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THESIS

**Socialization of prosocial behaviour: The association  
between parental values and parenting and adolescents'  
prosocial behaviour.**

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The study examined the relation between parental social criticism and hedonism values and adolescent's prosocial behaviour and the relation between parental responsiveness and use of induction and adolescent's prosocial behaviour. A mediation effect of parenting on the relation between parental values and adolescent's prosocial behaviour was also investigated. Adolescent's prosocial behaviour was measured five years after measuring parental values and parenting, when adolescents were 14-21 years old. The sample consisted of 484 adolescents (47.7% boys and 52.3% girls), representative of Dutch families. Results indicate that parental social criticism and hedonism values are not significantly related to adolescent's prosocial behaviour. Parental responsiveness, but not the use of induction, is significantly related to adolescent's prosocial behaviour, indicating that a higher level of parental responsiveness leads to a higher level of prosocial behaviour in adolescents. Finally, the results also show that there is an indirect relation between fathers' hedonism values and adolescents' prosocial behaviour when going through fathers' responsiveness.

De studie onderzocht de relatie tussen ouderlijke waarden voor sociaal kritiek en hedonisme en het prosociaal gedrag van adolescenten en de relatie tussen responsiviteit en gebruik van inductie in ouderschap en het prosociaal gedrag van adolescenten. Een mediatie effect van ouderschap op de relatie tussen ouderlijke waarden en het prosociaal gedrag van adolescenten is ook onderzocht. De meting van het prosociaal gedrag van adolescenten vond plaats vijf jaar nadat de ouderlijke waarden en ouderschap zijn gemeten, wanneer de adolescenten 14-21 jaar waren. De steekproef bestond uit 484 adolescenten (47.7% jongens en 52.3% meisjes), representatief voor Nederlandse families. Resultaten indiceren dat ouderlijke waarden voor sociaal kritiek en hedonisme niet gerelateerd zijn aan het prosociaal gedrag van adolescenten. Ouderlijke responsiviteit, maar niet het gebruik van inductie, is significant gerelateerd aan het prosociaal gedrag van adolescenten, wat aangeeft dat meer ouderlijke responsiviteit samengaat met meer prosociaal gedrag in adolescenten. Tot slot laten de resultaten zien dat er een indirecte relatie is tussen vaders waarde voor hedonisme en het prosociaal gedrag van adolescenten, als deze via vaders responsiviteit werken.

### **Socialization of prosocial behaviour: The association between parental values and parenting and adolescents' prosocial behaviour**

Prosocial behaviour has been shown to appear very early in life, in children as young as 12 to 24 months of age (Brownell, 2013). This behaviour can be defined as all behaviour that is intended to benefit someone else and includes voluntarily acting on behalf of others out of caring and concern to enhance their welfare (Dunfield, 2014; Brownell, Svetlova, Anderson, Nichols & Drummond, 2013). The focus of most studies is on the early appearance of prosocial behaviour, but much less research has been reported to provide an insight on the continuing development of this behaviour throughout childhood and adolescence. Adolescence is a time of biological, cognitive, social and behavioural change (Padilla-Walker, 2007). A time of independence and identity development in which parents still play an important role (Laible, Carlo & Roesch, 2004). A study by Fabes, Carlo, Kupanoff and Laible (1999) demonstrates that adolescents are more prosocial than younger children, and that this difference appears during early adolescence. The current study focuses on the prosocial behaviour in adolescence and the parental socialization of this behaviour. Though most research focuses on the role of mothers as parenting agents, this study investigates both mothers and fathers.

As the Social-Normative Theory suggests, parents may play an important role in nurturing prosocial behaviour (Paulus, 2014), suggesting a possible association between how parents interact with their children and their children's prosocial behaviour. The Social Normative Theory assumes that during early development, children will internalize the rules of their environment and acquire a normative understanding of social behaviour. According to this theory, the role of the social environment and its input is extremely important in fostering and supporting the emergence of prosocial behaviour (Paulus, 2014). Prosocial behaviour could emerge out of children's shared activities and relationships with parents, who support and encourage prosocial behaviour. Social interactions and experiences with parents engage the emotions, cognitions and behaviour that are critical for prosocial responding, which gradually develops young children's own prosocial behaviour (Brownell, 2013). Not only is early parental socialization important for the emergence of prosocial behaviour, but it also continues to play an important role in the further development of prosocial behaviour among young adolescents. Parents could

influence their prosocial behaviour in many ways, such as providing desirable ways to behave, direct modelling of prosocial behaviour, encouraging and directing appropriate behaviour and punishing inappropriate behaviour (Eisenberg & Murphy, 1995 as cited in Carlo et al., 1999). Though parental socialization consists of many factors, the current study focuses on two: parental values and parenting. The goal of the current study is to investigate an association between these two factors and adolescents' prosocial behaviour.

Values indicate what is important to us in our lives and form a motivational construct for how we behave. Everyone holds different kinds of values, all with varying degrees of importance (Bardi & Schwartz, 2003). Values consist of five formal factors, as identified by Schwartz and Bilsky (1987): (1) values are concepts or beliefs, (2) they provide guidance for selection or evaluation of behaviour, policies, people and events, (3) they transcend specific actions and situations, (4) they are less numerous and more central to personality than are attitudes, and (5) they are ordered by importance relative to one another. When parents hold a particular prosocial value, such as altruistic values, or demonstrate and endorse the linked behaviour to this value, their children display the same particular prosocial behaviour, reporting that they have learned this behaviour from their parents. But having specific prosocial values as a parent, does not correlate with children's spontaneous overall prosocial behaviour (Eisenberg, Wolchik, Goldberg & Engel, 1992). Earlier research by Hoffman (1975), on the other hand, does report that parents' value of altruism is related to their same-sex children's prosocial behaviour. Surprisingly, few studies have examined whether other parental values are linked with adolescent prosocial behaviour. Because the associations between parental values and children's prosocial behaviour are mixed, the current study explores two different types of parental values: hedonism and social-criticism, with the former emphasizing the self and the latter emphasizing others in society.

Hedonistic values are a part of self-enhancement, which emphasizes one's own relative success and control over others (Verkasalo, Lönnqvist, Lipsanen & Helkama, 2009). Using hedonistic prosocial moral reasoning is negatively related to prosocial behaviour. Prosocial moral reasoning generally has been related to prosocial behaviour (Eisenberg, Hofer, Sulik & Liew, 2014). Hedonistic reasoning is also negatively related to sharing behaviour (Eisenberg, Shell, Pasternack, Lennon, Beller, & Mathy, 1987). A study on Mainstream American values described this value as

consisting of preference for material success, independence, self-reliance, competition and personal achievement, which is comparable with hedonistic values. This value was not related to prosocial behaviour (Armenta, Knight, Carlo & Jacobson, 2011).

The other aspect of parental values that is investigated is social criticism values, which includes the acceptance of others as equals and concern for their well-being, with an interest in a more egalitarian and equal-opportunity approach of socio-economical and power differences between citizens of the same society (Gerris et al., 1998). There has been research on similar values that are associated with prosocial behaviour. A study on familism values, which refers to a set of norms related to family solidarity and emotional and economic interdependence, indicated that endorsing these values is associated with different types of prosocial tendencies in children (Armenta et al., 2011). Adults that reported more prosocial values such as helpfulness and equality, donated more to charity than did adults that didn't report these values (Verplanken & Holland, 2002). Adolescents have also been reported to show associations between prosocial values and prosocial behaviour (Padilla-Walker, 2007; Padilla-Walker & Carlo, 2007; Hardy, Carlo & Roesch, 2010). These reports, like many others, support that there is value-congruent behaviour for social criticism values. But they do not report on an association between parents having these values and children showing congruent behaviours. Thus, the current study investigates the association between specific parental values, which are social criticism and hedonism, and adolescents' prosocial behaviour.

Another factor of parental socialization is parenting, which can be defined as anything that parents do or fail to do that may affect their children (Locke & Prinz, 2002). Even though children decreasingly depend on parents throughout adolescence, parents continue to play an important and predictive role for adolescent outcomes, even into young adulthood (Laible et al., 2004). Even though the parent-child interaction changes and parenting may look different than it does in childhood, it still plays an important role (Nelson, Padilla-Walker, Christensen, Evans & Carroll, 2011). Parents' attitudes towards children and childrearing influence the way they interact with their children (Kiang, Moreno & Robinson, 2004). They also generally initiate and reinforce the integration of prosocial behaviour within social interactions and the further socialization of this prosocial behaviour (Kärtner, Keller & Chaudhary, 2010). When both environmental and genetic factors were measured, parental positivity and negativity were still found to be predictors in children's prosociality, independent of

genetic effects. Positivity was indexed as positive feelings and positive non-coercive discipline, and negativity was indexed by negative feelings and coercive, punitive discipline. This result suggests that there is a genuine relation between parenting and children's prosocial behaviour (Knafo & Plomin, 2006). This is also in support of the Social Normative Theory. The current study further explores the role of parenting by investigating parental responsiveness and induction.

Responsiveness indicates the nature of the parental reaction when a child is upset or distressed. When low in responsiveness, the parent is negative or insensitive, which involves hostility, dismissiveness or distress. When high in responsiveness, the parent is positive and sensitive, which involves helping and comforting (Davidov & Grusec, 2006). Several studies have shown that a high level of parental responsiveness associates with positive child behaviours. Responsivity in mothers of 9-month-old children predicted more child empathy at 22 months old (Kochanska, Forman & Coy, 1999). High responsivity also leads to the likelihood of having toddlers with high levels of concerned attention (Spinrad & Stifter, 2006) and prosocial behaviour towards others (Davidov & Grusec, 2006). Despite the evidence of a relation between parental responsiveness and child prosocial development reported by several studies, the evidence on this specific relation for adolescents is quite limited. There is empirical support for parental responsiveness as a parenting style (Richaud, Mesurado & Lemos, 2013), a warm and nurturing relationship with parents (Eisenberg & Fabes 1998 as cited in Laible et al., 2004), maternal appropriateness in reactions (Padilla-Walker & Nelson, 2010) and pro-active parenting (Padilla-Walker, Fraser & Harper, 2012) to be positively related to adolescent prosocial behaviour. The current study further investigates responsiveness as a parenting practice and how this associates with prosocial behaviour in adolescents.

The other aspect of parenting that is investigated is induction, which refers to the techniques that parents use to discourage inappropriate behaviour and gain compliance from children (Locke & Prinz, 2002). Even though discipline is often conceived as being ineffective (Locke & Prinz, 2002), disciplinary inductive reasoning involves parents guiding their children's behaviour by reasoning through the consequences of a decision and seems to be an effective technique when it comes to children's prosocial behaviour (O'Brien, 2014). Various studies support this result, as they show that high levels of parental inductive discipline and low levels of power-

assertive discipline are related to children's and adolescents' prosocial behaviour (Laible, Eye & Carlo, 2008; Krevans & Gibbs, 1996), including emotional, direct, altruistic, compliant, public and anonymous prosocial behaviour (Carlo, Knight, McGinley & Hayes, 2011). However, most studies focus merely on maternal reports, and when they do focus on both parents, it is mostly induction as reported by the child.

An additional purpose of the current study is to investigate the relation between parental values and adolescents' prosocial behaviour, when this is mediated by parenting. As suggested by Kiang et al. (2004), mothers have a preconception about parenting. These preconceptions about parenting embody value systems, which consist of attitudes that tend to be stable and more resistant to change than actual parenting behaviours and can affect parents' accuracy in perceiving their children's cues and responding appropriately (Holden, 1995, as cited in Kiang et al., 2004). This value system can translate into how a parent perceives his or her child's behaviour and can also impact parenting, such as sensitivity and responsiveness. Previous research has shown that pro-active parenting, which is the frequent use of active and intentional socialization of their children, is positively related to adolescents' prosocial value-congruent behaviour. This indicates that prosocial values lead to prosocial behaviour when pro-active parenting is involved (Padilla-Walker et al., 2012). The current study investigates whether parenting mediates the link between parental values and adolescents' prosocial behaviour.

The purpose of this study is to examine the relation of parental socialization, through parental values and parenting, with prosocial behavioural tendencies in their adolescent children. The first goal is to examine the relation between parental hedonism and social criticism values and adolescents' prosocial behaviour. Based on the Social Normative Theory, which suggests that children internalize the rules of their environment (Paulus, 2014) and empirical evidence, it is expected that there is a positive relation between parental social criticism values and children's prosocial behaviour and a negative relation between parental hedonism values and children's prosocial behaviour. The second goal is to examine the relation between parental responsiveness and use of induction and adolescents' prosocial behaviour. In accordance with the Social Normative Theory, the role of the environment is extremely important in fostering and supporting the emergence of prosocial behaviour (Paulus, 2014), which could emerge out of shared activities with their parents, who

support and encourage forms of prosocial behaviour (Brownell, 2013). Based on empirical evidence, it is expected that there is a positive relation between both parental responsiveness and use of induction, and adolescents' prosocial behaviour. A third goal is to examine parenting behaviours in the process through which parental values are translated into adolescents' prosocial behaviour. That is, it is examined whether parenting mediates the relation between parental values and adolescents' prosocial behaviour. Having a specific preconception about parenting embodies value systems that may influence parenting (Kiang et al., 2004). It is expected that parental social criticism values lead to a higher level of responsiveness and induction in parenting and parental hedonism values lead to a lower level of responsiveness and induction in parenting, and that these in turn relate to adolescents' prosocial behaviour.

## **Method**

### *Participants*

The current study used data from the *Child Rearing and Family in the Netherlands Study* that was conducted in 1990 and 1995 (Gerris et al., 1998). The 1990 sample consists of 788 children between 9 and 16 years old and their parents, which was a representative sample for The Netherlands. The mean age at this first wave was 12.77 years, with a standard deviation of 2.19 years. In the 1995 follow-up study, the sample consists of 484 remaining adolescents (47.7% boys and 52.3% girls) between 14 and 21 years old and their parents. The current study focuses on these 484 families. There was slightly more dropout from urban families. A bias check that compared the group of participants who were present at the second wave, shows that this group does not differ from the group of participants who dropped out on any of the variables measured at the first wave that are used in the present study. Fathers and mothers induction, responsiveness, social criticism and hedonism have been included in this bias check.

### *Procedure*

All the participating families were sent a letter describing the study and requesting their participation. Data were collected through questionnaires, which were given to the participants at their homes. During the first wave of the study in 1990, the adolescents completed one questionnaire and the parents completed three questionnaires, one of which was about demographic information. The questionnaires



were then returned via post. During the second wave of the study in 1995, the adolescents completed a questionnaire, which they also returned via post.

### *Measurements*

Prosocial behaviour. During the second wave, adolescent prosocial behaviour was examined through a self-report questionnaire of the Big Five personality dimension Agreeableness (Goldberg, 1992). The subscale agreeableness is used as a measure of adolescent prosocial behaviour, as prosocial responses has evidently been found to depend on agreeableness (Courbalay, Deroche, Prigent, Chalabaev & Amorim, 2015).

Of the 20 existing items of the Agreeableness scale in the study, five items were used to measure prosocial behaviour: kind, cooperative, sympathetic, helpful and generous. The respondents reported which characteristics are applicable to them on a seven-point scale, ranging from 1 'not at all applicable' to 7 'very applicable'. The coefficient alpha reliability of this five-item scale was .74.

Parental values. During the first wave, parental values were examined through a self-report questionnaire about value orientations, measuring hedonism and social criticism (Felling, Peters, Schreuder, Eisinga, & Scheepers, 1987). Mothers and father both completed this questionnaire.

*Hedonism.* Valuing a hedonistic orientation was measured with a four-item scale, consisting of the following items: enjoying life, having fun, experiencing new things and eating and drinking well. The respondents reported to which degree they value these items on a five-point scale, ranging from 1 'extremely important' to 5 'unimportant'. These items were recoded, so that a higher score indicates more hedonism values and a lower score indicates less hedonism values. The coefficient alpha reliability was .76.

*Social criticism.* Valuing critical left wing attitude towards social economical and political differences in society was measured with a four-item scale, consisting of the following items: contributing to the reduction of existing income differences, promoting greater equality in society, breaking through existing power relations and active contributions to a society, in which everyone has a voice. The respondents reported to which degree they value these items on a five-point scale, ranging from 1 'extremely important' to 5 'unimportant'. These items were recoded, so that a higher score indicates more social criticism values and a lower score indicates less social criticism values. The coefficient alpha reliability ranged from .75 to .80.

Parenting. During the first wave, parenting was examined in two parts. A self-report questionnaire about child-rearing variables was completed by mothers and fathers, to measure parental induction (Gerris & Janssens, 1987) and another questionnaire about child-rearing variables was completed by the child, to measure parental responsiveness (Maccoby & Martin, 1983).

*Induction.* Behaviour by the parent with the intent of obtaining voluntary compliance to parental desires by avoiding a direct conflict of wills with the child was measured with a nine-item scale. For example, “When my son/daughter does something that is not allowed, I often send him/her to his room to think about it” measures the parent’s induction behaviour. The respondents reported to which degree the items are applicable to them on a seven-point scale, ranging from 1 ‘not at all applicable’ to 7 ‘very applicable’. The coefficient alpha reliability was .72.

*Responsiveness.* Contingency of parent’s responses on prior child behaviour; parental sensitivity and adaptation to the child’s signals, states and needs was measured with an eight-item scale. For example, “My father/mother knows very well what I like or feel” measures parent’s responsive behaviour. The respondents reported to which degree the items are applicable to their parents on a seven-point scale, ranging from 1 ‘not at all applicable’ to 7 ‘very applicable’. The coefficient alpha reliability ranged from .85 to .91.

### *Analyses*

For the first and second research question, the direct relation between parental values and adolescents prosocial behaviour and the relation between parenting and adolescents prosocial behaviour were examined with the use of a Pearson correlation analysis and multiple hierarchical regression analyses. For the final research question, a multiple regression analysis and bootstrap analysis were used to examine whether parenting functions as a mediator for the relation between parental values and adolescents’ prosocial behaviour. The bootstrap analysis was used to conduct the significance of indirect effects, by using 1000 bootstrap resamples at a 95% confidence interval. This macro analysis is a resampling procedure that generates an empirical approximation of the sampling distribution of a statistic of the available data. The bootstrap calculates the indirect effect of the resamples. For all analyses, the results have been controlled for the age and gender of the adolescents and social economic status, represented by monthly income.

## Results

This research investigated a possible association between parental values and parenting and adolescents prosocial behaviour. The means, standard deviations and reliability of these scales are presented in Table 1. For adolescent's prosocial behaviour, the mean score was 5.55, with a standard deviation of 0.73 and a Cronbach's alpha reliability of .74. The Pearson correlations are presented in Table 2. Finally, the results of the regression analyses are presented in Table 3.

Table 1

*Construct mean scores (M), standard deviations (SD) and scale Cronbach's alpha reliability ( $\alpha$ ).*

	Fathers			Mothers		
	M	SD	$\alpha$	M	SD	$\alpha$
Social criticism	2.66	0.91	.70-.80	2.87	0.80	.70-.80
Hedonism	3.48	0.70	.70-.80	3.52	0.68	.70-.80
Induction	4.40	0.83	.72	4.64	0.87	.72
Responsiveness	5.79	1.27	.91	4.43	1.06	.85

Table 2.

*Pearson correlations between constructs.*

	Social criticism	Hedonism	Induction	Responsiveness	Adolescent prosocial behaviour
Social criticism	-	.327**	.120**	.105**	.037
Hedonism	.293**	-	.260**	.102*	.093
Induction	.209**	.123**	-	.139**	-.058
Responsiveness	.034	.095*		-	.109*
Adolescent prosocial behaviour	-.009	.009	-.006	.084	-

*Note:* Values above the diagonal in the top half of the table reflect mothers, whereas values below the diagonal reflects fathers.

\* $p < .05$ ; \*\*  $p < .01$  (2-tailed)

Table 3.

*Results of the multiple hierarchical regression analyses for the prediction of adolescent prosocial behaviour*

			Adolescent prosocial behaviour			
			R <sup>2</sup>	B	SE	Beta
Fathers	<i>Model 1</i>	<i>Parental values</i>				
	Step 1	Age of adolescent	0.040	0.064	0.020	0.189*
		Gender		0.105	0.088	0.069
		SES		-0.022	0.032	-0.041
	Step 2	Social criticism	0.041	-0.023	0.051	-0.027
		Hedonism		0.022	0.067	0.019
	<i>Model 2</i>	<i>Parenting</i>				
	Step 1	Age of adolescent	0.053	0.089	0.022	0.254*
		Gender		0.143	0.091	0.093
		SES		-0.022	0.033	-0.038
	Step 2	Responsiveness	0.079	0.092	0.036	0.155*
		Induction		0.037	0.057	0.040
Mothers	<i>Model 1</i>	<i>Parental values</i>				
	Step 1	Age of adolescent	0.033	0.059	0.019	0.176*
		Gender		0.109	0.084	0.073
		SES		0.004	0.027	0.009
	Step 2	Social criticism	0.042	-0.002	0.057	-0.002
		Hedonism		0.108	0.067	0.098
	<i>Model 2</i>	<i>Parenting</i>				
	Step 1	Age of adolescent	0.028	0.048	0.021	0.140*
		Gender		0.098	0.086	0.065
		SES		0.007	0.028	0.014
	Step 2	Responsiveness	0.044	0.097	0.044	0.129*
		Induction		-0.004	0.052	-0.004

*Note:* \*p < .05 (1-tailed)

*Hypothesis 1: Parental values and adolescents' prosocial behaviour*

To investigate the first hypothesis, the results were examined separately for mothers and fathers. Two analyses were performed: Pearson correlation and regression analyses. The Pearson correlations as presented in Table 2, show that there is no significant correlation between parental social criticism or parental hedonism and adolescents' prosocial behaviour, for neither fathers nor for mothers.

For the regression analyses, on the first step the age and gender of the adolescent and parental monthly income (social economic status) were entered. These are the variables that are controlled for. For fathers, these jointly account for 40% of the variance ( $R^2=0,040$ ) in adolescents prosocial behaviour and for mothers they account for 33% of the variance ( $R^2=0,033$ ). On the second step, social criticism and hedonism (parental values) were entered. For fathers, these jointly accounted for 41% of the variance ( $R^2=0,041$ ) and for mothers for 42% ( $R^2=0,042$ ) of the variance.

The results of the regression analysis also showed no significant associations between parental values and adolescents prosocial behaviour (see Table 3). These results indicate that there is no association between parental social criticism and hedonism values and adolescents' prosocial behaviour.

*Hypothesis 2: Parenting and adolescents' prosocial behaviour*

To investigate the second hypothesis, the results were examined separately for mothers and fathers. Again, two analyses were performed: Pearson correlation and regression. The Pearson correlations as presented in Table 2, show that there is a significant correlation between mothers responsiveness and adolescents prosocial behaviour ( $r = .109$ ;  $p < .05$ ).

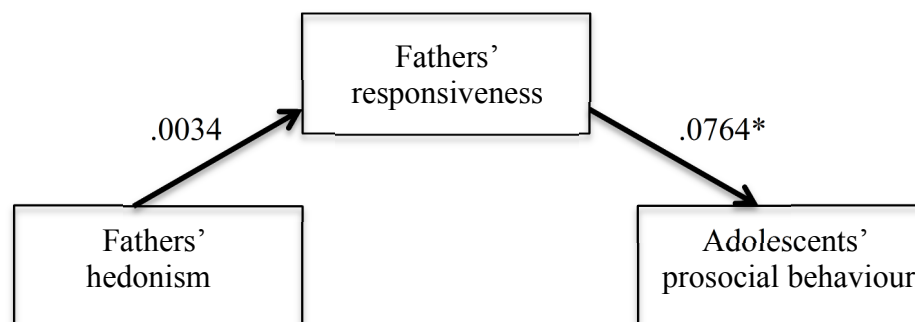
For the regression analyses, on the first step the age and gender of the adolescent and parental monthly income (social economic status) were entered. For fathers, these jointly account for 53% of the variance ( $R^2=0,053$ ) in adolescents prosocial behaviour and for mothers they account for 28% of the variance ( $R^2=0,028$ ). On the second step, induction and responsiveness (parenting) were entered. For fathers, these jointly accounted for 79% of the variance ( $R^2=0,079$ ) and for mothers for 44% ( $R^2=0,044$ ).

The results of the regression analysis also show that maternal responsiveness was a positive predictor of adolescents prosocial behaviour ( $\beta = .129$ ,  $p < .05$ ). Fathers responsiveness significantly predicted adolescents' prosocial behaviour as well ( $\beta = .155$ ,  $p < .05$ ). These results indicate that there is a significant association

between parental responsiveness and adolescents' prosocial behaviour for mothers as well as for fathers. This association was not found between parental induction and adolescents' prosocial behaviour.

*Hypothesis 3: Parenting as a mediator*

To investigate the third hypothesis, the results were examined separately for mothers and fathers. Two analyses were performed: a multiple regression analysis and bootstrap analysis. It was expected that a higher level of parental social criticism would lead to more responsiveness and induction, which in turn would lead to more prosocial behaviour in the adolescent. The results of the regression analysis for hypothesis 2 showed that there is a significant relation between parental responsiveness, but not parental induction, and adolescent prosocial behaviour. Parental social criticism was not significantly related to parental responsiveness in this model, which shows that there is no significant direct mediation effect. As presented in Table 2, according to the Pearson correlation, some of the parental values are significantly related to parental responsiveness: fathers' hedonism and fathers' responsiveness ( $r = .095$ ), mothers' social criticism and mothers' responsiveness ( $r = .105$ ), and mothers' hedonism and mothers' responsiveness ( $r = .102$ ). For this reason, to minimize errors, a bootstrapping procedure was performed to investigate an indirect effect, using 1000 bootstrap samples at a 95% confidence interval. The bootstrap standardized indirect effect was .0202. The confidence interval ranged from .0035, .0546, which indicates that the indirect effect of fathers' hedonism on adolescents' prosocial behaviour through fathers' responsiveness is significant.



*Figure 1.* Bootstrap coefficients for the relation between fathers' hedonism values and adolescents' prosocial behaviour, through fathers' responsiveness.

The outcome of this analysis is not in accordance with the expectation that social criticism would be positively related and hedonism would be negatively related to adolescents' prosocial behaviour through parental responsiveness and induction.

### **Discussion**

The current study sought to examine the association between parental values and parenting and adolescents' prosocial behaviour. Based on the Social Normative Theory, it was hypothesized that parental social criticism values, responsive parenting and use of induction in parenting would all be positively associated and parental hedonism values would be negatively associated with adolescents' prosocial behaviour, because according to the theory children would internalize the rules of their environment and parents' play an important role in nurturing prosocial behaviour (Paulus, 2014). The findings were only partially consistent with the hypotheses. Responsive parenting was positively associated with adolescent prosocial behaviour, but use of induction in parenting, social criticism and hedonism were not associated. This study also examined the mediating role of parenting on the association between parental values and adolescents' prosocial behaviour. It was hypothesized that the association between parental social criticism values would be mediated by responsive parenting and use of induction in parenting, because overall pro-active parenting was positively related to adolescents' prosocial value-congruent behaviour (Padilla-Walker et al., 2012) and it was suggested that preconceptions about parenting embody value systems, which can impact parenting (Kiang et al., 2004). The findings show that parenting did not have a direct mediating effect for mothers or for fathers. Surprisingly, fathers' hedonism values did have an indirect positive association with adolescents' prosocial behaviour, when going through fathers' responsiveness.

The results from the current study showed that parental values are not associated with general prosocial behaviour in adolescents. Even though Hoffman (1975) stated that particular parental prosocial values were related to overall prosocial behaviour in their children, the current findings are in support of the findings of Eisenberg et al. (1992), which suggested that particular prosocial parental values might be related to the same particular prosocial behaviour in their children, but not overall prosocial behaviour. Even though personal prosocial values do relate to overall prosocial behaviour (Eisenberg et al., 2014; Eisenberg et al., 1987; Armenta et al., 2011; Verplanken & Holland, 2002; Padilla-Walker, 2007; Padilla-Walker & Carlo, 2007; Hardy et al., 2010), it seems that the role of parents in their children's

prosocial behaviour in adolescence through values of social criticism and hedonism is not as relevant. This is contradictory to the Social Normative Theory's emphasis on parents' importance in fostering and supporting the emergence of prosocial behaviour (Paulus, 2014). Possibly, adolescents do not hold the same values as their parents and their own personal values play a more important role, which could explain that there is no association found here. In order for adolescents to have the same values as their parents, they need to perceive these values correctly and accept them (Padilla-Walker, 2007). Future research could focus on different kinds of values. Perhaps two opposites that work as a dimension, such as self-enhancement values and self-transcendence values. This value dimension has been proven to predict behaviour (Bardi & Schwartz, 2003). Future research could also measure adolescent's values instead of just parental values, to control for any possible differences between the two. As adolescence is a time of change and identity exploration, this leads to experiences that may challenge parental values (McNamara Barry, Padilla-Walker, Madsen & Nelson, 2008). Friends grow to play an important role in the adolescents' level of prosocial behaviour as well (McNamara Barry & Wentzel, 2006), and they become important socializers, as opposed to parents alone, which indicates that there needs to be a broader examination of the environmental influences on adolescents prosocial behaviour.

This study suggested that parental responsiveness is associated with adolescents' prosocial behaviour, but that the use of induction is not. This is partially in support of past reports that the association for responsiveness is found for young children (Kochanska et al., 1999; Davidov & Grusec, 2006; Spinrad & Stifter, 2006), and the current study confirms that it is there for adolescents as well. It is also in support of the Social Normative Theory that suggests that there is an association between how parents interact with their children and children's prosocial behaviour (Paulus, 2014), and that parents still play an important role in the further development of prosocial behaviour throughout adolescence (Eisenberg & Murphy, 1995 as cited in Carlo et al., 1999). However, parents' use of induction is not associated with adolescents' prosocial behaviour, which is not in accordance with past reports (O'Brien, 2014; Laible et al., 2008; Krevans & Gibbs, 1996; Carlo et al., 2011), or with the Social Normative Theory (Paulus, 2014). Moreover, as parents are expected to influence prosocial behaviour through directing appropriate behaviour and punishing inappropriate behaviour (Eisenberg & Murphy, 1995 as cited in Carlo et al.,



1999), the findings of the current study on the use of induction are surprising. Perhaps induction is not as effective as expected, as it is still a form of discipline. It is suggested that there are two types of discipline: inductive reasoning and coercion, with the former being considered as effective and the latter as ineffective when it comes to child prosocial behaviour (Locke & Prinz, 2002). However, it has been proven to be difficult to assess discipline effectiveness (Locke & Prinz, 2002), which indicates that the difference between the types of discipline might not be as big as suggested and the type of measurement of inductive reasoning should be reconsidered for future research. Instead of parental reports on their own use of induction, a combination of parental reports and adolescent's reports could be combined. Observational methods could also be applied.

Finally, the results from the current study suggest that parenting does not mediate the association between parental values and adolescents' prosocial behaviour. Surprisingly enough, there is an indirect positive relation between fathers' hedonism and adolescents' prosocial behaviour, when going through fathers' responsiveness. This is contradictory to the expectation that if any value would be positively related through parenting, it would be social criticism, as overall pro-active parenting has previously been reported to be positively related to adolescents' prosocial value-congruent behaviour (Padilla-Walker et al., 2012). This would be expected for a specific prosocial value, such as social criticism, and prosocial behaviour as well. But the findings indicate that value and behaviour in this case are incongruent when going through responsiveness. Perhaps fathers that hold hedonism values consciously try to not pass on these values and do so by being more responsive to their children, which in turn leads to more prosocial behaviour. However, this is only speculative, as these findings have not been reported before and there is no clear explanation to be found. It could possibly be a result of the used measurements in this study, as the child reported parental responsiveness. Other parental constructs were reported by the parents themselves, and prosocial behaviour was reported by the children. The results could also be a chance finding and an artefact of the analysis. It is possible that the relation between father's responsiveness and adolescents' prosocial behaviour is so strong, that the indirect relation between father's hedonism and adolescents' prosocial behaviour through father's responsiveness is only significant because of that strong association. Therefore, this finding needs to be replicated in other samples as well.

As just mentioned, the study was not without limitations. For some measurement issues, there are points of improvement for future research. In the current study, most parental constructs were measured using parent self-report questionnaires. Parental responsiveness was the only construct that was not self-report, but that was measured by child reports. The difference in measurement could have led to the surprising association that was found between father's hedonism values and adolescents' prosocial behaviour, as the different reports could give a distorted outcome of the measurements. It is possible that fathers would not report the same on their responsiveness as their children did. Moreover, using mainly self-reports may have given a distorted outcome as well, as there is no other way to control for these reports. Using both self-report and reports of children on parents and the other way around for parenting and adolescent prosocial behaviour, could lead to a combined and more precise representation of each construct. These reports could possibly be combined with observation as well. It could also be important to measure whether children perceive the applied parenting techniques the same way that parents do, to control for any difference. Also, prosocial behaviour is measured with items of the agreeableness scale, and although prosocial response does depend on agreeableness (Courbalay et al., 2015), observation of prosocial acts or experiments that elicit prosocial behaviour shall possibly give a clearer representation of prosocial behaviour. Besides ways of measurements, improvement can also be made in times of measurement. In the current study, the parental constructs of parental values and parenting were measured in wave one and the adolescent prosocial behaviour in wave two. Because of this, there is no possibility to make conclusions about causal effects and no ability to control for any changes of the constructs that may have occurred between the two waves. A third issue is that the results may not be completely generalizable, since there were one-parent and two-parent families in this study, but they were not investigated separately. It could be interesting for future research to examine whether the associations differ in one-parent or divorced families as opposed to two-parent families. Finally, it could be important to measure the prosocial values not only in parents, but in their children as well, to control for any difference between the two.

Despite these limitations, the current study makes a number of important contributions to the current literature on the socialization of prosocial behaviour in adolescence. The large sample and the fact that was a longitudinal study, makes this a

strong research, as there is hardly any longitudinal research on this subject with a sample of this size. On top of that, mothers and fathers have been investigated separately, which makes this even more unique research. But most importantly, instead of most previous research on the subject that studied young children, the current study investigated adolescents. The most important finding was that more parental responsiveness is associated with more prosocial behaviour in adolescents, which indicates that parents most definitely play an important role for adolescents' prosocial behaviour. Even though parental responsiveness was measured five years before adolescents' prosocial behaviour was measured, this association was still found. Also noteworthy is the indirect association between fathers' hedonism and adolescents' prosocial behaviour, when going through fathers' responsiveness. As this has not been reported before, this leaves plenty of room for interesting future research.

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