Perceived Parental Conditional Regard and Autonomy Support as Predictors of Young Adults' Self- Versus Other-Oriented Prosocial Tendencies

Guy Roth
Ben-Gurion University of the Negev

ABSTRACT The current research examined the relations of parental conditional regard and autonomy-supportive parenting with levels of internalization and self- versus other-oriented helping tendencies. As predicted from self-determination theory, college students' perceptions of parental conditional regard correlated positively with introjection internalization and self-oriented helping tendencies. Autonomy-supportive parenting predicted fuller internalization and other-oriented helping. Results suggest that the relations between parental practices and prosocial orientations are mediated by the level of internalization that was predicted by each parental practice.

Parental conditional regard (PCR), as a socializing practice, is frequently used and widely endorsed; however, research has demonstrated negative consequences to this approach (Assor, Roth, & Deci, 2004). The practice involves providing more affection and warmth than usual when children display desired behaviors or attributes and providing less attention and affection when children do not.

In a recent study, Assor et al. (2004) examined the consequences of young adults' perceptions of PCR in four behavior domains. Assor et al. confirmed Sears, Maccoby, and Levin's (1957) findings regarding the link between PCR and children's subsequent enactment of targeted behaviors. However, in line with self-determination theory's assumptions (SDT; Deci & Ryan, 1985, 2000; Grolnick,

The author thanks Edward L. Deci and Ryan Acuff for their helpful comments.

Address correspondence concerning this article to Guy Roth, Department of Education, Ben-Gurion University of the Negev, P.O. Box 653, Beer-Sheva, Israel, 84105.; E-mail: roth@bgu.ac.il.

Journal of Personality 76:3, June 2008
© 2008, Copyright the Authors
Journal compilation © 2008, Blackwell Publishing, Inc.
DOI: 10.1111/j.1467-6494.2008.00494.x

Deci, & Ryan, 1997), Assor et al. also found associations between PCR and negative psychological and relational aspects for their children (young adults). In addition to children's behavioral enactment, PCR was shown to lead to children's internal compulsion, shame and guilt after failure, anxiety before performance, short-lived satisfaction after success, and fluctuations in self-esteem. Moreover, the study demonstrated that the association between PCR and children's behavioral enactment is mediated by a nonoptimal type of internalization, namely, introjection. To provide sufficient background for Assor et al.'s findings and for the current research questions, I will now turn to a brief discussion of the differentiated conceptualization of internalization provided by SDT.

Self-Determination Theory of Internalization

Deci and Ryan (1985, 2000) differentiated types of internalization along a self-determination continuum based on the degree to which a behavioral regulation and its accompanying value have been internalized. When the regulation of an activity has not been internalized, regulation is said to be *external*, because the child complies with specific demands and contingencies. Such noninternalized behavior is considered to be controlled by those external contingencies rather than enacted autonomously or volitionally (Ryan & Connell, 1989). The first and least effective type of internalization, referred to as *introjection*, involves taking in a value and regulation but not accepting it as one's own. Instead, one applies the contingencies of approval or worth to oneself that had previously been applied by others. Thus, one tends to feel an inner compulsion to behave, with one's self-esteem contingent upon behavior. Such behavior is considered to be controlled even though the regulation is now within oneself, because one feels compelled to perform the behavior. A second, fuller type of internalization is referred to as *identified* regulation. Here, one has identified with the importance of the activity for oneself, and thus one's motivation to perform the behavior is quite autonomous even though one does not find the activity interesting. Third, when that identification has been reciprocally assimilated with other aspects of the child's self, the regulation is considered *integrated*. Identified and integrated regulations are considered to be autonomously motivated forms of regulation.

Considerable research (e.g., Assor et al., 2004; Grolnick & Ryan, 1989; Ryan, Rigby, & King, 1993) has indicated that introjected regulation tends to be associated with negative psychological consequences, whereas identified and integrated regulation types tend to be associated with positive psychological consequences.

PCR and Internalization

From the SDT perspective, the socializing strategy in which affection and regard are made conditional upon the display of particular child behaviors is considered relatively controlling because it pressures children to behave out of a desire to gain affection and a fear of losing it. As such, PCR is predicted to result in the children's mere introjection of regulations rather than identification with them. In fact, conditional affection represents a prototypic context for promoting introjection because the contingent esteem from parents can be readily transformed into the contingent self-esteem that underlies introjected regulation (see Assor et al., 2004; Deci & Ryan, 1995).

As noted earlier, Assor et al. (2004) found that to the extent that PCR led to children's behavioral enactment of parentally desired behaviors, it did so mainly through a stressful introjected mode of internalization. This was examined in four behavioral domains: academic achievement and effort, sports achievement and effort, emotion control, and prosocial behavior.

SDT posits that while PCR would lead to introjection regulation, a more autonomy-supportive approach would lead to children's identified or integrated internalization (Deci & Ryan, 1985; Grolnick et al., 1997). Autonomy-supportive parenting (ASP) involves taking the child's perspective, providing meaningful rationales, granting choices, and allowing criticism and independent thinking. Considerable research has indicated that autonomy support in varied domains leads to children's identified/integrated internalization, persistence, adaptive behavior, and well-being (Assor, Kaplan, & Roth, 2002; Deci, Eghrari, Patrick, & Leone, 1994; Gagne, 2003; Grolnick et al., 1997; Grolnick & Ryan, 1987; Vansteenkiste, Zhou, Lens, & Soenens, 2005). Moreover, the different levels of internalization are hypothesized to result in different types of motivation—namely, autonomous and controlled (Deci & Ryan, 1985; Ryan & Deci, 2000).

Thus, the present study was conducted to explore the relations of perceived PCR and ASP with children's internalization, as well as on

their prosocial behavioral orientations. I will turn now to discuss the two forms of prosocial behavioral orientations, namely, self-oriented versus other-oriented helping, and the hypothesized relations between the parental practices being explored and these helping orientations.

PCR, ASP, and Self- Versus Other-Oriented Helping Tendencies

In the prosocial domain, Assor et al. (2004) specifically measured the frequency of children's reported instrumental help provided to others during the last year (e.g., "During the last year, I acted in a helpful and considerate way toward others"). These prior results suggested that children's perceptions of PCR predicted a higher frequency of instrumental help, and this relation was found to be mediated by the children's introjected internalization (indexed by feelings of internal compulsion regarding helping others). Given this finding, it seems that a more elaborate measurement of prosocial behavioral orientation might allow us to explore specific characteristics of prosocial helping that could result from PCR. Therefore, the current study goes beyond measuring action frequency of instrumental help as an outcome and explores different orientations for helping.

The main goal of the current research was to examine how perceived PCR and ASP relate to children's self- versus other-oriented prosocial tendencies. In the present research, self-oriented prosocial helping was defined as a helping behavior enacted for the sake of others' approval and appreciation (e.g., "When I'm helping another person, it is important for me that others will be aware of it and appreciate me for doing so"; "When I'm helping another person, I boast about it"). On the other hand, other-oriented helping was defined as a helping behavior that is performed while focusing on the other's needs and inclinations ("When I'm helping another person, it is important for me to know how he would like to be helped"). Other-oriented helping can thus be seen as a task orientation rather than an ego orientation.

As described earlier, introjection regulation involves internal contingencies that link self-esteem and social appreciation to specific behavior or attributes. Thus, performance serves as a measure of one's own self-esteem and worth; therefore, it is reasonable to assume that introjection involves self-oriented rather than other-oriented helping tendencies. Consequently, PCR that was found to be an antecedent of children's introjection internalization may be hypothesized as linked with children's prosocial behavior as

a means to boost their own self-esteem. This form of ego orientation may be hypothesized to minimize children's other-oriented helping and to predict their self-oriented helping behavior. On the other hand, ASP, which allows identification with the importance of the behavior and an experience of choice, may be hypothesized to predict children's greater sensitivity to others' needs while providing help.

The empirical evidence from research on parent-child relationships that directly supports these assumptions is relatively scant. In his seminal work on moral development, Hoffman (1970) concluded that love withdrawal (i.e., one form of conditional regard) has an inconsistent relation with the development of moral behavior and, further, that children's behavioral regulation resulting from this parenting approach tends to be rigid and rule-bound. In addition, Krevans and Gibbs (1996) found that love withdrawal revealed no relation with empathy or prosocial behavior, whereas Gagne (2003) found a positive relation between ASP and prosocial behavior. Recently and in line with these findings, Roth, Assor, and Eilot (2004) found ASP to be positively correlated with a capacity for intimacy—measured by the capacity to attentively support a partner who expresses negative feelings and difficulties. In contrast, PCR was found to be negatively correlated with attentive support of a partner.

The Present Research

The main goal of the present research was to examine whether PCR would predict a self-oriented form of prosocial behavior, which is based on egoistic motives for helping, and whether ASP would predict the other-oriented form of prosocial helping. Furthermore, the current investigation explored the unique effects of perceived ASP and PCR on children's (young adults) prosocial orientation. Comparing PCR and ASP may involve a comparison between different levels of parental warmth, which a large body of research has validated as important for children's adaptive functioning (see Eisenberg & Valiente, 2002; Grusec & Lytton, 1988; Grusec, 1997, for reviews). Therefore, the current analyses were conducted while controlling for the respondents' perceptions of parental warmth (general parental affection and acceptance).

Hypotheses

First, it was hypothesized that respondents' perceptions of PCR would be positively associated with their internal compulsion for helping

(introjection) and with their self-oriented helping. Moreover, it was expected that the relation between respondents' perceptions of PCR and self-oriented helping would be mediated by introjected internalization.

Second, it was hypothesized that perceptions of ASP would predict identified/integrated internalization and other-oriented helping. Furthermore, it was expected that the relation between respondents' perceptions of ASP and their other-oriented prosocial helping would be mediated by their identified/integrated internalization.

METHOD

Participants and Procedures

Participants were 133 university students (61% women) who received extra credit in an introductory psychology course for their participation in the study. The participants' mean age was 23.14 years ($SD = 2.51$). Each participant completed questionnaires in two sessions separated by 2 weeks. In the first session, participants completed scales involving their perceptions of their parents (PCR, ASP, and warmth), and 2 weeks later they completed the introjection, identified/integrated, and behavioral orientations scales. The first session was about 10 minutes long, and the second session was 20 minutes long.

Measures

Perceptions of PCR

This five-item retrospective scale was adapted from Assor et al. (2004) to measure parents' emotional response to the respondent's helpfulness and considerateness toward others. Participants completed the scale twice, once for mothers and once for fathers. Sample items were "As a child or adolescent, I often felt that I would lose much of my father's affection if I stopped being helpful and considerate of others" and "As a child or adolescent, I often felt that my mother would show me more affection or approval than she usually did if (or when) I was helpful and considerate toward others." Cronbach alphas were .87 for perceptions of mothers and .89 for perceptions of fathers. The correlation between the mothers' scale and fathers' scale was .66 ($p < .01$).

Perceptions of ASP

This five-item retrospective measure was adopted in part from Grolnick, Ryan, and Deci (1991). The Grolnick et al. scale is a general scale on ASP,

whereas the current scale specifically reflects children's perceptions of ASP for prosocial helping. In line with Grolnick et al.'s two main themes, three items referred to parents' *provision of a rationale* for the respondent's helpfulness and considerateness toward others (e.g., "As a child or adolescent, my mother explained to me why she thought it was important to help others"), and two items referred to parents' attempts to *take the respondent's perspective* (e.g., "When my mother felt that I wasn't helpful enough to a friend in need, she tried to understand why").[1] Participants completed the scale twice, once for mothers and once for fathers. Cronbach's alphas in this sample were .87 for mothers and .91 for fathers. The correlation between fathers' and mothers' scales was .38 ($p < .01$).

Parental Warmth

This parental rating measure derived from Schludermann and Schludermann's (1979, 1983) version of Schaefer's (1965) Children's Report of Parent Behavior Inventory. The parental acceptance subscale consisted of seven items such as "My father enjoys doing things with me." Participants completed the scale twice, once for mothers and once for fathers. Cronbach's alphas in this sample were .83 for mothers and .91 for fathers.

A pilot study based on 146 college students tested the relations between these three parental measures (PCR, ASP, and parental warmth) and a five-item Hebrew adaptation of Davis's (1983) well-known measure of empathic concern, which is a defining characteristic of other-oriented helping (Zhou, Valiente, & Eisenberg, 2003). ASP and parental warmth were positively correlated with empathic concern, whereas PCR was negatively correlated to emphatic concern.

Introjection

This three-item measure used by Assor et al. (2004) assessed the feelings of internal compulsion to perform prosocial behavior (e.g., "Sometimes I feel like there is something inside me which, in a way, forces or compels me to be overly sensitive to others' needs and feelings"). Cronbach's alpha was .66.

Identified/integrated Internalization

A shorter three-item version of Assor et al.'s (2004) scale was used to measure sense of choice with regard to performance of the prosocial behavior as an

1. Another common subscale to measure autonomy support is "allowing criticism and independent thinking." This subscale was not used in the present study because it is less relevant to the current research question.

indicator of autonomy (e.g., "For me, acting in a helpful and considerate way toward others is more of a self-chosen goal than an imposition"). Cronbach's alpha was .73.

Self- and Other-Oriented Helping Tendencies

Two helping orientation scales were developed for the present study (see Appendix). The four-item self-oriented helping measure assessed the extent to which respondents' prosocial behavior aims to obtain social approval. Participants responded on a 5-point Likert-type scale ranging from *Not at all like me* (1) to *Very much like me* (5).

Factor analysis with varimax rotation was performed for self- and other-oriented helping, using the eight items. Results revealed that participants clearly distinguished between the two types of prosocial orientations. Two factors were extracted with eigenvalues of 2.53 and 1.95. Each item loaded on the appropriate factor with loadings above .62. The extracted factors accounted for 56% of the variance. Cronbach's alphas were .79 for self-oriented helping and .66 for other-oriented helping. The correlation between the two scales was $-.08$ (*ns*).

Students' Social Desirability Bias

A 15-item version of Crowne and Marlowe's (1964) scale was used to control participants' tendency not to report honestly about the sensitive issues examined in this research. A sample item was "No matter who I'm talking to, I am always a good listener." Cronbach's alpha was .75.

Data Analyses

Hypotheses were tested in three phases. First, correlations among all study variables were computed. Second, the mediational hypotheses were tested following Kenny et al.'s procedure (Baron & Kenny, 1986; Kenny, Kashy, & Bolger, 1998) and by using structural equation modeling (SEM). Finally, full SEM models were tested, for fathers and mothers separately, in which the hypothesized outcomes of PCR and ASP were examined simultaneously while controlling for parental warmth and social desirability.

RESULTS

Preliminary Analyses

Table 1 presents descriptive statistics and correlations among all study variables. Social desirability bias was found to be correlated

Table 1
Descriptive Statistics and Correlations of Model's Variables

		M	*SD*	1	2	3	4	5	6	7	8	9	10
1	Mothers' PCR	1.55	.62	—									
2	Mothers' ASP	3.43	.86	.02	—								
3	Mothers' warmth	4.12	.76	−.35**	.48**	—							
4	Fathers' PCR	1.60	.70	.66**	−.05	−.36**	—						
5	Fathers' ASP	3.14	1.00	.05	.38**	.21**	.08	—					
6	Fathers' warmth	3.78	.99	−.17*	.37**	.45**	−.34**	.51**	—				
7	Introjection	2.94	.78	.39**	−.15*	−.19*	.28**	−.07	−.12^{+}	—			
8	Identified/integrated	4.03	.69	−.03	.17*	−.03	.03	.26**	.07	.04	—		
9	Self-oriented helping	2.40	.45	.32**	−.10	−.20**	.27**	−.18*	−.17*	.37**	.00	—	
10	Other-oriented helping	3.28	.52	.03	.16*	−.01	.02	.23**	.11^{+}	−.03	.36**	−.08	—
11	Social desirability	1.38	.21	.09	.10	−.17*	.08	.10	.07	.00	.23**	−.08	.25**

$^{+}p<.1$. *$p<.05$. **$p<.01$.

only with sense of choice (identified/integrated) regarding helping behavior ($r = .23$; $p < .01$) and with other-oriented helping ($r = .25$; $p < .01$). Therefore, the social desirability variance was removed from the two variables.[2]

Inspection of Table 1 reveals that, as expected, the correlations of mothers' and fathers' PCR with internal compulsion and self-oriented helping were positive and significant. On the other hand, ASP correlated positively with choice and with other-oriented helping. Both parental practices, PCR and ASP, were found to be correlated with respondents' perceptions of parental warmth, which justified the decision to control for parental warmth.

Primary Analyses

Mediation analyses.[3] To test the hypotheses that PCR would predict self-oriented helping through introjected internalization, while ASP would predict other-oriented helping through identified/integrated internalization, I followed Baron and Kenny's (1986) and Kenny et al.'s (1998) procedure for mediation analysis. SEM was selected over regression analysis because SEM allows evaluation of the overall fit of the theoretical model to the data. Tests of the mediation hypothesis using SEM with latent variables were conducted with AMOS 5.0 (Arbuckle & Wothke, 2003).

Introjection as a Mediator of the Relation Between PCR and Self-Oriented Helping Tendencies

Following Kenny et al. (1998), the first step was to test the direct effect of PCR on self-oriented helping. Based on latent variables, PCR was positively associated with self-oriented helping for both parents (mothers: $\beta = .34$, $p < .01$; fathers: $\beta = .24$; $p < .05$). The next step was to perform a partial-mediation model that included (1) a direct effect and (2) an indirect effect in which the impact of PCR on self-oriented helping went

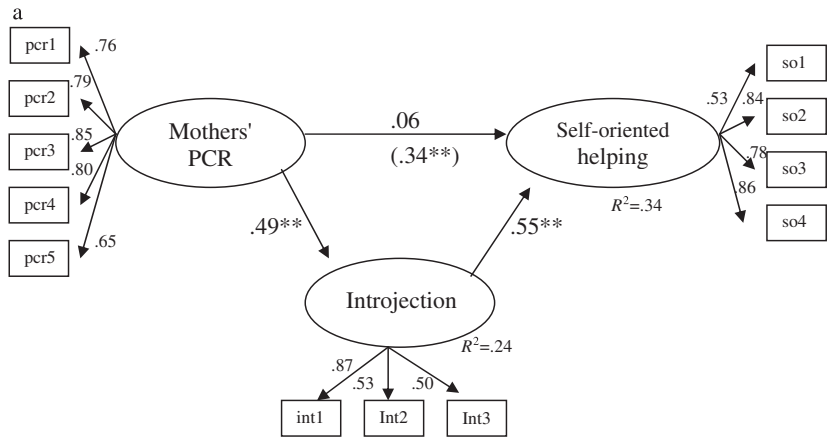
2. The analyses were conducted while controlling for two variables: social desirability and parental warmth. The two variables were controlled using residual scores. This was conducted by a regression analysis in which the relevant manifest variable was regressed on the relevant controlled variable and by saving the residual score. Controlling for the two variables by using them as covariates revealed similar results.

3. Measurement models of all major variables were tested. All indices of fit were adequate. Detailed information can be obtained from the author.

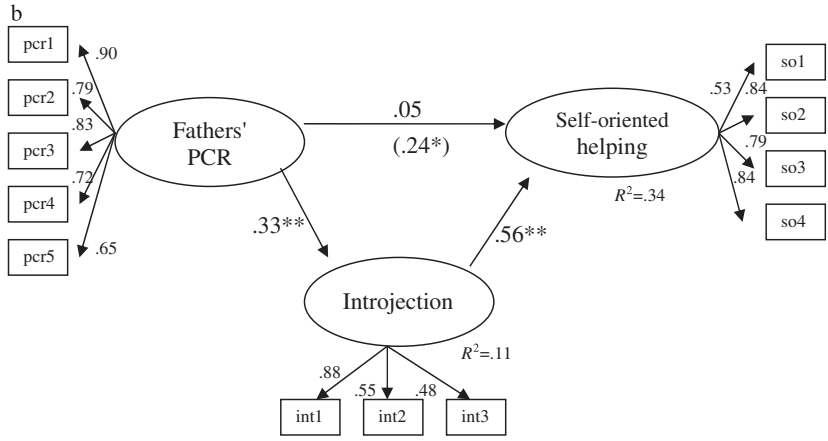
through introjection. As required, the path from PCR to introjection was significant for both mothers, $\beta = .49$, $p < .01$, and fathers, $\beta = .33$, $p < .01$. In addition, the direct association between PCR and self-oriented helping was reduced while controlling for introjection. For mothers, the reduction was from $\beta = .34$ ($p < .01$) to $\beta = .06$ (*ns*); for fathers, it was from $\beta = .24$ ($p < .05$) to $\beta = .05$ (*ns*). As required, the effect of introjection on the outcome remained significant after controlling for PCR for both mothers ($\beta = .55$, $p < .01$) and fathers ($\beta = .56$, $p < .01$). Thus, controlling for the mediator reduced the effect of PCR on self-oriented helping from a significant effect to a nonsignificant effect. The Sobel test (see Baron & Kenny, 1986) indicated that the mediation path was significant for mothers ($z = 2.67$, $p < .01$) and for fathers ($z = 2.35$, $p < .05$). It appears, then, that the analyses supported the mediation hypothesis. The final mediational models for mothers and fathers are presented in Figures 1a and 1b. To assess the fit of the mediational model to the data, analyses included the ratio of the chi-square statistic to degrees of freedom, incremental fit index (IFI; Bollen, 1989), the comparative fit index (CFI; Bentler, 1990), and the root mean square error of approximation (RMSEA; Browne & Cudeck, 1993). An acceptable fit would be indicated by a ratio of χ^2 to *df* of less than 2 (Carmines & McIver, 1981), a RMSEA less than .08, and the other fit indices of .90 or above (Browne & Cudeck, 1993; Hoyle, 1995). The models of mothers and fathers showed an acceptable fit to the data. For mothers, analyses showed: $\chi^2_{(51)} = 77.43$, $p = .01$; chi square to degrees of freedom ratio of 1.51; and CFI, IFI, and RMSEA of .95, .96, and .06, respectively. For fathers, analyses showed: $\chi^2_{(51)} = 80.54$, $p < .01$; chi square to degrees of freedom ratio of 1.58; and CFI, IFI, and RMSEA of .95, .95, and .07, respectively.

Identified/integrated Internalization as a Mediator of the Relation Between ASP and Other-Oriented Helping Tendencies

The first step was to test the direct effect of ASP on other-oriented helping. Based on latent variables, ASP was positively associated with other-oriented helping for both parents (mothers: $\beta = .38$, $p < .01$; fathers: $\beta = .39$; $p < .01$). The next step was to perform a partial-mediation model that included (1) a direct effect and (2) an indirect effect in which the impact of ASP on other-oriented helping went through identified/integrated internalization. As required, the path from ASP to identified/integrated internalization was significant for



Note. The number in parenthesis under the direct path from the IV to the DV is the coefficient for this path when the mediator is not included in the equation. The error terms are omitted for clarity.
** $p < .01$.



Note. The number in parenthesis under the direct path from the IV to the DV is the coefficient for this path when the mediator is not included in the equation. The error terms are omitted for clarity.
*$p < .05$; ** $p < .01$.

Figure 1
Introjection as a mediator of the relation between mothers' PCR and self-oriented helping behavior.

both mothers, $\beta = .21$, $p < .05$, and fathers, $\beta = .33$, $p < .01$. In addition, the direct association between ASP and other-oriented helping was reduced while controlling for identified/integrated internalization. For mothers, the reduction was from $\beta = .38$ ($p < .01$) to $\beta = .19$ ($p < .1$); for fathers, it was from $\beta = .39$ ($p < .05$) to $\beta = .20$ ($p = .05$).

As required, the effect of identified/integrated internalization (the mediator) on the outcome remained significant after controlling for PCR for both mothers ($\beta = .78$, $p < .01$) and fathers ($\beta = .77$, $p < .01$). The Sobel test indicated that the mediation path was significant for both mothers ($z = 1.98$, $p < .05$) and fathers ($z = 2.20$, $p < .05$). It appears, then, that the analyses supported the mediation hypothesis.

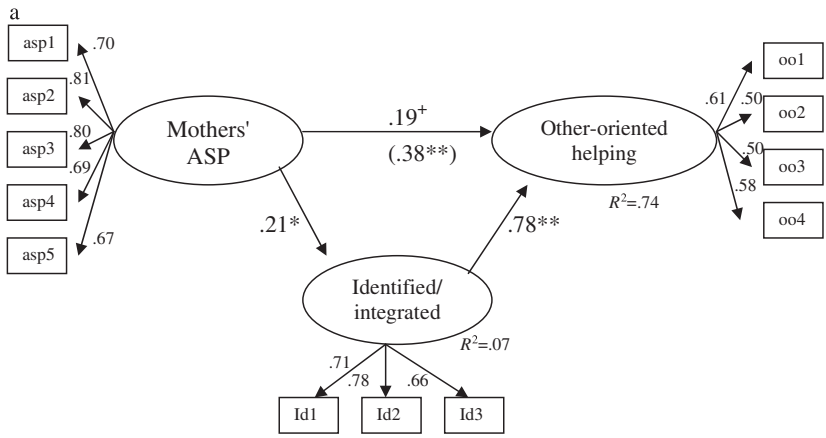
The final mediational model for mothers and fathers is presented in Figures 2a and 2b. The models of mothers and fathers showed an acceptable fit to the data. For mothers, analyses showed $\chi^2_{(51)} = 57.53$, $p = .25$; chi square to degrees of freedom ratio of 1.13; and CFI, IFI, and RMSEA of .99, .99, and .03, respectively. For fathers, analyses showed $\chi^2_{(51)} = 89.05$, $p < .01$; chi square to degrees of freedom ratio of 1.74; and CFI, IFI, and RMSEA of .95, .95, and .07, respectively.

Simultaneous Examination of PCR's and ASP's Predictions

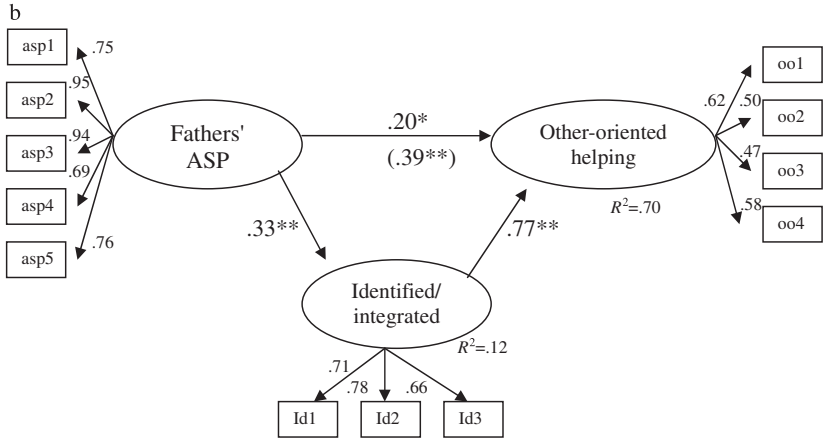
The final phase of data analyses simultaneously examined the predictions of the two parental practices while controlling each parental practice for the other. Furthermore, this analysis controlled for general parental warmth by removing its variance from the indicators (the manifest variables) of PCR and ASP. Figures 3a and 3b present the results for mothers' and fathers' models. Inspection of the figures reveals that the results supported the hypotheses. All the path coefficients were significant and in the hypothesized direction. The fit indices of the two models were adequate. For mothers, analyses showed $\chi^2_{(247)} = 337.93$, $p < .01$; chi square to degrees of freedom ratio of 1.37; and CFI, IFI, and RMSEA of .91, .91, and .05, respectively. For fathers, analyses showed $\chi^2_{(247)} = 369.12$, $p < .01$; chi square to degrees of freedom ratio of 1.49; and CFI, IFI, and RMSEA of .90, .90, and .06, respectively.

DISCUSSION

The present research reveals two important findings. First, PCR was positively associated with introjection of helping behavior and self-oriented helping tendencies. Thus, the prosocial orientation of young adults who were subjected to a high level of PCR, as children or adolescents, tended to be motivated by a need to instrumentally enhance their own self-esteem, out of a sense of internal compulsion. Second, ASP was positively related to identified/integrated internal-



Note. The number in parenthesis under the direct path from the IV to the DV is the coefficient for this path when the mediator is not included in the equation. The error terms are omitted for clarity. $^{+}p < .1$; * $p < .05$; ** $p < .01$.



Note. The number in parenthesis under the direct path from the IV to the DV is the coefficient for this path when the mediator is not included in the equation. The error terms are omitted for clarity. * $p < .05$; ** $p < .01$.

Figure 2
Identified/integrated regulation as a mediator of the relation between mothers' ASP and other-oriented helping behavior.

ization, and the other-oriented form of helping tendencies. Thus, the prosocial orientation of young adults who perceived their parents as taking their perspective and as providing meaningful rationales tended to be focused on the needs of others out of a sense of choice.

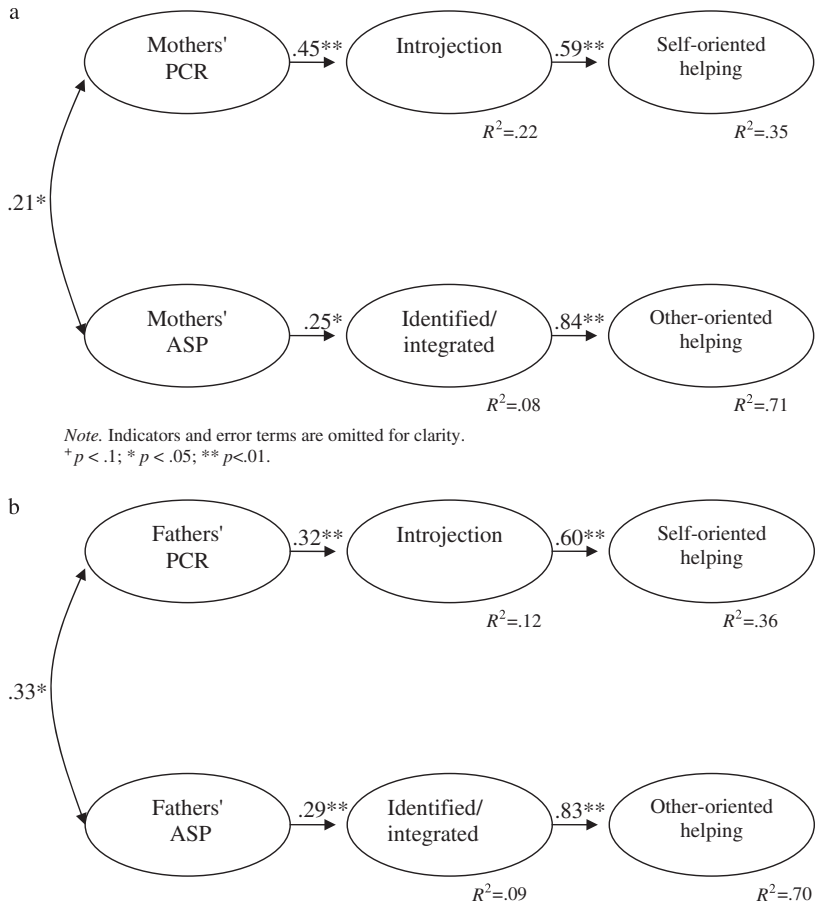


Figure 3
Simultaneous consequences of mothers' PCR and ASP while controlling for parental warmth.

These results support and expand past findings. In an earlier study by Assor et al. (2004), results indicated that the use of conditional regard by parents predicts a higher frequency of children's helping behavior, which was found to be accompanied by negative feelings, including inner compulsion, unstable self-esteem, shame, and guilt after failure, and anxiety before performance. The current research expands the scope of this earlier work by distinguishing between

self- and other-oriented forms of prosocial helping and by exploring an alternative parental practice, namely, autonomy support. Thus, the distinction between the two forms of prosocial orientations allowed for empirical examination of different hypothesized predictions of PCR and ASP.

The association here between PCR and introjection replicates Assor et al.'s (2004) findings; moreover, the associations here between PCR and self-oriented prosocial helping support Roth et al.'s (2004) finding whereby PCR correlated negatively with attentive support for a romantic partner. In addition, the current results support Krevans and Gibbs's (1996) findings where love withdrawal showed no relation to empathy or to prosocial behavior. The results of the present study in which PCR predicts self-oriented helping through a rigid type of internalization (introjection) are also consistent with Hoffman's (1970) suggestion that children's behavioral regulation resulting from love withdrawal tends to be rigid and rule-bound. Moreover, the current results may help clarify Hoffman's conclusion that love withdrawal has an inconsistent relation with the development of moral behavior. Based on the current findings, PCR seems to predict the self-oriented form but not the other-oriented form of prosocial orientation.

Furthermore, the current positive association between ASP and identified/integrated regulation is in line with a large body of research showing that ASP promotes identification with and integration of the value of the behavior (Assor et al., 2004; Deci & Ryan, 2000; Grolnick et al., 1997; Vansteenkiste et al., 2005). The current relation of ASP with other-oriented helping coincides with Gagne's (2003) findings regarding prosocial helping and Roth et al.'s (2004) finding regarding the positive relation between ASP and attentive support for a romantic partner.

The results of this investigation may also shed some light on the socialization of altruism. Altruistic behavior was defined by Batson (1991; Batson, Van Lange, Ahmad, & Lishner, 2003) as voluntary actions intended to benefit another that are not based on intentional self-gain. Using the current operational definitions of prosocial orientations, it is clear that the self-oriented form is strongly related to nonaltruistic (egoistic) helping behavior, in which the helping behavior is not a goal in itself but rather a means to enhance one's own self-esteem. Regarding the current definition of other-oriented helping, the similarities and dissimilarities with altruistic behavior are

less clear. Presumably, the current operational definition of other-oriented helping does not describe a purely altruistic approach, inasmuch as an individual can be instrumentally oriented to others' needs while maintaining interest in attaining a separable goal. Thus, future research should explore these relations while differentiating a prosocial orientation or behavior that serves as an end in itself from a prosocial orientation or behavior that serves as a means for intentional self-gain. Based on SDT (Deci & Ryan, 2000), it is reasonable to assume that identified/integrated internalization would promote altruistic behavior as it is based on personal endorsement of the underlying value of the behavior and is experienced as volitional. Hence, a prosocial behavior that the individual fully endorses and is willing to enact may take the form of altruistic behavior. Future research should examine this claim empirically.

There are several limitations to the current study. First, the present analyses were based on correlations among cross-sectional self-reports. This is problematic in that it raises the possibility that the relations are in part a function of method variance. Although controlling for social desirability bias may control in part for shared method variance, and although individuals' experiences and perceptions of their parents are important antecedents of the individuals' behavior and well-being, additional studies that use multiple reporters and behavioral observations would be very helpful in confirming the present results. Moreover, the current measures of identified/integrated internalization and of other-oriented helping might partially overlap because both make reference to the theme of respecting and not imposing help on the helpee. Thus, even though the two scales measure different phenomena (the extent to which one experiences a sense of choice while engaging in a helping behavior versus the extent to which one focuses on the other's needs while engaging in a helping behavior), future research will benefit from eliminating the usage of expressions like "being considerate" as part of the identified/integrated scale in order to reduce the possibility of shared method variance.

Second, the cross-sectional data do not allow causal interpretations. It is therefore important to test the hypotheses with prospective longitudinal research. Finally, the perceptions of PCR were retrospective, referring to the parents' behavior when the respondents were adolescents or children, and the possibility exists that these remembered experiences were influenced by factors that have

intervened in recent years. Therefore, further replication with children and adolescents is important.

In conclusion, the present study helps elaborate the relations between PCR and prosocial behavioral orientations, demonstrating the negative correlates associated with this parental approach, that is, predicting introjection internalization and self-oriented helping tendencies. The study also clarifies that ASP predicts a fuller internalization of behavioral regulation that, in turn, predicts other-oriented helping tendencies. Past research has demonstrated that, although PCR may be an effective predictor of children's behavioral enactment, it also predicts negative feelings that accompany that enactment (Assor et al., 2004). The current research expands these findings and suggests that, beyond emotional costs, PCR is likely to be associated with less than optimal behavioral orientations.

REFERENCES

Arbuckle, J. L., & Wothke, W. (2003). *Amos 5.0 users guide*. Chicago: Small Waters.

Assor, A., Kaplan, H., & Roth, G. (2002). Choice is good but relevance is excellent: Autonomy affecting teacher behaviors that predict students' engagement in learning. *British Journal of Educational Psychology*, **72**, 261–278.

Assor, A., Roth, G., & Deci, E. L. (2004). The emotional costs of perceived parents' conditional regard: A self-determination theory analysis. *Journal of Personality*, **72**, 47–89.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, **51**, 1173–1182.

Batson, C. D. (1991). *The altruism question: Toward a social-psychological answer*. Hillsdale, NJ: Erlbaum.

Batson, C. D., Van Lange, P. A. M., Ahmad, N., & Lishner, D. A. (2003). Altruism and helping behavior. In M. A. Hogg & J. Cooper (Eds.), *The Sage handbook of social psychology* (pp. 279–295). Thousand Oaks, CA: Sage.

Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, **107**, 238–246.

Bollen, K. A. (1989). A new incremental fit index for general structural equation models. *Sociological Methods Research*, **17**, 303–316.

Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 136–162). Thousand Oaks, CA: Sage.

Carmines, E. G., & McIver, J. P. (1981). Analyzing models with unobserved variables. In G. W. Bohrnstedt & E. F. Borgatta (Eds.), *Social measurement: Current issues*. Beverly Hills: Sage.

Crowne, D. P., & Marlowe, D. (1964). *The approval motive*. New York: Wiley.
Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology*, **44**, 113–126.
Deci, E. L., Eghrari, H., Patrick, B. C., & Leone, D. R. (1994). Facilitating internalization: The self-determination theory perspective. *Journal of Personality*, **62**, 119–142.
Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
Deci, E. L., & Ryan, R. M. (1995). Human autonomy: The basis for true self-esteem. In M. Kernis (Ed.), *Efficacy, agency, and self-esteem* (pp. 31–49). New York: Plenum.
Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, **11**, 227–268.
Eisenberg, N., Shea, C. L., Carlo, G., & Knight, G. (1991). Empathy-related responding and cognition: A "chicken and the egg" dilemma. In W. Kurtines & J. Gewirtz (Eds.), *Handbook of moral behavior and development: Vol. 2. Research* (pp. 63–88). Hillsdale, NJ: Erlbaum.
Eisenberg, N., & Valiente, C. (2002). Parenting and children's pro-social and moral development. In M. H. Bornstein (Ed.), *Handbook of parenting* (Vol. 5, pp. 111–142). Hillsdale, NJ: Erlbaum.
Gagne, M. (2003). The role of autonomy support and autonomy orientation in prosocial behavior engagement. *Motivation and Emotion*, **27**, 199–223.
Grolnick, W. S., Deci, E. L., & Ryan, R. M. (1997). Internalization within the family: The self-determination theory perspective. In J. E. Grusec & L. Kuczynski (Eds.), *Parenting and children's internalization of values: A handbook of contemporary theory* (pp. 135–161). New York: Wiley.
Grolnick, W. S., & Ryan, R. M. (1987). Autonomy in children's learning: An experimental and individual difference investigation. *Journal of Personality and Social Psychology*, **52**, 890–898.
Grolnick, W. S., & Ryan, R. M. (1989). Parent styles associated with children's self-regulation and competence in school. *Journal of Educational Psychology*, **81**, 143–154.
Grolnick, W. S., Ryan, R. M., & Deci, E. I. (1991). The inner resources for school achievement: Motivational mediators of children's perceptions of their parents. *Journal of Educational Psychology*, **83**, 508–517.
Grusec, J. E. (1997). A history of research on parenting strategies and children's internalization of values. In J. E. Grusec & L. Kuczynski (Eds.), *Parenting and children's internalization of values: A handbook of contemporary theory* (pp. 3–22). New York: Wiley.
Grusec, J. E., & Lytton, H. (1988). *Social development: History, theory and research*. New York: Springer-Verlag.
Hoffman, M. L. (1970). Moral development. In P. H. Mussen (Ed.), *Carmichael's manual of child psychology* (Vol. 2, pp. 261–360). New York: Wiley.
Hoyle, R. H. (1995). *Structural equations modeling: Concepts, issues and applications*. Thousand Oaks, CA: Sage.

Kenny, D. A., Kashy, D. A., & Bolger, N. (1998). Data analysis in social psychology. In D. Gilbert, S. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (Vol. 1, pp. 233–265). Boston: McGraw-Hill.

Krevans, J., & Gibbs, J. C. (1996). Parents' use of inductive discipline: Relationships to children's empathy and pro-social behavior. *Child Development*, **67**, 3263–3277.

Roth, G., Assor, A., & Eilot, K. (2004). *The effects of parental conditional regard and empathic autonomy support on modes of emotion regulation and capacity for intimacy in youth*. Paper presented at the 2nd Self-Determination Theory Conference, Ottawa, Canada.

Ryan, R. M., & Connell, J. P. (1989). Perceived locus of causality and internalization: Examining reasons for acting in two domains. *Journal of Personality and Social Psychology*, **57**, 749–761.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development and well-being. *American Psychologist*, **55**, 68–78.

Ryan, R. M., Rigby, S., & King, K. (1993). Two types of religious internalization and their relations to religious orientations and mental health. *Journal of Personality and Social Psychology*, **65**, 586–596.

Schaefer, E. S. (1965). Children's reports of parental behavior: An inventory. *Child Development*, **36**, 413–424.

Schludermann, S. M., & Schludermann, E. H. (1979). *Preliminary notes on the methodological properties of the "Children's Report of Parent Behavior Inventory" (CRPBI)*. Unpublished manuscript, University of Manitoba, Canada.

Schludermann, S. M., & Schludermann, E. H. (1983). Sociocultural change and adolescents' perceptions of parent behavior. *Developmental Psychology*, **19**, 674–685.

Sears, R. R., Maccoby, E., & Levin, H. (1957). *Patterns of child rearing*. Evanston, IL: Row, Peterson.

Vansteenkiste, M., Zhou, M., Lens, W., & Soenens, B. (2005). Experiences of autonomy and control among Chinese learners: Vitalizing or immobilizing? *Journal of Educational Psychology*, **97**, 468–483.

Zhou, Q., Valiente, C., & Eisenberg, N. (2003). Empathy and its measurement. In S. J. Lopez & C. R. Snyder (Eds.), *Positive psychological assessment: A handbook of models and measures* (pp. 269–284). Washington, DC: American Psychological Association.

Appendix

Self- and Other-Oriented Helping Scales

Self-Oriented Helping

1. When I am helping another person, I boast about it.
2. When I'm helping another person, it is important to me that other people will know about that and appreciate me for doing so.

3. When I am helping another person, it is important for me to know that he/she appreciates me for doing so.
4. I only help someone else if others know about it.

Other-Oriented Helping

1. When I'm helping another person, it is important for me to know how he would like to be helped.
2. When I help someone else, I try to be attentive to his or her needs.
3. When I don't succeed at helping others, I think about how I can help in a more effective way next time.
4. If someone refuses my help, I try to understand why.