

# Prosocial parenting goals and adolescent prosocial behavior: The mediating role of child- rearing behaviors

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#### Preface

This thesis is written as part of the Master degree program of the department Child and Youth psychology of the division of Social Science at the University of Utrecht. Prosocial behavior could be described as helping, sharing and comforting others. Characteristics, which everyone every day normally do. But how and on which age does prosocial behavior develop? Being curious for the answers of these questions, a whole new study was started to examine toddlers and their prosocial behavior. Unfortunately the study had start problems and for my thesis I had to change my subject to adolescents instead of children. This made me also aware of how prosocial behavior could be influenced in our life.

Despite the subject change I had a great time and I am pleased that I participated in this study. I could not accomplish this study without the help and support of various people, therefore I want to thank those people who helped and supported me in this period. In particular, I want to thank Mrs. Dr. Judith Dubas for her ideas, support, guidance and the time she spend with me for completing my thesis. In addition, I want to thank Yue Song for her help and support with my thesis and especially with the experiment and Ms. Dr. Martine Broekhuizen for the help she offered and time she spend with us, when we were desperate during our search for daycares. I also want to thank Raiza Heijster, my thesis and study partner, Minke Kooijman and Liza Marsman, my study partners, for an amazing time and their pleasant cooperation. Lastly, I want to thank my parents, my younger brothers and friends for their support during this period. I hope this research will be an addition on the field of prosocial behavior!

Utrecht, July 2015 Ayse Mahmutogullari

#### Abstract

Parents play an important role in influencing their children and their actions. They try giving their own values to their children so they will learn the standards of the society. This could be passed on directly or could occur through parenting practices. The purpose of this study was to examine the link between prosocial parenting goals and adolescent prosocial behavior and whether parental child-rearing behaviors (warmth, autonomy granting and the use of punishment) mediate this association. The study was a longitudinal study whereby 484 families (father and mother with at least one child between the age of 9-16) were followed in 1990 and in 1995. No direct link between prosocial parenting goals and adolescent prosocial behavior was found. For father's, the use of punishment and warmth was positively related to adolescents' prosocial parenting goals were not indirectly linked to adolescent prosocial behavior through the warmth, autonomy and punishment child-rearing behaviors. This study shows that mothers who use warmth and fathers who use punishment and warmth in their child-rearing behaviors have adolescents who report higher levels of prosocial behavior.

*Keywords:* parenting goals, adolescent, prosocial behavior, child-rearing behavior, parent practicing, autonomy, punishment, and warmth.

## Samenvatting

Ouders spelen een belangrijke rol in het beïnvloeden van hun kinderen en hun acties. Ze proberen de waarden aan hun kinderen te geven, zodat ze de waarden van de samenleving zullen leren. Het doorgeven van de ouderlijke waarden kan direct, of door opvoedgedragingen van ouders. Het doel van deze studie was om het verband tussen de prosociaal gerelateerde waarden van ouders en het prosociaal gedrag van de adolescenten te onderzoeken en te kijken of ouderlijke opvoedgedragingen (warmte, autonomie verlenen en het gebruik van straf) deze associatie bemiddelde. Deze longitudinale studie volgde 484 gezinnen (vader, moeder en ten minste een kind tussen de leeftijd van 9-16) in 1990 en in 1995. Er is geen direct verband gevonden tussen de prosociaal gerealateerde opvoedingswaarden van ouders en het prosociaal gedrag van de adolescenten. Voor de vader, waren de opvoedgedragingen straf en warmte positief gerelateerd aan het prosociaal gedrag van adolescenten terwijl voor moeders alleen warmte positief gerelateerd was. Bovendien werden prosociaal gerelateerde ouderschapswaarden indirect niet gekoppeld aan het prosociaal gedrag van adolescenten door middel van de opvoed gedragingen. Deze studie toont aan dat moeders met een warme opvoed gedrag en vaders met de opvoed gedragingen straf en warmte het prosociaal gedrag van adolescenten beïnvloeden.

*Zoekwoorden:* ouderschapsdoelen, adolescent, prosociaal gedrag, opvoeding van kinderen, opvoed gedrag, autonomie, straf, en warmte.

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## Introduction

Socialization plays an important role in the development of prosocial behavior and can be defined as acquiring the skills that are important to function as a successful member of the society, whereby the child is assisted by a socializing agent (Grusec & Goodnow, 1994; Grusec, 2002). Nowadays evidence supports the notion that parents have an influence on the prosocial behavior of their child or adolescent (Eisenberg & Valiente, 2002). Parents are important because they are the strongest socializers of their children and control the action of their children (Grusec, 2002 & 2011). They try to give their own values to their children so they will learn the standards of the society (Grusec, Goodnow & Kuczynski, 2000) in order to have good social relationships both one-on-one with individuals and in groups (Collins & Laursen, 2004). The process by which values or goals are passed on the child is through parenting practices and behaviors (Grusec & Davidov, 2010; Grusec, Goodnow & Kuczynski, 2000). According to the model of Darling and Steinberg (1993) parenting practices are specific behaviors that help parents attain their socialization goals in their children. Although parents play an important role in the socialization of prosocial behavior among young children and identifying specific parenting practices to predict social behaviors becomes more interesting (Darling & Steinberg, 1993; Grusec & Goodnow, 1994), there is little known about association between prosocial parenting goals (whereby fathers and mothers were examined separately) and adolescents' prosocial behavior (Carlo, McGinley, Hayes, Batenhorst & Wilkinson, 2007; Eisenberg & Valiente, 2002). Furthermore, research on the role of parenting behaviors on the relation between prosocial parenting goals and prosocial behavior is scarce. The current study focused on how prosocial parental goals and child-rearing behavior in terms of warmth, autonomy and punishment is linked to adolescents' prosocial behavior.

## Prosocial parenting goals

Values represent what important is to us in our lives. They represent broad goals that apply across contexts and time (Bardi & Schwartsz, 2003). According to Schwartz and Bilsky (1990) values or goals both emphasize the same meaning. They are defined as:

" (a) Concepts or beliefs, (b) about desirable end states or behaviors, (c) that transcend specific situations, (d) guide selection or evaluation of behavior and events, and (e) are ordered by relative importance" (Schwartz & Bilsky, 1990, p. 551).

Parents try to influence the development of their child with the help of goals/values. Darling and Steinberg (1993) emphasize that parents are using goals to socialize their children. These parenting goals include the acquisition of specific skills and behaviors of the child (such as social skills and appropriate manners) and the development of more global qualities (such as independence and critical thinking).

In the association between prosocial parenting goals and adolescents prosocial behavior less is known. Research that examines the link between prosocial parental goals and prosocial behavior has been studied between mothers and their children. The study of Padilla- Walker (2007) focused on values of honesty and kindness, which could both be classified as personal prosocial values. In her study she found that the adolescents' perception of maternal values was associated with adolescents acceptance of prosocial values, which in turn are linked to adolescents' prosocial behavior. Thus maternal values are indirectly linked to adolescents' prosocial behavior.

The link between prosocial parental goals and prosocial behavior between fathers and their adolescent children has not been examined directly. There are studies that include fathers and mothers together but they focus on the acceptance of parental values by adolescents. For example the study of Barni, Ranieri, Scabini and Rosnati (2011) examined the transmission of values in families with adolescents. Mother- daughter adolescent dyads and father- son adolescent dyads showed higher value congruence than the opposite sex dyads. Although all parent- child dyads showed value congruence results suggests that adolescents accept perceived parental values (e.g., stimulation and universalism). Despite the lack of research on the direct link of fathers prosocial parenting goals and adolescent's prosocial behavior, based on the research with mothers and the fact that adolescents are willing to accept paternal values expected is that paternal prosocial goals will be associated with adolescents' prosocial behavior as mothers.

## Child-rearing behaviors

Parental practices are related in different ways to adolescents' prosocial behavior (Carlo et al., 2007; Richaud, Mesurado & Lemos, 2013). According to Steinberg, Mounts, Lamborn and Dornbusch (1991) parenting practices are composed of three behaviors: acceptance/involvement, firm control, and autonomy granting. Acceptance/ involvement is defined as the extent to which adolescents perceive their parents as loving, responsive and involved. Psychological autonomy is defined as the extent to which parents employ non- coercive, democratic discipline and encourage the adolescent to express individuality and firm control is defined as parental monitoring and limit setting. These parenting practices are the usual patterns parents' use across context and time, to manage their children's behavior (Hastings, Utendale & Sullivan, 2007) and are associated with positive child adjustment such as less internalized distress and behavior problems (Steinberg et al., 1991) and prosocial behavior (Hastings et al., 2007). The current study therefore focuses on three related types of child-rearing behaviors: warmth, autonomy granting, and punishment.

Parental warmth can be defined as the attendance of positive affect, responsiveness, and support in the parent- child relationship (Carlo et al., 2010) and is similar to the acceptance/ involvement as defined in Steinberg et al. (1991). There is some evidence that parental warmth is a unique predictor of adolescents' prosocial behavior. This was found in the longitudinal study of Carlo et al. (2010) whereby adolescents rated their parents on parental warmth. Maternal and paternal warmth were significantly related to prosocial behavior cross-sectionally within the 3 waves but when controlled for longitudinally between wave 1 and 3, only maternal warmth was related to prosocial behavior (Carlo et al., 2010). Also in the study of Domitrovich and Bierman (2001) mothers who had warm supportive parenting practices and who where emphatic and sensitive in their social behavior to their children were found to have children with high levels of prosocial behavior.

The child rearing- behavior autonomy granting can be defined as parents' promotion of adolescents' independent expression, thinking, and decision-making (Gray & Steinberg, 1999; Silk et al., 2003; Steinberg & Silk, 2002; in Soenens, Vansteenkiste, Lens, Luyckx, Goossens, Beyers & Ryan, 2007) and is similar to the psychological autonomy behavior defined in Steinberg et al. (1991). There is only one study that looked at the direct link between autonomy and prosocial behavior. According to the study of Gagné (2003) parental autonomy support correlates with prosocial engagement. Whereby paternal autonomy support more strongly was correlated than maternal autonomy support.

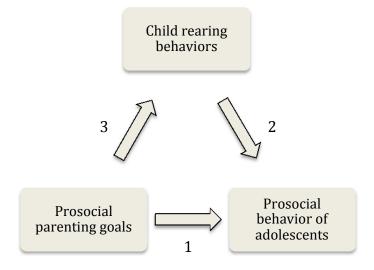
While warmth and autonomy child-rearing behavior are positively related with the development of adolescents' prosocial behavior. Punishment on the other hand, is negatively related to the development of adolescents' prosocial behavior. Punishment can be defined as the degree of strictness, behavioral rules, and expectations enforced on children by parents (Carlo et al., 2007; Carlo et al., 2010 & Richaud et al., 2013), which could be negatively associated with the firm control defined in Steinberg et al. (1991),

particularly when harsh. In the study of Carlo et al., (2010) parental strict control was negatively and weakly linked to prosocial behavior (for both fathers and mothers) but no longitudinal associations were found.

Although there are relatively few studies on the link between child-rearing behaviors and adolescents' prosocial behavior, the results suggest that the child-rearing behaviors could be important for adolescents' prosocial behavior.

## Relations among prosocial parenting goals, parenting practices, and prosocial behavior

Although some research has shown that the parenting goals and parenting practices (i.e., warmth, autonomy granting and punishment) are associated with prosocial behavior, the number of studies is sparse. In general, prosocial- related parenting goals (for fathers and mothers) should relate positively to adolescents prosocial behavior (Padilla- Walker, 2007 & Barni et al., 2011). Parental warmth and autonomy granting parenting practices (for fathers and mothers) should negatively relate to prosocial behavior (Carlo et al., 2010; Domitrovich & Bieman, 2001; Gagné, 2003). The indirect effect of parenting goals on adolescents' prosocial behavior via parenting practices has not yet been studied. The current study will be an addition to the field of examining whether parenting is the process by which values are translated to adolescent behaviors.



*Figure 1*: Conceptual model of associations. (1)= Goal 1; (2)= Goal 2; (3)= Goal 3.

#### Current study

This study examines three goals. The first one is to investigate the direct association between prosocial parenting goals and adolescents' prosocial behavior whereby I expect that prosocial parenting goals of fathers and mothers will be positively associated with adolescents' prosocial behavior. The second goal is to investigate the direct relation between parenting practices and adolescents' prosocial behavior. Specifically, expecting that the warmth and autonomy child-rearing behaviors will be positively associated with adolescents' prosocial behavior and punishment will be negatively associated. Finally, I investigate if the child-rearing behaviors will mediate the relation between prosocial parenting goals and prosocial behavior. Specifically, I expect that warmth and autonomy granting will mediate positively and punishment negatively between the prosocial parenting goals and adolescents' prosocial behavior. These goals are presented in figure 1.

## Methods

#### **Participants**

Participants were drawn from the Child-Rearing and Family in the Netherlands Study, a longitudinal study of parenting and adolescents (Gerris, Houtmans, Kwaaitaal-Roosen, de Schipper, Vermulst, & Janssens, 1998). This study started in 1990 with 788 families consisting of fathers and mothers with at least one child between the ages of 9 and 16 years old. Fathers, mothers and one child filled in diverse questionnaires about different characteristics in their family. The follow up studies were in 1995 and 2000. For this study the data of 1990 (Wave 1) and 1995 (Wave 2) has been used. In Wave 1 there were 394 boys and 394 girls adolescents ( $M_{age}$ =12.78, SD= 2.16). Wave 2 consisted of 484 remaining families. Mean ages of parents at Wave 1 were 42.44 (SD=4.98) for fathers whereby 95.8% of them were born in the Netherlands and 40.00 (SD=4.29) for mothers whereby 94.5% of them were born in the Netherlands. The adolescents (231 boys and 253 girls) filled in their questionnaires in the follow- up study of 1995, at that time they were between 14 and 21 years old ( $M_{age}$ =17.52, SD= 2.16). Bias checks were run to compare whether participants who participated in 1995 differed from families who did remain in the study. Independent samples T-tests were conducted on the 1990 parenting goals and practices used here. According to the analyses there was no significant difference between the participants who remained in the study and those who dropped out in 1995.

## Procedure

Participants were invited via a letter with the describing of the study and requesting participation. Each data collection took place at the participants' home whereby each family member was interviewed while other members completed additional questionnaires. Some questionnaires were left behind which were returned via post.

## Measures

## Prosocial parenting goals

Parenting goals were assessed with the questionnaire of Gerris et al. (1998) that parents completed in 1990. This questionnaire consisted of 8 items concerning goals parents had for their children. Parents were asked to choose the (1), (2) two most important items, the (4), (5) two least important items and three items were ranked as (3) not important/ not unimportant. To verify which of these goals are prosocial related 98 HBO and University students rated the items. Participants rated each statement (e.g., It is important for my child to be honest; It is important for my child to have good manners) on a ranking scale of (1) most important and (5) most unimportant. The top four items related to prosocial behavior were chosen, these were: taking other people's feelings in account, having a sense of responsibility, being honest and having good manners. To create a prosocial parenting goal index, the parental rating for these four items were given a score of 1 if rated as 1 or 2, and given a score of 0 if rated 3, 4 or 5. A mean across these four items was used as the prosocial goals measure whereby a higher score indicated higher prosocial parenting goals.

## Child-rearing behaviors

Parents completed questionnaire concerning their own parenting behavior. Participants were instructed to rate each item regarding their relationship with their son/daughter on a 7- point Likert scale, ranging from (1) not applicable to (7) very applicable. All parenting measures were completed in 1990.

#### Warmth

To examine warmth two characteristics, attachment and affection were measured. *Attachment* was assessed with a 9- item version of the attachment subscale of the Parenting Stress Index (Abidin, 1983; De Brock, Vermulst, & Gerris, 1990). It assesses the degree to which the relationships express as an attached and warm relationship between parent and child. A sample item is: 'My child and I have a good relationship'. The higher the score, the higher the parents had the feeling of an attached relationship with his/her child ( $\alpha_{fathers}$ = .79;  $\alpha_{mothers}$ = .87). *Affection* was assessed with a 15- item of the Affection-expression self –report questionnaire (Maccoby, 1980). Sample items are: "When my child is afraid I comfort him/her" and "I often spend a lot of time on my child". The higher the score, the higher the parents the feeling had of an affected relationship with his/her child ( $\alpha_{fathers}$ = .90;  $\alpha_{mothers}$ = .89). Both subscales were combined for an overall mean warmth measure ( $\alpha_{fathers}$ = .89;  $\alpha_{mothers}$ = .89)

## Autonomy granting

Autonomy was assessed with a 7- item version of the Autonomy self report questionnaire (Maccoby, 1980). It assesses the degree parents encourages the child to be independent and responsible. A sample item is: 'I taught my daughter/son to solve her/his own problems'. The higher the score, the more the parents encouraged the child to be autonomous ( $\alpha_{fathers}$ = .72;  $\alpha_{mothers}$ = .72).

## Punishment

Punishment was assessed with a 5- item version of the Punishment self- report questionnaire of Gerris and Janssens (1987). It assesses the degree to which the parent uses several forms of punishment in child-rearing. The questionnaires consisted of punishment questions that result in a considerable external pressure on the child. A sample item is: 'Mostly, I punish my child by sending him/her to his/her room'. A higher score reflects that the parent uses more external pressure on the child to let him/her behave according to the desire of the parent ( $\alpha_{fathers}$ = .79;  $\alpha_{mothers}$ = .78).

## Prosocial behavior

Prosocial behavior was assessed with the short version of the Agreeableness subscale of the Big Five Questionnaire (Gerris et al., 1998 from Goldberg, 1922). The adolescents filled in this questionnaire in 1995. It assesses the traits of a prosocial nature whereby the respondent indicates if a number of characteristics, which can be summarized under the heading agreeableness, are applicable to him/her. The questionnaire consisted of six characteristics: kind, cooperative, sympathetic, pleasant, agreeable and helpful. Participants were instructed to rate each item with regard to their self on a 7- point Likert scale, ranging from (1) not applicable to (7) very applicable. A higher score reflects that the adolescent finds the characteristic applicable to him/her. An average across the six items was created ( $\alpha$ = .79)

## Plan of Analyses

The software 'IBM SPSS Statistics 20' and 'IBM SPSS Statistics 21' were used for the analyses. In order to examine the first goal to assess the degree to which prosocial parenting goals could predict adolescent prosocial behavior, a multiple regression analysis was conducted separately for mothers and fathers. On the first step of the regression the age of the adolescents was entered as a control variable and on the second step the prosocial parenting goal variable was entered. In order to examine the link between the three child-rearing behaviors and adolescents' prosocial behavior a second multiple regression was conducted. At the first step of the regression the age of the adolescents was entered as control variable, on the second step the parental warmth, autonomy and punishment variables were entered. For the last goals concerning whether the link between prosocial parenting goals and adolescent prosocial behavior was mediated by child-rearing behaviors, a series of bootstrap – macro multiple regression analysis were conducted for each parenting dimension. The bootstrapping procedures (Preacher & Hayes, 2008) were implemented using a macro program for SPSS developed by Hayes and Preacher (in press). Bootstrapping procedures are recommended as the preferred method of analyzing mediation and do not require symmetry or normality in the sampling distribution. For these data, a 95% bias-corrected and accelerated confidence interval was used to generate 1000 bootstrap samples.

## Results

#### Descriptive statistics

Means and standard deviations among fathers and mothers across the prosocial parenting goals, parenting behaviors and the adolescent prosocial behavior are presented in Table 1. The mean score for fathers and mothers prosocial parenting goals were low, based on a score between 0 and 1. For the three child-rearing behaviors it was interesting that fathers and mothers rated their child-rearing behaviors nearly the same. A dependent t-test was run to determine if there were differences in the prosocial parenting goals and three child-rearing behaviors between fathers and mothers. Only two variables were significantly different for fathers and mothers. The mean for prosocial parenting goals was significantly lower for fathers (M = .37, SD = .16) than mothers (M = .39, SD = .14), M = .02, 95% CI [-.04, -.01], t(594) = -3.031 and the mean for the child-rearing behavior warmth was significantly lower for fathers (M = 5.17, SD = .74) than mothers (M = 5.47, SD = .74), M = -.30, 95% CI [-.40, -.23], t(521) = -8.41. The autonomy granting and

punishment parenting revealed no differences. Adolescents rated their prosocial behavior fairly highly, suggesting that the traits of a prosocial nature are applicable to them.

Table 1

	Prosocial	Prosocial	Warmth	Autonomy	Punishment
	behavior	Parenting			
		Goals			
	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)
Adolescents	5.57 (.71)				
Fathers		.37 (.16)	5.17 (.74)	4.65 (.84)	2.94 (1.20)
Mothers		.39 (.14)	5.47 (.74)	4.63 (.86)	2.86 (1.20)

Means and Standard Deviations among Fathers and Mothers across the Parenting Goals, Child-Rearing Behaviors and Adolescent Prosocial Behavior

## Link between prosocial parenting goals and adolescent prosocial behavior

To examine the link between prosocial parenting goals and adolescent prosocial behavior a regression for mothers and fathers apart was conducted. Results are presented in Table 2 under Model 1. The age of the adolescent was the only significant predictor of adolescents' prosocial behavior. Neither mothers' nor fathers' prosocial parenting goals were related to adolescent's prosocial behavior.

## Link between child-rearing behaviors and adolescent prosocial behavior

To examine the link between child-rearing behaviors (autonomy, punishment and warmth) and adolescent prosocial behavior a multiple regression analyses were conducted separately for fathers and mothers. Results are also presented in Table 2 under Model 2. For fathers, in addition to child age, punishment and warmth were positively predictive of adolescents' prosocial behavior. Autonomy granting was not a significant predictor. This suggests that only warmth and punishment predict adolescents' prosocial behavior.

For mothers, in addition to child age only warmth was positively predictive of adolescents' prosocial behavior. Autonomy granting and punishment was not a significant predictor. This suggests that only warmth predict adolescents' prosocial behavior.

Table 2

Regression Results Predicting Adolescents' Prosocial Behavior Predicted by the Parenting Goals and the Three Child-Rearing Behaviors Warmth, Autonomy and Punishment Separately for Fathers and Mothers

				Adolescent'	Prosocial	Behavior
			$R^2$	В	SE	Beta
Fathers	Model 1	Goals	.03			
	Step 1	Age of adolescent		.05	.02	.16*
	Step2	Parenting goals		.22	.26	.05
	Model 2	Parenting	.07*			
	Step 1	Age of adolescent		.08	.02	.23*
	Step 2	Warmth		.20	.06	.21*
		Autonomy		.01	.05	.01
		Punishment		.08	.04	.13*
Mothers	Model 1	Goals	.02			
	Step 1	Age of adolescent		.05	.02	.14*
	Step2	Parenting goals		01	.27	00
	Model 2	Parenting	.04*			
	Step 1	Age of adolescent		.05	.02	.16*
	Step 2	Warmth		.19	.06	.19*
		Autonomy		06	.05	08
		Punishment		00	.04	00

\**p* < .05.

## Indirect link between prosocial parenting goals and adolescents prosocial behavior

To examine the indirect link between prosocial parenting goals and adolescents' prosocial behavior a bootstrap- macro regression analysis has been conducted. According to the results given in Table 3, the indirect link between prosocial parenting goals and adolescents prosocial behavior was statistically not different from zero for the three (e.g., autonomy, punishment and warmth) child- rearing behaviors across fathers.

In the same table (Table 3) the results are given for the indirect link between prosocial parenting goals and adolescents prosocial behavior across mothers. Similar to fathers, prosocial parenting goals were not indirectly related to adolescent' prosocial behavior through the three (autonomy, punishment and warmth) child-rearing behaviors.

## Table 3

Bootstrapping Results Examining Whether Child-Rearing Behaviors Warmth, Autonomy Granting and Punishment Mediates the Prosocial Parenting Goals and Adolescents' Prosocial Behavior for Fathers and Mothers

		Adolescent Prosocial Behavior			
		Effect	SE	LLCI*	ULCI**
Fathers	Autonomy	05	.04	18	.00
	Punishment	03	.05	21	.05
	Warmth	00	.09	17	.20
Mothers	Autonomy	.03	.04	01	.16
	Punishment	.00	.05	09	.12
	Warmth	01	.05	11	.08

\*LLCI= Lower level confidence interval

**\*\*** ULCI= Upper level confidence interval

## Discussion

The present study examined whether prosocial parenting goals would be associated with adolescents' prosocial behavior and whether this association would be mediated through child- rearing behaviors (i.e. autonomy, punishment and warmth). The results provide evidence that prosocial parenting goals are not directly related to adolescents' prosocial behavior. The results do provide evidence that fathers' use of punishment and both mothers' and fathers' warmth is related to adolescents' prosocial behavior. Furthermore, there was no evidence found that suggested that the prosocial parenting goals are indirectly linked to adolescents' prosocial behavior via child-rearing behaviors. These results extend our knowledge of the role of parenting goals and behaviors and adolescents' prosocial behavior in several ways.

## Prosocial parenting goals and adolescents' prosocial behavior

Contrary to expectations (Barni et al., 2011; Padilla- Walker, 2007), no significant association between prosocial parental goals and adolescents' prosocial behavior was found, neither for fathers nor mothers. Interesting is that the mean difference of prosocial parenting goals significantly differed for fathers and mothers, with fathers showing lower prosocial parenting goals compared to mothers. While according to prior studies (Roest, Dubas, Gerris, & Engels, 2009; Rohan & Zanna, 1996), mothers and fathers have high similar value profiles. However, possible reasons for the lack of an association between prosocial parenting goals and adolescent prosocial behavior are discussed next are equally applicable to fathers and mothers. First, the active role of the child was not taken into account in this study. According to Grusec (2011) parents have an important role in socialization, but it is not a one-way process. The child actively processes the message of the parents, give it a meaning, determine how it can be performed and chooses to accept it or not (Grusec & Goodnow, 1994). In addition, it could be that adolescents did not internalize the prosocial parenting goals due to the difference between paternal and maternal prosocial parenting goals. Second, the (conformity) goals of peers were not taken into account. That is, peers values may be more important than parents at that stage of life. The adolescents will find more in the goals of their friends because of conformity values during their adolescent period (Bardi & Schwarts, 2003), especially if there are conflicts with their parents in this period. These conflicts arise due to differences between actual and expected behaviors of both sides (Carlo, Fabes, Laible & Kupanoff, 1999). Finally, the methodological difference between the studies is a possible explanation. In contrast to prior studies, which focused on American samples (Padilla- Walker, 2007), this study includes participants with a Dutch background. According to Carlo et al. (1999) this culture difference is an important aspect for prosocial behavior. Prosocial behavior is a social construct shaped by culture that might differ across cultures. The underlying motives between different cultures could contribute to adolescents' prosocial behavior. Future research is needed where the active role of adolescents on parents and peer influence is examined.

## Parenting behaviors and adolescents' prosocial behavior

Different parental practices are related in different ways to adolescents' prosocial behavior (Carlo et al., 2007; Richaud et al., 2013). In this study three kinds of childrearing behaviors were examined. Consistent with past research (Carlo et al., 2010; Domitrovich & Bierman, 2001) parental warmth was positively associated with adolescents' prosocial behavior. These associations were demonstrated for both fathers and mothers. In terms of general parenting warmth two possible explanations are given. First, parents with a warm and supportive relationship with their children can influence children's prosocial behavior. This might be due to coaching and guiding their children's prosocial behavior by providing direct verbal messages (Carlo, 2006). Secondly, according to Carlo (2006) parents who have an authoritative parenting style are warm, loving, responsive, and supportive (Eisenberg & Mussen, 1989) and have children with high prosocial behavior (Carlo, 2006). These findings add evidence to the longitudinal studies that supports the association between parental warmth and adolescents prosocial behavior.

In contrast to the findings of Gagné (2003), no significant association between autonomy-granting parenting and adolescents' prosocial behavior was found, neither for fathers nor mothers. Two possible explanations for why autonomy granting parenting was not associated with adolescents' prosocial behavior are possible. First, warmth was taken into account in the analyses. The components warmth and autonomy granting could be overlapping because the function of parental autonomy granting is much like parenting warmth (Steinberg, 2001), which may have contributed to problems associated with overlapping variance. Second, there is a methodology difference with prior studies (e.g., Gagné, 2003), which could explain the non-significant association between autonomygranting parenting and adolescents' prosocial behavior. Across samples the person who reported on autonomy-granting are not the same. In this study parents reported on their own autonomy granting behaviors whereas in other studies adolescents rated their parents' autonomy granting. This study did not take the views of the adolescents on the autonomy – granting of their parents into account, which could account for the differences across studies. Adolescents start developing their own identity and are involved in exploring and developing their autonomy (Barni et al., 2011), which could indicate that they want to decide on their if they want to behave prosocially.

Furthermore, surprisingly contrary to expectations (Carlo et al., 2010) a positive association was found between fathers' use of punishment and adolescents' prosocial behavior. Maternal use of punishment was unrelated to adolescents' prosocial behavior. Based on general punishment parenting, the way in which parents use punishment is a possible explanation for this unexpected association. Punishment may support prosocial behavior if parents use it to demand mature or competent behavior and the use of punishment is not harsh. In such a case the child will attend more to the parent's message (Hastings et al., 2007). Despite this explanation an interesting question still arises: Why is there only an association for fathers? A possible explanation for this could be due the difference between using warmth and punishment parenting. Fathers reported lower levels of warmth but higher levels of punishment than mothers. Holmbeck et al. (1995), Phares (1999) and Tein, Roosa, and Michaels (1994; in McKinney & Renk, 2007) mentioned that mothers are more emotional, they are more warm, supportive and generally closer with

their children and adolescents than are fathers. In addition, adolescents also rate mothers higher on authoritative parenting style than their fathers who score higher on authoritarian parenting style (McKinney & Renk, 2007, Conrade & Ho, 2001). Clearly, more research will be needed to replicate and further the understanding of the role of (parental) punishment parenting on adolescents' prosocial behavior.

# Prosocial parenting goals and adolescents' prosocial behavior mediated by the childrearing behaviors

In contrast to the expectations, the mediating effect of child- rearing behaviors (i.e., autonomy, punishment and warmth) between prosocial parenting goals and adolescents prosocial behavior was not significant, neither for fathers or mothers. A possible explanation for this result is that besides prosocial parenting goals and the child rearing behavior, the mechanism of how these goals are accepted by the adolescent was not taken into account (Grusec, 2011; Grusec & Goodnow, 1994, Hardy, Carlo & Roesch, 2010). For example, Carlo et al. (2007) found a significant association between parenting practices and adolescent's prosocial behavior, but this association was mostly through the indirect effect of adolescent's sympathy. In addition, the influences of the peer group and their prosocial goals gradually take over the influence of parents (Bardi & Schwartz, 2003).

## **Limitations and Future Research**

Although this study is a longitudinal study with data of the independent variables of 1990 and dependent variables of 1995 and has no shared method variances and despite the evidence for the association between parental warmth, paternal punishment and prosocial behavior, the present study had several limitations. First, as mentioned previously, the active role of the child is not taken into account. The bi-directional influence between parent and adolescent is needed to interpret the findings and direction of effects better. Second, for this study adolescents rated their prosocial behavior on characteristics of the Agreeableness subscale of the Big Five Questionnaire while in other studies (e.g., Gagné, 2003; Padilla- Walker, 2007; Wyatt & Carlo, 2002) usually charity work, comforting others, doing volunteer work have been used as adolescents' prosocial behavior. Furthermore, other kind of parenting goals and child-rearing behaviors could influence adolescents' prosocial behavior, for example self- direction, social skills, obedience demandingness and inductive reasoning (e.g., Yagmurlu & Sanson, 2009). Finally, the current study focused on adolescents in general, it would be useful to distinguish between male and female adolescents. There are studies that looked at difference between boys and girls and parent- child dyads and the influence on prosocial behavior. For example Barni et al. (2011) found that female adolescents accepted their parents' socialization values more than male adolescents. Finally, additional studies are needed to that examine other child-rearing behaviors as possible mediators between parenting goals and adolescents' prosocial behavior.

In conclusion, the present study examined whether child- rearing behaviors (i.e., autonomy, punishment and warmth) predicted adolescents' prosocial behavior. Of particular significance were the central role of the warmth and punishment as child-rearing behaviors that predicted adolescents' prosocial behavior. However, given the relatively few studies on the association between parenting goals and behaviors with prosocial behavior, more research is needed to further our understanding of the role of parents, their goals and child-rearing behaviors, in this domain.

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