Dr. G. Turner Psych. 235

Assignment 2

The first section of every empirical article is an abstract. According to APA guidelines, the abstract is " a brief, comprehensive summary of the contents of the article; it allows readers to survey the contents of an article quickly…" Furthermore, it is "the most important paragraph"[1] in the article. It should be

1. accurate – it should reflect what is in the paper, and nothing that is not in the body of the paper.
2. self-contained – and not refer to information in the body of the paper for definitions, etc.
3. concise and specific – make each sentence maximally informative. Be as brief as possible; it should not exceed 120 words
4. non-evaluative – report what happened, not how great it is.
5. coherent and readable – it should also be a paraphrase, rather than a copy of the body of the paper

For empirical studies, this means the abstract should describe

1. the problem under investigation (in one sentence if possible).
2. the participants, specifying PERTINENT characteristics
3. the research method used and the apparatus used
4. the specific findings
5. the conclusions and implications

Your assignment, is to read the following article and write an abstract for it. This assignment is due Wednesday, April 24.

Reference

(2001). Publication Manual of the American Psychological Association (5th Ed.) American Psychological Association: Washington, DC

[1] pp. 12-13 APA Manual

A number of studies have reported that parents treat young girls and boys differently. Parents stimulate gross motor activity more with infant sons than with infant daughters (Fagot 1974; Maccoby & Jacklin 1974). Some studies of verbal interaction find no differences. But wherever differences are shown, parents are almost always found to be giving more verbal stimulation to their infant daughters (Clarke-Stewart 1973; Maccoby & Jacklin 1974). Parents buy different toys for their children (Rheingold & Cook 1975), although it has not been shown that they offer different toys to children in a laboratory playroom (Jacklin, Maccoby, & Dick 1973). The literature on children under 2 years of age does not, on the whole, indicate consistent differences in the behavior of children on attachment, activity, or toy preferences (Brooks & Lewis 1974; Kagan & Carlson 1975; Maccoby & Jacklin 1974; Routh, Schroeder, & O'Tuama 1974), although there are studies which have reported differences (Brooks & Lewis 1974; Etaugh, Collins, & Gerson 1975; Fagot 1974; Fein, Johnson, Kossom, Stork & Wasserman 1975; Maccoby & Jacklin 1974; Post & Hetherington 1974).

The present study examined adult-infant play using a special control procedure which separated "adult effects" from "child effects." Children played with naive adult strangers to whom they were introduced either by their real or by an opposite-sex name. Thus it was possible to look separately at effects on adults' behavior of children's real and designated sex.

Several studies with similar control procedures have been done. Some of these studies (Condry & Condry 1976; Meyer & Sobieszek 1972; Rothbart & Maccoby 1966; Keleman, Note 1) looked at perceptions or role-played behavior rather than using observation of actual interactions. Others (Seavey, Katz, & Zalk 1975; Will, Self, & Datan 1976) employed coders who were aware of the purpose of the study and used a single child repeatedly so that it was not possible to explore child as well as adult effects. The present study overcame these limitations. It also represented a better approximation to natural interaction since a greater variety of toys were available, more variables were coded, and a longer interaction was observed. The present study also measured the adults' attitudes about sex roles and explored the relationship of attitude scores with play behavior.

This study was supported in part by a doctoral fellowship in Women's Studies from the Woodrow Wilson National Fellowship Foundation. Special thanks are due to Catherine Adamsky and Susan Keleman, who did the original pilot study on which this research is based; to John Easton, Ed Haertel, and Anne Peterson for their help with the statistical analysis; to Bob Cordova, John Leahy, Donna Krotman, and Jackie Novak, who did the coding; to Linda Kochenburger, Joseph Nauman, Nancy Persechino, John Ralyea, and Margaret Warner, who helped conduct the experiment; and to Susan Stodolsky, K. Alison Clarke-Stewart, and Eugene Gendlin for advice and consultation. Requests for reprints should be sent to Hannah L. Frisch, Chicago Counseling and Psychotherapy Center, 5711 South Woodlawn Avenue, Chicago, Illinois 60637.

Method

The child subjects for the study were 24 14–15-month-old middle-class children, 12 boys and 12 girls. Their parents were asked to consider the child's designated sex in their choice of clothes, but no attempt was made to select children who could most easily pass for a member of the opposite sex. The adult subjects were 12 male law and business school students and 12 wives of students. (Both members of a couple did not necessarily participate in the study.) All but one of the adults had one or more children of their own. The experimental playroom was a converted office. Fourteen types of toys were available on the floor: a beachball, blocks, a bracelet, a large Bobo clown, a doll and doll bottle, a fireman's hat, a hairbrush, a hand mirror and a wall mirror, a toy mop, a Tykebike, several puppets, a pot, and a spoon. A video camera and chairs for the experimenter and an additional coder were located at one end of the room. Before the experimental sessions, each child came to the playroom and played with the toys in an initial familiarization session.

The 48 sessions were organized in blocks of four. Two adults of the same sex were paired with two children of the same actual sex. Adult 1 saw Child 1 designated as a boy and then had a second session with Child 2 designated as a girl. Adult 2 saw the same two children with the designations reversed. Session order was counterbalanced across adult sex, child sex, and child-designated sex.

The child's mother remained in the room during the session. She was asked to sit in a chair and not talk or initiate interaction with the child. The adults were told that the study concerned the interaction of children with adult strangers and that today they would be playing with a boy (girl) named (so and so). They came up to the playroom where they were introduced to the child, played for 30 min, and then went down to a waiting room where they filled out questionnaires. After their final session, they filled out a 10-item version of the Spence-Helmreich Attitudes toward Women Scale (Spence, Helmreich, & Stapp 1973; Spence, Note 2).

A modification of a coding system developed by Clarke-Stewart (1973) was used. The coder heard a beep every 10 sec. During the 10-sec interval he or she used a standardized set of abbreviations to record both child and adult behaviors which occurred in the interval. The coder later used the videotape to check the coding done during the session. The experimenter recorded the adults' and the children's locations on the playroom floor, which had been marked off into 20 squares, throughout the session. Reliability between different coders was calculated by a percentage agreement method. The average percentage agreement for the individual variables was 81. The coders did not know the purpose of the study nor did they know that the child's sex was sometimes misrepresented. No coder saw the same child more than once. Four different individuals served as coders.

From the relatively large number of variables originally coded, unreliable (percentage agreement between coders less than 60) and rare (fewer than 24 occurrences in the 48 sessions) were dropped. The variables were then grouped on a conceptual basis. Clusters were formed around concepts which seemed relevant to sex-role development. The conceptual clusters were examined to see whether they formed empirical clusters as well. Variables which did not have a part-whole correlation of .24 ($p < .10$) with the other variables in the cluster were eliminated one by one so that the final clusters had no uncorrelated variables within them. This two-step process seemed superior to any purely empricial technique such as factor analysis because it was important that the final clusters be of theoretical relevance to sex-role development. The Z score transformations of the original variables were used so that every variable within a cluster had equal weight.

Five adult- and six child-behavior clusters were generated. The clusters are listed here with a sample variable from the cluster for illustrative purposes[1] and with the reliability of the cluster: Interpersonal Stimulation (adult verbalization), 83%; Encourage Activity (adult chooses tricycle), 79%; Female Role Toy Choice (adult chooses doll), 81%; Nurturance Play (adult plays with doll or bottle), 83%; Male Role Toy Choice (adult chooses ball), 81%; Activity (*N* squares traversed by child), 82%; Male Role Toy Choice (child chooses blocks), 81%; Nurturance Play (child plays with doll or bottle), 88%; Female Role Toy Choice (child chooses puppet), 81%; Attachment to Mother (child touches mother), 82%; Verbal (child vocalizes), 80%.

[1] A complete description of the variables within each of the behavior clusters is available from the author.

Results

A two-way multivariate analysis of covariance with repeated measures[2] was performed upon the adult-behavior clusters. The Attitudes toward Women Scale was used as the covariate. It seemed likely that traditional or liberal attitudes about sex roles would have an effect upon the degree to which a person treated the designated girls and boys differently.

Traditional attitudes toward women were correlated with differences in the amounts of Encouragement for Activity, $r = .53$, $p < .02$, and Male Role Toy Choice, $r = .58$, $p < .006$, the adults showed when playing with designated girls and boys. Traditional adults differentiated more on these clusters. These correlations must be seen as statistical trends rather than as firm findings, for the multivariate F failed to reach conventional levels of significance, $F(1,19) = 2.69$, $p < .07$.

Overall, the adults acted differently toward the designated boys and the designated girls, multivariate $F(1,19) = 3.33$, $p < .04$. "Girls" received more Interpersonal Stimulation, $F(1,19) = 9.00$, $p < .008$, and more Nurturance Play, $F(1,19) = 12.64$, $p < .003$. "Boys" received more Encouragement for Activity, $F(1,19) = 5.63$, $p < .03$, and more Male Role Toy Choice from the adults, $F(1,19) = 7.41$, $p < .02$.

The analysis also showed effects for sex of adult. Women more often chose female role toys, $F(1,19) = 7.01$, $p < .02$, engaged in more Nurturance Play, $F(1,19) = 17.90$, $p < .0005$, and showed a trend to offer more Interpersonal Stimulation, $F(1,19) = 4.26$, $p < .06$. Men and women had different scores on the set of clusters taken as a group, multivariate $F(1,19) = 4.16$, $p < .02$.

A multivariate analysis of variance with repeated measures was also performed upon the child-behavior clusters. No significant differences emerged for adult sex, child sex, or designated sex effects. There were individual differences between children of the *same* sex paired together within a block of four sessions, multivariate $F(1,8) = 16.81$, $p < .02$. Individual children differed on Attachment, $F(1,8) = 5.28$, $p < .05$, and showed a trend toward individual differences on Female Role Toy Choice, $F(1,8) = 4.34$, $p < .07$. There is a slight suggestion that adults may have been responsive to these differences. On the analysis of variance for the adult clusters, there was a trend for adults to use different amounts of Interpersonal Stimulation with different children of the same sex, $F(1,8) = 9.38$, $p < .02$, multivariate F, N.S.

Discussion

Even though the variables were organized by the explicit procedure described earlier, there remains a question as to whether some bias in favor of the hypotheses influenced the selection of variables for inclusion in the final behavior clusters. To explore this possibility, a sign test was performed on the direction of the differences of all reliably measured, nonrare variables. For the behavior of adults with designated girls and boys, 39 out of 48 variables ($p < .0001$) showed differences in the direction of conventional sex-role behavior. For the behavior of actual girls and boys in the sessions, 25 out of 45 variables showed differences in the direction of conventional sex roles, $p = .25$, N.S. Thus it may be concluded that the differences which emerged were not due to the particular selection from the pool of variables measured.

Interpretation of the meaning of the individual behavior clusters must be done while bearing in mind that there is overlap among the male-role and among the female-role clusters. For example, the variable "choose tricycle" is part of both the Encourage Activity and the Male Role Toy Choice clusters. The overlap is a consequence of having adopted a partly conceptual strategy for forming the behavior clusters. It reflects an overlap in our concepts about sex roles. But the clusters must not be seen as representing fully separate aspects of male and female role behavior. The size of the multivariate F for the designated sex effect has not been inflated by the overlap

[2] The results from the analysis of covariance are substantially similar to the results from an earlier multivariate analysis of variance which used a slightly different design. In the analysis of variance, the designated sex effect was significant, multivariate $F(1,8) = 6.05$, $p < .05$. For individual clusters, Interpersonal Stimulation, $F(1,8) = 13.21$, $p < .007$, Female Role Toy Choice, $F(1,8) = 5.34$, $p < .05$, and Nurturance Play, $F(1,8) = 38.85$, $p < .0003$, showed significant designated sex effects. But the two male-role clusters missed statistical significance, $F(1,8) = 3.82$, $p < .09$, and $F(1,8) = 4.97$, $p < .06$. Tables of means and standard deviations and an extended presentation with the analysis of variance and covariance tables and a discussion of the different designs are available from the author.

since the multivariate procedure takes account of interdependencies among the variables (Bock 1975, p. 20).

The general picture which emerges from the results of this study is one in which adults are playing in masculine ways with children whom they think are boys and in feminine ways with children whom they think are girls. The women are playing in more feminine ways than the men overall, but the children are not showing sex differences in their own activities. The differential treatment that designated girls and boys received did not have an effect upon their behavior in the session.

The failure to find differences attributable to the child's real sex does not, of course, establish the null hypothesis. But the overall impression which the data give is one of similarity between the girls and boys. The only sex difference which approached significance was on the Activity cluster, and girls, not boys, were more active. The failure to find sex differences in activity and attachment support Maccoby and Jacklin's (1974) conclusion that these are not areas where very young children differ.

The results of this study, in which adult effects are so prominent and child effects are absent, might seem to imply a view of the child as a characterless and passive organism. However, the absence of *sex differences* does not imply the absence of all *individual* differences. Indeed, the results show evidence of the existence of individual differences among the children and suggest that these differences may affect the behavior of adults toward them.

The experimental situation, in which an adult interacts with a strange child over a brief period of time, is a situation which is likely to elicit stereotypes. We know that parents show sex-role stereotypes in their perceptions of their own children when, as new parents, they similarly lack experience with them (Rubin, Provenzano, & Luria 1974), but whether real parents in naturalistic environments treat their children in similarly stereotyped fashion remains an open question.

A second limtiation of the study lies in the nature of the variables studied. A disappointing number of social variables such as "smiles" and "touches" either failed to reach adequate levels of reliability or failed to correlate with other variables in the behavior clusters. This results in final behavior clusters in which toy-related variables were overrepresented.

The Attitudes toward Women Scale correlated strongly with differentiation between designated girls and boys only on Encourage Activity and Male Role Toy Choice, the two masculine clusters. Perhaps the most liberal adults felt comfortable playing with designated girls in a masculine way but did not feel comfortable playing with designated boys in a feminine way. The emergence of strong designated sex effects was somewhat surprising since the absolute level of the adults' Attitudes toward Women Scale scores were quite high. The mean score was such that the average response to a given question was approximately halfway between "mildly agree" and "strongly agree" with the feminist position. The results illustrate the utility of a combination of attitudinal indices and behavioral measures in understanding adult-infant interaction patterns.

Reference Notes

1. Keleman, S. Sex-role stereotyping of infants by adults. Unpublished manuscript, University of Chicago, 1971.
2. Spence, J. Personal communication, 1974.

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