

PERSON ORIENTATION OF COLLEGE STUDENTS' VOCATIONAL  
INTERESTS AS A FUNCTION OF THEIR PARENTS'  
PERCEPTIONS OF PARENT-CHILD  
INTERACTIONS

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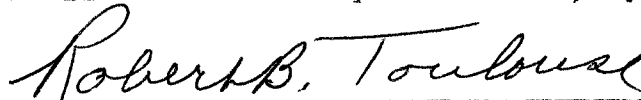
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This study investigated what relationship might exist between the parents' view of their interactions with their children and the degree of person orientation in their children's vocational interests. The hypotheses of this study were that the parents of subjects with toward-person-oriented vocational interests would perceive their interactions with their children as being more loving and overtly attentive than parents of subjects with away-from-person-oriented vocational interests. It was further hypothesized that these differences would be greater for males than for females.

Ss were fifty-two undergraduate psychology students and their parents. The scores of Ss on the Strong Vocational Interest Blank were used to determine the person orientation of the Ss' vocational interests. The parents were given a parental version of the Parent Child Relations Questionnaire (Roe & Siegelman, 1963). The parents' responses to this questionnaire were factor analyzed, and factor scores were generated for use in eight 2 x 2 factorial analyses in which the dimensions were vocational interests and sex of the subjects.

The hypotheses of this study were rejected. The parents' perceptions of parent-child relations were not found to be related to the person orientation of the interests of their children. The only significant F tests involved sex differences.

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THESIS

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By

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Few would disagree that parent-child interactions have a tremendous effect on children's psychological makeup. A child's intelligence and academic achievement, attitudes, values, emotional stability, occupational choice, and even physical health are among the many variables found to be related to parent-child relations (Walters & Stinnet, 1971). Reviews (Becker, 1964; Goldin, 1969; Walters & Stinnet, 1971) indicate the magnitude of the empirical work in this area, especially during the past decade.

Walters and Stinnet (1971) reviewed approximately 200 articles that practically covered the gamut of human behavior. They concluded that if the barrage of parent-child relations research in the 1960's has served one purpose, it has been to illustrate the interrelationships of many factors which affect the quality of relationships within the family.

Becker (1964), in a review which was primarily concerned with discipline, reported that when parental behaviors are investigated on the basis of socio-economic class, middle class parents tend to show warmth, use reasoning, show disappointment,

or use guilt-arousing methods of disciplining the child. Working-class parents were more likely to use physical punishment, shouting, or ridicule in disciplining the child, and tended to be more restrictive. Also, sex of the parent and sex and age of the child reflected differences in parent-child interactions, differences which must be accounted for in a study of attitudes and beliefs which are fostered by parental behaviors.

Goldin (1969) has compiled a very comprehensive review of children's reports of parental behaviors. He analyzed the literature in terms of a model utilizing three factors--loving, demanding, and punishing. Goldin defined the three factors to include the following behavior:

Loving refers to parental support, participation, praise, and affection for the child. Demanding refers to controlling, protective parental behavior. Punishing refers to the arbitrary use of physical and non-physical punishment with little concern for the feelings and needs of the child and for little apparent reason (p. 223).

The loving factor was found to encompass over 60 per cent of the studies investigated by Goldin. Over half of the studies showed attention to the demanding factor, while 40 per cent reported the punishing factor. Perceived parent-child variables may be involved, such as parental consistency, delay of reward, and parental social sex roles, variables which might shed more light on the over-all parent-child relationship picture.

Regarding the loving factor, Goldin concluded that mothers are perceived as more loving than fathers, but boys perceive both parents as less loving than do girls. This factor becomes confusing as the child's age increases. Social class was found

to be positively related to affection and love. Summarizing the demanding factor, Goldin notes that boys, as compared to girls, generally report fathers as more controlling and demanding, but the results were again confused when sex and age of the child were considered. With regard to the punishing factor, fathers were seen as more punishing, especially by boys.

This study is concerned with the relationship between parent-child relations and vocational interests. Williamson and Darley (1937) early recognized the impact which parental dominance may have upon vocational choice and outlined procedures for dealing with it in the counseling situation. Ginzberg, Ginsburg, and Herma (1951) have also emphasized the critical role which "key persons," especially the parents, play in facilitating or hindering the process of vocational development during the adolescent years.

Specifically, this study is concerned with testing a theory of vocational interests proposed by Anne Roe (1957, 1964). This theory arose out of Roe's consideration of the personality differences which had been found in various occupational groups and the personality differences rooted in early childhood experiences. Her hypothesis dealt primarily with the derivation of adult interests and attitudes from the patterning of early satisfactions and frustrations and from the modes and degrees of need satisfaction experienced in childhood.

Roe formulated explicit hypotheses about the relationship of parental attitudes to the selection of an occupation which



can be tested. She proposed that the major variable in the selection of an occupation is the family atmosphere which an individual experiences during his childhood and early adolescence. As a result of the attitudes which his parents express toward him, the individual develops certain orientations toward the environment and the people in it, which directly influence the vocational preferences he forms and the vocational decisions he makes. According to Roe, there are three basic parental attitudes which affect an individual's vocational choice--acceptance, concentration, and avoidance. Acceptance means that the parents regard the child as a full-fledged member of the family who needs a certain degree of independence and who has the capacity to assume responsibility. Accepting parents neither concentrate their attention upon their children nor overlook them. Concentration refers to the attitude of parents who devote a disproportionate amount of their time and energy to the direction and control of their children. They are either overprotecting or overdemanding. Finally, avoidance characterizes the disposition of parents who either neglect or reject the child. They withdraw when their child approaches them for affection and love and spend as little time as possible with the child; they fail to meet the child's physical needs or openly abuse them. In short, they manifest no positive interest in the child or his activities; at best, the child is only tolerated.

These major types of parental atmospheres deal with the needs of the child. In a rather complicated circumplex model, Roe shows how this relates to the child's orientation toward people, which, in turn, relates to the child's vocational interests and consequent vocational choice. Basically, what the model says is that parents tending toward an atmosphere of emotional concentration and acceptance, or parents who are loving, protective, and demanding, foster orientation toward people; and parents tending toward an atmosphere of avoidance, or parents who are casual, neglecting, or rejecting do not influence their children to orient toward people.

For the most part, studies dealing with this hypothesis have yielded negative results. Grigg (1959) studied two groups of women graduate students. One group was designated as being person oriented, and the other was designated as being non-person oriented. The person oriented group was comprised of twenty-four nurses, while the other group was comprised of chemistry, physics, and mathematics students. A fifteen-item questionnaire was utilized, and no significant differences were found between the two groups. Hagen (1960) used data from the Harvard Study of Adult Development. The family atmosphere was evaluated by rating the family history. The careers of the Ss were classified into person oriented or non-person oriented. In general, the results did not support the theory. Utton (1962) used a group of social workers and occupational therapists and a group of dieticians and laboratory technicians. The social worker and

occupational therapist group was termed person oriented, and the dieticians and laboratory technicians were termed non-person oriented. Utton hypothesized that the person oriented group would recall their childhood environments as having been warmer than those of the non-person oriented group. The instrument used was the Childhood Experience Rating Scales. No significant differences were found. Switzer, Grigg, Miller, and Young (1962) also found no differences between person oriented and non-person oriented groups of people. A group of theological students was designated as being person oriented in their study, and a group of chemistry students was designated as being non-person oriented.

Brunkan and Crites (1964) evaluated the research in this area. They thought that one of the most reasonable explanations for the negative results of the previous studies was that the measuring instruments used to assess parental attitudes have been unreliable and/or invalid. Grigg (1959) did not report any reliability or validity data on his fifteen-item questionnaire. Hagen's (1960) study had some methodological flaws. Measuring the total family atmosphere did not take into consideration such factors as interparent differences, parental interaction, or admixtures of attitudes in either parent. Also, Brunkan and Crites (1964) criticized the validity and objectivity of the rating of family histories. Only two judges were used, and the only measure of the reliability of the ratings was their correlation with each other, which is no guarantee that

their judgments would correlate with more direct, observable criteria of parental attitudes. The rating was a non-standardized approach and therefore unreplicable. Utton (1962) used the Childhood Experience Rating Scale, for which there is no empirical data concerning reliability and validity; therefore, it is of doubtful use for tests of Roe's theory of occupational choice. Switzer, Grigg, Miller, and Young (1962) utilized a fifty-item questionnaire to measure the effects of overdemanding and rejecting attitudes as specified in Roe's theory. Brunkan and Crites (1964) comment that aside from the fact that the instrument only attempts to measure two of the six variables proposed by Roe, the two scales have a considerable amount of common variance.

Brunkan and Crites (1964) proposed an answer to this psychometric problem with their Family Relations Inventory, which measures the acceptance, concentration, and avoidance of each parent with a 313-item questionnaire. Impressive reliability and validity data were presented. Medvene (1969) found results supportive of Roe's theory utilizing the Family Relations Inventory. Medvene also suggested that designating whole occupational units as either person-oriented or non-person-oriented is to ignore the fact that many occupations involve combinations of both types of interests, such as psychology. So in this study were 461 male graduate students in psychology. They were divided into two groups--person-oriented and non-person-oriented. Clinical, counseling, industrial, and school

psychology were classified as person-oriented, while developmental, educational, experimental, social, and engineering were classified as being non-person-oriented. Classification was done according to the Dictionary of Occupational Titles. Essentially, the type of data that is synthesized by the psychologist determined this classification system. The sample was divided into a total sample (N=461) and a doctoral sample (N=321). This study also took into consideration the parent who had the greater weight in decision making in general. The results yielded several significant findings regarding recalled home atmosphere and later occupational choice. Students in both samples who viewed their fathers as dominating and perceived him as concentrating or accepting, tended to enter a person-oriented aspect of psychology. Doctoral students who perceived either parent as avoiding tended to enter a non-person-oriented aspect of psychology. Ss in the total sample who perceived the mother as avoiding entered a non-person-oriented specialty in psychology.

Roe (1964) revised her theory after it failed to stand up to empirical tests. In view of the results of factor analytic work, Roe did away with her circumplex model utilizing three broad classifications of parental atmospheres--acceptance, avoidance, and concentration. Specifically, work with the Parent Child Relations Questionnaire (Roe & Siegelman, 1963) has yielded three factors. Two of the factors are bipolar--a loving-rejecting factor and a casual-demanding factor.

The other factor is unipolar--overt attention. Not only did Roe and Siegelman revise their theory in this work (Roe & Siegelman, 1964), but they did a very thorough investigation of the revised version. Her new formulation was expressed in the hypotheses of this investigation. These hypotheses were:

1. To the degree that early experience of personal relations had been extensive and satisfying, adults tend to be primarily person-oriented, and to the degree that early experience of personal relations had been inadequate and unsatisfying, adults tend to be oriented to non-personal aspects of the environment.

- 1b. Among those who experience early rejection there may be a few who have continued to want love and attention from others instead of giving it up and who are now person-oriented.

2. Early experience of personal relations of a nondemanding, non-intrusive, but adequately nurturant sort (casual) would have little or no effect upon later person orientation (pp. 36-39).

In addition to redefining the dimensions of parental behavior, Roe has also dropped her hypothesis that the casual-demanding factor is related to person-oriented vocational interests.

The study involved two samples. The student sample consisted of 142 Harvard seniors. The adult sample consisted of men and women in the professions of social work and engineering. These were assumed to represent the ends of a continuum of person orientation in vocational interests. The antecedent variables studied were the three factors of loving-rejecting, casual-demanding, and overt attention. These were measured by the PCR, a biographical questionnaire, and an interview. The subsequent variables were present general interests, occupational interests, and measures of person orientation. These

were measured by a biographical questionnaire, an interview, and person interests questionnaires.

The results partially supported Roe's theory. For the student sample, person orientation is positively related to amount of parental affection and attention for men. For women, the evidence is not so clear. Early positive social experience is also related to person orientation. For the adult sample, the results were opposite to those predicted by the theory. Male social workers reported more stress and less affection than the male engineers in their relations with their parents. The later person orientation of the social workers' vocational interests was interpreted as a defense reaction and overcompensation. The male engineers indicated that they had more affectionate, stable, unstressful backgrounds. For the women, parental identification was more predictive of person orientation in vocational interests. The casual demanding factor proved, as predicted, to be unrelated to the degree of person orientation.

Studies to test this revised theory have yielded mainly positive results. Green and Parker (1965) used 355 seventh graders as their Ss to decrease the amount of retrospective error and peer distortion of parental attitudes. The Ss were asked to respond to the PCR and to state their occupational choice. The occupational choice was categorized as either person-oriented or non-person-oriented. In this study, the demanding variable was considered cold, negative behavior, and the casual variable was considered more warm than cold.

For the boys, the results indicated that if the relationship with either mother or father is perceived as being warm, protective, and tangibly rewarding, the sons gravitate to person-oriented occupations. Cold, negative, and punishing parents seem to have little effect upon their sons' occupational orientations. For the girls, it is a dynamically negative father and a more passively negative mother who direct the daughter's orientation toward non-person-oriented occupations. Warm, loving parents seem to have little effect upon the girl's occupational choice when that choice is classified as person- or non-person-oriented.

Porter (1967) conducted a study of freshmen college women's vocational choices. Two parent child relationships were significantly related to occupational orientation. Women whose mothers were verbally critical and punitive toward them tended to select non-person-oriented occupations. Women whose fathers were verbally accepting and rewarding tended to select person-oriented occupations.

Schneider (1968) found that adolescents with person-oriented vocational interests perceived the family atmosphere as being more satisfying than did adolescents with non-person-oriented vocational interests.

The purpose of this study was to investigate the person orientation of college students' vocational interests as a function of their parents' perceptions of parent-child interactions. Berdie (1964) commented that,



. . . research could possibly show how parents behave toward their children was only remotely related to how this behavior was perceived by the child, and that vocational behavior might possibly be more closely related to parental behavior than to child perceptions of such behavior. . .

and that

. . . if Roe's hypotheses are to be evaluated, research must show whether the scales, regardless of how they predict vocational choice, are related to parental behavior and attitudes (p. 12).

Roe and Siegelman (1964) used a classification system for occupational interests that utilized two groups. These were person-oriented and non-person-oriented. Roe (1956) describes her occupational classes in detail. The system involved a two-way classification according to primary focus and level of function. This paper and the following descriptions deal only with the primary focus of the occupational groups for, after all, that is determined by vocational interests.

Roe's person-oriented group included the occupational interests groups of service, general culture, arts and entertainment, business contact, and organization. The "service" group includes those occupations which are primarily concerned with an attempt to serve the personal tastes, needs, and welfare of other persons. Included were occupations in guidance, social work, domestic, and protective services. Some specific occupations were personal therapists, social workers, counselors, occupational therapists, YMCA officials, detectives, and policemen.

Roe's (1956) "business contact" occupational group was primarily concerned with the face-to-face sale of commodities, investments, real estate, and services. Some specific occupations were promoters, salesmen, dealers, and auctioneers.

The "organization" group, according to Roe, were the managerial and white collar jobs in business, industry, and government. These were the occupations concerned primarily with the organization and efficient functioning of commercial enterprises and of government activities. This group could be described as being primarily composed of executives and administrators.

Roe's "general culture" group was comprised of those occupations dealing with the preservation and transmission of the general cultural heritage. This group not only encompassed the humanities but also occupations in education, journalism, jurisprudence, the ministry, and linguistics. All elementary and secondary school teachers were included in this group. College teachers were classified according to their respective fields.

The last occupational group included in Roe's person-oriented class was "arts and entertainment." These occupations were engaged in the use of special skills in the creative arts and in the field of entertainment. Both creators and performers were included.

Roe's other occupational interest group was non-person-oriented. This group was composed of these occupational groups:

technology, outdoor, and science. The "technology" group included occupations concerned with the production, maintenance, and transportation of commodities and utilities. Occupations such as those in engineering, crafts, and the machine trades, as well as transportation and communication, were included.

The "outdoor" group included agricultural, fishery, forestry, mining, and kindred occupations--the occupations primarily concerned with the cultivation, preservation, and gathering of crops, of marine or inland water resources, and with animal husbandry.

The "science" group included those occupations primarily concerned with scientific theory and its application under specified circumstances, other than technology.

This study utilized a two-group occupational interest classification system similar to Roe's. There were two exceptions. One, this study changed the group names "person-oriented" and "non-person-oriented" to "toward - person-oriented" and "away-from-person-oriented," respectively. Two, the business contact and business organization groups in Roe's system were reclassified in this study. Roe had them classified as person-oriented. This study put them in the away-from-person-oriented group on the rationale that people with business interests may not be interested in people as much as they are in monetary gains and prestige.

The hypotheses tested in this study were:

1. The parents of subjects with toward-person-oriented vocational interests perceive their interactions with their

children as being more loving than do the parents of subjects with away-from-person-oriented vocational interests.

2. The parents of subjects with toward-person-oriented vocational interests perceive themselves as giving more overt attention to their children than do the parents of subjects with away-from-person-oriented vocational interests.

3. With regard to the parents' perceptions of their interactions with their children as loving and overtly attentive, the differences between parents of subjects with toward-person-oriented vocational interests and parents of subjects with away-from-person-oriented vocational interests will be greater for the males than for the females.

#### Method

Subjects were fifty-two undergraduate psychology students and their parents. Ss volunteered for the research and were given extra credit in course work for participating. Actually, the study began with ninety-four Ss, but twenty-three of the Ss who were from families broken by death, separation, or divorce were excluded from this study due to the relatively small number of these families. Also, Ss whose parents did not return their questionnaires had to be excluded. The return rate for intact families was 78 per cent, while for broken families it was 82 per cent. The Ss were given a Strong Vocational Interest Blank (SVIB). A parental version of the Parent Child Relations Questionnaire (PCR) was sent home to the S's parents

along with a letter of explanation and a self-addressed, postage paid envelope to return the material.

The SVIB needs little explanation. Its validity and reliability have been well established. Strong (1943) has said that an interest is accompanied by a pleasant sensation and by a tendency to seek the object or do something with it. The SVIB consists of a number of items that are offered to the subject who then has the opportunity to express likes, dislikes, and preferences for various occupations, amusements, recreations, activities, school subjects, and personality characteristics. These responses are then compared with the interests of groups which have been successful in various occupations.

Social desirability of occupations has been seen as an influence on interest inventory responses. An attempt to control for this influence was made. A set of instructions devised and empirically checked by Healy (1971) was used. These instructions were,

It is hard to be objective when you rate yourself. All of us have the tendency to think that we are better than we are. But if this rating is going to be helpful, you must be especially careful to describe yourself and any occupation you are interested in, accurately.

This study utilized the occupational interest groups obtained from the SVIB Testscor Inc. Report Form. These groupings, for the men, are biological science, physical science, technical supervision, technical and skilled trades, social service, aesthetic-cultural, CPA owner, business and accounting, sales, verbal-linguistic, president of manufacturing

concern. These groupings, for the women, are music-performing, art, verbal-linguistics, social service, verbal-scientific, scientific, military-managerial, business, home economics, health-related services, and nonprofessional.

The toward-people-oriented (TPO) group for the men was composed of the groups titled social service, aesthetic-cultural, and verbal-linguistic. The social service group was composed of the following occupations: personnel director, public administrator, rehabilitation counselor, YMCA staff member, social worker, social science teacher, school superintendent, and minister. The aesthetic-cultural group consisted of the vocations of librarian, artist, musician performer, and music teacher. The verbal-linguistic was comprised of occupations such as advertising man, lawyer, and author-journalist.

The away-from-people-oriented (APO) group for the men included the Strong groupings of biological science, physical science, technical supervisor, technical and skilled trades, CPA owner, business and accounting, sales, and president of a manufacturing concern. The biological sciences included dentist, osteopath, veterinarian, physician, psychiatrist, psychologist, and biologist. The physical sciences included architect, mathematician, physicist, chemist, and engineer. Technical supervisor was comprised of production positions, army officer, and air force officer. Technical and skilled trades consisted of carpenter, forest service man, farmer,

math-science teacher, printer, and policeman. Business and accounting was composed of senior CPA, accountant, office worker, purchasing agent, banker, pharmacist, and funeral director. The sales group included sales manager, real estate salesman, and life insurance salesman.

TPO-women was made up of the SVIB groupings music performing, art, verbal-linguistics, social service, and health-related services. Music performing was made up of music teacher, entertainer, musician performer, and model. Art was comprised of art teacher, artist, interior decorator. Verbal-linguistics included newswoman, English teacher, and language teacher. Social service was composed of YMCA staff member, recreation leader, director of Christian education, Nun-teacher, guidance counselor, social science teacher, and social worker. Verbal-scientific included speech pathologist, psychologist, librarian, and translator. Finally, health-related services were made up of the vocations of physical education teacher, occupational therapist, physical therapist, public health nurse, registered nurse, licensed practical nurse, radiological technologist, and dental assistant.

AP0-women included the SVIB groupings of scientific, military-managerial, business, home economics, and non-professional. Scientific was composed of physician, dentist, medical technologist, chemist, mathematician, computer programmer, math-science teacher, and engineer. The military-managerial group was comprised of enlisted women in the army and navy, and officers in the army and navy. The business group included lawyer, buyer,

accountant, bankwoman, life insurance underwriter, and business education teacher. Home economics was composed of home economics teacher and dietitian. The nonprofessional group was made up of such diverse occupations as executive housekeeper, elementary teacher, secretary, saleswoman, telephone operator, instrument assembler, sewing machine operator, beautician, and airline stewardess.

Each S was classified into either TPO or APO by computing a mean for the SVIB group scores for the appropriate groups in TPO and APO. The highest mean determined which group the S was placed in.

The S's parents were asked to respond to a parental version of the PCR (Cox, 1966). The PCR, originally developed by Roe and Siegelman (1963) for use in their origin of interests study (Roe & Siegelman, 1964), was intended for college students, but it was later adapted for children. This study uses the parental version in which the parent was asked to respond to how he or she perceived the interactions they had with their child. An example of a PCR item from the child's perception is,

My mother:

1. never let me get off easy when I did something wrong.

This was changed to measure the parental perception. An example of how the above item was changed is,

In rearing my son I:

1. never let him get off easy when he did something wrong.



The PCR consists of ten subtests. The subtests of loving (Lov), protecting (Pro), demanding (Dem), rejecting (Rej), neglecting (Neg), and casual (Cas) all have fifteen items each. The subtests symbolic love punishment (Slp), symbolic love reward (Slr), direct object reward (Dor), and direct object punishment (Dop) all have ten items each. The items were adapted from the literature and constructed to fit the ten subtest categories. Responses range from very untrue (1) to true (5), as outlined below.

VERY TRUE	TENDED TO BE TRUE	TENDED TO BE NEITHER TRUE OR FALSE	TENDED TO BE UNTRUE	VERY UNTRUE
5	4	3	2	1

Score totals for the fifteen-item subtests could range from fifteen to seventy-five on the fifteen-item subtests, and from ten to fifty on the ten-item subtests.

The PCR data from the parents was factor analyzed using a principal axis factor analysis with a vari-max rotation. Separate factor analyses were computed for fathers and mothers. Factor scores were obtained on all factors with igen values greater than 1.00. These factor scores were then used in eight 2 x 2 analyses of variance. The dimensions of these factorial designs were TPO-APO and male-female.

### Results

The factor analysis for both the mothers and fathers yielded four factors. The factor loadings are shown in Tables 1 and

2. For the fathers, factor 1 was designated as the bipolar factor of loving-rejecting. Factor 2 was a unipolar factor of control, while factor 3 was the factor associated most strongly with the sex of the subject. Factor 4 was the unipolar factor of overt attention. For the mothers, factor 1 was also designated the loving-rejecting factor. The overt attention factor for the mothers came out as factor 2. Factor 3 was labeled casual-demanding. Factor 4 was labeled the sex factor.

TABLE 1  
FACTOR LOADINGS OF EACH PCR SUBSCALE AND SEX OF  
S FOR THE FATHERS

Variables	Factor 1	Factor 2	Factor 3	Factor 4
Sex (M=1, F=2)	-.39	.10	.67	-.10
Pro	.06	.71	.29	.13
Pun S-L	.49	.72	-.06	.12
Rej	.71	.46	.09	-.01
Cas	.44	-.07	.78	.13
Rew S-L	-.43	.19	.12	.73
Dem	-.03	.81	-.13	.07
Pun D-0	.26	.52	-.38	.47
Lov	-.80	-.06	.24	.09
Neg	.83	.08	.14	.17
Rew D-0	.25	.08	-.03	.87

TABLE 2  
 FACTOR LOADINGS OF EACH PCR SUBSCALE AND SEX OF  
S FOR THE MOTHERS

Variables	Factor 1	Factor 2	Factor 3	Factor 4
Sex (M=1, F=2)	-.23	.04	-.02	.90
Pro	.21	.79	-.13	.22
Pun S-L	.52	.33	.59	.06
Rej	.79	-.03	.00	-.25
Cas	.31	.46	-.74	.02
Rew S-L	-.34	.68	.28	.07
Dem	.16	.07	.84	-.01
Pun D-0	.22	.42	.59	-.42
Lov	-.72	-.01	-.17	.30
Neg	.80	.05	.03	.06
Rew D-0	.03	.79	.06	-.40

Tables 3 and 4 present the means and standard deviations of the factor scores obtained from the factor analyses. All three hypotheses for both fathers and mothers were rejected. Namely, the fathers of TPO Ss did not perceive their interactions with their children as being more loving than the fathers of APO Ss,  $F(1,48)=.0313$ ,  $P>.85$ . The mothers of TPO Ss did not perceive their interactions with their children as being more loving than the mothers of APO Ss,  $F(1,48)=.1368$ ,  $P>.71$ . These differences were not significantly greater for the males,

$F(1,48)=.7880$ ,  $P>.61$  for the fathers, and  $F(1,48)=1.0603$ ,  $P>.30$  for the mothers. Also, the fathers of TPO Ss did not perceive their interactions with their children as containing more overt attention than the fathers of APO Ss,  $F(1,48)=.3326$ ,  $P>.57$ . The mothers of TPO Ss did not perceive their interactions with their children as containing more overt attention than the mothers of APO Ss,  $F(1,48)=.5389$ ,  $P>.52$ . These differences on the overt attention factor scores were not significantly greater for the males,  $F(1,48)=.3574$ ,  $P>.55$  for the mothers, and  $F(1,48)=.0427$ ,  $P>.83$ .

TABLE 3  
MEANS AND STANDARD DEVIATIONS FOR THE  
FATHERS' FACTOR SCORES

Factors	TPO				APO			
	Male		Female		Male		Female	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
1	.3953	.9588	-.5450	.7662	.0902	1.1538	-.3412	.9225
2	-.1866	1.0574	-.1654	.8551	.2230	1.0142	.5825	.9376
3	-.4631	.5842	.8098	.9153	-.7926	.8828	.8082	.7813
4	.1145	1.0167	-.0324	1.1279	-.0006	.8823	-.2758	.9724

The only significant differences that were found were due to sex of the Ss. For the fathers, on the loving-rejecting factor, the fathers viewed their interactions with their sons to be more loving than their interactions with their daughters,  $F(1,48)=5.7311$ ,  $P<.05$ , with the father-daughter mean = .4431 and the

father-son mean = .2427. All the other F tests were nonsignificant.

TABLE 4  
MEANS AND STANDARD DEVIATIONS FOR THE  
MOTHERS' FACTOR SCORES

Factors	TPO				APO			
	Male		Female		Male		Female	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
1	.2945	1.1651	-.3498	.8514	-.1274	.8150	-.1509	.7454
2	-.0193	1.0772	.2024	1.0572	-.0616	1.1377	-.2115	.5434
3	.0476	1.1194	-.2272	.7515	-.0779	.3501	.3104	1.4269
4	-.7554	.4481	1.0791	.3858	-.6712	.3892	1.0896	.5818

Additional analyses were performed on each of the PCR subscales. The means and standard deviations are reported in Tables 5 and 6. The same factorial design was used to analyze the raw scores on each of these subscales. The only significant differences found were for mothers on the rejecting subscale and the loving subscale. Mothers viewed their interactions with their sons as being more rejecting,  $F(1,48)=6.73$ ,  $P<.01$ , and less loving,  $F(1,48)=4.63$ ,  $P<.05$ . On the rejecting subscale, the mean score for the males = 25.29. The mean score for the females = 21.63. On the loving subscale, the mean score for the males = 65.58 and the mean score for the females = 69.07.

TABLE 5  
MEANS AND STANDARD DEVIATIONS FOR THE  
FATHERS' RAW SCORES

PCR Subscales	TPO				APO			
	Male		Female		Male		Female	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Pro	41.17	6.10	42.00	8.35	44.63	10.65	45.50	4.11
Pun S-L	24.09	5.93	20.92	3.90	24.50	7.52	26.00	6.85
Rej	27.04	6.06	23.77	4.83	27.25	6.14	27.88	6.75
Cas	41.39	5.36	43.85	8.47	36.38	9.46	41.25	9.60
Rew S-L	35.35	5.18	36.77	4.71	34.88	2.70	37.25	4.65
Dem	41.48	9.47	38.54	6.77	42.88	9.22	43.13	7.26
Pun D-0	23.22	5.50	21.00	5.46	24.13	8.66	19.50	4.47
Lov	61.00	7.69	65.62	5.50	62.25	7.29	64.25	8.26
Neg	27.91	5.66	23.46	4.03	26.13	7.28	25.50	5.71
Rew D-0	26.09	6.63	24.31	7.30	26.63	7.63	24.38	6.21

TABLE 6  
MEANS AND STANDARD DEVIATIONS FOR THE  
MOTHERS' RAW SCORES

PCR Subscales	TPO				APO			
	Male		Female		Male		Female	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Pro	39.91	7.56	41.62	8.96	40.13	9.45	40.88	7.00
Pun S-L	25.39	7.00	23.46	3.93	22.13	5.11	23.13	5.57
Rej	25.83	5.56	21.38	3.97	24.75	3.41	21.88	3.36
Cas	44.96	8.54	45.38	9.47	43.00	4.72	41.75	12.66
Rew S-L	36.00	4.88	38.62	3.38	37.50	3.42	33.75	3.96

Table 6---Continued

PCR Subscales	TPO				APO			
	Male		Female		Male		Female	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Dem	41.78	10.60	36.46	8.68	40.25	6.63	43.38	9.30
Pun D-0	25.65	6.15	19.38	3.33	24.25	7.50	23.63	7.15
Lov	63.78	5.79	68.77	4.36	67.38	6.48	69.38	3.89
Neg	23.04	4.08	21.62	4.25	23.25	3.45	22.75	5.01
Rew D-0	27.13	7.79	24.08	7.69	25.38	7.98	21.38	5.24

#### Discussion

The results of the factor analyses done in this study of the parents' perception of parent-child relations were very similar to those obtained by Roe and Siegelman (1963) based on the child's perception. The loving-rejecting factor was the first factor for both the fathers and the mothers. For both the fathers and the mothers, a unipolar factor of overt attention was found. Roe and Siegelman (1963) reported these two factors, in addition to another bipolar factor labeled casual-demanding. This study found this factor for the mothers, but for the fathers a unipolar factor, in which demanding related highly but casual did not, came out of the analysis.

The only significant findings of the present study had to do with the sex of S. Fathers viewed their interactions with their sons as being more loving than those with their daughters. This finding contrasts with previous findings that sons usually

perceive their relationships with their fathers as less loving than do daughters. On the subscale analyses, mothers viewed their interactions with their sons as more rejecting and less loving than those with their daughters. This is again in contrast to the fact that sons perceive their interactions with their mothers as more loving than do daughters (Roe & Siegelman, 1963).

All of the hypotheses of this study were disconfirmed. The person orientation of college students' vocational interests were not found to be a function of the parents' perceptions of parent-child interactions.

In this study, fifty-two Ss and their parents were used. This sample, of course, could have been considerably larger. Also, the sample was composed of undergraduate psychology students. Not all the students were psychology majors, but a considerable portion were. This constituted a very homogeneous sample. The sample should probably have been drawn from several different university departments to produce more heterogeneity of occupational interests.

The methodology of classifying different vocations into vocational interest groups could be responsible for the non-significant findings of this study. The classification system of vocational interest groups in this study was slightly changed from that of Roe (1956). Business interested groups were changed from person-oriented to non-person-oriented. The names of the groups were also changed in this study from person



oriented and non-person-oriented to toward-person-oriented and away-from-person-oriented since business interests are concerned with people, but in different ways than social workers and similar vocations. In other words, business interested groups are not concerned with moving toward people and helping them, but their livelihood depends on people.

It is suggested that an expanded vocational interest classification system be utilized. Both Roe and Siegelman (1964) and Green and Parker (1965) suggest that a two-group classification is not sufficiently differentiating. The system should be expanded to include at least three groups--helping-person-oriented, exploiting-person-oriented, and non-person-oriented. This could be easily done by having the business oriented groups of sales and organization comprise the group called exploiting-person-oriented. The other two groups would remain otherwise the same.

With the child's perception of parent-child interactions, empirical findings have split approximately equally between support and nonsupport. Support for the theory was found by Roe and Siegelman (1964), Green and Parker (1965), Porter (1967), Schneider (1968), and Medvene (1969). Little or no support for the theory was found by Grigg (1959), Hagen (1960), Utton (1962), and Switzer, Grigg, Millor, and Young (1962). The studies that support the theory outnumber the ones that do not support the theory by one study. No reported studies dealt

with the parents' perception of parent-child relations, and contrary to what Berdie (1965) said, maybe the only important variable in determining such things as vocational interests is the child's perception of the world. If this is so, parental perceptions may be of no use in explaining vocational interests. However, research dealing with parental perceptions should not be abandoned on the basis of a single study.

Finally, more studies such as Green and Parker (1965) should be done. This was a study of a single occupation--psychology. Parent-child relations were investigated to see what relationship they might have to choice of particular specialties in psychology. Occupations are often complex and diverse, not lending themselves to easy classification. One by one, the occupations should be more closely examined to see what determines the interests associated with the various subspecialties within each general occupational group.

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