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ABSTRACT

The Perception of Parental Reciprocity Scale (POPRS) was originally developed with a late adolescent population to assess the extent of perceived reciprocity in adolescent-parent relations. This study examined the reliability and validity of using POPRS with younger adolescents. Subjects, 655 males and 636 females ranging in age from 13 to 18, were sampled to assess the psychometric properties of POPRS. The questionnaire package was administered during class time; 87 subjects were randomly chosen to complete POPRS on 2 separate occasions to assess test-retest reliability. One-hundred subjects, approximately 10 males and 10 females at each grade level, were independently interviewed and these responses were correlated with their scores on POPRS to assess criterion validity. Convergent validity was established via measures of self-esteem, consultant choice, parental attachment, attitude to private personal authority, and separation-individuation. Discriminant validity was demonstrated via three global statements. Open-ended interviews were used to assess criterion validity. Results demonstrated high reliability, construct, and criterion validity of the POPRS when extended to a younger adolescent population. (MM)

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**RELIABILITY AND VALIDITY OF THE  
PERCEPTION OF PARENTAL RECIPROCITY  
SCALE (POPRS) WITH YOUNG ADOLESCENTS**

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## ABSTRACT

The Perception of Parental Reciprocity Scale (POPRS), was developed with a late adolescent population to assess the extent of perceived reciprocity in adolescent-parent relations. The present study describes the reliability and validity of this newly developed scale with younger adolescents. 1291 subjects, 655 males and 636 females, ranging in age from 13-18, were sampled to assess the psychometric properties of POPRS. Convergent validity was established via measures of self-esteem, consultant choice, parental attachment, attitude to private personal authority, and separation-individuation. Discriminant validity was demonstrated via three global statements. Open-ended interviews were used to assess criterion validity. Results demonstrated high reliability, construct, and criterion validity.

## INTRODUCTION

Prior to adolescence parent-child relationships are asymmetrical, based upon the concept of "unilateral authority" - i.e., parents know how the world works and how children should act (Piaget, 1965; Youniss & Smollar, 1985). Peer relations do not share this unilateral structure, operating with a naive sense of equality that is gained through the practice of direct reciprocity (Youniss, 1980).

Peer relations are characterized by negotiation and compromise, teaching children about equality in relationships. These qualities are then applied to parental relations, transforming the asymmetrical nature of parent-child relationships to ones of mutual respect and reciprocity (Youniss, 1980).

To extend our understanding of the transition in parent-child relations, a newly developed self-report measure, POPRS (Wintre & Yaffe, 1992), was used to examine adolescent perceptions of mutual reciprocity in relations with parents. POPRS consists of 43 statements rated on a 6-point Likert scale. POPRS consists of three subscales dealing with the overall parent-child relationship, the specific relationship with the mother, and the specific relationship with the father. POPRS has been demonstrated to be reliable and valid with older adolescents and young adults (18-25 years).

The objective of the present study was to determine the reliability and validity of POPRS with a younger adolescent population (13-18 years).

## METHOD

### Subjects

1291 subjects (655 males and 636 females), ranging in age from 13 to 18 years, were sampled from two Toronto high schools. 79 % of the subjects were from two parent homes, 18% from separated or divorced families, and the remaining subjects, from widowed families. The majority of students were Canadian born (59%), and 79% indicated that English was their first language.

### Procedure

The questionnaire package was administered under standardized instructions during class time. 87 subjects were randomly chosen to complete POPRS on two separate occasions to assess test-retest reliability. 100 subjects, approximately 10 males and 10 females at each grade level, were independently interviewed and these responses were correlated with their scores on POPRS to assess criterion validity. The interviewers were blind to the hypotheses of the study, as well as to the subject's score on the POPRS. A number of pilot interviews were run in order to ensure inter-rater reliability.

### Measures & Hypotheses

Several scales were administered under standardized instructions to confirm convergent validity. Conceptually, these scales were related to the construct of mutuality. They included the following measures:

- 1) **Rosenberg Self-Esteem Scale** (Rosenberg, 1965). It was predicted that adolescents with high POPRS scores will indicate a higher level of self-esteem.

- 2) **Consultant Choice Questionnaire** (Wintre & Crowley, 1992). It was predicted that there would be a tendency to prefer familiar adults as first choice as POPRS scores increase.
- 3) **Inventory of Parent and Peer Attachment** (IPPA; Armsden & Greenberg, 1987). It was predicted that attachment to parents would correlate positively with a high POPRS score.
- 4) **Attitude to Private Personal Authority** (Lapsley, Harwell, Olson, Flannery & Quintana, 1984). It was predicted that high POPRS would correlate with a more positive attitude towards authority.
- 5) **Separation-Individuation Test of Adolescence** (SITA; Levine, Greene, & Millon, 1986). The present study used only the engulfment anxiety and the nurturance/caretaker enmeshment subscales of SITA. High scores on these subscales indicate an unhealthy attachment or dependency on parents. Thus, it was predicted that high scores on these sub-tests would correlate negatively with scores on POPRS.
- 6) A global statement that addresses the perceived degree of problems with parental relations was also included. It was predicted that this problem statement would correlate positively with a high score on POPRS. It was also predicted that global statements regarding academic, peer, and love problems would act as discriminant measures by not correlating with the POPRS.

Criterion validity was assessed by utilizing the interview method developed by Youniss & Smollar (1985) and replicated in Wintre & Yaffe (1992).

## RESULTS

### Psychometric Properties

Overall POPRS scores ranged between 24 and 215 (maximum score) with a mean of 199.43 and standard deviation of 33.45. The general POPRS scores ranged from 0 to 45 with a mean of 26.12 and a standard deviation of 8.05. The mother and father POPRS subscale scores ranged from 0 to 85; the mean for the mother subscale was 48.66 with a standard deviation of 15.75 whereas the mean for the father subscale was 44.71 with a standard deviation of 16.37.

The factor analysis yielded three interpretable factors, replicating the findings of Wintre and Yaffe (1992). The first factor (eigenvalue = 11.36, explaining 26.4% of the variance) was interpreted as perception of relationships with adults in general, and specifically with mothers (21 items). The second factor (eigenvalue = 4.27, explaining 9.9% of the variance) reflected relationships with fathers (14 items). The third factor (eigenvalue = 2.41, explaining 5.6% of the variance) consisted of four pairs of parallel ideological items for both mother and father (8 items).

### Reliability

The reliability of the overall scale ( $n = 1291$ ) was .93, and the mean inter-item correlation was .24. For the theorized subscales, the results were as follows:

General: .80, mean inter-item correlation .31;

Mother: .89, mean inter-item correlation .32;

Father : .89, mean inter-item correlation .33.

The test-retest reliability of the overall scale was .70.

Correlations between the POPRS and other scales demonstrate construct validity. (See Table 1). Discriminant validity was demonstrated by the lack of correlation between the POPRS and the three global problem statements regarding academics, love, and peer relations. (See Table 2).

Criterion validity was demonstrated by the strong positive correlation between the POPRS and the interviews ( $r_{(100)} = .79$ ,  $p < .001$ ). These interviews were scored by two trained interviewers, demonstrating an inter-rater reliability of .9633 ( $n = 100$ ).

#### DISCUSSION

The results indicate that the POPRS is a reliable and valid scale when extended to a younger adolescent population, aged 13-18 years. The factor analysis replicates the factor structure of Wintre and Yaffe's (1992) study with older adolescents. As in Wintre and Yaffe (1992), it is interesting to note the loading of the general and mother subscale as one factor. This seems to confirm that across all ages of adolescence, one's perception of parents in general most closely reflects attitudes toward one's mother.

This finding supports Wintre and Yaffe's (1992) contention that the father-adolescent relationship is different from the mother-adolescent relationship (Youniss & Smollar, 1985). Thus, separate scales should be maintained for father and mother when parental relationships are investigated.

The results indicate that the POPRS is reliable when used with a younger adolescent population. The alpha levels achieved for the entire scale are very acceptable and indicative of high internal consistency. Reliability over time is also confirmed by the test-retest data.

Convergent and discriminant validity were achieved demonstrating the validity of the POPRS with younger adolescents. The link between the POPRS and self-esteem indicates a tendency toward greater mutuality in the parent-child relationship with increased self-esteem. This finding supports the view that a positive perception of one's parents may be related to an adolescent's self-esteem (Bohrnstedt & Fisher, 1986; Laursen & Collins, 1988).

The results indicate that adolescents with high POPRS scores are more willing to consult with familiar adults in various problem situations. This finding seems to indicate that reciprocity may influence one's willingness to approach adults known to them with personal concerns.

The positive correlation between attachment to parents and the POPRS is evidence of convergent validity. These scales are highly correlated, but they are not measuring the same construct. The IPPA (1987) assesses trust, communication and (lack of) alienation in the parent-child relationship. These are characteristic of, but not exclusive to, a mutual relationship with parents. These attachment qualities could also exist in a unilateral relationship that is void of mutual reciprocity.

Thus, as postulated by Wintre and Yaffe (1992), it is evident that the POPRS is tapping into something distinct.

The positive correlation between POPRS and attitude to private personal authority indicates that a more positive attitude toward one's parents in general is related to engaging in mutual and reciprocal interactions with them.

As predicted, there is a strong negative correlation between the POPRS and the SITA subscale assessing engulfment anxiety. Adolescents who are fearful of close interpersonal relationships, do not seem to share a reciprocal relationship with their parents. Levine et al. (1986) stated that adolescents scoring high on this subscale maintain a perception of parental overcontrol. Thus, it is likely that these adolescents perceive their relationship with their parents as one characterized by unilateral authority, not reciprocity.

The results also indicate a negative correlation between POPRS and the nurturance/caretaker enmeshment subscale of SITA. According to Levine et al. (1986), adolescents scoring high on the enmeshment subscale are likely to have a strong dependence on their caretaker, and as a result, are less likely to perceive the parent-child relationship as a mutual one.

The results also indicate that a high POPRS score is correlated positively with a minimal number of parental problems. Consequently, it appears that a perceived reciprocal relationship with one's parents is indicative of a more harmonious atmosphere at home.

Discriminant validity is provided by the global academic, peer and love relationship problems. As predicted, reciprocity in the parent-child relationship is not linked to these other areas. Even though problems regarding peer and love relations are of an interpersonal nature, they remain unrelated to mutuality in parental relations.

#### **CONCLUSION**

The findings of this study illustrate that with a younger adolescent population, between the ages of 13 and 18 years, the POPRS is a reliable measure, from the perspectives of internal consistency, homogeneity, and stability over time. Additionally, the POPRS has shown a high degree of validity, including construct and criterion validity.

**TABLE 1**  
**CORRELATIONS BETWEEN POPRS**  
**& OTHER SCALES**

SCALE	OVERALL POPRS	n
SELF-ESTEEM	.31*	1236
CONSULTANT CHOICE		
-FAMILIAR ADULTS	.31*	1252
ATTACHMENT	.81*	1286
ATTITUDE TO AUTHORITY	.63*	1268
SITA		
- ENGULFMENT ANXIETY	-.50*	1282
- CARETAKER ENMESHMENT	-.35*	1282
GLOBAL PARENT PROBLEM	.46*	1287

\* SIGNIFICANT AT P< .001 LEVEL

TABLE 2

CORRELATIONS BETWEEN POPRS &  
GLOBAL PROBLEM STATEMENTS

<u>GLOBAL PROBLEM</u>	<u>OVERALL POPRS</u>	<u>n</u>
ACADEMICS	.18	1283
LOVE RELATIONS	.15	1288
PEER RELATIONS	.15	1288

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Perception of Parental Reciprocity Scale  
(Wintre & Yaffe, 1992)

We want to find out how you and important adults in your life communicate on various issues. Please check the extent to which you agree with each statement.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Agree Slightly
- 4 = Disagree Slightly
- 5 = Disagree
- 6 = Strongly Disagree

- \_\_\_\_\_ 1. Parents don't share their opinions with you, they tell you what to do.
- \_\_\_\_\_ 2. Parents advise you what's good for them and not what's good for you.
- \_\_\_\_\_ 3. In my relationship with my parents, we equally respect each other's opinions.
- \_\_\_\_\_ 4. My parents would never consider discussing their problems with me.
- \_\_\_\_\_ 5. I seldom consider discussing my problems with my parents.

WHEN IT COMES TO TALKING TO OTHERS, JUST TO BE ABLE TO MAKE MY THOUGHTS MORE CLEAR, I CAN . . .

- \_\_\_\_\_ 6. Talk to my mother
- \_\_\_\_\_ 7. Talk to my father

I USED TO THINK OF MY PARENTS AS HAVING ALL THE ANSWERS. NOW ...

- \_\_\_\_\_ 8. I can hardly stand to hear their opinions.
- \_\_\_\_\_ 9. I can listen to their opinions even if I disagree with them.

Please indicate how much you agree with each statement.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Agree Slightly
- 4 = Disagree Slightly
- 5 = Disagree
- 6 = Strongly Disagree

- \_\_\_\_\_ 1. My mother gives me a lot more space than she did before.
- \_\_\_\_\_ 2. I often feel that my mother is talking "at" me and not with me.
- \_\_\_\_\_ 3. My mother and I can enjoy each other's company and participate in shared activities.
- \_\_\_\_\_ 4. I feel that my mother is approachable to discuss problems within our family.
- \_\_\_\_\_ 5. My mother has difficulty discussing her doubts and fears with me.
- \_\_\_\_\_ 6. In my relationship with my mother, we equally respect each other's opinions.
- \_\_\_\_\_ 7. I am unable to be myself with my mother.
- \_\_\_\_\_ 8. I am usually very cautious about what I say to my mother.
- \_\_\_\_\_ 9. When I try to share my concerns with my mother, her response usually makes me sorry I began the conversation.
- \_\_\_\_\_ 10. I can communicate as well with my mother as I can with my friends.

MY MOTHER AND I CAN MEANINGFULLY DISCUSS THE FOLLOWING ISSUES:

- \_\_\_\_\_ 11. elections and voting
- \_\_\_\_\_ 12. my relationship with a boyfriend (if you're a girl) or a girlfriend (if you're a boy)
- \_\_\_\_\_ 13. job decisions
- \_\_\_\_\_ 14. religion
- \_\_\_\_\_ 15. sex
- \_\_\_\_\_ 16. school decisions
- \_\_\_\_\_ 17. what it means to be "womanly"/"manly"

Please indicate how much you agree with each statement.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Agree Slightly
- 4 = Disagree Slightly
- 5 = Disagree
- 6 = Strongly Disagree

- \_\_\_\_\_ 1. My father gives me a lot more space than he did before.
- \_\_\_\_\_ 2. I often feel that my father is talking "at" me and not with me.
- \_\_\_\_\_ 3. My father and I can enjoy each other's company and participate in shared activities.
- \_\_\_\_\_ 4. I feel that my father is approachable to discuss problems within our family.
- \_\_\_\_\_ 5. My father has difficulty discussing his doubts and fears with me.
- \_\_\_\_\_ 6. In my relationship with my father, we equally respect each other's opinions.
- \_\_\_\_\_ 7. I am unable to be myself with my father.
- \_\_\_\_\_ 8. I am usually very cautious about what I say to my father.
- \_\_\_\_\_ 9. When I try to share my concerns with my father, his response usually makes me sorry I began the conversation.
- \_\_\_\_\_ 10. I can communicate as well with my father as I can with my friends.

MY FATHER AND I CAN MEANINGFULLY DISCUSS THE FOLLOWING ISSUES:

- \_\_\_\_\_ 11. elections and voting
- \_\_\_\_\_ 12. my relationship with a boyfriend (if you're a girl) or a girlfriend (if you're a boy)
- \_\_\_\_\_ 13. job decisions
- \_\_\_\_\_ 14. religion
- \_\_\_\_\_ 15. sex
- \_\_\_\_\_ 16. school decisions
- \_\_\_\_\_ 17. what it means to be "womanly"/"manly"