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When parents' affection depends on child's achievement: Parental conditional positive regard, self-aggrandizement, shame and coping in adolescents[☆]

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A B S T R A C T

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We examined the idea that adolescents' perceptions of their mothers as using **parental conditional positive regard (PCPR)** to promote academic achievement are **associated with maladaptive self feelings and coping**. A study of 153 adolescents supported the hypothesis that **PCPR predicts self-aggrandizement following success and self devaluation and shame following failure**, which then predict compulsive over-investment. PCPR functioned as a unique predictor of maladaptive self feelings and coping also when the effects of perceived parental conditional negative regard or psychological control were controlled for. The findings suggest that **the experience of one's mother as using conditional positive regard to promote achievement leads to a non-optimal self-esteem dynamics, in which people vacillate between feelings of grandiosity following success and self-derogation and shame following failure, which in turn promote a rigid and stressful mode of coping**. Thus, the practice of PCPR, although seemingly benign, appears to carry significant emotional and coping costs for adolescents.

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"He (Baba) lit a match and said, casually: 'I think maybe you'll win the tournament this year. What do you think? I didn't know what to think... Was that what it would take? ... Baba was used to winning... Didn't he have a right to expect the same from his son? And just imagine. If I did win? ... I was going to win. There was no other viable option.... I was going to win... Show him once and for all that his son was worthy"

Khaled Hosseini: *The Kite Runner* (p. 56)

The experience described in the above quote, told from the viewpoint of an Afghan child, appears to touch a chord common to people in many cultures; namely, **children's feeling that their parents would give them a great deal of appreciation and affection if they attain high achievements**. Following Rogers' (1951) seminal work and later work by Assor (2011), Assor and Roth (2005), Assor, Roth, and Deci (2004), Roth, Assor, Niemiec, Ryan, and Deci (2009), in the present article we refer to this experience as perceived parental conditional positive regard (i.e., PCPR), and attempt to examine some of its potential consequences for adolescents.

According to Assor et al. (2004), the experience of parental conditional regard refers to **the perception of parents' affection and appreciation as depending on the child's attainment of parentally valued outcomes** or the enactment of valued behaviors.

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More recently, Assor and Roth (2005), Assor, Roth, Israeli, Freed & Deci (2007) and Roth et al. (2009) distinguished between two types of parental conditional regard: Positive and negative. In the case of parental conditional positive regard (PCPR), parents are perceived to provide more affection and esteem than usual when the child meets parents' expectations; the quote from Hosseini represents one example of PCPR in which the child believes that his father would think that he is worthy if he wins the competition. It is important to note that PCPR is not identical with positive feedback or praise. Thus, children may report that their parents praise them, and still do not feel conditionally regarded because they do not experience the praise as implying that their value as a person or their parents' love depends on their attainment of specific outcomes or enactment of specific behaviors. The notion that praise does not necessarily entail conditional regard is endorsed by Dweck (1999) and Ginott (1969), both stating that praise is likely to be harmful or experienced as implying conditional regard only to the extent that it is character- or trait-oriented; in contrast, these authors claim that when praise is accomplishment- or effort-oriented, it is not likely to create an experience of conditional regard.

In perceived parental conditional negative regard (PCNR), parents are perceived to provide less affection and esteem than they usually do when the child does not meet parents' expectations. While the concept of PCNR is close to the well known constructs of psychological control (PC, Barber, 1996; Barber, Stolz, & Olsen, 2005) and love withdrawal (e.g., Elliot & Thrash, 2004; Hoffman, 1970; Schluderman & Schluderman, 1983; Sears, Maccoby, & Levin, 1957), there are also some important differences. PC differs from PCNR in that it includes components of intrusiveness and blame which children cannot affect by their behavior (e.g., "blames me for other family members' problems"), thus making it a particularly aversive parenting style. Another difference between PCNR and both PC and love withdrawal is that the latter two constructs usually refer to a general parental style, whereas PCPR and PCNR refer to specific behavioral domains (e.g., academic achievement).

Theoretical and empirical work on parental practices generally agrees that using parental practices similar to conditional negative regard (i.e., PC and love withdrawal) as socializing practices has serious negative effects (Aronfreed, 1968; Assor et al., 2004; Barber et al., 2005; Elliot & Thrash, 2004; Grolnick, 2003; Hoffman, 1970; Sears et al., 1957; Soenens, Vansteenkiste, Duriez, Luyten, & Goossens, 2005). For example, Hoffman (1970) speculated that love withdrawal might be even worse than other, apparently harsher, physical punishments. Consistent with view, Elliot and Thrash (2004) found that maternal use of love withdrawal was linked to fear of failure in offspring. However, opinions differ with regard to the desirability of parental conditional positive regard (PCPR). Thus, from a behaviorist perspective, PCPR can be viewed as an effective and desirable practice which reinforces parentally valued behaviors (e.g., Gewirtz & Pelaez-Nogueras, 1991; McDowell, 1988). Importantly, practices similar to PCPR are also recommended by various parent guidance (education) books or articles (e.g., Latham, 1994; Patterson & Gullion, 1976; Steinberg, 2004). In contrast, other approaches (e.g., Miller, 1981; Rogers, 1951; Ryan & Deci, 2000) view the use of PCPR as a socializing practice as detrimental to children's psychological growth.

Despite the opposing views regarding the desirability of positive conditional regard, at present there is very little research bearing on this issue. Research by Roth et al. (2009) showed that PCPR was a positive predictor of feelings of internal compulsion to study, which in turn positively predicted grade-focused engagement in studying and negatively predicted interest-focused studying. These results suggest that the practice of conditional regard has undesirable correlates also when it involves the ostensibly more benign form of providing more affection and esteem than usual when children comply with parents' expectations (i.e., PCPR). However, while the findings obtained by Roth et al. (2009) suggest that PCPR promotes non-optimal self-evaluative and coping processes, at present we have only scant knowledge about the nature of these processes.

Given the dearth of research on the self-evaluative and coping processes associated with the controversial practice of PCPR, the major purpose of the present research was to further expand our knowledge concerning potential psychological costs associated with PCPR by exploring the links between PCPR and maladaptive self-evaluative and coping processes. Specifically, based mainly on self-determination theory (SDT, Deci & Ryan, 1985; Grolnick et al., 1997) we propose and examine a model of PCPR as a predictor of maladaptive self-evaluative and coping processes in academic achievement situations.

The impact of parental conditional positive regard on self-related feelings and coping

According to self-determination theory (SDT, Assor et al., 2004; Deci & Ryan, 1985, 1995), the perception that parents' regard depends on academic achievement leads to a type of self-regulation termed introjected regulation. According to SDT, in introjected regulation, parental expectations and pressures that link the attainment of parentally valued attributes with the provision of parental warmth are internalized and transformed into pressuring standards of self-evaluation. When the child meets the internalized parental standards he/she feels highly worthy, whereas when she/he fails to meet these standards she feels worthless and ashamed (see Assor, Vansteenkiste, & Kaplan, 2009). The foregoing SDT analysis suggests that the experience of conditional parental regard predisposes people to view achievement challenges as likely to have a serious impact on their sense of self-worth, and therefore promotes rather intensive and extreme self-evaluative and coping responses in such situations.

Based on this general conception and a previous study focusing on PCPR (Roth et al., 2009), we further specify the effects of PCPR on responses to success and failure and on coping in achievement situations. Fig. 1 describes our predictions for the effects of PCPR.

We hypothesize that PCPR promotes self-aggrandizement following success in academic tasks in an attempt to compensate for the missing unconditional parental regard. In addition, this narcissistic response might help to preserve the hope that one would continue to gain the missing parental regard in the future because one has such unique qualities.

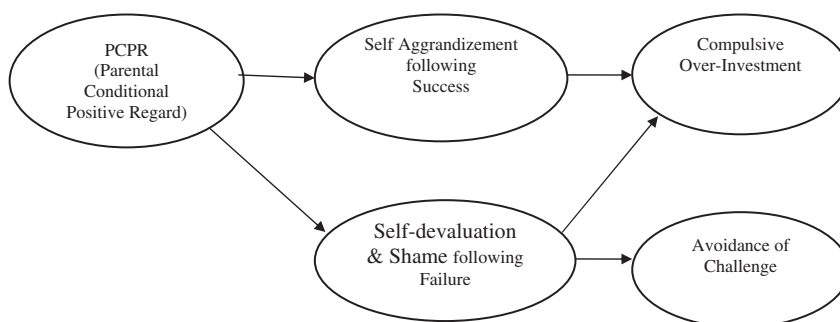


Fig. 1. The expected effects of PCPR on children's self feelings and academic coping.

Importantly, however, the fact that parental regard depends upon success is also likely to promote feelings of unworthiness and shame when the child does not succeed. Thus, the fact that the parent provides much esteem only when one succeeds is likely to be interpreted as meaning that one is not worthy if one does not succeed. As a result, PCPR is likely to lead to feelings of shame and embarrassment when one fails. The shame and the self aggrandizement then are different sides of a fragile and unstable sense of self worth.

The inextricable link between self aggrandizement and shame was noted by Alice Miller in her book on the drama of the gifted child (1979): "In the parents' feelings, dangerously close to pride in their child, shame is concealed – lest he should fail to fulfill their expectations." (p. 39) Findings supporting the hypothesized impact of parental conditional regard on self aggrandizement and shame were obtained by Assor et al. (2004). In that study, offspring's perception of their parents as using conditional regard to promote achievement predicted large fluctuations in self esteem in offspring (i.e., feeling extremely worthy and proud of one-self one day, and then feeling extremely unworthy and incapable on the next day). However, the above study did not differentiate between positive and negative forms of conditional regard (i.e., PCPR and PCNR). The present analysis suggests that it is mostly the conditional positive regard that accounted for the link between parental conditional regard and fluctuations between self aggrandizement and shame in the Assor et al. (2004) study.

As for coping responses, we assume that both success-based feelings of grandiosity and feelings of shame following failure lead high PCPR people to compulsively over-invest in order to re-produce desired and missing self-worth experiences, as well as in order to avoid shame following failure. One mark of this compulsive over investment is the feeling that one is unwillingly sacrificing other activities she or he would like to pursue. The behavior of compulsive over-investment appears to have much in common with the kind of coping behavior described by Covington and Omelich (1991) under the term over-striving.

Another, perhaps less frequent, coping response PCPR may facilitate is challenge-avoidance - the tendency to withdraw and avoid challenges when chances for success are not clear and success is not quickly or easily apparent (Covington, 1992; Covington & Omelich, 1991; Elliot & Church, 1997). It is reasonable to assume that for most high PCPR people, the positive parental feedback given following success may generate some feelings of competence that would lead them to respond to failure-related shame mainly with over investment. However, it is also possible that some high PCPR people respond to failure-related shame by withdrawing from difficult challenges when success feedback is not quickly or easily coming. This avoidant response may minimize further shame because most people believe that when effort investment is minimal failure does not imply lack of competence (i.e., Dweck, 1999; Nicholls & Miller, 1984).

PCPR as a unique predictor of self feelings and coping

A secondary purpose of the present research was to examine if our model of PCPR as a predictor of maladaptive self feelings and coping holds also when it includes the construct of parental conditional negative regard (PCNR) or the widely used construct of parental psychological control (PC, e.g., Barber, 1996) as a second predictor.

Past research (Assor, Roth, Israeli, Freed, & Deci, 2007; Roth et al., 2009; Roth & Assor, 2010) has shown that the conceptually related constructs of PCNR and PCPR are also empirically related. Therefore it is important to examine if the hypothesized effects of PCPR emerge also when the effects of PCNR are held constant. The attempt to disentangle the effects of PCPR from those of PCNR is especially important in the case of shame and self-derogation and of challenge-avoidance because these two processes can be expected to be related to PCNR and not only to PCPR.

PCNR can be expected to promote shame and self-devaluation following failure because parents have responded to failures by withdrawing their esteem. In addition, people who have experienced high levels of PCNR may try to avoid challenging tasks in order to avoid feeling ashamed. Research indirectly supporting this view was conducted by Elliot and Thrash (2004) and by McGregor and Elliot (2005), who have demonstrated that the practice of parental love withdrawal (which is similar to PCNR) predicts children's avoidance of challenging tasks, and that persons with an anxious-avoidant response to challenging tasks tend to experience shame when they fail.

The correlates of PCPR should also be distinguished from those of psychological control (PC, Barber, 1996). Considerable research has shown that PC is associated with negative outcomes in children such as depression and behavior problems (e.g., Barber et al., 2005). Given that PCPR and PC both involve controlling parenting, it is important to examine if, in a model including both variables, PCPR would still emerge as unique predictor of maladaptive processes. Moreover, assuming that PCPR is indeed a distinct type of parental control, it is important to identify the unique psychological processes associated with this seemingly more benign type of control.

Given the similarity between PC and PCNR, we expected that PC too would lead to shame following failure and challenge-avoidance. We did not expect PCNR and PC to promote over investment that is driven by the hope of feeling grand after success because the lack of positive parental response to success was assumed to suppress strivings for grand achievements.

Overall, we hypothesized that PCPR would predict self-aggrandizement and self-devaluation and shame following failure, which in turn, would both predict a non-optimal mode of coping characterized as compulsive over-investment. These effects were expected to emerge also when the impact of PCNR and PC would be statistically controlled. In addition, we examined the possibility that PCPR would predict self-devaluation and shame following failure, which then, would predict challenge-avoidance, and this pattern would emerge also when the impact of PCNR and PC would be statistically controlled for.

Method

Participants and procedure

One hundred fifty three (75 male, 78 female) Israeli 10th and 11th grade students participated in the study, with a mean age of 16.5 years ($SD = .55$, range = 15–17.6). The school serves mostly a middle class population. Participants were informed that the study involved completing questionnaires about their thoughts and feelings. In addition, they were informed that their responses would be kept completely confidential. Two trained research assistants administered questionnaires assessing the variables of interest to the students in their classrooms. Students took about 10–15 min to complete the questionnaires.

Measures

All items in the questionnaire employed a response format asking participants to indicate their agreement on a 7 point Likert scale ranging from 1 (“Completely disagree”) to 7 (“Completely agree”). Due to administrative constraints, perceptions of PCPR, PCNR and psychological control (PC) were collected only on mothers.

Parental conditional positive regard

This 5-item scale was based on the work of Assor, Roth, Israeli & Freed (2007) and Roth et al. (2009), who showed that high school students clearly distinguish between positive and negative parental conditional regard, and that the two types of perceived parenting practices have distinct correlates. A sample item is: “When I succeed in a test, I feel that my mom loves and appreciates me more” (Cronbach’s $\alpha = 0.91$).

Parental conditional negative regard

This 5-item scale was also based on the work of Assor, Roth, Israeli & Freed (2007) and Roth et al. (2009). As already indicated, the pilot study showed that adolescents clearly distinguish between the items assessing conditional positive and negative parental regard. A sample item is: “When I fail in a test my mother shows me less affection and appreciation”. Results of an exploratory factor analysis replicated the results of previous studies (e.g., Roth et al., 2009), yielding the expected two factor structure with no cross loadings (percent of variance accounted was 66%). The results of the factor

Table 1

Factor analysis distinguishing between conditional positive and negative regard.

Conditional parental regard items	Conditional positive regard	Conditional negative regard
When I succeed at school my worth in my mom’s eyes increases	.89	
When I study hard, I feel that my mom appreciates me much more.	.84	
When I succeed in a test, I feel that my mom loves and appreciates me more.	.80	
When I succeed at school my mother gives me the feeling I’m worth more	.75	
When I succeed at school, I feel that my mom is more proud of me	.69	
When I do not succeed at school, my mom keeps away from me for a while.		.78
When I do not succeed at school my mom would show me less caring and attention		.77
When I fail in a test my mom would show me less caring and affection		.75
When I do not succeed in a test, my mom lets me feel that I am a worthless person		.75
When I get a poor grade at school, my mom stops giving me attention for a while		.72
Percent of variance accounted for:	35.33	30.91

Note: The table includes only loadings above .35.

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analysis are presented in Table 1, which also includes the items composing the two maternal conditional regard scales. The PCPR scale had a Cronbach α coefficient of .88 and the PCNR scale had a Cronbach α coefficient of .83. The correlation between the scales was .45.

Importantly, Assor et al. (2007) showed that adolescents' perceptions of their mothers as providing conditional positive and conditional negative regard in the academic domain had positive significant correlations only with the parallel parents' scales. Thus, offspring's report on PCPR correlated positively and significantly with mothers' report of PCPR, but not of PCNR, and the same was true for PCNR reports. In addition, Roth et al. (2009) showed that adolescents' perceptions of their parents as using PCPR and PCNR in the academic domain were positively associated, respectively, with teachers' reports of students as showing lack of engagement and grade-focused engagement in studying. Additional evidence that PCPR is associated with negative outcomes also when outcomes are assessed in ways other than self report was obtained by Roth and Assor (2010). Finally, a study by Israeli-Halevi, Assor, and Roth (2011) also showed correspondence of parents' and adolescents' reports concerning parents' use of PCPR and PCNR to promote anxiety suppression in offspring.

Psychological control

To assess this construct we used the eight item Psychological Control Scale – Youth Self report (PCS-YSR; Barber, 1996) which refers to participants' perceptions of their mothers as using psychological control. A sample item is: "My mom is less friendly with me if I do not see things her way" (Cronbach's $\alpha = 0.83$). The scale was translated to Hebrew by one person and then back to English by another person. Results of data collected as part of another study with youth (Gabay, Moed, Kanat-Maymon, & Assor, 2010) indicated that, as can be expected, the translated scale correlated negatively with self esteem and autonomous academic motivation and positively with depressive feelings, anxiety, avoidance of academic challenges and lack of academic motivation.

Self-aggrandizement following success

This construct refers to the tendency to experience feelings of superiority, uniqueness, grandiosity, and great potency following success. Six items were constructed in an attempt to capture these specific feelings following success. Sample items are "When I succeed in a test I feel I can achieve great things" and "When I succeed in a test, I feel that I am more special than others" (Cronbach's $\alpha = 0.89$). The construct validity of the self-aggrandizement scale was supported by findings from a study by Tal (2009), in which this scale correlated .47 with the Narcissism scale (Raskin & Hall, 1981), .56 with performance approach goals, and only .29 with mastery goals (Elliot & Church, 1997). This pattern is to be expected because narcissism and performance approach goals, unlike mastery goals, often reflect a concern with self worth and ability demonstration, which also characterizes people who engage in self-aggrandizement.

Self-devaluation and shame following failure

To assess this construct we used two sub-scales of Conroy's (2001) Performance Failure Appraisal Inventory (PFAI; Conroy, Willow, & Metzler, 2002): (a) Fears of Experiencing Shame and Embarrassment ("When I am failing, I worry about what others think about me"), and (b) Fears of Devaluing One's Self-Estimate ("When I am failing, I am afraid that I might not have enough talent."). The sub-scales were translated to Hebrew by one person and then back to English by another person. Factor analysis indicated that the items of the two sub-scales loaded on the same factor, and therefore they were combined into one scale (Cronbach's $\alpha = 0.89$). Thus, in the analyses to be reported, the shame and self-devaluation score consists of the mean of the items of the two sub-scales.

The construct validity of this scale was supported by findings from a study by Tal (2009), in which this scale had a sizable and significant correlation ($r = .69$) with Tangney, Wagner, Gavlas, & Gramzow's (1991) shame proneness scale, but was only marginally related to Tangney et al (1991) guilt proneness scale ($r = .17, p < 0.06$).

Compulsive over-investment

This construct refers to intense effort investment that is experienced as not fully volitional and as arousing some ambivalence due to its rigid and extreme nature (see Assor et al. (2004) and Soenens & Vansteenkiste (2010) on the nature of such internally controlling behaviors). Sample items are: "Sometimes my investment in studying for exams is really exaggerated and too extreme" and "Sometimes I feel that the need to invest in studying makes me miss the things I really want to do" (Cronbach's $\alpha = 0.76$). The construct validity of the compulsive over-investment scale was supported by findings from a study by Tal (2009), in which this scale showed significant positive associations with perfectionist dispositions as assessed by the personal standards and doubts about actions sub-scales of Frost, Marten, Lahart, and Rosenblate (1990) perfectionism scale ($r = .28$ and $r = .31$ respectively).

Avoidance of challenge

This scale was used to assess participants' tendency to withdraw from academic challenges when success is not quickly apparent or no feedback is available. The scale consists of five items. A sample item is: "If I don't succeed at a school task for the first time, I stop trying" (Cronbach's $\alpha = 0.84$). The construct validity of the self-aggrandizement scale was supported by findings from a study by Tal (2009), in which this scale had a significant moderate correlation ($r = .48$) with performance-avoidance achievement goals, but was *not* significantly related to performance approach and mastery goals ($r = .11, r = -.15$, respectively; all goals were assessed via Elliot and Church (1997) scales).

Results

Descriptive statistics and correlations

Table 2 displays descriptive statistics for the variables studied as well as the correlations among them. The correlations presented in this table are consistent with our hypotheses and the proposed model. Thus, PCPR was positively related to over-investment and self aggrandizement, as well as to avoidance and self devaluation.

Testing the hypothesized model

The proposed model of self aggrandizement and self-devaluation as mediators of the relations between PCPR and the coping modes of over investment and avoidance was examined by Structural Equation Modeling (SEM) analyses, following the basic logic outlined by Baron and Kenny (1986) and the suggestions of Holmbeck (1997).

The first step consisted of a SEM analysis with manifest variables, using AMOS 7 software (Arbuckle, 2006), testing the hypothesis that PCPR predicts both compulsive over-investment and avoidance. Results showed that the hypothesized model had a good fit to the data [$\chi^2(1, 153) = .01, n.s., \chi^2/df = .01, CFI = 1.00, NFI = .97, IFI = 1.06, TLI = 1.20, RMSEA = .00$]. As can be expected, the fit coefficients indicate almost perfect fit because the model only deals with relations between one predictor and two outcomes, and the correlations between the predictor and both outcomes are significant. The two significant path coefficients ($p < 0.05$) were similar to the correlation coefficients presented in Table 2.

The second step consisted of a SEM analysis with manifest variables testing the model outlined in Fig. 1. Because self-devaluation following failure and self aggrandizement following success were correlated (see Table 2) we included in the model a two-way path connecting the error terms assessed for these variables. We did not allow a correlation between the error terms of avoidance and over-investment because this association was not significant. Results are presented in Fig. 2.

Results of the SEM analysis showed that the hypothesized model had a good fit to the data [$\chi^2(4, 153) = 7.94, p < 0.009, \chi^2/df = 1.98, CFI = .97, NFI = .95, IFI = .97, TLI = .90, RMSEA = .08$].

The third step involved an examination of the predicted indirect effects of PCPR on over investment and avoidance, using the bootstrapping procedure (Preacher & Hayes, 2004, 2008).

Results of the bootstrapping computations (which were all un-standardized) supported the hypotheses that self aggrandizement mediates the effect of PCPR on over-investment, and that self-devaluation mediates the effect of PCPR on both over-investment and challenge-avoidance. Specifically, the bias-corrected bootstrap estimate of the indirect effect of PCPR via Self aggrandizement on over-investment (controlling for the effect of self-devaluation) had a 95% confidence interval of .05–.21, the bias-corrected bootstrap estimate of the indirect effect of PCPR via self-devaluation on over-investment (controlling for the effect of self aggrandizement) had a 95% confidence interval of .01–.15, and the bias-corrected bootstrap estimate of the indirect effect of PCPR via self-devaluation on avoidance (controlling for the effect of self aggrandizement) had a 95% confidence interval of .06–.20.

The fourth step involved testing a model in which PCPR is connected to the DVs also via direct effect paths (in addition to the indirect paths appearing in Fig. 2). This model tests if the indirect effects tested above represent full or partial mediation. Results clearly showed that the two direct effect paths were both not significant and small (.01 for the path directly connecting PCPR with over-investment, and .13 for the path directly connecting PCPR with challenge-avoidance). Moreover, the model including direct effects did not show better fit to the data [$\chi^2(2, 153) = 5.53, df = 2, p > 0.05; \chi^2/df = 2.76; CFI = .97; NFI = .96; TLI = .87; IFI = .97; RMSEA = .11$]. These results suggest that, as expected, self aggrandizement following success and self-devaluation following failure fully mediate the relations between PCPR and the coping responses of compulsive over-investment and challenge-avoidance.

Controlling for the effects of parental conditional negative regard (PCPR)

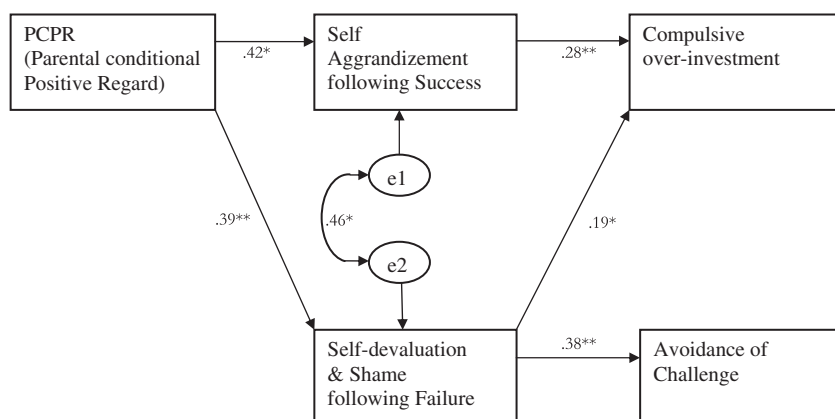
To examine if the model depicted in Fig. 2 holds also when the effects of parental conditional negative regard (PCNR) are held constant, we added PCNR to this model as a second IV.

Table 2

Means, standard deviations, Cronbach alphas and inter-correlations of variables examined in study 2.

Variable	1	2	3	4	5	6	7	M	SD
1. PCPR	.89							3.02	1.49
2. PCNR	.45**	.87						1.67	.95
3. Psychological control	.58**	.61**	.83					2.03	1.03
4. Self aggrandizement	.42**	.13	.25**	.89				3.95	1.23
5. Self-devaluation & shame following failure	.38**	.37**	.49**	.55**	.89			3.02	1.30
6. Compulsive over-investment	.20*	.07	.08	.39**	.34**	.76		3.85	1.59
7. Avoidance of challenge	.25**	.20*	.27**	.10	.37**	.04	.84	3.10	1.20

Note: Reliabilities are presented in the diagonal; * $p < 0.05$. ** $p < 0.01$.



$\chi^2(4, 153) = 7.94, p < .009, \chi^2/df = 1.98, CFI = 0.97, NFI = 0.95, IFI = 0.97, TLI = 0.90, RMSEA = 0.080$

* $p < 0.05$; ** $p < 0.01$

Fig. 2. Perceptions of mothers' PCPR as predictors of children's self feelings and academic coping.

Results of the SEM analysis showed that the hypothesized model had a good fit to the data.

$[\chi^2(7, 153) = 9.02, p > 0.05, \chi^2/df = 1.28, CFI = .98, NFI = .95, IFI = .98, TLI = .96, RMSEA = .04]$. Results of the bootstrapping computations again supported the hypotheses that self aggrandizement mediates the effect of PCPR on over-investment, and that self-devaluation mediates the effect of PCPR on both over-investment and challenge-avoidance. Specifically, the bias-corrected bootstrap estimate of the indirect effect of PCPR via self aggrandizement on over-investment (controlling for the effect of PCNR and self-devaluation) had a 95% confidence interval of .04–.24, the bias-corrected bootstrap estimate of the indirect effect of PCPR via self-devaluation on over-investment (controlling for the effect of PCNR and self aggrandizement) had a 95% confidence interval of .01–.14, and the bias-corrected bootstrap estimate of the indirect effect of PCPR via self-devaluation on avoidance (controlling for the effect of PCNR and self aggrandizement) had a 95% confidence interval of .06–.21.

Controlling for the effects of psychological control (PC)

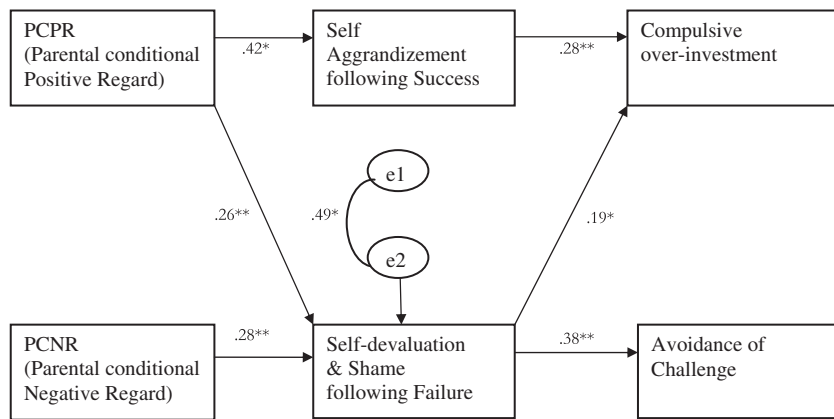
To examine if the model depicted in Fig. 2 (including only PCPR as an IV) holds also when the effects of PC are held constant, we added PC to this model as a second IV. Results of the SEM analysis showed that the hypothesized model had a good fit to the data ($\chi^2(7, 153) = 10.61, p < 0.0157, \chi^2/df = 1.51, CFI = .98, NFI = .95, IFI = .98, TLI = .95, RMSEA = .058$). Results of the bootstrapping computations supported the hypotheses that self aggrandizement mediates the effect of PCPR on over-investment, and that self-devaluation also mediates the effect of PCPR on over-investment. Specifically, the bias-corrected bootstrap estimate of the indirect effect of PCPR via Self aggrandizement on over-investment (controlling for the effect of PC and self-devaluation) had a 95% confidence interval of .03–.21, and the bias-corrected bootstrap estimate of the indirect effect of PCPR via self-devaluation on over-investment (controlling for the effect of PC and self aggrandizement) had a 95% confidence interval of .01–.14.

However, results of the bootstrapping computations did not support the hypothesis that self-devaluation mediates the effect of PCPR on avoidance. Thus, the bias-corrected bootstrap estimate of the indirect effect of PCPR via self-devaluation on avoidance (controlling for the effect of PC and self aggrandizement) had a 95% confidence interval of $-.001$ to $.14$ (thus, not reliably different from zero). Importantly, the finding concerning lack of a reliable indirect effect of PCPR on avoidance via self-devaluation (controlling for the effect of PC) was obtained also by a regression procedure. In that analysis, both PCPR and PC were regressed on challenge avoidance. Results showed that PC had a unique effect ($\beta = .19, p < 0.05$), but this was not true for PCPR ($\beta = .14, > .05$). Overall, then, both analyses suggest that when the effects of PC are considered, PCPR cannot be considered a unique predictor of over-investment, and PCPR also does not have an indirect effect on avoidance via self-devaluation.

To underscore the latter point, Figs. 3 and 4 depicts the indirect effects of PCPR by means of bold arrows, and consequently, the path going from shame to over-investment is marked by a regular arrow.

Examining whether the models vary as a function of respondent sex

To examine whether the three models presented in Figs. 2–4 hold across gender, we conducted multiple group analysis (see Bollen, 1989) for each of these models. In this analysis we compared a model where the path coefficients were free to vary across gender (suggesting that the models differ as a function of gender) with a model where the paths were constrained to



$$\chi^2(7, 153) = 9.02, p < 0.25, \chi^2/df = 1.28, CFI = 0.98, NFI = 0.95, IFI = 0.98, TLI = 0.96, RMSEA = 0.044$$

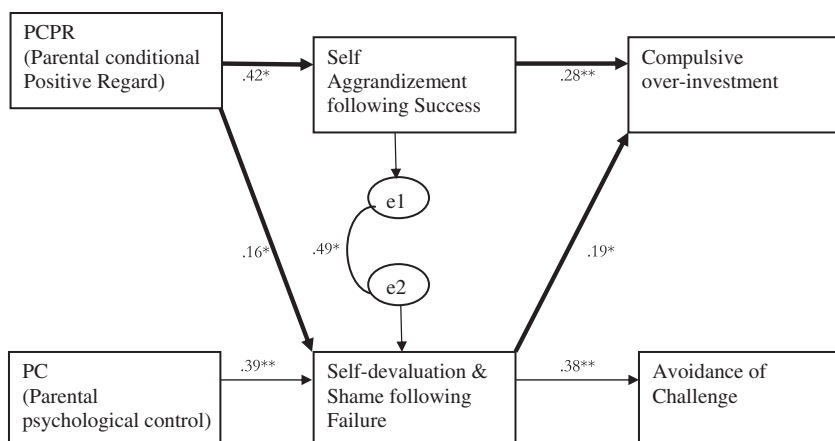
* $p < 0.05$; ** $p < 0.01$

Fig. 3. Perceptions of mothers' PCPR and PCNR as predictors of adolescents' self feelings and coping following success and failure.

equality (male and female groups had the same path coefficients). Results of the multiple group analyses showed that for all three models the Chi Square value representing the difference between the Chi Squares of the constrained and the free model were not significant (for the model in Fig. 2: $\Delta\chi^2 = 4.2$, $\Delta df = 5$, n.s.; for the model in Fig. 3: $\Delta\chi^2 = 6.1$, $\Delta df = 6$, n.s.; for the model in Fig. 4: $\Delta\chi^2 = 4.5$, $\Delta df = 6$, n.s.). In line with the basic logic of SEM and multiple group comparisons (Bollen, 1989), the models assuming no moderation by gender were preferred because they were more parsimonious and did not show significantly poorer fit despite the loss of degrees of freedom due to the equality constrains.

Discussion

The present research focused on adolescents' perceptions of parental conditional positive regard (PCPR) in the academic achievement domain, a practice which was hardly examined so far. Results indicate that, as expected, this seemingly benign practice was associated with maladaptive self feelings and coping responses. Specifically, **it was found that adolescents' perceptions of their parents as using PCPR to promote academic achievement predicted adolescents' self aggrandizement following success and self derogation and shame following failure, which then predicted compulsive over-investment.** PCPR



$$\chi^2(7, 153) = 10.61, p < .0157, \chi^2/df = 1.51, CFI = 0.98, NFI = 0.95, IFI = 0.98, TLI = 0.95, RMSEA = 0.058$$

Fig. 4. Perceptions of mothers' PCPR and Psychological Control (PC) as predictors of adolescents' self feelings and coping following success and failure.

functioned as a unique predictor of maladaptive self feelings and coping also when perceived parental conditional negative regard (Roth et al., 2009) or psychological control (Barber, 1996) were introduced as second predictors in SEM equations.

The findings portraying PCPR as associated with various maladaptive correlates are consistent with the findings obtained by Roth et al. (2009), showing that PCPR among adolescents predicts introjected internalization of parental expectations concerning achievement, as well as grade-focused engagement in learning. Importantly, the maladaptive nature of PCPR emerges also in studies examining PCPR in the domain of emotion regulation. Specifically, Roth and Assor (2010) have shown that parents who report using conditional positive regard to promote suppression of negative emotions in children have children with poor emotion recognition abilities and low empathic capacity. Similarly Assor et al. (2007) have shown that children who perceive their parents as using positive conditional regard to promote suppression of anger have difficulties regulating their anger, feel overwhelmed when they experience anger, and find it difficult to continue with daily tasks when feeling angry. It should also be noted that in the above three studies the maladaptive correlates of PCPR were found also when the effects of negative conditional regard were held constant.

The fact that parental conditional positive regard was repeatedly found to have unique maladaptive correlates that cannot be accounted for by parental conditional negative regard or psychological control suggests that PCPR differs from other types of parental control in the psychological dynamics it involves. Specifically, we assume that perceptions of parents as using conditional positive regard promote the development of a fragile, contingent (e.g., Crocker & Wolfe, 2001; Kernis, Brown, & Brody, 2000) and unstable sense of self (Kernis, Cornell, Sun, Berry, & Harlow, 1993), vacillating between feelings of worth, competence and pride on one hand and feelings of worthlessness, incompetence and shame on the other hand (see also Assor et al., 2004 on this issue). The present research did not assess stability or fluctuations of self esteem, nor did it assess contingent self worth. Yet, the fact that PCPR was related to both self aggrandizement following success and shame following failure, as well as the fairly sizable correlation between shame and self aggrandizement suggest that PCPR indeed is likely to contribute to an unstable self esteem that is contingent on one's performance and others' feedback.

The notion that parental positive conditional regard is likely to promote an unstable sense of self is consistent with Kernis et al.'s (1998) views concerning the antecedents of unstable and fragile self esteem. Thus, Kernis et al. (1998) have highlighted the role of over-reliance on significant others' love and approval in promoting unstable self esteem, which then leads to the feeling that one's self worth is fragile and vulnerable. Research by Kernis et al. (2000) has shown that children's perceptions of parents as using love withdrawal and guilt induction were associated with unstable self esteem, as well as generally low level self esteem. Similar findings were obtained by Assor et al. (2004) with regard to general perceptions of parental conditional regard, consisting mostly of conditional negative regard. Our analysis of PCPR, suggests that this specific practice is likely to be associated with unstable self esteem, but, unlike conditional negative regard (PCNR) or love withdrawal it should not be associated with a generally low level of self esteem. Further research may test this prediction.

Another aspect of self-esteem dynamics which might be related to PCPR involves narcissistic tendencies. The present research showed that PCPR was associated with feelings of self aggrandizement and superiority following academic success. Such feelings are key components of a narcissistic personality disposition (Raskin, Novacek, & Hogan, 1991; Rhodewalt & Morf, 1998). Thus, it is possible that the self aggrandizing responses after success reflect a more enduring narcissistic tendency, and PCPR promotes not only temporary feelings of grandiosity, but also a more chronic narcissistic inclination, which in turn provides the basis of temporary grandiose responses. A link between a narcissistic disposition and self aggrandizing response after success was detected in research by Rhodewalt and Morf (1998). These researchers have shown that people scoring high on narcissism made more self aggrandizing attributions for success than did people scoring low on narcissism. However, Rhodewalt and Morf (1998) did not examine perceptions of parental practices or actual parental practices. Future research may examine the possibility that the impact of PCPR on self aggrandizement following success is mediated by an enduring narcissistic disposition. That is, PCPR might promote narcissistic strivings, which in turn might lay the foundation for self aggrandizing responses in specific situations.

But, why would PCPR lead to self aggrandizing response following success? The present research obviously cannot answer this question. However, it is possible to speculate that PCPR creates a continual longing for the missing unconditional parental appreciation and affection. Against this background, self aggrandizing responses reinforce the belief in one's potential greatness and superiority, which in turn allows one to nurture a hope or a fantasy that one can attain high achievements which would bring the missing unconditional parental love and a great deal of parental affection. Interestingly, the link between missing parental love and the development of narcissistic aspirations aimed at attaining the missing maternal love was already articulated by Freud in his article "The Ego and the Id" (Freud, 1923).

Of course, the flip side of the hope based on self-aggrandizing beliefs is the fear that failure to achieve would lead to shame and loss of parental regard. And indeed research on people with self aggrandizing narcissistic tendencies shows that these tendencies are often associated with shame and avoidance or self handicapping in response to difficult tasks or possible failure (e.g. Broucek, 1991; Morrison, 1989; Rhodewalt, Tragakis, & Finnerty, 2001).

The results suggest that the practice of PCPR is not only distinct from parental psychological control (PC), but also, despite its non-optimal nature, still more adaptive than PC. Thus, while PC was a stronger predictor of the highly aversive self-feeling of shame and self devaluation, PCPR was a stronger predictor of self aggrandizement, which despite its disquieting, perhaps even manic nature, also has a positive affective component. Perhaps more important, while parental PC predicts lack of active coping (i.e., avoidant coping), as well as depressive feelings and low self esteem (e.g., Barber et al., 2005), parental positive conditional regard does predict an active style of coping which, although highly stressful, can also lead to achievements and associated positive outcomes. The more benign and adaptive nature of the strategy of PCPR relative to the PC and PCNR

strategies may also account for the finding that the participants in our study were more inclined to agree that their parents use this strategy ($M = 3.02$) than the PC and PCNR strategies ($M = 2.03$ and $M = 1.67$, respectively). Thus, it appears that PCPR promotes self-aggrandizing, introjection-based, motivation, whereas PC promotes lack of motivation (a-motivation).

Limitations and future directions

The present study has several limitations. First, the evidence is based on adolescents' self reports. Past research (e.g., Assor et al., 2007; Roth & Assor, 2010; Roth et al., 2009) has already shown that PCPR and PCNR are found to have negative correlates also when assessment is not solely based on offspring's self reports. Yet, in future research it is advisable to use assessments based on multiple informants. Thus, parents' practices can be assessed using instruments that are based on both parents' and offspring's reports, and over-investment and challenge-avoidance may be assessed using observational methods and behavioral tasks.

Second, given the correlational nature of this study, it is not possible to draw inferences concerning causality. Moreover, it is possible that at least for some of the relations detected the causal effects might also be working in an opposite direction than hypothesized. For example, it is possible that adolescents who strive to feel grand and special "teach" at least some parents to show an unusual increase in appreciation each time they succeed, which then leads children to feel that parents' positive regard is contingent on their academic success. However, it is also reasonable to assume that adolescents' desire to feel grand and special actually cause many parents to reduce their reliance on conditional regard and communicate appreciation also when their children do not do very well, in an attempt to alleviate the chronic self-worth concerns of their children. Of course, both processes may occur, and the nature of parents' response to children's grandiosity strivings may depend on parents' attributes and histories (see for example, Assor et al., 2004) and various contextual factors (see for example, Gurland & Grolnick, 2005). Future research may try to identify such moderators of parents' response to children's grandiosity strivings.

More generally, as is often the case in developmental processes, the relations between parents' use of PCPR, offspring's self aggrandizement and self-derogation, and offspring's coping processes might be bi-directional and reciprocal. For example, while parents' conditional use of positive and negative regard may lead to self derogation and consequent avoidance in children, it is also possible that children's challenge-avoidance and self-devaluation causes many parents to increase the pressure on the child to keep trying and not give up, using PCPR, PCNR and other pressuring strategies. To examine possible causal relations, including reciprocal effects, future research should use longitudinal designs.

Third, as the present study was carried out with adolescents it might be interesting to examine if PCPR has a similar pattern of correlates in other ages. Given the concern of adolescents with autonomy and control issues, as well with self-evaluation issues (e.g., Elkind, 1967), it is interesting to examine if PCPR would have such a clear link with maladaptive self feelings in other less sensitive life periods.

Fourth, future research may examine the possibility that the negative effects of PCPR might be moderated, perhaps even canceled, by other more beneficial parental attributes, for example responsiveness to child distress or parental support (Barber et al., 2005). While a recent study by Kanat-Maymon & Assor (2009) showed that perceived maternal responsiveness to distress did not moderate the negative effects of perceived maternal control, it is still possible that maternal responsiveness may alleviate the negative effects of the less harmful practice of PCPR.

Conclusion

The findings of the present study suggest that adolescents' perception of their parents as using conditional positive regard to promote academic achievement enhance the development of a fragile and unstable self esteem in adolescents, fluctuating between feelings of grandiosity and shame and leading to non-optimal coping with achievement challenges. Thus, it appears that despite its seemingly benign nature, the socializing practice of positive conditional regard should be treated with great caution and perhaps would better be avoided when possible.

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