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**The Effects of Parenting Practices and Peer Relationships on the Prosocial
Behavioural Outcomes of Middle School Children**

**From: Jenny Bosworth
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Introduction

In recent years, children's behavioural outcomes have been the focus of extensive investigation. This is partially due to the important links that have been drawn between features of social competence and healthy development in other realms of social life. One of the central features of social competence is the development of prosocial skills. (HRC, 2002)

The close connection between prosocial skills and a wide variety of future developmental outcomes provides a compelling rationale to examine what factors are associated with positive development of prosocial skills. Results of such examinations can have direct implications for future prevention and intervention research, as well as policy development. (HRC, 2002:1)

This paper investigates factors that contribute to child behavioral outcomes. As Human Resources Canada points out “there is considerable consensus that prosocial behaviour can be either negatively or positively influenced by exposure to appropriate or inappropriate models (e.g., parents, sibling, peers, teachers; Mussen & Eisenberg-Berg, 1977; Rushton, 1975; Sroufe, Cooper, & DeHart, 1996)” (HRC, 2002: 5). Specifically, this paper will look at the effects of parenting practices and peer social support on the prosocial behaviour of children.

Literature Review

A review of the literature supports a link between parenting practices and prosocial behaviour in children. For example, in their study of sixth and seventh graders, Gibbs and Krevans (1996: 3263) found that Parents' use of inductive as opposed to power-assertive discipline was related to children's prosocial behaviour. Children of inductive parents were more empathic, and more empathic children were more prosocial. The latter is a particularly important finding as it establishes empathy as a cause of increased prosocial behaviour. In fact, measures of empathy are often included in the measure of prosocial behavior. For example, Statistics Canada's National Longitudinal Survey of Children and Youth uses levels of empathy and related questions to arrive at the child's score on prosocial behavior.

There appears to be much research and documented evidence on the link between parenting and empathy in children but less on the relationship between parenting and prosocial outcomes. Strayer and Robert's (2004) study of dual parent families with young children, found that more empathetic parents had more empathetic children, borrowing from Weir, Stevenson and Graham's Prosocial Behaviour Questionnaire. However, it was noted that once assessing other possible mediators like anger, the total effect of parenting was relatively small. Roberts (1999) replicated across samples, findings consistent with the cognitive-emotional processing model proposed and supported by Roberts and Strayer 1987.

Children's ego-resilient and prosocial behaviours appear to be related to parents' tolerant, non-punitive responses to emotional distress. Prosocial relations with peers were related to comforting and non-punitive parenting (this was more so the case for boys than girls) (Roberts, 1999). A Human Resources Canada (2001) study examining the behavioural outcomes in Canadian children found that high positive interaction between mother and child was related to high levels of prosocial behaviour in children. It also found that punitive parenting used by mothers resulted in low prosocial behavioural outcomes in children. It was concluded that characteristics of children's families, including parenting practices, played a bigger role in influencing children's behaviour outcomes than did neighbourhood characteristics. The same study also listed other characteristics of a child's family besides parenting style that influenced prosocial behaviour. Depression of the mother, family status, family SES, family functioning and family social support were among those mentioned. These factors may be considered as important control variables when examining the impact of parenting style on prosocial behaviour. Human Resources Canada (2000) also found family status to be important, positive parenting which included warmth and acceptance was associated with children's prosocial behaviour in two parent-homes.

It has been said that the family and peer groups are "the two worlds of childhood." (Domitrovich and Bierman 2001: 235) Therefore, in moving beyond the impact of

parenting on child social-emotional development, Hartup (1979) suggested that peer interaction might also play a critical and complementary role in the socialization process. (Domitrovich and Bierman 2001). Since then, this claim has been studied and supported.

Social support from peers with prosocial behaviour in children appears to be associated. The greater the social support from peers, the greater the prosocial behaviour. Bierman et al, (2001) found evidence for this assertion in suggesting that positive peer relationships promote social skill development and buffer children against feelings of loneliness and social anxiety. Moroz and Jones (2002) investigated the effects of positive peer relationships and found the social support of peers was a source of positive reinforcement effective in promoting prosocial behaviour in socially withdrawn children. Wentzel and McNamara (1999) reaffirmed the same finding, in this study of sixth-grade students, peer acceptance was related directly to prosocial behaviour. Human Resources Canada (2002) acknowledged the link between peer acceptance and prosocial behaviour and emotional distress. Finally Sabanc's (2003) study of three to five year olds found friend support to be positively correlated with prosocial behaviour, as more than just having a peer to play with, having a friend was found to have social advantages. Hartup (1996) found that while the developmental of friendship's significance is relatively weak, we may in fact understate its importance, unless we focus on the quality of friendship as being the important predictor of developmental outcome.

On a practical level, what can be done to increase the prosocial functioning in children? Prosocial behavior is a desirable trait to foster in children, such that identifying a comprehensive list of the contributory factors within the realm of control is a worth while endeavor for intervention purposes.

Research Question or Hypothesis

Why is it that children who experience ineffective parenting are more likely to exhibit lower levels of prosocial behaviour relative to children with effective parents? *Is it parenting style that predicts prosocial behavioural outcomes, or are there other factors*

such as peer relationships that are of greater significance in the explanation?

Furthermore, can the positive effects of peer relationships help to reduce the negative effects of ineffective parenting on prosocial behaviour? In other words does ineffective parenting interact with peer relationships in explaining prosocial behaviour in children?

Two bivariate relationships have been established and supported by the literature. Parenting practices have been identified as an important predictor of prosocial behaviour in children. Ineffective parenting was discovered to have a negative relationship with prosocial behaviour (Gibbs and Krevans, 1996; Roberts, 1999; HRC, 2000; HRC, 2001). Positive peer relationships have also been recognized as an important predictor of prosocial behaviour in children. A positive association has also been observed between peer relationships and prosocial behaviour (Hartup 1996; Wentzel and McNamara, 1999; Domitrovich and Bierman, 2001; Moroz and Jones, 2002; HRC, 2002; Sabanc, 2003). This study will examine the proposition that parenting practices have a direct effect on levels of prosocial behaviour in children. Furthermore, seeing as peer relationships can have a positive effect on prosocial behaviour it also examines whether the relationship between parenting practices and prosocial behavioural outcomes will be uniform across the number of close friends a child has.

In light of this evidence, it is hypothesized that, hostile ineffective parenting and number of close friends child has will interact in explaining the dependent variable prosocial behaviour. The effect of the variable hostile ineffective parenting on prosocial behaviour will decrease for children who have more close friends relative to those children who have fewer close friends. The relationship changes by category of the control variable number of close friends child has. As the number of close friends a child has gets lower, they are affected more so by hostile ineffective parenting in terms of prosocial behaviour. The extraneous variables that I will hold constant when testing my hypothesis are, depression score of PMK, child's single parent status, socio-economic status, family functioning and family social support. The NLSCY provides measures for all of the variables that I intend to include in my model.

Data and Variables

This study works with the first cycle of the NLSCY. Out of the 13,439 responding households 22,831 children, age 0 to 11, were selected to participate in the survey. The Statistics Canada's Labour Force Survey (LFS) was used as the basis of the household sample, to facilitate in finding households likely to contain children,. The data was collected by Statistics Canada on behalf of Human Resources Development Canada. Once a sample of households was selected, children (age 0 to 11) were randomly selected from each household, with a maximum of four children per household. Data collection for Cycle 1 took place between the fall of 1994 and spring of 1995.

For the household collection, data were collected from a variety of respondents using different methods of collection. First, a knowledgeable household member completed a "Household Roster" for the household in the sample. The roster helped in creating a "relationship grid". Using the relationship information it was possible to derive a series of variables to describe the family situation of the child. Next a computer system randomly selected one child 0 to 11 years of age living in the household to identify the "Person Most Knowledgeable" (PMK). The PMK was asked to complete a set of questionnaires. Also the PMK gave permission for any child involvement but was not permitted to see the child's completed questionnaire.

Once the interviews had been completed and the Interviewer had left the house he/she completed a few questionnaires. The questionnaires were used to assess the conditions under which the test was administered, to indicate factors which may have influenced the child's responses and his/her overall reaction to the test. A computer questionnaire reported the interviewers' perceptions of the neighbourhood in which the respondent lived. All of the information for the household collection was collected in a face-to-face or telephone interview.

In order to test the hypothesis, this study uses a prosocial behaviour score asked of children age 4-11 as reported by the PMK. It is an additive scale that includes such items

as, does the child in question: show sympathy to someone who has made a mistake, help someone who has been hurt, volunteer to help clear up a mess, try to stop a quarrel or dispute, offer to help other children with task, comforts a child who is crying or upset, etc. Respondents were asked to answer, "How often would you say that" the child in question does the given act, using the answers: "Never or Not True, Sometimes or Somewhat True, or Often or Very True" to the closed-ended question. The Cronbach Alpha value for this factor score is 0.816 which means that the prosocial behaviour score is a reliable measure as the value is greater than 0.7. The items were recoded in order to associate a value of zero for the lowest score (i.e., a 1 ('Never or Not True') was recoded to 0, 2 was recoded to 1, and 3 was recoded to 2).

In order to measure parenting style this study uses the variable hostile ineffective parenting (children age 2-11). This factor score was derived using the following items, asked of the PMK: proportion of praise when talks to child, proportion disapproval when talks to child, gets angry when punishing child, feels type of punishment depends on mood, problems managing child in general, etc. Respondents were asked to answer, each of the above questions using the closed-ended options: "Never, Less than Half the Time, About Half the Time, More than Half the Time or All the Time." The Cronbach Alpha value for this factor score is 0.706 so it is consider it a reliable measure.

In order to measure Positive Peer Relationships as a form of social support this study uses the variable number of close friends child has (age 6 to 11). In order to arrive at a measure of how many close friends a child has, the respondents were asked "About how many close friends does the child have?"

For this study the number of close friends the child has is the best measure of peer social support because it is more a measure of emotional support than the other peer related variables available in the data set. The quality of the friendship that is implied with the word *close* is cited by Hartup 1996 as being critical in the development of prosocial behaviour. One issue that could be raised in regards to the phrasing of questions has to do

with the variable Number of “*close*” friends the child has. The word *close* is a subjective term. Different people may define a “close friend” differently and answer accordingly.

There are potential measurement issues that should be considered with respect to both prosocial behavior and hostile ineffective parenting. There is a similar problem for both variables, due to the sensitive nature of these questions there is a potential for both complete and partial non-response which can lead to measurement error and possibly introduce bias. More importantly, if people do respond to the questions social desirability effect may influence their answers. Social desirability effect is the tendency for people not to report socially undesirable views or behaviour, which effects validity, systematically under or over estimating the true value, introducing bias in the same direction. Parents probably tend to under report hostile ineffective parenting and over report the prosocial behaviour of their children.

Finally, the following variables will be used to measure the controls in the model. These variables are: Depression Score of PMK, Childs Single Parent Status, Socio-Economic Status, Family Functioning Score and Social Support Score. It is not necessary to control for age because the variables the study uses fall within a narrow age bracket and covers the middle school population that is of interest. A multivariate analysis was carried out using multiple regressions and a series of nested models to explain the relationships. In dealing with missing values the “pairwise” option was selected, it excludes completely from the analysis only those cases with no valid response across all independent variables in the model.

Results:

This study works with weighted results. The first simple regression can be found in table 1 model 1, the relationship between number of close friends child has and prosocial behaviour is statistically significant at the 0.05 alpha level. Table 2 model 1 reports a positive moderate relationship between the number of close friends child has and prosocial behaviour with a standardized slope of 0.174. R2 is the preferred indicator of overall model performance, it reports how much the variance of the dependent variable prosocial

behaviour is explained by the independent variable. The R2 value associate with model 1 is 0.030, this means that 3% of the variance in the dependent variable prosocial behaviour is explained by the independent variable number of close friends child has.

Independent Variables	Model 1 (N= 10026)		Model 2 (N= 13509)		Model 3 (N= 9980)		Model 4 (N= 8648)	
	Unstandardized Coefficients	Std. Error	Unstandardized Coefficients	Std. Error	Unstandardized Coefficients	Std. Error	Unstandardized Coefficients	Std. Error
Y-intercept	(9.804)		(14.443)		(9,809)		(10.247)	
Hostile Ineffective Parenting			-0.237	0.008	0.036	0.037	0.058	0.039
# of Close Friends Child Has	0.740*	0.042			1.300*	0.100	1.264*	0.106
Interaction term: (Ineffective Parenting + # of Close Friends)					-0.075*	0.010	-0.073*	0.011
Family Functioning Score							-0.099*	0.008
Recoded Household Income							0.032	0.021
Parent Status							0.004	0.108
R2	0.030		0.055		0.083		0.100	

Independent Variables	Model 1 (N= 10026)	Model 2 (N= 13509)	Model 3 (N= 9980)	Model 4 (N= 8648)
	Standardized Coefficients	Standardized Coefficients	Standardized Coefficients	Standardized Coefficients
Hostile Ineffective Parenting		-0.235*	0.035	0.058
# of Close Friends Child Has	0.174*		0.305*	0.296*
Interaction term: (Ineffective Parenting + # of Close Friends)			-0.292*	-0.284*
Family Functioning Score				-0.113*
Recoded Household Income				0.015
Parent Status				0.000
R2	0.030	0.055	0.083	0.100

*p < .05, **p < .01, ***p < .001 (two-tailed tests).

The second simple regression can be found in table 1 model 2, the relationship between hostile ineffective parenting and prosocial behaviour is statistically significant. Table 2 model 2 reports a negative moderate relationship between the number of close friends child has and prosocial behaviour with a standardized slope of -0.235. The R² value associated with model 2 is 0.055; 5.5% of the variance in the dependent variable prosocial behaviour is explained by the independent variable hostile ineffective parenting.

Consistent with the hypothesis, table 1 model 3 reports evidence to suggest a significant interaction effect. The variables hostile ineffective parenting and number of close friends the child has interact to explain the dependent variable prosocial behaviour. The impact of parenting style varies by the number of close friends the child has. Again consistent with the hypothesis, the effect of the variable hostile ineffective parenting on prosocial behaviour decreases for children with more close friends relative to those with fewer close friends. As the number of close friend a child has goes up, they are affected less so by parenting style in terms of their prosocial behaviour. As seen in table 2 model 3 the standardized slope associated with the interaction term is -0.292, suggestive of a negative moderate relationship. Furthermore, The R² associated with model 3 is 0.083 meaning that 8.3% of the variance in the dependent variable prosocial behaviour is explained by the interaction term including variables hostile ineffective parenting and number of close friends the child has.

Finally results for the multivariate regression can be found in tables 1 and 2, model 4. Model 4 includes variables, hostile ineffective parenting, number of close friends child has, the interaction term, family functioning score, recoded household income and parent status. In this full model, the only variables that remain significant were the number of close friends child has, the interaction term and the family functioning score. The R² associated with model 4 is 0.100 meaning 10% of the variance on the dependent variable prosocial behaviour is explained by all the variables in the multiple regression.

Discussion and Conclusion:

This study examined the effects of a range of variables on prosocial behaviour in children. The first conclusion is that when analysed in separate bivariate regressions, the relationship between hostile ineffective parenting and prosocial behaviour proved to be statistically significant, as did the relationship between the number of close friends the child had and prosocial behaviour. The reliability of these findings are documented by the fact that they corroborate a body of knowledge in the area. The finding that hostile ineffective parenting has a negative relationship with prosocial behaviour in children is consistent with the findings of Gibbs and Krevans (1996), Roberts (1999), Human Resources Canada (2000) and Human Resources Canada (2001). In addition, the positive relationship identified between peer relationships and prosocial behaviour in children is in support of findings by Hartup (1996), Wentzel and McNamara (1999), Domitrovich and Bierman (2001), Moroz and Jones (2002), Human Resources Canada (2002) and Sabanc (2003). Second, taken separately parenting had a slightly stronger association with prosocial behaviour than did the number of close friends the child had, with a beta of -0.235 relative to that of 0.174.

The objective of this analysis was to determine if the negative effect of hostile ineffective parenting on prosocial behaviour in children varies across levels of peer support. Therefore, the third conclusion is especially noteworthy as the results indicate that hostile ineffective parenting and the number of close friends the child has interact to explain prosocial behaviour. This finding is in support of the hypothesis. It appears that the negative effects of hostile ineffective parenting are reduced as the number of close friends the child has increases. Furthermore, the interaction term remained significant after controlling for the variables family functioning, recoded household income and parent status. It is concluded that the number of close friends the child has is an important variable to consider when looking at the relationship between parenting style and child prosocial behaviour. Further research is required in this area. The literature covers the variables separately in their relation to prosocial behaviour in children but fails to address the apparent interaction. Although having many friends may not fully eliminate the negative effects of ineffective parenting on prosocial outcomes, the benefits of peer

relationships should be harnessed and targeted by policy makers. In an attempt to help promote prosocial behaviour in children, peer support programs in schools for example, would be a step in the right direction. Future research on the impact of this type of program will show whether these programs have the same function as friends in mediating ineffective parenting.

In the final multiple regression (model 4) the variable family functioning also remained statistically significant when controlling for all other variables in the model, whereas recoded household income and parent status were not found to have a significant relationship with the dependent variable prosocial behaviour. This is an interesting finding as it suggests that when controlling for family related factors like parenting style and overall family functioning children from economically disadvantaged families and/or broken homes are not affected in terms of their prosocial development. This is not counterintuitive but was unforeseen as a Human Resources Canada (2001) study identified both SES and family status as important predictors of prosocial behaviour in children. However, one reason for the observed difference between the literature and this study's findings could be due to the fact that the variables used in this study were measured differently. The current study used recoded household income and Human Resources used SES. Nevertheless, this finding has practical implications. Children of lower-economic status or those coming from broken homes can potentially function at a high prosocial level with appropriate supports to mitigate ineffective parenting.

We cannot infer causality as this study only worked with the first wave of the NLSCY; the data are cross sectional and not longitudinal. However, overall the results raise the possibility that fostering positive peer relationships in young children may help to reduce the negative effects of hostile ineffective parenting. There is also the issue of time order. With cross sectional data it is difficult to establish what comes first- do hostile and ineffective parents lead to lower levels of prosocial behaviour in their children, or do "problem children" with lower levels of prosocial behaviour drive their parents to be hostile and ineffective. Further limitations to the study deal with measurement error and were mentioned in the *data and variables* section. Finally, there are other variables that

were not included in this study that may play an important role in explaining the development of prosocial behaviour in children. For example Human Resources Canada (2001) acknowledged depression of the mother and family social support as important factors that influence prosocial behaviour. The gender and age of the child may also be interesting areas for further research.

An investment on the part of society as a whole in the development of prosocial behaviour in children is a worthy endeavour. As a Human Resources Canada (2002) study noted, social competence, including prosocial behaviour, is related to healthy functioning in all realms of social life.

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