources of information.

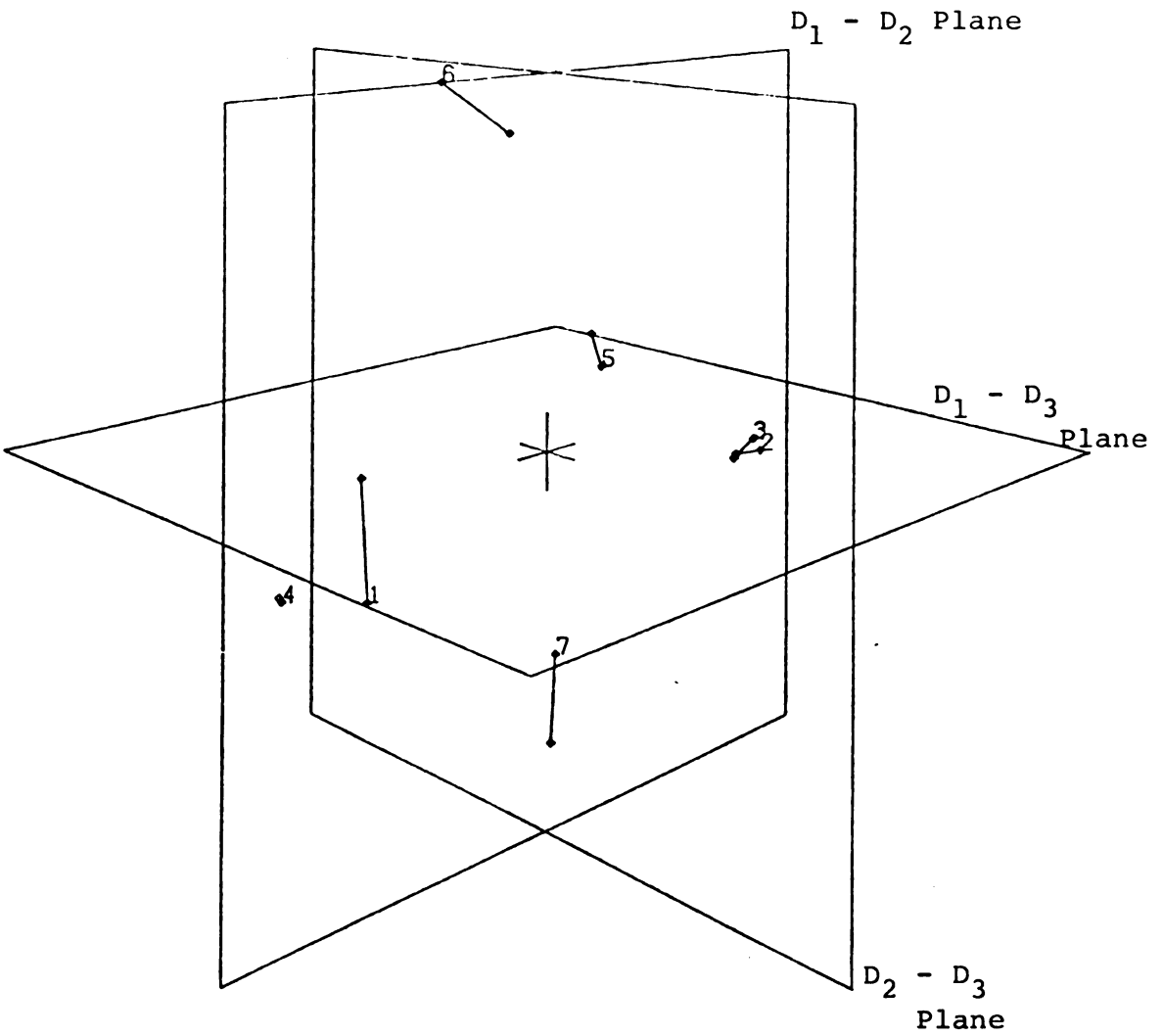
In testing the hypotheses, attention centered on the seven occupations earlier identified as media-emphasized work roles. Respondents were grouped in the single vs. mixed sources conditions by using median splits on information source indices. These indices represented frequency of viewing work roles on television and exposure to non-media sources of information about the same seven occupations. Sex and SES splits were also made; care was taken to maintain very nearly equal cell sizes within source conditions.

Empirical analyses took two forms. To begin with, differences in occupational images were compared for the two sexes in single and mixed sources conditions. Each occupation's spatial positioning was compared. Counter to expectations there are greater differences in male and female spaces in the single source condition. The average mean difference is .707 in the single source as compared to .671 in the mixed sources condition (Table 4). Visual representations of the differences are found in Figure 4 and 5.

For males and females with mixed sources there is unexpected congruence in their images of police officers, private detectives, truck drivers and lawyers. Note the varying degrees of agreement between the source conditions,

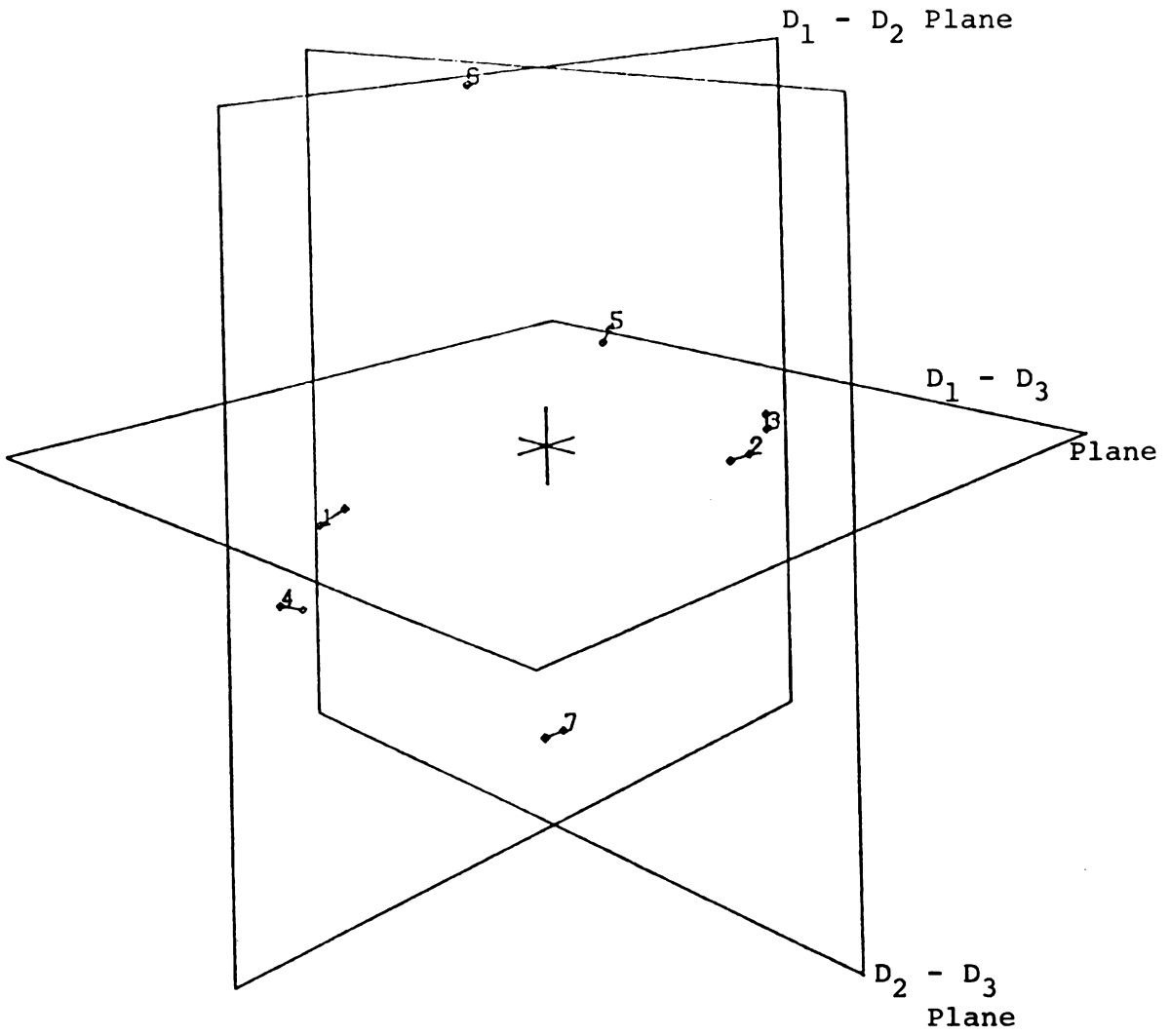
Table 4. Differences Between Occupational Images Held by Male and Female Subjects in Single Source vs. Mixed Sources Conditions.

Occupation	Differences in Spatial Position in Single Source (Television) Condition	Differences in Spatial Position in Mixed Sources Condition
Police Officer	1.098 Units	.504 Units
Doctor	.434 Units	.789 Units
Nurse	.221 Units	1.614 Units
Private Detective	.461 Units	.267 Units
Paramedic	.580 Units	.873 Units
Truck Driver	1.028 Units	.101 Units
Lawyer	1.126 Units	.548 Units
Mean Difference	.707 Units	.671 Units



1 Police Officer
2 Doctor
3 Nurse
4 Private Detective
5 Paramedic
6 Truck Driver
7 Lawyer

Figure 4. Graphical Representation of the Mean Differences Between Male and Female Occupational Perceptions in the Single Source Condition.



1 Police Officer
2 Doctor
3 Nurse
4 Private Detective
5 Paramedic
6 Truck Driver
7 Lawyer

Figure 5. Graphical Representation of the Mean Differences Between Male and Female Occupational Perceptions in the Mixed Sources Condition.

especially for the occupation of truck driver. Generally speaking, the dissimilarities of perceptions between males and females are not great in either condition. But there is still largely consistent and apparently greater agreement in the mixed sources condition.

Correlations were next computed between the male-female spaces in the two conditions.

Table 5. Zero-Order Correlations of the First Four Corresponding Orthogonal Dimensions of the Occupational Spaces Held by Male and Female Subjects in Single Source vs. Mixed Soures Conditions.[a]

Dimensions in Male and Female Spaces	Single Source (Television)	Mixed Sources
First	.9953*	.9987*
Second	.9175*	.9983*
Third	.9499*	.9976*
Fourth	.9089*	.8984*

*p <.05

[a]The first four dimensions were chosen as there are four dimensions in the real space of males in the single source condition. The remaining spaces each have five real space dimensions.

Zero-order relationships between the corresponding orthogonal dimensions demonstrate the tendency for the two sexes to be in greater agreement in the mixed sources condition. It is important to note, nonetheless, that the correlations are high in both conditions and minimally discrepant.

The mean differences and the correlational findings do not buttress Hypothesis H_{10_a}. In fact, the results are counter to the prediction. The greater homogeneity between the male and female images in the mixed sources condition definitely warrants a re-evaluation of the underlying theoretic position.

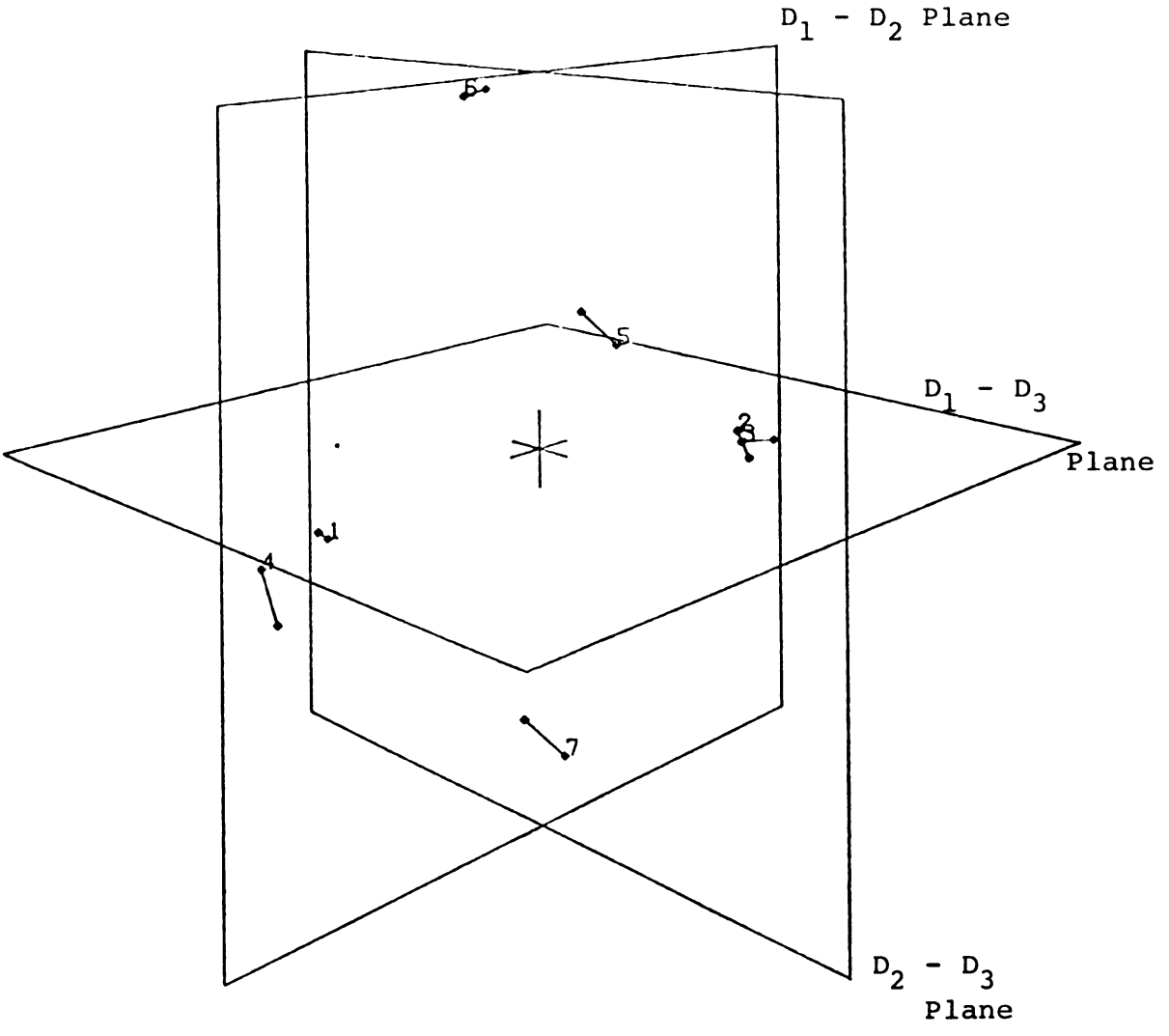
Parallel analyses were conducted comparing lower and upper SES respondents' occupational images in the two source conditions. Once more there is greater disagreement in the occupational images for respondents reportedly receiving a larger proportion of their information from television (Table 6). Police officers, nurses, private detectives, truck drivers and lawyers are perceived more similarly by lower and upper SES respondents with mixed sources. Only the means for the work roles doctor and paramedic appear in the hypothesized manner when SES and source distinctions are made.

Differences between mean perceptions overall are smaller between SES subgroups within both conditions. There is a mean difference of .572 units between spaces for SES groups in the single source condition; a mean difference of .377 units separates spaces for SES groups with mixed sources.

Pearson r statistics (Table 7) for the corresponding dimensions are again quite high for all respondents. Four dimensions in the lower vs. upper SES spaces are correlated +.93 in both source conditions. The fifth spatial dimensions are very dissimilar for respondents with a common single

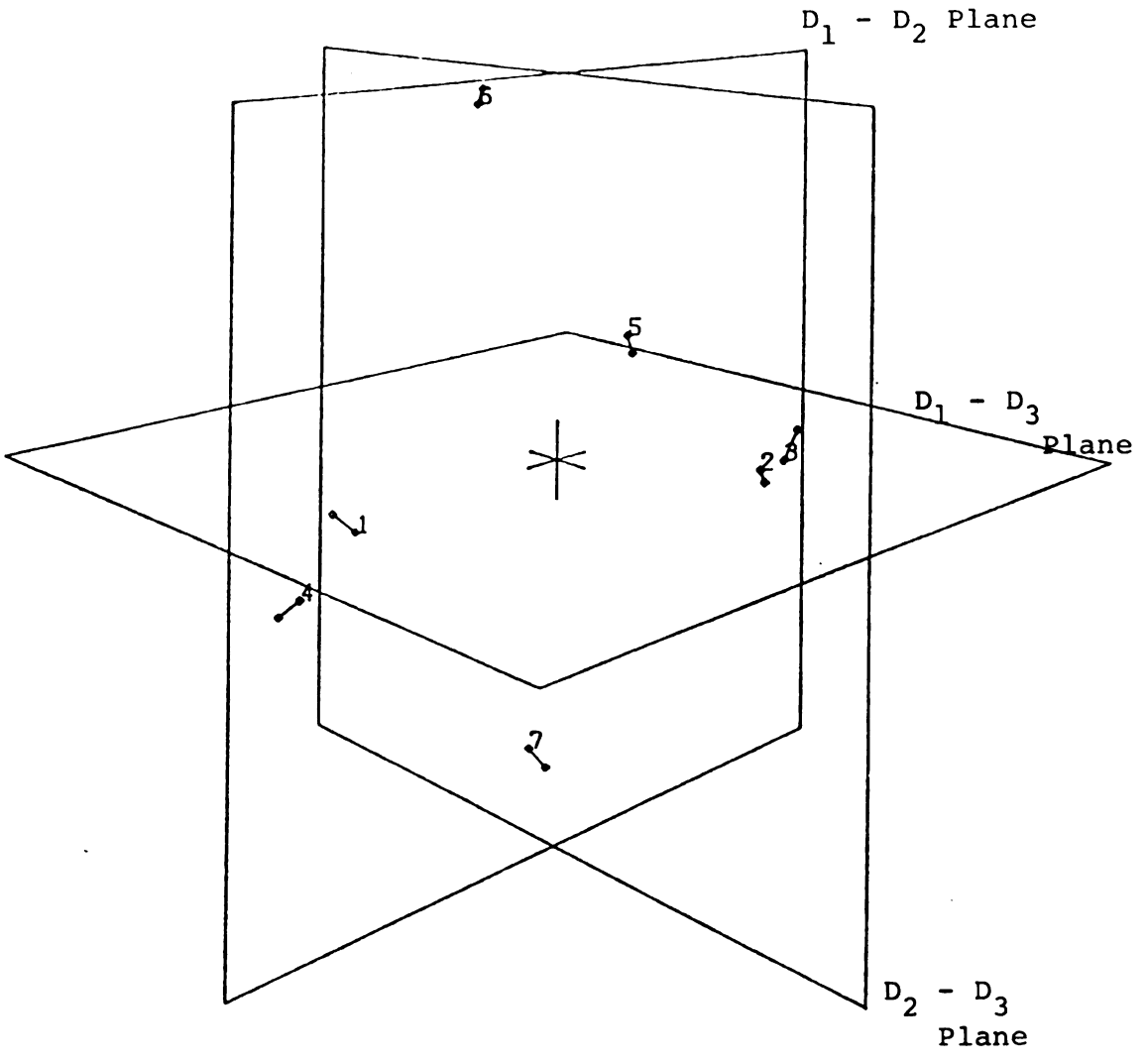
Table 6. Differences Between Occupational Images Held by Lower and Upper SES Subjects in Single Source vs. Mixed Sources Conditions.

Occupation	Differences in Spatial Position in Single Source (Television) Condition	Differences in Spatial Position in Mixed Sources Condition
Police Officer	.564 Units	.277 Units
Doctor	.432 Units	1.145 Units
Nurse	.853 Units	.267 Units
Private Detective	.567 Units	.292 Units
Paramedic	.871 Units	1.067 Units
Truck Driver	.187 Units	.173 Units
Lawyer	.532 Units	.504 Units
Mean Difference	.572 Units	.377 Units



1 Police Officer
2 Doctor
3 Nurse
4 Private Detective
5 Paramedic
6 Truck Driver
7 Lawyer

Figure 6. Graphical Representation of the Mean Differences Between Lower and Upper SES Subjects' Occupational Perceptions in the Single Source Condition.



1 Police Officer
2 Doctor
3 Nurse
4 Private Detective
5 Paramedic
6 Truck Driver
7 Lawyer

Figure 7. Graphical Representation of the Mean Differences Between Lower and Upper SES Subjects' Occupational Perceptions in the Mixed Sources Condition.

source of information--"r" equals +.11. Among the respondents with differing SES backgrounds and relatively mixed sources of information the correlation for the fifth dimension remains above +.98.

Table 7. Zero-Order Correlations of the First Five Corresponding Orthogonal Dimensions of the Occupational Spaces Held by Lower and Upper SES Subjects in Single Source vs. Mixed Sources Conditions.[a]

Dimensions in Lower and Upper SES Spaces	Single Source (Television)	Mixed Sources
First	.9978*	.9990*
Second	.9908*	.9940*
Third	.9658*	.9982*
Fourth	.9355*	.9967*
Fifth	.1140	.9807*

*$p < .05$

[a]The first five dimensions were chosen as there are five dimensions in the real spaces in all conditions.

Hypothesis H_{10_b} is not accepted. The comparatively greater agreement of work role images among subjects with mixed information sources was unforeseen. Television has not homogenized occupational perceptions in the manner expected. In the single source condition, greater differences appear in the mean spatial images reported by lower and upper SES children; zero-order correlations comparing dimensional arrays of occupations are consistently lower.

Not only is the hypothesis not supported, findings are also in the opposite direction.

Chapter I also argued for a homogenization of images in the form of a stereotyping effect. While earlier hypotheses predicted increased agreement in mean perceptions of occupational roles, Hypothesis H_{11} proposed a reduction in variances around mean occupational perceptions for persons sharing a common information source.

> H_{11} There will be greater stereotypic views of occupational roles by children with shared single sources of information than by children with mixed sources of information.

In the data collection children were allowed to indicate that they were not sure of the answers to the paired-comparison and unidimensional attribute questions. For the following analyses, responses indicating such uncertainty were treated as missing data.[3]

Respondents were categorized into single and mixed sources conditions. Average variances for the paired-comparison measures of the seven television occupations were computed. An average variance for every occupation was thus based on approximately 200 observations repeated across six different work roles (i.e., 1200 + measures).

The average variances around the means in the paired comparison items are all in the hypothesized direction, save for the occupation private detective. Children with single sources of information are in greater agreement as to the

Table 8. Average Variances for the Paired-Comparison Measures of Seven Television Emphasized Occupations Among Subjects with Single vs. Mixed Sources of Information.

Occupation	Average Variance Among Subjects With Single Sources	Average Variance Among Subjects With Mixed Sources
Police Officer	1.266	1.479
Doctor	.763	.849
Nurse	.685	.749
Private Detective	1.062	1.020
Paramedic	.988	1.118
Truck Driver	.689	.843
Lawyer	1.107	1.138

overall similarities among police officers, doctors, murses, paramedics, truck drivers and lawyers. Statistical tests are deferred here, as there is uncertainty as to the number of degrees of freedom associated with each average variance.

Attribute measures for all seven occupations were examined. Though the "sex" and "gives orders" attributes' multiple "r's" fell short of statistical significance in the six-dimensional solution, there was evidence of the attributes' existence in children's evaluations. All ten attributes were therefore examined across the seven occupations for the hypothesized stereotyping effect (Tables 9-15).

It should be mentioned first that there is mixed evidence concerning the reduction in variances around attribute

Table 9. F-tests Comparing Variances Around the Mean Attribute Ratings of Police Officers by Subjects with Single vs. Mixed Sources of Information.

Attribute	Condition	N	Variance	F Value
Sex	Single	53	.30	
	Mixed	157	.31	1.03
Intelligent	Single	17	1.19	
	Mixed	58	1.57	1.32
Good	Single	27	.58	
	Mixed	74	1.21	2.08*
Gives orders	Single	22	1.19	
	Mixed	60	1.16	
Receives orders	Single	42	.50	
	Mixed	124	.50	
Liked	Single	17	1.19	
	Mixed	58	1.34	1.13
Helps others	Single	33	.12	
	Mixed	90	.68	5.62*
Rich	Single	16	.46	
	Mixed	48	.66	1.42
Nice work conditions	Single	11	1.86	
	Mixed	41	1.25	
Job importance	Single	40	.10	
	Mixed	123	.27	2.66*

*$p < .05$ (one-tailed test)

Table 10. F-tests Comparing Variances Around the Mean Attribute Ratings of Doctors by Subjects with Single vs. Mixed Sources of Information.

Attribute	Condition	N	Variance	F Value
Sex	Single	52	.21	
	Mixed	158	.32	1.53*
Intelligent	Single	28	.00	
	Mixed	110	.29	0.00*
Good	Single	39	.10	
	Mixed	122	.07	
Gives orders	Single	32	.63	
	Mixed	97	.56	
Receives orders	Single	40	.20	
	Mixed	123	.30	1.45
Liked	Single	29	.49	
	Mixed	86	.45	
Helps others	Single	41	.19	
	Mixed	139	.06	
Rich	Single	18	.85	
	Mixed	43	1.15	1.35
Nice work conditions	Single	26	.66	
	Mixed	63	.68	1.02
Job importance	Single	47	.09	
	Mixed	137	.07	

*$p < .05$ (one-tailed test)

Table 11. F-tests Comparing Variances Around the Mean Attribute Ratings of Nurses by Subjects with Single vs. Mixed Sources of Information.

Attribute	Condition	N	Variance	F Value
Sex	Single	41	.63	
	Mixed	167	.43	
Intelligent	Single	14	1.14	
	Mixed	59	.78	
Good	Single	18	1.06	
	Mixed	92	.44	
Gives orders	Single	10	2.32	
	Mixed	55	1.58	
Receives orders	Single	26	.80	
	Mixed	104	.40	
Liked	Single	14	2.11	
	Mixed	76	.70	
Helps others	Single	20	1.52	
	Mixed	90	.36	
Rich	Single	12	1.48	
	Mixed	49	.73	
Nice work conditions	Single	14	2.06	
	Mixed	65	1.02	
Job importance	Single	14	1.14	
	Mixed	77	.61	

*$p < .05$ (one-tailed test)

Table 12. F-tests Comparing Variances Around the Mean Attribute Ratings of Private Detectives by Subjects with Single vs. Mixed Sources of Information.

Attribute	Condition	N	Variance	F Value
Sex	Single	50	.44	
	Mixed	158	.36	
Intelligent	Single	16	1.60	
	Mixed	63	.65	
Good	Single	14	1.14	
	Mixed	52	.60	
Gives orders	Single	17	1.62	
	Mixed	66	1.19	
Receives orders	Single	33	.96	
	Mixed	87	.51	
Liked	Single	11	1.82	
	Mixed	30	1.68	
Helps others	Single	20	1.09	
	Mixed	55	.42	
Rich	Single	13	1.69	
	Mixed	40	1.28	
Nice work conditions	Single	14	1.87	
	Mixed	37	1.54	
Job importance	Single	21	1.05	
	Mixed	66	.57	

*$p < .05$ (one-tailed test)

Table 13, F-tests Comparing Variances Around the Mean Attribute Ratings of Paramedics by Subjects with Single vs. Mixed Sources of Information.

Attribute	Condition	N	Variance	F Value
Sex	Single	42	.37	
	Mixed	165	.37	
Intelligent	Single	21	.19	
	Mixed	92	.51	2.69*
Good	Single	27	.00	
	Mixed	108	.54	0.00*
Gives orders	Single	22	.35	
	Mixed	84	.85	2.46*
Receives orders	Single	25	.50	
	Mixed	87	.41	
Liked	Single	24	.17	
	Mixed	97	.53	3.21*
Helps others	Single	30	.00	
	Mixed	116	.21	0.00*
Rich	Single	14	1.08	
	Mixed	38	1.33	1.24
Nice work conditions	Single	13	.92	
	Mixed	50	1.47	1.59
Job importance	Single	30	.26	
	Mixed	121	.30	1.15

*$p < .05$ (one-tailed test)

Table 14. F-tests Comparing Variances Around the Mean Attribute Ratings of Truck Drivers by Subjects with Single vs. Mixed Sources of Information.

Attribute	Condition	N	Variance	F Value
Sex	Single	46	.35	
	Mixed	159	.31	
Intelligent	Single	16	1.07	
	Mixed	45	1.31	1.23
Good	Single	17	.72	
	Mixed	47	.69	
Gives orders	Single	27	.50	
	Mixed	80	.46	
Receives orders	Single	24	.41	
	Mixed	83	.94	2.32*
Liked	Single	10	1.95	
	Mixed	48	1.16	
Helps others	Single	13	.77	
	Mixed	52	.84	1.09
Rich	Single	16	.76	
	Mixed	67	.84	1.10
Nice work conditions	Single	19	.81	
	Mixed	80	.83	1.03
Job importance	Single	16	1.53	
	Mixed	52	.62	

*$p < .05$ (one-tailed test)

Table 15. F-tests Comparing Variances Around the Mean Attribute Ratings of Lawyers by Subjects with Single vs. Mixed Sources of Information.

Attribute	Condition	N	Variance	F Value
Sex	Single	42	.48	
	Mixed	167	.36	
Intelligent	Single	29	.14	
	Mixed	80	.48	3.51*
Good	Single	25	.16	
	Mixed	87	.69	4.32*
Gives orders	Single	27	.63	
	Mixed	68	.76	1.21
Receives orders	Single	30	.53	
	Mixed	88	.64	1.21
Liked	Single	14	.00	
	Mixed	53	1.00	0.00*
Helps others	Single	25	.00	
	Mixed	83	.28	0.00*
Rich	Single	14	.29	
	Mixed	75	.95	3.33*
Nice work conditions	Single	15	1.55	
	Mixed	61	1.05	
Job importance	Single	34	.00	
	Mixed	84	.28	0.00*

*$p < .05$ (one-tailed test)

means. The variances associated with mean attribute ratings for two occupations offer no support. Perceptions of nurses (Table 11) and private detectives (Table 12) are not more similar for respondents in the single source condition. For the other five occupations there is evidence of the hypothesized stereotyping effect.

Tests for homogeneity of variances are employed at this point.[4] F-values for the variances around the perceived "intelligence" and "rich" attributes are in the direction predicted for all five remaining occupations. Three of the "intelligence" and one of the "rich" variance ratios are statistically significant. Four of the five F-values for the "helps others" attribute were in the predicted direction; three are significant. Among the "good," "receives orders," "liked," "work conditions" and "job importance" attributes three of the five ratios are in the expected direction. Of these, statistical significance is achieved by all of the F-values for the "good" attribute, by two of the "liked" and two of the "job importance" F-values. Variances around the ratings along the final two attributes, "sex" and "gives orders," were as predicted in two cases each--one F-ratio in each instance is significant.

There is evidence of a stereotyping effect especially for the occupations paramedic and lawyer. Of the ten variance ratios associated with the work roles, eight are in the hypothesized direction. Five of the paramedic attribute

variances and six of the lawyer attribute variances are statistically significant. The remaining three occupations all have between five and seven variance ratios in the predicted direction; slightly less than half of these are significant.

That so many of the variance ratios are in the predicted direction is encouraging. This is especially the case here. Under most circumstances, one would expect the variances for the large sample to be smaller.[5] Extreme or deviant values have less effect on the standard error as sample size increases. In this analysis, it was predicted that variances would be smaller in the condition with decidedly fewer cases--a prediction clearly counter to what would normally be expected.

The findings reported here are encouraging, but not convincing. Hypothesis H_{11} is not uniformly supported. Children in the single source condition do tend to demonstrate greater homogeneity in terms of reduced variance about the mean, especially with the paired-comparison items. Caution is warranted, moreover, in suggesting that many of the unidimensional attribute findings are even tentatively supportive of the hypothesis. An unexpected "edge-effect" appears in the scaling of the unidimensional measures. In the single source condition several of the attributes have no variance (e.g., Table 15), the subjects clustered at the highest values allowed.

Tests of the final two hypotheses required a shift in units of analysis. Bivariate and conditional bivariate analyses were performed for the 200 plus cases.

The first research question at this level addressed the status conferral notion proposed by Lazarsfeld and Merton and later more narrowly defined by Lemert. Witnessing and learning about jobs through the "primary" source television was thought to carry with it an enhancement of the perceived importance of the occupational roles.

H_{12_a} The greater children's exposure to television programming emphasizing an occupational role, the greater the perceived relative importance of that occupation.

H_{12_b} Among children receiving proportionally more occupational information from television, the greater the exposure to television programming emphasizing an occupational role, the greater still the perceived relative importance of that occupation.

Measures of children's viewing of specific shows emphasizing occupational roles were correlated with their perceptions of how important were the media-emphasized roles. Measures of viewing behaviors were constructed concerning specific occupations as follows:

Police officer--weighted summed index of the programs "Police Woman," "Hawaii 5-0," "Kojak," "Adam 12" and "Ironsides."

Doctors--summed index of the programs "Emergency" and "Medical Center."

Nurses--summed index of the programs "Emergency" and "Medical Center."

Private detective--summed index of the programs "Rockford Files" and "Cannon."

Paramedics--measure of the program "Emergency."

Truck drivers--measure of the program "Movin' On."

Lawyers--measure of the program "Petrocelli."

Table 16. Zero-order Correlations Between Frequency of Viewing Television Programs Emphasizing Particular Occupational Roles and the Perceived Importance of the Occupations.

TV Programs Emphasizing:	N	Zero-Order 'r'
Police Officers	193	.06
Doctors	203	.01
Nurses	200	.09
Private Detectives	203	.09
Paramedics	204	.11
Truck Drivers	206	.06
Lawyers	202	.31*

*$p < .05$

Zero-order correlations (Table 16) between frequency of viewing television programs emphasizing particular occupational roles and the perceived importance of the occupations revealed no substantive findings. A single correlation was significant at the $p < .05$ level; the relationship between

viewing "Petrocelli" and the perceived importance of lawyers was +.31. Conditional, correlational analyses were further performed. Table 17 indicates that the correlations relating to the work role lawyer behaved as expected.

Table 17. Conditional Zero-Order Correlations Between Frequency of Viewing Television Programs Emphasizing Particular Occupational Roles and the Perceived Importance of the Occupation by Subjects in Single vs. Mixed Sources Conditions.

TV Programs Emphasizing:	Single Source	Mixed Sources
Police Officers	-.01 (n=102)	.14 (n=91)
Doctors	.06 (n=115)	-.07 (n=88)
Nurses	.05 (n=100)	.13 (n=100)
Private Detectives	.10 (n= 98)	.08 (n=105)
Paramedics	.04 (n=107	.19* (n= 97)
Truck Drivers	.07 (n=102)	.04 (n=104)
Lawyers	.38* (n=101)	.25* (n=101)

*$p < .05$

A test for differences between independent correlations, nonetheless, was not significant (z=1.102). Correlations for the single source and mixed sources conditions were

otherwise irregular. The correlation between frequency of viewing "Emergency" and perceived importance of paramedics in the mixed sources condition was +.19 and significant. These all but solitary findings were singularly unimpressive.

Mean "job importance" values for the seven occupations were examined for the total sample. "Importance" values, in principle, could range from one through five. The seven media-emphasized occupations were evaluated in the succeeding manner:

Occupation	Mean Importance Rating
Doctors	4.838
Police Officers	4.638
Paramedics	4.612
Lawyers	4.502
Nurses	4.353
Private Detectives	4.167
Truck Drivers	4.010

Such consistently high evaluations of media-emphasized roles are noteworthy. Returning to Figure 2, it can be seen how six of the media-emphasized roles cluster as compared to the remaining occupations. These consistently high evaluations of the seven work roles were most likely instrumental, in part, in producing the small, nonsignificant relationships found in Tables 16 and 17. Notwithstanding, this provides no clear evidence for the hypothesized status conferral effect.

A final set of hypotheses similarly concerned children's perceptions of the work world at the individual level. Arguments were made to demonstrate the relative isolation of many children from work environments. It was additionally

proposed that due to this isolation it was difficult for children to gain accurate information about the distribution of work roles. Children's images of what proportion of the population had a particular job were thought to be distorted by viewing repeatedly portrayed work roles in television.

H_{13_a} The greater children's exposure to repeatedly emphasized occupational roles on television, the greater the perceived number of persons thought to have the occupations.

The same line of reasoning was carried a step further to deal with the perceived occupations held by women.

H_{13_b} The greater children's exposure to occupational roles held by women on television, the greater the perceived number of women thought to have the occupation.

The three most heavily emphasized occupational roles were focused on initially. Three nonstandard work roles for women were then examined. In the total sample the average perceived number of work role holders broke down in this manner: Out of every 25 people an average of 5.428 were thought to be police officers, 4.598 were thought to be doctors, and 4.703 were thought to be nurses. Out of every 25 police officers 5.952 were thought to be women. Out of every 25 paramedics 4.454 were thought to be women. Out of every 25 lawyers 5.556 were thought to be women.

Given the complexity of asking children's estimates of how many people have particular jobs, a reliability check was included in the data collection. The measures of

internal consistency ranged from "r" equals +.35 to "r" equals +.60. The average correlation was +.47. Resulting significant correlations were corrected for attenuation to gain better estimates of the relationship sizes in the population.

Table 18. Zero-order Correlations Between Frequency of Viewing Television Programs Showing Repeatedly Emphasized Occupational Roles and the Perceived Number of Persons Having the Occupations.

TV Programs Emphasizing:	N	Zero-Order 'r'
Police Officers	191	.17* [.22][a]
Doctors	202	.26* [.38]
Nurses	202	.23* [.33]

*$p < .05$

[a]The values in brackets are the zero-order correlations corrected for attenuation.

Zero-order correlational tests (Table 18) with job specific viewing indices provided significant relationships between watching relevant TV shows and perceptions of how many people have the portrayed occupations. After correcting for unreliability, the correlations were +.22 for the occupation police officer, +.38 for doctor and +.33 for nurse. Attention turned next to conditional analyses contrasting children with primarily television versus television plus

Table 19. Conditional Zero-order Correlations Between Frequency of Viewing Television Programs Showing Repeatedly Emphasized Occupational Roles and the Perceived Number of Persons Having the Occupations by Subjects in Single vs. Mixed Sources Conditions.

TV Programs Emphasizing:	Single Source	Mixed Sources
Police Officers	.32* [.41][a] (n=101)	-.03 (n= 90)
Doctors	.19* [.27] (n=114)	.34* [.49] (n= 88)
Nurses	.22* [.31] (n=101)	.25* [.36] (n=101)

*$p < .05$

[a]The values in brackets are the zero-order correlations corrected for attenuation.

outside sources of information. Among children receiving their information from single vs. mixed sources (Table 19), the difference between the uncorrected independent correlations concerning police officers is statistically significant (z=2.458). There is reason to believe, in other words, that with respect to the occupation police officer the relationship between viewing behaviors and perceptions of numbers of role holders is greater if the children have limited outside information about the role. Differences between the conditional correlations relating to doctors and nurses are not significant. Thus Hypothesis H_{13_a} is

endorsed by these empirical results. The prediction that children's occupational distribution images will especially be influenced in single source conditions (H_{13_c}) does not receive uniform support.

Table 20. Zero-order Correlations Between Frequency of Viewing Television Programs Showing Females in Non-Standard Occupational Roles and the Perceived Number of Females Having the Occupations.

TV Programs Showing Females as:	N	Zero-Order 'r'
Police Officer	202	.20* [.29][a]
Paramedic	203	.17* [.29]
Lawyer	198	.20* [.31]

*$p < .05$

[a]The values in brackets are the zero-order correlations corrected for attentuation.

Table 20 contains the zero-order correlations between the frequencies of viewing television programs portraying females in nonstandard work roles (i.e., "Police Woman," "Emergency" and "Kate McShane") and the perceived numbers of females having the occupations. The relationships are small, still they are consistent and significant. Corrected correlations hover around +.30 for viewing measures and perceptions of how many women have these jobs.

Table 21. Conditional Zero-order Correlations Between Frequency of Viewing Television Programs Showing Females in Non-Standard Occupational Roles and the Perceived Number of Females Having the Occupations by Subjects in Single vs. Mixed Sources Conditions.

TV Programs Showing Females as:	Single Source	Mixed Sources
Police Officer	.33* [.48] (n=105)	.05 (n= 97)
Paramedic	.19* [.32] (n=106)	.17* [.29] (n= 97)
Lawyer	.35* [.54] (n= 99)	.01 (n= 99)

*$p < .05$

[a]The values in brackets are the zero-order correlations corrected for attenuation.

Conditional analyses found in Table 21 show substantial, significant differences between children in the contrasting source conditions. Children's perceptions of the number of women police officers and the number of women lawyers are dependent upon the availability of secondary sources of information. Differences between the conditional Pearson r's are significant for children's perceptions of how many police officers (z=2.049) and lawyers (z=2.472) are females. Relatively speaking then, there is no relationship between TV viewing and perceptions of how many women have the two work roles if children have sources of information other than

television.

These data sustain Hypothesis H_{13_b}. Children's perceptions of the number of women in nonstandard roles are related to their television viewing behvaviors. Examining respondents in single source and mixed sources conditions (Tables 19 and 21), there are statistically significant differences between the correlations related to two occupations --police officer and lawyer. Hypothesis H_{13_c} receives appreciable though not total support from these findings.

Summary

This discussion has detailed the empirical findings relevant to hypotheses derived in Chapter I. The first nine hypotheses were tested using multiple regression analyses. Seven of the nine predictions were confirmed. Multiple correlations for two attributes, "sex" and "gives orders," fail to reach .05 levels of significance using the conservative estimate of eight degrees of freedom. Children appear to use the attributes relating to intelligence, goodness, who receives orders, popularity, helpfulness, wealth, work conditions and job importance in their perceptions of occupational roles. No systematic differences were found in the perceptions by subgroups.

Tests for homogeneity of occupational images for media-emphasized occupations were conducted. Mean perceptions by males-females, lower-upper SES children were compared. Contrary to expectation, there was greater similarity in the

images held by children with more diverse as opposed to less diverse information sources. The differences between conditions were not great; the directions of the findings were, however, counter to the hypotheses.

The homogeneity of variances around mean perceptions was examined next. Comparisons of the average variances for the paired-comparison measures, with one exception, appear in the manner predicted. By these measures, persons receiving a proportionally large part of their information from a primary information source tend to have more stereotypic views than persons with secondary or a mix of primary and secondary information sources. F-tests of variances around means of attributes associated with occupational roles provide less consistent results. Children in the single as opposed to the mixed sources condition do not uniformly have more stereotypic views.

The hypothesis of a status conferral effect traceable to the primary source television was not sustained.

Hypotheses of television influencing perceptions of occupation distributions were supported. Conditional analyses further demonstrated partial support for the predictions that the effect would be greatest where secondary information is relatively absent.

Notes

1. As noted by Rosenberg and Sedlak (1972:245), "the orthogonal axes in a multidimensional solution do not necessarily correspond to meaningful psychological dimensions; the location of these orthogonal axes is typically arbitrary and serves simply as a convenient way to describe the output configuration." These axes, however, can be used to establish the degree that a trait or attribute is related to the configuration. The square-root of the summed, squared zero-order correlations between the individual occupation's attribute ratings and the corresponding dimension loadings is the multiple correlation. This multiple R can be used as an indicator of the attribute's presence in the space.

2. This correction is to counter the upward bias of the multiple R due to, among other things, the ratio of the number of predictor variables to the sample size. Thiel (1971:178) provides the following formula which was used to correct the multiple correlation appearing in the SPSS output.

$$\text{Adjusted } R^2 = R^2 - (k - 1/N - k)\ (1 - R^2)$$

N = number of cases (15)
k = number of predictor variables (6)

3. By removing the uncertain cases for each measure, spurious findings of a clustering effect were avoided. This move, unfortunately, also reduced cell sizes considerably.

4. The F-test for homogeneity of variances is normally a two-tailed test, where an F ratio is determined by placing the larger variance estimate over the smaller. In this study, a prediction was made calling for the variance estimate of the larger sample (mixed condition) to be smaller. Thus a one-tailed test will be used in interpreting those ratios appearing in the predicted direction.

5. See Blalock (1972) for greater discussion about sampling distributions.

CHAPTER V

DISCUSSION

This final chapter has two parts. A beginning portion is devoted to an examination of the major empirical findings. Following this, the focus shifts to a re-examination of the strengths and weaknesses of the underlying theoretic position. It is here that suggestions for future research are tendered.

Perceived Occupational Attributes

An integral step to the study of occupational perceptions is found in the identification of attributes consituting work role images. Ten attributes were hypothesized as contributing to occupational images held by children and adolescents. Eight of the attributes, indicated by significant multiple correlations, were as predicted in six-dimension space analyses. All ten attributes would be confirmed by a five-dimension space analysis--the recovery of one degree of freedom is the critical factor.

Examination of the spatial arrays of male, female, lower and upper socioeconomic status children reveals no consistent patterns. Though previous research suggests that male children more often note the sex appropriateness of roles, there was no apparent difference in this study. One interpretation

of this is that the males and females in this sample are equally sensitized to sex-roles. Could it be that the recent "liberation" movements are having an effect on children's occupational views? Are females at an early age now becoming more aware of sex roles, or is it that males are now assigning less importance to sex-role differences? Either explanation has merit.

No differences were found with respect to the importance of the authority and material benefits attributes for lower versus upper SES children. This, too, is counter to expectation. A possible source of this aberration rests in the sample. Possibly major social and economic differences are minimally present. Extreme opulence and destitution were not apparent in this community. Furthermore, it is hard to gain detailed information about most subjects' SES standing. With children a researcher has the added complexity of respondents actually not knowing much about their parents' jobs and incomes. The scales used to measure affluence were highly reliable (r's > +.90). Possibly lower-upper quartile analyses of the scales would yield different results. Such comparisons are not made in this study, as lower-upper quartiles when further divided into information source conditions would reduce cell sizes below desirable levels.

Cultural Homogenization

A central concern of this study rests on the effects of primary sources on aggregate perceptions of social roles.

Numerous scholars have indicated that one function of mass communication involves the transmission of a common social heritage. Drawing upon this notion, hypotheses were tested which compared the homogeneity of mean occupational images between subgroups in single and mixed information sources conditions. Contrary to hypotheses, subgroups receiving a proportionally larger amount of information from a shared, primary source were less homogeneous than subgroups reporting primary and secondary information sources.

These findings are at once puzzling and damaging. Why should there be greater differences in the aggregate occupational images of people who indicate sharing a common information source? The effectiveness of this information source is called into question.

Post hoc explanations of these findings can be found in several arenas. Two such interpretations are noted at this time. Shibutani (1965) has discussed the processes of belief formation. Among other things, Shibutani proposes that the clear definition of a social situation comes from reality testing. Uncertainty typically exists when a comparative function is not allowed, regardless of the original information source. Children in the single source condition indicated appreciably less discussion about and direct contact with the media-emphasized roles, hence little opportunity for testing their ideas.

Closely paralleling Shibutani's idea is a discussion by Woelfel (1976). Woelfel calls attention to the "error" that emerges in "low feedback systems" such as the mass media. Respondents with mixed sources of information reported media viewing to some extent, but they also indicated contact with and interpersonal communication about the work roles (a high feedback situation). It is possible that the respondents had sufficiently integrated interpersonal communication networks in the mixed condition to allow corrections in perceptual errors. Neither of these post hoc hypotheses can be tested with this data set; both lines of research potentially have explanatory value, however.

Stereotypes

The hypothesis of a stereotyping effect receives extremely mixed and inconclusive support. Variances around paired-comparison estimates appear largely as expected, though the differences are not great. Tests for homogeneity of occupational ratings on attribute scales are inconclusive. Variances around mean perceptions of nurses are not as predicted with the unidimensional attribute scales. Moreover, standard errors associated with the role private detective are not in the expected direction using either empirical measure.

Hypotheses tested here do not deal directly with the stereotyping of particular occupations or stereotyping with regard to a particular attribute. The theoretic position advanced in Chapter I is cast at a higher level of

abstraction in hopes of allowing generalizations. Notwithstanding this, the completely unexpected results related to nurses and private detectives deserve comment.

An underlying assumption of this study has been that there are basic differences and inequities in the secondary information held by respondents. If nothing else, individuals were thought to have different role models to observe. In the case of nurses this may not be a tenable assumption. The students in the Grand Ledge sample do share a common school nurse. It would be valuable to know the extent to which subjects reporting contact with nurses and discussions about nurses were in fact indicating contact with and communication about the school nurse. There is no way of determining this here, but if it is the case, the small variances in attribute perceptions in the mixed condition are explicable.

Variances around the ratings of the private detective role are another matter. There is no obvious explanation except possibly that no real differences between single and mixed conditions exist in terms of secondary information. The role is unique from all the others, as more than sixty percent of respondents claim to "never" talk about private detectives, and more than sixty-six percent report "never" seeing a private detective. Five-point scales were used to measure levels of exposure to non-media information. Eighty-seven percent of all respondents score "2" or less on the direct contact scale; ninety-three percent score two or less

on the interpersonal discussion scale. These subjects, therefore, could not be greatly differentiated in terms of their secondary information about private detectives.

Aside from these two matters, any future research of this hypothesized effect ought to be conducted with more precise, and ideally unbounded, scales. The "edge effects" encountered in the attribute scales for several occupations make data interpretations difficult and necessarily indeterminate.

Status Conferral

These results are in such agreement that further discussion is very nearly superfluous. There is virtually no evidence to sustain this hypothesis. Figure 2 demonstrates the unusual clustering of the media-emphasized occupations along the "job importance" attribute. The seven occupations all rate above four on a five-point scale. No support, however, is found for the prediction that frequency of TV viewing correlates with perceived importance of media occupations. Results show the seven media-emphasized occupations to be generally perceived as important irrespective of television viewing behavior.

Perceived Role Distributions

Consistent, though small, positive correlations exist between watching an occupation on television and perceptions of how many people have the particular job. Having access

to secondary information does not appreciably affect, in any consistent manner, these perceptions of repeatedly emphasized roles. Differences between conditional zero-order correlations relating to portrayals of women in nonstandard occupations are somewhat of an exception. Secondary information about police officers and lawyers seems to discount any effect of seeing women in the roles on television.

Some might argue that this latter finding again demonstrates the effects of reality testing. That the effect does not also occur for female paramedics suggests additional complexity that is not understood. No other unusual, systematic differences appear with regard to primary and secondary information about paramedics.

Conclusions and Suggestions

The implications of these findings are considerable, especially for theories and research related to social learning from primary information sources. Governmental and education institutions, plus commercial information and some entertainment enterprises, attempt to guide, teach and provoke awareness in mass audiences. With societies growing ever larger there is good reason to believe that such efforts will continue. Communication researchers will no doubt be called on more and more to assist in these activities.

Popular notions about the ability of undifferentiated messages to inform and coalesce mass societal units are unsubstantiated by the empirical results of this study.

Primary information sources, by themselves, appear to be inadequate for increasing cultural homogenization. Males-females and lower-upper SES subjects were more dissimilar in their role perceptions where a primary source was predominant. But why are there systematic differences between these subgroups when television is the primary source?[1] Is there in fact systematic "slippage" in the transmission of culture within subgroups owing to their use of primary information sources? These two questions are ripe for future inquiry.

Stereotyping as a function of primary vs. a mix of primary and secondary information receives enough support here to justify additional research with more precise scaling and hopefully more equal cell sizes. In particular, the measurement of standard error around concepts in multidimensional spaces remains a challenge. This study averaged the variances of all paired-comparison items for each concept. This is too crude. The variance for <u>each</u> concept should ideally be ascertained along <u>each</u> dimension in the space. The solving of this methodological problem is needed.

The systematic relationships found between exposure to specific media messages and perceptions of the distribution of occupational roles are intriguing. Investigators of this aspect of social role imagery would do well to seek additional antecedent variables that contribute to the dependent phenomenon. The variance accounted for is still quite small.

Equally important, an additional step needs to be taken to link the dependent variable to subjects' expectations for themselves and their friends. This is especially true for the portrayals of females and males in nonstandard roles. As mentioned in Chapter I, several researchers have begun to address this topic. A next move is thus found in carefully relating this research to the literature on "role definers" and "role models."[2]

Notes

1. Woelfel (1976:69) proposes that "these errors are not systematic . . . but are more or less random."

2. Appearing under the rubric of "reference groups," and "significant others" there is a large body of literature discussing how individuals learn "subject-object" relationships with reference to themselves. To this can be added the research by Bandura and others on "observational learning."

APPENDIX A

Survey Questions

What is your name?_____

What is your sex? (Check one) _____Girl _____Boy

How old are you?_____

What month is your birthday in? (Check one)

___January	___July
___February	___August
___March	___September
___April	___October
___May	___November
___June	___December

What grade are you in?_____

Today we want to know what you think about several jobs and your ideas about the people that have these jobs. This is not a test, there are no wrong answers. We want to know what you think. Please work quickly and try to answer all the questions. If there is any question that you object to, leave it blank.

The first group of questions ask you to think about two jobs and then decide if the two jobs are "alike" or "different." Read the following questions and put an X on the line above what you think. Here is an example:

What do you think about Paramedics and Ambulance Drivers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

1. What do you think about Police Officers and Private Detectives? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

2. What do you think about Lawyers and Paramedics? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

3. What do you think about Doctors and Private Detectives? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

4. What do you think about yourself and Police Officers? Are you:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

5. What do you think about Nurses and Paramedics? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

6. What do you think about yourself and Lawyers? Are you:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

7. What do you think about Doctors and Truck Drivers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

8. What do you think about Police Officers and Lawyers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

9. What do you think about Nurses and Private Detectives? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

10. What do you think about yourself and Paramedics? Are you

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

11. What do you think about Police Officers and Nurses? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

12. What do you think about Private Detectives and Paramedics? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

13. What do you think about yourself and Truck Drivers? Are you:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

14. What do you think about Lawyers and Truck Drivers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

15. What do you think about Doctors and Nurses? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

16. What do you think about Nurses and Lawyers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

17. What do you think about Private Detectives and Truck Drivers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

18. What do you think about Doctors and Paramedics? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

19. What do you think about yourself and Private Detectives? Are you:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

20. What do you think about Police Officers and Doctors? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

21. What do you think about Paramedics and Truck Drivers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

22. What do you think about Doctors and Lawyers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

23. What do you think about Police Officers and Truck Drivers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

24. What do you think about yourself and Nurses? Are you:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

25. What do you think about Nurses and Truck Drivers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

26. What do you think about Private Detectives and Lawyers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

27. What do you think about Police Officers and Paramedics? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

28. What do you think about yourself and Doctors? Are you:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

29. What do you think about Mail Carriers and Bankers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

30. What do you think about Housewives and Teachers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

31. What do you think about Doctors and Mail Carriers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

32. What do you think about Housewives and Secretaries? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

33. What do you think about Paramedics and Bankers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

34. What do you think about Teachers and Janitors? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

35. What do you think about Private Detectives and Bankers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

36. What do you think about Paramedics and Mail Carriers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

37. What do you think about Teachers and Doctors? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

38. What do you think about yourself and Teachers? Are you:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

39. What do you think about Housewives and Truck Drivers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

40. What do you think about Lawyers and Mail Carriers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

41. What do you think about Housewives and Mechanics? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

42. What do you think about Teachers and Factory Workers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

43. What do you think about Nurses and Bankers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

44. What do you think about Housewives and Private Detectives? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

45. What do you think about Truck Drivers and Mail Carriers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

46. What do you think about Teachers and Private Detectives? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

47. What do you think about Teachers and Mail Carriers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

48. What do you think about yourself and Housewives? Are you:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

49. What do you think about Teachers and Bankers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

50. What do you think about Housewives and Janitors? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

51. What do you think about Police Officers and Mail Carriers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

52. What do you think about Housewives and Doctors? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

53. What do you think about Teachers and Nurses? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

54. What do you think about Teachers and Truck Drivers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

55. What do you think about Police Officers and Teachers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

56. What do you think about Housewives and Bankers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

57. What do you think about Teachers and Paramedics? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

58. What do you think about Housewives and Factory Workers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

59. What do you think about Teachers and Lawyers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

60. What do you think about Housewives and Paramedics? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

61. What do you think about Police Officers and Housewives? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

62. What do you think about Lawyers and Bankers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

63. What do you think about Teachers and Mechanics? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

64. What do you think about Housewives and Nurses? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

65. What do you think about yourself and Bankers? Are you:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

66. What do you think about Private Detectives and Mail Carriers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

67. What do you think about Doctors and Bankers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

68. What do you think about Truck Drivers and Bankers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

69. What do you think about Housewives and Mail Carriers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

70. What do you think about Teachers and Secretaries? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

71. What do you think about Police Officers and Bankers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

72. What do you think about Housewives and Lawyers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

73. What do you think about Nurses and Mail Carriers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

74. What do you think about yourself and Mail Carriers? Are you:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

75. What do you think about Police Officers and Private Detectives? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

76. What do you think about Lawyers and Paramedics? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

77. What do you think about Doctors and Private Detectives? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

29. What do you think about Janitors and Bankers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

30. What do you think about Private Detectives and Mechancis? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

31. What do you think about Lawyers and Factory Workers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

32. What do you think about Secretaries and Bankers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

33. What do you think about Doctors and Janitors? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

34. What do you think about Lawyers and Secretaries? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

35. What do you think about Nurses and Factory Workers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

36. What do you think about Police Officers and Secretaries? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

37. What do you think about Paramedics and Janitors? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

38. What do you think about Lawyers and Mechanics? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

39. What do you think about yourself and Secretaries? Are you:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

40. What do you think about Mechanics and Bankers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

41. What do you think about Truck Drivers and Secretaries? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

42. What do you think about Secretaries and Mail Carriers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

43. What do you think about Truck Drivers and Factory Workers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

44. What do you think about Police Officers and Mechanics? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

45. What do you think about yourself and Janitors? Are you:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

46. What do you think about Janitors and Mail Carriers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

47. What do you think about Doctors and Factory Workers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

48. What do you think about Paramedics and Secretaries? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

49. What do you think about Mechancis and Mail Carriers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

50. What do you think about Secretaries and Janitors? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

51. What do you think about Mail Carriers and Factory Workers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

52. What do you think about yourself and Mechanics? Are you:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

53. What do you think about Secretaries and Mechanics? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

54. What do you think about Truck Drivers and Janitors? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

55. What do you think about Nurses and Janitors? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

56. What do you think about Ruck Drivers and Mechanics? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

57. What do you think about Doctors and Secretaries? Are the:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

58. What do you think about yourself and Factory Workers? Are you:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

59. What do you think about Nurses and Secretaries? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

60. What do you think about Janitors and Mechanics? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

61. What do you think about Bankers and Factory Workers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

62. What do you think about Doctors and Mechancis? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

63. What do you think about Private Detectives and Janitors? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

64. What do you think about Paramedics and Factory Workers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

65. What do you think about Private Detectives and Secretaries? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

66. What do you think about Secretaries and Factory Workers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

67. What do you think about Paramedics and Mechanics? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

68. What do you think about Police Officers and Factory Workers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

69. What do you think about Nurses and Mechanics? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

70. What do you think about Private Detectives and Factory Workers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

71. What do you think about Mechanics and Factory Workers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

72. What do you think about Lawyers and Janitors? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

73. What do you think about Police Officers and Janitors? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

74. What do you think about Janitors and Factory Workers? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

75. What do you think about Police Officers and Private Detectives? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

76. What do you think about Lawyers and Paramedics? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

77. What do you think about Doctors and Private Detectives? Are they:

completely alike	very much alike	alike	I'm not sure	different	very different	completely different

Circle your answer

1. How often do police officers tell other people what to do?

very often	often	I'm not sure	not very often	not often at all

2. How nice are the places where police officers work?

very nice	nice	I'm not sure	not very nice	not nice at all

3. How important are police officers?

very important	important	I'm not sure	not very important	not important at all

4. Are police officers

always men	usually men	men and women	usually women	always women

5. How much do other people like police officers?

a lot	a little	I'm not sure	not very much	not at all

6. How often do other people tell police officers what to do?

very often	often	I'm not sure	not very often	not often at all

7. How helpful are police officers to other people?

very helpful	helpful	I'm not sure	not very helpful	not helpful at all

8. How intelligent are police officers?

very intelligent	intelligent	I'm not sure	not very intelligent	not intelligent at all

9. How good are police officers?

very good	good	I'm not sure	not very good	not good at all

10. How rich are police officers?

very rich	rich	I'm not sure	not very rich	not rich at all

Circle your answer

1. How often do doctors tell other people what to do?

very often	often	I'm not sure	not very often	not often at all

2. How nice are the places where doctors work?

very nice	nice	I'm not sure	not very nice	not nice at all

3. How important are doctors?

very important	important	I'm not sure	not very important	not important at all

4. Are doctors

always men	usually men	men and women	usually women	always women

5. How much do other people like doctors?

a lot	a little	I'm not sure	not very much	not at all

6. How often do other people tell doctors what to do?

very often	often	I'm not sure	not very often	not often at all

7. How helpful are doctors to other people?

very helpful	helpful	I'm not sure	not very helpful	not helpful at all

8. How intelligent are doctors?

very intelligent	intelligent	I'm not sure	not very intelligent	not intelligent at all

9. How good are doctors?

very good	good	I'm not sure	not very good	not good at all

10. How rich are doctors?

very rich	rich	I'm not sure	not very rich	not rich at all

Circle your answer

1. How often do nurses tell other people what to do?

very often	often	I'm not sure	not very often	not often at all

2. How nice are the places where nurses work?

very nice	nice	I'm not sure	not very nice	not nice at all

3. How important are nurses?

very important	important	I'm not sure	not very important	not important at all

4. Are nurses

always men	usually men	men and women	usually women	always women

5. How much do other people like nurses?

a lot	a little	I'm not sure	not very often	not at all

6. How often do other people tell nurses what to do?

very often	often	I'm not sure	not very often	not often at all

7. How helpful are nurses to other people?

very helpful	helpful	I'm not sure	not very helpful	not helpful at all

8. How intelligent are nurses?

very intelligent	intelligent	I'm not sure	not very intelligent	not intelligent at all

9. How good are nurses?

very good	good	I'm not sure	not very good	not good at all

10. How rich are nurses?

very rich	rich	I'm not sure	not very rich	not rich at all

Circle your answer

1. How often do private detectives tell other people what to do?

very often	often	I'm not sure	not very often	not often at all

2. How nice are the places where private detectives work?

very nice	nice	I'm not sure	not very nice	not nice at all

3. How important are private detectives?

very important	important	I'm not sure	not very important	not important at all

4. Are private detectives

always men	usually men	men and women	usually women	always women

5. How much do other people like private detectives?

a lot	a little	I'm not sure	not very much	not at all

6. How often do other people tell private detectives what to do?

very often	often	I'm not sure	not very often	not often at all

7. How helpful are private detectives to other people?

very helpful	helpful	I'm not sure	not very helpful	not helpful at all

8. How intelligent are private detectives?

very intelligent	intelligent	I'm not sure	not very intelligent	not intelligent at all

9. How good are private detectives?

very good	good	I'm not sure	not very good	not good at all

10. How rich are private detectives?

very rich	rich	I'm not sure	not very rich	not rich at all

Circle your answer

1. How often do paramedics tell other people what to do?

very often	often	I'm not sure	not very often	not often at all

2. How nice are the places where paramedics work?

very nice	nice	I'm not sure	not very nice	not nice at all

3. How important are paramedics?

very important	important	I'm not sure	not very important	not important at all

4. Are paramedics

always men	usually men	men and women	usually women	always women

5. How much do other people like paramedics?

a lot	a little	I'm not sure	not very much	not at all

6. How often do other people tell paramedics what to do?

very often	often	I'm not sure	not very often	not often at all

7. How helpful are paramedics to other people?

very helpful	helpful	I'm not sure	not very helpful	not helpful at all

8. How intelligent are paramedics?

very intelligent	intelligent	I'm not sure	not very intelligent	not intelligent at all

9. How good are paramedics?

very good	good	I'm not sure	not very good	not good at all

10. How rich are paramedics?

very rich	rich	I'm not sure	not very rich	not rich at all

Circle your answer

1. How often do truck drivers tell other people what to do?

very often	often	I'm not sure	not very often	not often at all

2. How nice are the places where truck drivers work?

very nice	nice	I'm not sure	not very nice	not nice at all

3. How important are truck drivers?

very important	important	I'm not sure	not very important	not important at all

4. Are truck drivers

always men	usually men	men and women	usually women	always women

5. How much do other people like truck drivers?

a lot	a little	I'm not sure	not very much	not at all

6. How often do other people tell truck drivers what to do?

very often	often	I'm not sure	not very often	not often at all

7. How helpful are truck drivers to other people?

very helpful	helpful	I'm not sure	not very helpful	not helpful at all

8. How intelligent are truck drivers?

very intelligent	intelligent	I'm not not sure	not very intelligent	not intelligent at all

9. How good are truck drivers?

very good	good	I'm not sure	not very good	not good at all

10. How rich are truck drivers?

very rich	rich	I'm not sure	not very rich	not rich at all

Circle your answer

1. How often do lawyers tell other people what to do?

very often	often	I'm not sure	not very often	not often at all

2. How nice are the places where lawyers work?

very nice	nice	I'm not sure	not very nice	not nice at all

3. How important are lawyers?

very important	important	I'm not sure	not very important	not important at all

4. Are lawyers

always men	usually men	men and women	usually women	always women

5. How much do other people like lawyers?

a lot	a little	I'm not sure	not very much	not at all

6. How often do other people tell lawyers what to do?

very often	often	I'm not sure	not very often	not often at all

7. How helpful are lawyers to other people?

very helpful	helpful	I'm not sure	not very helpful	not helpful at all

8. How intelligent are lawyers?

very intelligent	intelligent	I'm not sure	not very intelligent	not intelligent at all

9. How good are lawyers?

very good	good	I'm not sure	not very good	not good at all

10. How rich are lawyers?

very rich	rich	I'm not sure	not very rich	not rich at all

Circle your answer

1. How often do housewives tell other people what to do?

very often	often	I'm not sure	not very often	not often at all

2. How nice are the places where housewives work?

very nice	nice	I'm not sure	not very nice	not nice at all

3. How important are housewives?

very important	important	I'm not sure	not very important	not important at all

4. Are housewives

always men	usually men	men and women	usually women	always women

5. How much do other people like housewives?

a lot	a little	I'm not sure	not very much	not at all

6. How often do other people tell housewives what to do?

very often	often	I'm not sure	not very often	not often at all

7. How helpful are housewives to other people?

very helpful	helpful	I'm not sure	not very helpful	not helpful at all

8. How intelligent are housewives?

very intelligent	intelligent	I'm not sure	not very intelligent	not intelligent at all

9. How good are housewives?

very good	good	I'm not sure	not very good	not good at all

10. How rich are housewives?

very rich	rich	I'm not sure	not very rich	not rich at all

Circle your answer

1. How often do teachers tell other people what to do?

very often	often	I'm not sure	not very often	not often at all

2. How nice are the places where teachers work?

very nice	nice	I'm not sure	not very nice	not nice at all

3. How important are teachers?

very important	important	I'm not sure	not very important	not important at all

4. Are teachers

always men	usually men	men and women	usually women	always women

5. How much do other people like teachers?

a lot	a little	I'm not sure	not very much	not at all

6. How often do other people tell teachers what to do?

very often	often	I'm not sure	not very often	not often at all

7. How helpful are teachers to other people?

very helpful	helpful	I'm not sure	not very helpful	not helpful at all

8. How intelligent are teachers?

very intelligent	intelligent	I'm not sure	not very intelligent	not intelligent at all

9. How good are teachers?

very good	good	I'm not sure	not very good	not good at all

10. How rich are teachers?

very rich	rich	I'm not sure	not very rich	not rich at all

Circle your answer

1. How often do bankers tell other people what to do?

very often	often	I'm not sure	not very often	not often at all

2. How nice are the places where bankers work?

very nice	nice	I'm not sure	not very nice	not nice at all

3. How important are bankers?

very important	important	I'm not sure	not very important	not important at all

4. Are bankers

always men	usually men	men and women	usually women	always women

5. How much do other people like bankers?

a lot	a little	I'm not sure	not very much	not at all

6. How often do other people tell bankers what to do?

very often	often	I'm not sure	not very often	not often at all

7. How helpful are bankers to other people?

very helpful	helpful	I'm not sure	not very helpful	not helpful at all

8. How intelligent are bankers?

very intelligent	intelligent	I'm not sure	not very intelligent	not intelligent at all

9. How good are bankers?

very good	good	I'm not sure	not very good	not good at all

10. How rich are bankers?

very rich	rich	I'm not sure	not very rich	not rich at all

Circle your answer

1. How often do mail carriers tell other people what to do?

very often	often	I'm not sure	not very often	not often at all

2. How nice are the places where mail carriers work?

very nice	nice	I'm not sure	not very nice	not nice at all

3. How important are mail carriers?

very important	important	I'm not sure	not very important	not important at all

4. Are mail carriers

always men	usually men	men and women	usually women	always women

5. How much do other people like mail carriers?

a lot	a little	I'm not sure	not very much	not at all

6. How often do other people tell mail carriers what to do?

very often	often	I'm not sure	not very often	not often at all

7. How helpful are mail carriers to other people?

very helpful	helpful	I'm not sure	not very helpful	not helpful at all

8. How intelligent are mail carriers?

very intelligent	intelligent	I'm not sure	not very intelligent	not intelligent at all

9. How good are mail carriers?

very good	good	I'm not sure	not very good	not good at all

10. How rich are mail carriers?

very rich	rich	I'm not sure	not very rich	not rich at all

Circle your answer

1. How often do secretaries tell other people what to do?

very often	often	I'm not sure	not very often	not often at all

2. How nice are the places where secretaries work?

very nice	nice	I'm not sure	not very nice	not nice at all

3. How important are secretaries?

very important	important	I'm not sure	not very important	not important at all

4. Are secretaries

always men	usually men	men and women	usually women	always women

5. How much do other people like secretaries?

a lot	a little	I'm not sure	not very much	not at all

6. How often do other people tell secretaries what to do?

very often	often	I'm not sure	not very often	not often at all

7. How helpful are secretaries to other people?

very helpful	helpful	I'm not sure	not very helpful	not helpful at all

8. How intelligent are secretaries?

very intelligent	intelligent	I'm not sure	not very intelligent	not intelligent at all

9. How good are secretaries?

very good	good	I'm not sure	not very good	not good at all

10. How rich are secretaries?

very rich	rich	I'm not sure	not very rich	not rich at all

Circle your answer

1. How often do janitors tell other people what to do?

very often	often	I'm not sure	not very often	not often at all

2. How nice are the places where janitors work?

very nice	nice	I'm not sure	not very nice	not nice at all

3. How important are janitors?

very important	important	I'm not sure	not very important	not important at all

4. Are janitors

always men	ususally men	men and women	usually women	always women

5. How much do other people like janitors?

a lot	a little	I'm not sure	not very much	not at all

6. How often do other people tell janitors what to do?

very often	often	I'm not sure	not very often	not often at all

7. How helpful are janitors to other people?

very helpful	helpful	I'm not sure	not very helpful	not helpful at all

8. How intelligent are janitors?

very intelligent	intelligent	I'm not sure	not very intelligent	not intelligent at all

9. How good are janitors?

very good	good	I'm not sure	not very good	not good at all

10. How rich are janitors?

very rich	rich	I'm not sure	not very rich	not rich at all

Circle your answer

1. How often do mechanics tell other people what to do?

very often	often	I'm not sure	not very often	not often at all

2. How nice are the places where mechanics work?

very nice	nice	I'm not sure	not very nice	not nice at all

3. How important are mechanics?

very important	important	I'm not sure	not very important	not important at all

4. Are mechanics

always men	usually men	men and women	usually women	always women

5. How much do other people like mechanics?

a lot	a little	I'm not sure	not very often	not at all

6. How often do other people tell mechanics what to do?

very often	often	I'm not sure	not very often	not often at all

7. How helpful are mechanics to other people?

very helpful	helpful	I'm not sure	not very helpful	not helpful at all

8. How intelligent are mechancis?

very intelligent	intelligent	I'm not sure	not very intelligent	not intelligent at all

9. How good are mechanics?

very good	good	I'm not sure	not very good	not good at all

10. How rich are mechanics?

very rich	rich	I'm not sure	not very rich	not rich at all

Circle your answer

1. How often do factory workers tell other people what to do?

Very often	often	I'm not sure	not very often	not often at all

2. How nice are the places where factory workers work?

very nice	nice	I'm not sure	not very nice	not nice at all

3. How important are factory workers?

very important	important	I'm not sure	not very important	not important at all

4. Are factory workers

always men	usually men	men and women	usually women	always women

5. How much do other people like factory workers?

a lot	a little	I'm not sure	not very much	not at all

6. How often do other people tell factory workers what to do?

very often	often	I'm not sure	not very often	not often at all

7. How helpful are factory workers to other people?

very helpful	helpful	I'm not sure	not very helpful	not helpful at all

8. How intelligent are factory workers?

very intelligent	intelligent	I'm not not sure	not very intelligent	not intelligent at all

9. How good are factory workers?

very good	good	I'm not sure	not very good	not good at all

10. How rich are factory workers?

very rich	rich	I'm not sure	not very rich	not rich at all

Circle your answer

1. How often do you tell other people what to do?

very often	often	I'm not sure	not very often	not often at all

2. How nice are the places where you would like to work?

very nice	nice	I'm not sure	not very nice	not nice at all

3. How important are you?

very important	important	I'm not sure	not very important	not important at all

4. How much do other people like you?

a lot	a little	I'm not sure	not very much	not at all

5. How often do other people tell you what to do?

very often	often	I'm not sure	not very often	not often at all

6. How helpful are you to other people?

very helpful	helpful	I'm not sure	not very helpful	not helpful at all

7. How intelligent are you?

very intelligent	intelligent	I'm not sure	not very intelligent	not intelligent at all

8. How good are you?

very good	good	I'm not sure	not very good	not good at all

9. How rich are you?

very rich	rich	I'm not sure	not very rich	not rich at all

Circle your answer

1. How often do your parents and friends talk about police officers?	very often	often	sometimes	not very often	never
2. How often do your parents and friends talk about doctors?	very often	often	sometimes	not very often	never
3. How often do your parents and friends talk about nurses?	very often	often	sometimes	not very often	never
4. How often do your parents and friends talk about private detectives?	very often	often	sometimes	not very often	never
5. How often do your parents and friends talk about paramedics?	very often	often	sometimes	not very often	never
6. How often do your parents and friends talk about truck drivers?	very often	often	sometimes	not very often	never
7. How often do your parents and friends talk about lawyers?	very often	often	sometimes	not very often	never

Circle your answer

1. How often do you see a police officer?	very often	often	sometimes	not very often	never
2. How often do you see a doctor?	very often	often	sometimes	not very often	never
3. How often do you see a nurse?	very often	often	sometimes	not very often	never
4. How often do you see a private detective?	very often	often	sometimes	not very often	never
5. How often do you see a paramedic?	very often	often	sometimes	not very often	never
6. How often do you see a truck driver?	very often	often	sometimes	not very often	never
7. How often do you see a lawyer?	very often	often	sometimes	not very often	never

Write your answer on the line beside each question

1. If you saw 25 people, how many would be Police Officers? _____

2. If you saw 25 people, how many would be Doctors? _____

3. If you saw 25 people, how many would be Nurses? _____

4. If you saw 25 Police Officers, how many would be women? _____

5. If you saw 25 Paramedics, how many would be women? _____

6. If you saw 25 Lawyers, how many would be women? _____

Here are some shows on TV. These programs are on television four (4) times each month. How many times do you usually watch these shows each month?

Circle your answer

	four times	three times	two times	one time	I don't watch this show
1. Medical Center.....	4	3	2	1	0
2. M.A.S.H.....	4	3	2	1	0
3. Police Woman.....	4	3	2	1	0
4. Cannon.....	4	3	2	1	0
5. Hawaii 5-0.....	4	3	2	1	0
6. Rockford Files.....	4	3	2	1	0
7. Emergency.....	4	3	2	1	0
8. Movin On.....	4	3	2	1	0
9. Kojak.....	4	3	2	1	0

Here are two shows that were on TV last winter. About how many times each month did you watch these programs?

10. Kate McShane.....	4	3	2	1	0
11. Petrocelli.....	4	3	2	1	0

Here are two shows that are on everyday. How many times do you watch them each week?

12. Adam 12.....	5	4	3	2	1	0
13. Ironsides.....	5	4	3	2	1	0

1. What kind of job does your father have?_____

   What exactly does he do at work?_____

2. What kind of job does your mother have?_____

   What exactly does she do at work?_____

3. How many working color TV sets do you have in your house? _____

4. How many cars and trucks does your family have? _____

5. How many bedrooms are in your house? _____

6. Do you have your own 10 speed bicycle? _____ No _____ Yes

APPENDIX B

Permission Form Example

APPENDIX B

Permission Form Example

May 19, 1976

Dear Parent:

On May 25th and 26th the fourth grade students at Neff Elementary School will be interviewed. The purpose of these interviews is to find out what children think about different jobs and the people that have these jobs. This project is examining how television influences young people's ideas about various occupations.

The interviews will be conducted by representatives from Michigan State University. This project is sponsored by the U.S. Department of Health, Education and Welfare as part of a series of studies on children's development and learning.

We hope that your child can take part in this study. The children's answers will be treated confidentially. If you do not want your child to participate, please complete the form below and return it to the school.

Thank you.

Eugene Golanda
Principal
Neff Elementary School
Grand Ledge, Michigan

I request that my child not participate in the occupations project at school.

_____ _____
(Child's Name) (Parent's Signature)

Return this form to school with your child by May 24th.

APPENDIX C

Statement of School Policy Compliance

Gary R. Heald has complied fully with all school policies regarding the use of school children as participants in research projects.

Richard Jones 6-15-76
Richard Jones
Principal
Beagle Middle School
Grand Ledge, Michigan

E. R. Golanda 6-15-76
Eugene Golanda
Principal
Neff Elementary School
Grand Ledge, Michigan

Richard L. Johnson 6-15-76
Richard L. Johnson
Principal
Greenwood Elementary School
Grand Ledge, Michigan

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