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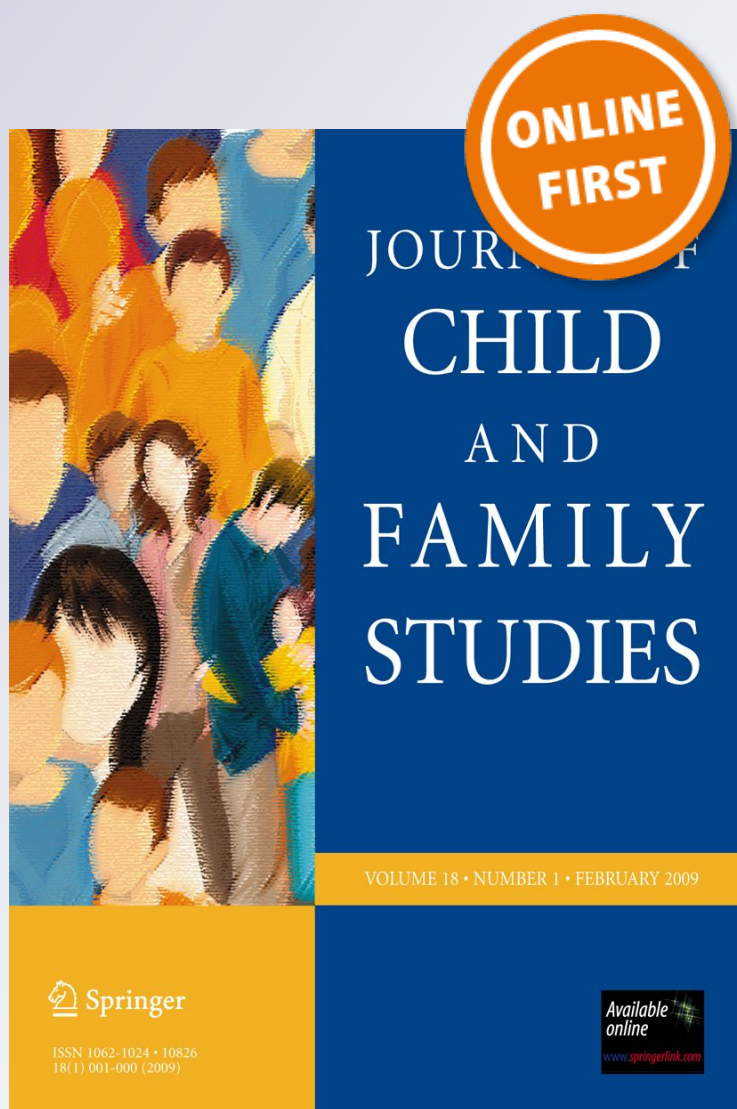
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Journal of Child and Family Studies

ISSN 1062-1024

J Child Fam Stud

DOI 10.1007/s10826-012-9617-x



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Links Between Perception of Parental Actions and Prosocial Behavior in Early Adolescence

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Abstract We analyzed the links between parental styles, practices, and empathy and specific forms of prosocial behaviors in early adolescence. The Argentine scale of perception of relationships with parents for children and young adolescents, prosocial tendencies measure, parenting practices measure, and children's perception of parental empathy were administered to a sample of 289 middle class children, aged 10–16, of both sexes, from primary and secondary schools in Buenos Aires, Argentina. Correlations and hierarchical regressions were used to examine (1) relationships between parental styles, children's perception of parental empathy, parental practices, and children's prosocial behavior, (2) the amount of unique prediction from parental styles, children's perception of parental empathy, and parental practices to children's prosocial behavior. Results indicated that different aspects of parental actions (parental styles, practice, and empathy) have a differential relation according to the type of prosocial behavior involved. When taking these three kinds of parental behavior into account, parental styles are related to public and responsive aspects especially through extreme control by the mother. Parental practices, in turn, are related mainly with anonymous and altruistic aspects, but with this latter negatively. Finally, adolescents' perception of parental empathy explains added variance in all the cases, though to a lesser extent.

Keywords Parental styles · Practices · Empathy · Prosocial behavior · Early adolescence

Introduction

Eisenberg and Fabes (1998) observed that prosocial behavior (i.e., activities primarily intended to have positive outcomes for others) is the result of multiple individual and situational factors including parental variables (e.g., styles, practices) and empathy-related traits (including perspective taking and empathic concern).

According to Darling and Steinberg (1993) parental style is a combination of attitudes toward the child that, as a whole, creates an emotional climate in which parents act. Parental style describes the parental milieu. Although attitudes are considered to be more important than behaviors per se, specific behaviors or particular practices have potential to alter emotional processes (Schaefer and Bell 1958). Parental behaviors are aimed at accomplishing children's socialization goals, which include both children's acquisition of specific skills and behaviors, as well as the development of more global qualities. In order to understand the processes through which parents influence their children's development, researchers must maintain this distinction between practice and style (Barber et al. 2005; Carlo et al. 2007; Darling and Steinberg 1993).

In several studies two major dimensions of parenting styles have been related to prosocial development (see Barber et al. 2005; Baumrind 1991; Laible et al. 2004; Maccoby and Martin 1983). The first one is parental warmth or responsiveness which refers to the degree of positive affection present in parent–child relationships. The second is control, which refers to the degree to which parents establish clear rules and firm limits or restrictions

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on their children's behavior. Responsive parents often foster more secure attachment, express, and model well-regulated emotions (e.g., sadness), which might facilitate prosocial behaviors (Eisenberg and Murphy 1995; Richaud de Minzi 2006a, 2007b). Moreover, restrictive parenting can be seen as training for the compromises of social life and might be to lead to strongly internalized moral values (Grusec and Goodnow 1994; Lautrey 1980). Concerning this issue, however, other authors (Bronson 2000; Gazzaniga 1992) assert that external or extrinsic motivators can induce stress and feelings of loss of control. External rewards and punishment may undermine intrinsic motivation (Bronson 2000). Finally, complete autonomy with insufficient parental monitoring of children's activities has been associated with antisocial behavior (Dishion 1990; Maccoby and Martin 1983; Richaud de Minzi 2006a, 2007b).

Despite the evidence about the relations between parenting styles and prosocial behaviors, these links are quite scarce, especially among adolescents (Carlo et al. 2007). This may be due to not having taking into account parental practices. Carlo et al. (1998) have suggested that parental practices are very important in the prediction of prosocial behaviors.

Furthermore, some studies have found a positive relationship between the mother's empathic caring and children's altruism (Zahn-Waxler et al. 1979). Studies on preschool children have also found that non-authoritarian and non-punishing mothers have children with higher levels of affective and cognitive empathy, and prosocial behavior (Eisenberg et al. 1983; Kestenbaum et al. 1989). It has also been observed that parental modelling of empathic relationships towards their children and others in their presence is strongly linked to the development of prosocial attitudes and to the behavior in children (McDevitt et al. 1991; Richaud de Minzi 2006b; Zahn-Waxler et al. 1979).

Given the central importance of empathy in prosocial development (Eisenberg et al. 2006; Hoffman 2000), it could be hypothesized that certain parental practices and styles would predict children's empathy, which in turn, would predict prosocial behavior. Abundant evidence exists that sympathy is strongly associated with prosocial behaviors (Carlo et al. 2003, 2010; Eisenberg et al. 2001; Richaud and Lemos et al. 2011). Additionally, evidence of the link between children's perception of parental empathy and of children's own empathy has been documented in previous studies (Richaud de Minzi 2006b). Few studies, nevertheless, have examined the effects of children's perception of parental empathy on prosocial behavior, although there are plenty of studies examining the influence of children's and adolescents' empathy on prosocial behavior.

Although Carlo y colaboradores (Carlo et al. 2007, 2010, 2011) studied the effect of different parents' practices on prosocial behavior with children's sympathy as a moderator, the direct influence of perceived parental empathy is not yet explored.

Research concerning prosocial behavior suggests that it has not been considered as a unitary construct, but rather as a multidimensional one. Carlo and Randall (2002) proposed a prosocial behavior model based on the different types of motivation that lead to the prosocial behaviors. Many prosocial behaviors are motivated by factors such as hopes of receiving a reward, social approval or the desire to relieve internal negative states. But prosocial behaviors also include altruistic behavior, i.e. behaviors motivated by sympathy toward others or by the desire of supporting internalized moral principles (Eisenberg et al. 1999). It is important to clarify the difference between prosocial behavior in general and altruism. Altruistic people are those who help other's primarily for other-oriented or moral reasons without regard for external rewards and punishments (Carlo et al. 1991).

The often-reported wide individual and group differences in specific forms of prosocial behaviors suggest the need to study the relationships between parental styles, practices, and empathy and specific forms of prosocial behaviors (see Carlo et al. 2007; Carlo and Randall 2002; Eisenberg 1986).

In this study we are interested in analyzing the links of parental variables with prosocial behavior, and especially in the unique contribution of the different aspects of these parental variables: perceived parental styles, parental practices, and perceived parental empathy, to children's prosocial behavior. We will study children's perception of parental behavior and empathy, according to Schaefer's statement that "a child's perception of his parents' behaviors may be more related to his adjustment than is the actual behavior of his parents" (Schaefer 1965). Finally, we will analyze the parental variables for mother and father separately, based on evidence about differences in involvement and practices between both parents (Gryczkowski et al. 2010).

Therefore, we examined how much explained variance in different forms of prosocial behaviors can be attributed to different parental styles, practices, and empathy in young adolescents between 10 and 16 years of age.

Methods

Participants

The sample studied was recruited from four public schools in the city of Buenos Aires, Argentina, where all the

courses corresponding to 5, 6, and 7 grade of primary school, and 1, 2, 3, and 4 level of secondary school participated in the study. The schools were not randomized selected but assigned by Educational Authorities of Buenos Aires Town Council. The sample was composed by 289 middle class children, aged 10–16 ($M = 12.8$, $SD = 1.41$), of both sexes (172 boys and 117 girls).

Measures

Argentine scale of perception of relationships with parents for children and young adolescents (Richaud de Minzi 2005, 2007a).

The Argentine scale of children's perception of relationships with parents for children and young adolescents (Richaud de Minzi 2007a) is a self-report questionnaire designed to be used to assess children's perceptions of parent–child relationships. It is composed of 32 items. The answer to each item may be yes, more or less, or no.

Two factor analyses were carried out, one for fathers and one for mothers.

The KMO was 0.953 for mothers and 0.929 for fathers. The method of principal Components, oblimin solution was employed. For the definitions of factors only the variables with a factor weight of 0.301 or more were taking into account (Norman and Streiner 1994). In the two factor analyses the Cattell graphic method was employed for the determination of number of factors. The two factor analyses showed five dimensions: Acceptance (7 items; α 0.92 for mother, α 0.89 for fathers), Normal or Acceptable Control (5 items; α 0.75 for both parents), Strict Control -although non-pathological, it is less accepted- (5 items; α 0.81 for mothers and α 0.65 for fathers), Pathological Control (10 items; α 0.72 for mother, α 0.81 for fathers) and Negligence (5 items, α 0.60 for both parents).

Prosocial Tendencies Measure (PTM)

This scale was constructed by Carlo and Randall (2002) and it measures six different types of prosocial behaviors: altruistic, compliant, emotional, dire, public, and anonymous.

This scale was translated and back translated with the supervision of Carlo. Psychometric properties of the measure in Argentine population were assessed previously with an Argentine sample of 500 children, both sexes, between 10 and 16 years of age, attending middle class schools in Buenos Aires. We obtained four factors from both exploratory and confirmatory factor analysis: Altruism, Public, Anonymous, and Responsive (Dire, Emotional and Compliant) (Richaud and Mesurado et al. 2011). Cronbach α varied between 0.72 and 0.91.

Parenting Practices Measure (PPM) (Carlo et al. 2007)

Items on this measure assessed the types of practices that the adolescent's parent (the parent they felt closest to) used in the context of promoting prosocial behaviors, were of 5-point Likert-type scale (1 = does not describe my parent well, 5 = describes my parent very well).

This scale helps to identify five types of parenting practices that give raise to prosocial behavior in their children.

This scale was translated and back translated to Spanish with the supervision of Carlo. Psychometric properties of the measure in Argentine population were assessed previously with a sample of 500 Argentine children, both sexes, between 10 and 16 years of age, attending middle class schools in Buenos Aires. The results of confirmatory factor analysis indicated the same structure informed by Carlo et al. (2007) composed by five factors. Cronbach α for mother varied between 0.68 and 0.85, and for father between 0.72 and 0.89.

Children's Perception of Parental Empathy Questionnaire

This questionnaire is based in the Davis' Interpersonal Reactivity Index (Davis 1980). It allows us to assess empathic disposition through four factors; two cognitive ones and two emotional ones: Perspective taking (PT); ability to understand another person's point of view; Fantasy (FS); the tendency to identify with characters in films and in literature; in other words, it assesses the subject's imaginative capacity to place him or her in fictitious situations; Empathic concern (EC); feelings of compassion, concern and care towards others; and Personal Distress, feelings of anxiety and uneasiness shown by the subject upon observing other people's negative experiences.

The Index includes 28 items in a Likert answer format, with five possible answers and a score from 1 to 5. The empathy that children perceive in their parents was studied through two questionnaires: one for mothers and the other for fathers, with 28 items each, corresponding to the IRI 28 items but referred to parents. For instance: "I am concerned and moved by people less lucky than myself." "My mother is concerned and moved by people less lucky than her." "I find it difficult to see things from another person's point of view." "My father finds it difficult to see things from another person's point of view." These questionnaires were studied in an Argentine sample of 936 children, of both sexes, between 9 and 12 years of age, attending middle class schools in Buenos Aires. We obtained four factors, which could approximately be interpreted as those found by Davis in adolescents (Davis 1980) described above.

In this study only children's perception of their mother and father's perspective taking (α mother = 0.72; α father = 0.66) and Empathic Concern (α mother = 0.71; α father = 0.69) will be considered.

Procedure

To administer the scales just described, the school principals were interviewed and the type of research was explained with a note seeking their participation. The parents were asked permission through the school, and parents knew that their children's participation was optional. The children were told that they were free not to answer. Next, that the date of examination was decided, always during school hours.

The scales were administered in groups of approximately 20 subjects, in two one and a half hours sessions. In order to avoid bias in the answers, the questionnaires were given in random order but making sure that each one corresponding to mother or father was administered in different sessions and days, with approximately 1 week intervals.

Statistical Analysis

Correlations and hierarchical regressions were used to examine (1) relationships between parental styles, children's perception of parental empathy, parental practices, and children's prosocial behavior, (2) the amount of unique prediction from parental styles, children's perception of parental empathy, and parental practices to children's prosocial behavior.

Results

Correlations between parental styles, children's perception of parental empathy, parental practices, and children's prosocial behavior are presented in Table 1. In general, acceptance of both mother and father positively correlates with responsive. Both acceptance and pathological control by the mother are positively related to public, anonymous, and responsive, and negatively related to altruism. In the case of the father, accepted control correlates with public and responsive whereas pathological control shows a positive correlation with public and anonymous and a

Table 1 Correlations between parental styles, children's perception of parental empathy, parental practices and different dimensions of children's prosocial behaviors

Variables	Public	Altruist	Anonymous	Responsive
Mother acceptance	0.05	0.08	0.08	0.34***
Mother acceptance control	0.27***	-0.18***	0.16**	0.26***
Mother strict control	0.14**	-0.12*	0.12*	0.26***
Mother pathological control	0.29***	-0.21***	0.19***	0.13*
Mother extreme autonomy	0.07	-0.06	0.04	-0.06
Father acceptance	0.09	0.01	-0.01	0.27***
Father acceptance control	0.21***	-0.10	0.08	0.15**
Father strict control	0.01	0.02	-0.02	0.14*
Father pathological control	0.24***	-0.18**	0.16**	0.09
Father extreme autonomy	0.15**	-0.12*	0.07	0.06
Mother perspective taking	0.05	-0.02	0.14*	0.29***
Mother empathic concern	-0.30***	0.33***	-0.12*	-0.13
Father perspective taking	0.11*	-0.07	0.20***	0.34***
Father empathic concern	-0.34***	0.28**	-0.09	-0.05
Mother social rewards	0.28***	-0.28***	0.17**	0.40***
Mother discursive communication	0.27***	-0.23***	0.18**	0.36***
Mother experiential learning	0.44***	-0.45***	0.46***	0.39***
Mother conversations	0.22***	-0.23***	0.24***	0.30***
Mother material rewards	0.48***	-0.52***	0.38***	0.31***
Father social rewards	0.18**	-0.10	-0.07	0.32***
Father discursive communication	0.10	-0.05	0.12*	0.31***
Father experiential learning	0.33***	-0.19***	0.22***	0.27***
Father conversations	0.12*	-0.06	0.15**	0.36***
Father material rewards	0.42***	-0.42***	0.28**	0.27**

* $p < 0.05$; ** $p < 0.01$;
*** $p < 0.001$

negative correlation with altruism. Lack of control or extreme autonomy only shows a significant correlation with public in the case of the father.

Empathic concern both in the father and the mother shows a positive correlation with altruism, and a negative correlation with public. Perspective taking is positively related to anonymous and responsive.

With respect to the parental practices, in the mother all of them are positively correlated to public, anonymous, and responsive, and negatively to altruism. The father presents a similar pattern where the majority of practices are negatively correlated with altruism and positively with the rest of prosocial behaviors.

Hierarchical regression analyses were performed for each of the four criterion variables, to test the unique contribution of parental styles (acceptance by father and mother, accepted control, pathological control, and extreme autonomy) to adolescents' prosocial behavior, while controlling for children's perception of parental empathy and parental practices, the unique contribution of parental empathy (father and mother's perspective taking and empathic concern), while controlling for parental styles and practices, and the unique contribution of parental practices (father and mother's social and material reward, conversations, discursive communication, and experiential learning). The first block in the equation included parental styles dimensions; the second block included children's perception of parental empathy dimensions, whereas the third block included parental practices. Tests of multicollinearity were satisfactory with all variance inflation factors less than 2.00 and tolerance of variables all near 1.00.

Table 2 shows a summary of the hierarchical regression analyses of parenting styles, children's perception of parental empathy, and parental practices on children's prosocial behaviour. Due to the relatively large sample size, which results in increased power, α was set at $p \leq 0.01$.

The global prediction for altruism was significant for the total sample, $F(24, 264) = 8.45$; $p = 0.000$. The overall model explained 43 % of the variance in children's altruism, with the parental styles explaining 12 % of the variance in block 1, children's perception of parental empathy accounting for an additional 9 % of the variance in block 2, and parental practices accounting for the remaining 22 % of the variance in block 3. Parental practices, especially material rewards from the mother and father, the mother's experiential learning and discursive communication, exceeded parental styles and parental empathy in terms of strength of prediction of children's altruism.

The overall prediction equation for public was significant, $F(24, 264) = 8.29$; $p = 0.000$, explaining 43 % of the variance in children's public prosocial behavior, with the parental styles explaining 21 % of variance, parental

empathy explaining an additional 9 % of the variance, and parental practices explaining the remaining 13 %. In the case of public, parental styles but only pathological control, exceeded parental empathy and parental practices.

The global prediction for anonymous was significant, $F(24, 264) = 5.17$; $p < 0.000$. The overall model explained 32 %, of the variance in anonymous prosocial behavior. In this model, parental practices explained the most variance (17 %) followed by parental empathy (15 %), and parental styles (10 %).

The overall prediction equation for responsive was significant, $F(24, 264) = 7.65$; $p = 0.000$, explaining 41 % of the variance in children's responsive prosocial behavior, with the parental styles explaining 19 % of variance, parental empathy explaining an additional 10 % of the variance, and parental practices explaining the remaining 12 %. In the case of responsive parental styles, specifically pathological control by the mother and extreme autonomy given by the father exceeded parental empathy and parental practices.

Discussion

The influence of parenting styles, as a general emotional climate, on children's prosocial behavior has been repeatedly studied (Carlo et al. 2007, 2010, 2011). Although parenting style offers a general frame capable of promoting the development of positive behavior among children, the behavior modeling of significant adults through certain specific practices is very important for the development of certain specific behaviors in children. At the same time, considering the importance of empathy for the development of prosocial behavior, we wonder to what extent it is linked with children's perception of parents' empathy.

Studying the contribution of these three parental variables to the development of specific prosocial behavior among children driven by different kinds of motivation, we found that, as we hypothesized, different aspects of parental influence are linked with the child's different motivations to behave in a prosocial way. First, concerning altruism, the only intrinsically motivated prosocial behavior, the principal and most remarkable finding was its inverse association with the parental practices specially developed to stimulate it. As we hypothesized, altruistic people are driven only by concern and interest in other people, without regard for external rewards and punishments. Thus, children's altruism does not need any extrinsic motivation for its development and, to the contrary, all kinds of ways of stimulating altruism seem to conspire against it. Acceptance by the mother was the unique predictive parental style, and children's perception of the father's empathic concern was also the unique

Table 2 Summary of the block regression analyses of parental styles, practices and empathy on children's prosocial behaviors

Dependent	Predictors	Beta	T	R ²
Altruism	Block 1: Parental styles			0.12
	Mother acceptance	0.17	2.36***	
	Mother acceptance control	0.07	1.01	
	Mother strict control	-0.03	-0.71	
	Mother pathological control	-0.04	-0.72	
	Mother extreme autonomy	-0.05	-0.90	
	Father acceptance	-0.03	-0.42	
	Father acceptance control	-0.03	-0.36	
	Father strict control	0.02	0.29	
	Father pathological control	0.02	0.23	
	Father extreme autonomy	0.01	0.07	
	Block 2			0.21
	Mother perspective taking	0.06	1.13	
	Mother empathic concerní	0.10	1.9	
	Father perspective taking	-0.01	-0.04	
	Father empathic concerní	0.14	2.75**	
	Block 3			0.43
	Mother social rewards	-0.05	-0.76	
	Mother discursive communication	-0.17	-2.5**	
	Mother experiential learning	-0.28	-3.6***	
Mother conversations	0.07	1.02		
Mother material rewards	-0.23	-3.05**		
Father social rewards	0.06	0.78		
Father discursive communication	-0.02	0.27		
Father experiential learning	0.19	2.23		
Father conversations	0.02	0.27		
Father material rewards	-0.29	-3.5***		
Public	Block 1			0.21
	Mother acceptance	0.01	0.10	
	Mother acceptance control	0.04	0.63	
	Mother strict control	0.01	0.03	
	Mother pathological control	0.20	3.19**	
	Mother extreme autonomy	0.05	0.85	
	Father acceptance	0.03	0.41	
	Father acceptance control	0.07	0.84	
	Father strict control	-0.07	-1.1	
	Father pathological control	-0.08	-1.2	
	Father extreme autonomy	0.12	1.9	
	Block 2			0.30
	Mother perspective taking	-0.05	-0.85	
	Mother empathic concerní	-0.07	-1.3	
	Father perspective taking	0.01	0.10	
	Father empathic concerní	-0.20	-3.75***	
	Block 3			0.43
Mother social rewards	0.02	0.31		
Mother discursive communication	0.17	2.47**		
Mother experiential learning	0.12	1.49		
Mother conversations	-0.04	-0.66		

Table 2 continued

Dependent	Predictors	Beta	T	R ²	
Anonymous	Mother material rewards	0.21	2.80**	0.10	
	Father social rewards	-0.03	-0.38		
	Father discursive communication	-0.01	-0.03		
	Father experiential learning	0.16	1.85**		
	Father conversations	-0.05	-0.52		
	Father material rewards	0.08	0.92		
	Block 1			0.15	
	Mother acceptance	-0.02	-0.27		
	Mother acceptance control	-0.06	-0.79		
	Mother strict control	0.04	0.68		
	Mother pathological control	0.07	1.10		
	Mother extreme autonomy	0.07	1.10		
	Father acceptance	-0.12	-1.40		
	Father acceptance control	-0.02	-0.23		
	Father strict control	-0.28	-1.40		
	Father pathological control	0.06	0.75		
	Father extreme autonomy	0.05	0.73		
	Block 2				0.32
	Mother perspective taking	0.02	0.43		
Mother empathic concerní	0.02	0.36			
Father perspective taking	0.12	2.10			
Father empathic concerní	0.03	0.57			
Block 3			0.19		
Mother social rewards	-0.15	-1.9			
Mother discursive communication	0.05	0.54			
Mother experiential learning	0.35	4.1***			
Mother conversations	0.03	0.38			
Mother material rewards	0.24	3.01**			
Father social rewards	-0.10	-1.10			
Father discursive communication	0.09	1.10			
Father experiential learning	-0.01	-0.02			
Father conversations	0.10	1.04			
Father material rewards	-0.04	-0.43			
Block 1			0.30		
Mother acceptance	0.10	1.44			
Mother acceptance control	0.01	0.12			
Mother strict control	0.03	0.46			
Mother pathological control	0.14	2.33**			
Mother extreme autonomy	-0.06	-0.12			
Father acceptance	-0.05	-0.61			
Father acceptance control	-0.14	-1.60			
Father strict control	-0.03	-0.35			
Father pathological control	-0.02	-0.31			
Father extreme autonomy	0.15	2.46**			
Block 2			0.19		
Mother perspective taking	0.02	0.32			
Mother empathic concerní	0.27	4.80***			
Father perspective taking	0.15	2.77**			

Table 2 continued

Dependent	Predictors	Beta	T	R ²
	Father empathic concern	-0.10	-1.88	
	Block 3			0.41
	Mother social rewards	0.07	0.96	
	Mother discursive communication	0.09	1.28	
	Mother experiential learning	0.14	1.80	
	Mother conversations	-0.03	-0.59	
	Mother material rewards	0.14	1.80	
	Father social rewards	0.04	0.49	
	Father discursive communication	0.05	0.62	
	Father experiential learning	0.02	0.22	
	Father conversations	0.27	3.00***	
	Father material rewards	0.05	0.57	

** $p < 0.01$; *** $p < 0.001$

predictive dimension of perceived parental empathy. Although we waited for a stronger contribution of empathy and acceptance to altruism, given that it is a voluntary behavior without any interest or speculation, these findings are in line with the theory. The relation of the mother's acceptance and the father's empathic concern with altruism indicate that perceiving positive affection and concern for others from parents would strengthen the intrinsic motivation for an altruistic behavior. On the other hand, evidence shows that concrete reinforcement, as for example material reward, increases prosocial behavior, but undermines intrinsic motivation and may have a negative effect later in the development of altruism (Eisenberg and Fabes 1998).

The second compelling finding was the prediction from parental styles (only the mother's pathological control) to children's public prosocial behavior. In this case parental styles outweighed parental practices in explaining the variance of public prosocial behavior. Parental empathy, in turn, added to the explained variance, but did not add very much compared to parental styles and parental practices. Contrary to the case of altruism, public prosocial behavior is associated with pathological control from the mother, i.e. it is carried out to avoid a punishment or to obtain approval, as mentioned by Carlo and Randall (2002), and not in a voluntary way. On the other hand, public prosocial behavior is related to parental practices as material reward, i.e. it needs an external reinforcement to be carried out. These findings coincide with the assertion by Bronson (2000) that external rewards and punishment are related to extrinsic motivation. Public is also negatively related to the father's empathic concern (Carlo and Randall 2002) or real concern and interest for the wellbeing of others, which would indicate little interest in helping others, but rather in earning a profit.

In responsive prosocial behavior, parental styles outweighed parental empathy and practices in explaining variance. In the case of responsive, pathological control by the mother, extreme autonomy from the father, the mother's empathic concern, the father's perspective taking, and the father's conversation were important unique predictors. In this case we hypothesize that a restrictive control from the mother and permissiveness from the father combined with parental concern for others could determine a child's emotional instability (Gryczkowski et al. 2010; Kaufmann et al. 2000; Muris et al. 2003). Responsive prosocial behavior would be carried out then to avoid a negative feeling of discomfort in front of a strong emotional situation due to the necessity or crisis of other. At the same time responsive is the prosocial behavior less affected by parental practices.

When analyzing anonymous, the only significant unique criterion was parental practices (mother's learning experience and material rewards). It is the least clear of the prosocial behaviors and the least explained for parental styles, practices and empathy. Although the child expresses that he/she prefers helping without the knowledge of whom is helped, he/she seem not to be interested solely in helping other but to expect a reward or stimulus from some significant other. Parents are likely to teach that only help offered anonymously to others deserves a reward. Thus, although anonymous prosocial behavior may seem similar to altruism, the former is actually extrinsically motivated by the hope of receiving a material reward.

Summing up, prosocial behavior can be determined by different kinds of motivation related to different parental variables: parenting style, parental practices and parental empathy. Altruism is the only intrinsically motivated prosocial behavior and it is negatively affected by parental practices and positively related to a general frame of

parental acceptance and concern for others. All other prosocial behaviors are extrinsically motivated and affected in varying proportions by parental variables.

The results of this study suggest that different kinds of parental variables, as parental styles, practices and empathy, are related in different ways to prosocial behavior motivations in early adolescence. Although the influence of parental styles and practices was already studied (Carlo et al. 2007) there was not evidence about the unique contribution of every kind of parental variables when they are put together. Thus, we think that it would be important to add to these three types of parental actions, the influences of modeling by the father and the mother on different motivations for prosocial behavior. Even consistent findings have been found with regards to modeling, both in laboratory settings and real-life situations, and proved that if children are exposed to prosocial, helpful or generous models, their behavior is likely to be more prosocial (Eisenberg and Fabes 1998), it would be very interesting to study their weight when presented with the other types of parental variables as described in this article.

This study found that defining prosocial behavior as a multidimensional variable according to the type of motivation that lead to it, is an important consideration when examining the weight of different kinds of mother and father variables in explaining children's positive behavior.

One of the limitations of the present study is its correlational nature, which does not allow exploration of causal relationships. It was carried out within a specific cultural niche, in a specific age range: early adolescence, and without differentiating results according the adolescents' gender. Future research efforts directed at studying mother and father different variables in the prediction of diverse prosocial behaviors in different stages of children's development within a variety of cultural groups will be necessary. The importance of understanding social influences on the development of different kinds of prosocial behaviors with diverse motivations to establish specific pathways to children's developmental outcomes cannot be understated, especially in a society with alarming levels of aggression.

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