

Empathy as a Mediator
Between Physical Punishment Experiences and Aggressive
Attitudes towards Children and Animals

by

Pamela L. Holens

A thesis

presented to the University of Manitoba

in partial fulfillment of the

requirements for the degree of

Master of Arts

in

Department of Psychology

Winnipeg, Manitoba

(c) Pamela L. Holens, 2001



**National Library
of Canada**

**Acquisitions and
Bibliographic Services**

**395 Wellington Street
Ottawa ON K1A 0N4
Canada**

**Bibliothèque nationale
du Canada**

**Acquisitions et
services bibliographiques**

**395, rue Wellington
Ottawa ON K1A 0N4
Canada**

Your file Votre référence

Our file Notre référence

The author has granted a non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of this thesis in microform, paper or electronic formats.

The author retains ownership of the copyright in this thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without the author's permission.

L'auteur a accordé une licence non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de cette thèse sous la forme de microfiche/film, de reproduction sur papier ou sur format électronique.

L'auteur conserve la propriété du droit d'auteur qui protège cette thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

0-612-62755-1

Canada

**THE UNIVERSITY OF MANITOBA
FACULTY OF GRADUATE STUDIES

COPYRIGHT PERMISSION**

**EMPATHY AS A MEDIATOR
BETWEEN PHYSICAL PUNISHMENT EXPERIENCES AND AGGRESSIVE
ATTITUDES TOWARDS CHILDREN AND ANIMALS**

BY

PAMELA L. HOLENS

**A Thesis/Practicum submitted to the Faculty of Graduate Studies of The University of
Manitoba in partial fulfillment of the requirement of the degree
of
MASTER OF ARTS**

PAMELA L. HOLENS © 2001

Permission has been granted to the Library of the University of Manitoba to lend or sell copies of this thesis/practicum, to the National Library of Canada to microfilm this thesis and to lend or sell copies of the film, and to University Microfilms Inc. to publish an abstract of this thesis/practicum.

This reproduction or copy of this thesis has been made available by authority of the copyright owner solely for the purpose of private study and research, and may only be reproduced and copied as permitted by copyright laws or with express written authorization from the copyright owner.

ACKNOWLEDGMENTS

There are many people who have contributed to the production of this thesis. First and foremost, I would like to extend great appreciation to my advisor, Dr. Rayleen DeLuca, whose patience and understanding throughout the process was unfailing. A heartfelt thanks also goes out to my committee members, Dr. Marvin Brodsky and Dr. Joan Durrant, for their support and guidance during the completion of this thesis. For their help with the statistical analyses, and for always being willing to help on a moment's notice, I would like to thank Dr. Jim Forest, Dr. Stephen Hladkyj, and Ms Linda Murray. My thanks also to the Manitoba Health Research Council for their financial support of this project. A final and very heartfelt thank you goes to my husband, Andrew Lubusko, for standing by me through thick and thin and for helping out whenever and however it was needed.

ABSTRACT

Violence in the form of physical abuse has serious and harmful effects on both the short- and long-term development of children (e.g., Aber & Allen, 1987; Cicchetti & Beeghly, 1987). Research has shown that the majority of reported cases of childhood abuse started out as legally permissible forms of corporal punishment that subsequently escalated to abusive levels (Zigler & Hall, 1989). Particularly concerning is evidence that suggests that attitudes, beliefs, and behaviours related to the physical punishment of children are passed on from generation to generation in an endless cycle (e.g., Covell, Crusec, & King, 1995). The purpose of this study was to explore the development of aggressive attitudes in individuals who were physically punished in childhood by examining a potential mediating variable - empathy - using Davis' Organizational Model for the Study of Empathy. The study also explored the generalizability of Davis' model to aggressive attitudes directed toward animals. Results of the study indicated trends suggesting that physical punishment experiences act to decrease empathy for others and increase attitudes of aggression. The model was not shown to strongly generalize to aggressive attitudes directed towards animals.

TABLE OF CONTENTS

ACKNOWLEDGMENTS	i
ABSTRACT	ii
INTRODUCTION	1
Purpose	4
The Main Variables	5
Learning History.	5
Aggressive Attitudes	6
Empathy	6
The Model	7
Antecedents	8
Processes	10
Intrapersonal Outcomes	12
Interpersonal Outcomes	13
Simplified Version of the Model	14
Interconnections Between the Main Variables	15
Learning History and Aggression	15
Learning History and Empathy	17
Empathy and Aggression	18
The Generalization of Aggression to Living Creatures	18
The Generalization of Empathy to Living Creatures	22
Additional Related Variables	23
Age of Child	23
Gender of Child	24
Maternal Age	25
Socioeconomic Status	26
Religious Beliefs	26
Violence in the Home	27
OVERALL SUMMARY AND STATEMENT OF THE PROBLEM	28
HYPOTHESES	30
METHOD	31
Participants	31
Measures	31
Demographic Data	31
Learning History	32
Empathy	32
Aggressive Attitudes	34
Procedure	35
Statistical Analyses	36

RESULTS	41
Data Characteristics	41
Participant Characteristics	43
Group Comparison on the Independent Variables	51
Relationship Between the Demographic Variables and the Main Variables	52
Test of Hypotheses	62
Post Hoc Analyses	73
DISCUSSION	75
Summary of Major Findings	75
Clinical Implications	79
Limitations and Implications for Further Study	80
Overall Summary and Conclusions	84
REFERENCES	87
APPENDIX A	98
APPENDIX B	101
APPENDIX C	103
APPENDIX D	108
APPENDIX E	110
APPENDIX F	112
APPENDIX G	114

LIST OF FIGURES

<u>Figure</u>	<u>Page</u>
1. Davis' Organizational Model for the Study of Empathy	9
2. Simplified Version of Davis' Organizational Model	16
3. The Overlapping Domains of Animal Abuse, Domestic Violence, and Child Maltreatment	21

LIST OF TABLES

<u>Table</u>	<u>Page</u>
1. Spearman Rank Correlations between Physical Punishment Variables	44
2. Spearman Rank Correlations between Empathy Variables	45
3. Distributions of Demographic Variables	47
4. Physical Punishment Frequencies	53
5. Spearman Rank Correlations between Demographic Variables and Main Variables	56
6. Contingency Coefficients for Associations between Demographic Variables and Main Variables	59
7. Spearman Rank Correlations between Physical Punishment Variables and Empathy Variables	63
8. Spearman Rank Correlations between Physical Punishment and Aggressive Attitudes	65
9. Spearman Rank Correlations between Empathy Variables and Aggressive Attitude Variables	67
10. Standardized Beta Coefficients for Regressions Exploring Empathic Concern as a Mediator Between Physical Punishment Experience and Aggressive Attitudes Toward Children	70
11. Standardized Beta Coefficients for Regressions Exploring Empathic Concern as a Mediator Between Physical Punishment Experience and Aggressive Attitudes Toward Animals	72

INTRODUCTION

The physical maltreatment of children is a problem of great magnitude. In Canada each year, approximately 225,000 children experience some form of abuse and more than 50 children die as a result of physical abuse (Institute for the Prevention of Child Abuse, cited in Durrant & Rose-Krasnor, 1995). In the United States, a national survey of over 2,100 families estimated that approximately 1.5 million children are the recipients of parental physical violence each year in the forms of kicking, biting, or punching (Straus, Gelles, & Steinmetz, 1980). Further evidence of the enormity of the problem is indicated in the results of self-report studies which show that between 3 and 25% of individuals have experienced some form of physical maltreatment by their parents during childhood (Runtz & Schallow, 1997).

Violence toward children can have a multitude of serious and harmful effects on the short- and long-term development of children. For example, relative to matched controls, physically maltreated infants demonstrate higher levels of insecure and impaired attachment (Aber & Allen, 1987; Schneider-Rosen & Cicchetti, 1984). Maltreated children are also more likely than their non-maltreated peers to demonstrate low levels of cognitive maturity

(Barahal, Waterman, & Martin, 1981), and impaired language performance (Cicchetti & Beeghly, 1987).

A number of studies have demonstrated that the majority of physical abuse cases began as legally permissible physical punishment and subsequently escalated to violent levels (e.g., Kadushin & Martin, 1981; Zigler & Hall, 1989). However, exactly where the line is drawn between physical punishment and physical abuse is unclear. For example, Cole (cited in Runtz, 1991) defined physical abuse as "frequent and/or severe physical punishment." What is also unknown is the frequency with which the use of physical punishment escalates to the level of physical abuse. What is known, however, is that only a very small percentage of parents (9%) report that they have never come close to "losing control" with their children (Institute for the Prevention of Child Abuse, cited in Durrant & Rose-Krasnor, 1995).

Spanking represents one of the most common methods used by parents to physically punish their children. It has been estimated that between 70 and 90% of American parents spank their children at least occasionally (Gelles 1978; Wauchope & Straus, 1990). Lifetime prevalence of spanking has been reported to be as high as 93% in a study of college freshman students by Graziano and Namaste (1990). In another study of college students' experiences with spanking, Deley (1988)

found that 89% of male college students and 85% of female college students had been spanked at least once as children. In Canada, 75% of parents report using physical punishment as a discipline method with their children (Durrant, 1996).

Not only is the lifetime prevalence of spanking extremely high, but reports of the one-week incidence of spankings are also alarmingly high. Daily reports from 39 college educated mothers of 3-year-old children indicated that 77% of the mothers had spanked their children at least once over a one week period, at an average of 2.5 times per week (Holden, Coleman, & Schmidt, 1995). Similarly, Giles-Sims, Straus, and Sugarman (1995) found that 61% of mothers of 3- to 5-year old children had spanked their child in the past week, with an average of approximately three spankings per week, based on information gathered from the National Longitudinal Survey of Youth. Converting these results to annual figures, the authors estimate that 61% of 3- to 5-year-old children are spanked, on average, more than 150 times per year.

Of perhaps more concern than the fact that physical punishment is both commonly used and potentially harmful to children is a multitude of evidence which suggests that attitudes, beliefs, and behaviours related to the physical punishment of children may be passed on from parents to

children in an endless cycle (e.g., Carroll, 1977; Egeland, Jacobvitz, & Papatola, 1987; Covell, Grusec, & King, 1995). What this information suggests is that the practice of physical punishment is well rooted in our society and will continue to be for many generations to come unless serious efforts are made to examine the mechanisms by which the cycle of maltreatment continues, and to interrupt that process.

Purpose

There is a strong connection between attitudes and behaviours in the domain of physical punishment. For example, Holden, Coleman, and Schmidt (1995) found that positive attitudes toward spanking were particularly indicative of a likelihood to spank. Similarly, Moore and Straus (1987) identified a direct relationship between the degree to which parents approve of physical punishment, their likelihood of actually using it as a discipline technique, and the harshness with which they administer it.

The first purpose of this thesis was thus to determine whether a learning history of physical punishment contributes to increased aggressiveness in the form of aggressive attitudes. In particular, the study examined whether empathy mediates the relationship between childhood experiences of physical punishment and the development of

aggressive attitudes toward children. Davis' (1994) organizational model for the study of empathy was used as a framework to guide the inquiry. A second purpose of this thesis was to show that Davis' model would generalize to aggressive attitudes towards animals. The second purpose was supported by Felthous and Kellert's (1986) theory which suggests that aggression against living creatures is generalized.

The Main Variables

Learning History

In this study, the learning history of interest was a learning history involving physical punishment. Physical punishment, also called corporal punishment, has been defined as "the use of physical force with the intention of causing a child to experience pain but not injury for the purposes of correction or control of the child's behavior" (Straus, 1995, p. 75). In a meta-analysis of studies of corporal punishment, Thompson (1997) notes that the term "physical punishment" was used in 25% of the studies, followed by "spank" in 21% of the studies, and "spank or slap" in 13% of the studies. A study by Davis (1996) found that parents use a variety of terms to refer to physical punishment, including "spank," "smack," "slap," "pop," "beat," "punch," and "hurt." In an effort to generalize the

results of this study to animals as well as humans, the more general term "physical punishment" was used, rather than a specific term such as "spank" which has human connotations but not necessarily animal connotations.

Aggressive Attitudes

For the purposes of this study, aggressive attitudes were operationally defined as endorsement of statements indicating approval of physical punishment. There were two different categories of approval of physical punishment: approval of physical punishment of children and approval of physical punishment of animals.

Empathy

Empathy is a multidimensional construct that has been used to explain how a person understands and reacts to the emotional experiencing of another (Davis, 1994; Gladstein, 1984; Williams, 1990). Research on empathy has historically lacked a clear conceptual framework and has been confounded by several factors: oscillation between affective and cognitive conceptions of empathy, overlap in the usage of the terms "empathy" and "sympathy," and conceptual confusion between "process" and "outcome" measures of empathy (see Davis, 1994; Eisenberg & Miller, 1987; Gladstein, 1984; Gruen & Mendolsohn, 1986; Moore, 1990; Szalita, 1981; Williams, 1990; Wispé, 1987).

Davis argues that the confusion regarding the "true" nature of empathy stems from the fragmented style in which the constructs of empathy and sympathy have been studied. Different traditions have a) focused on mere aspects of empathy, rather than the complete construct; b) incorrectly labeled those aspects as either empathy or sympathy; and c) ignored other conceptualizations. In other words, empathy research has lacked a much needed organizational framework.

In response to the lack of a framework, Davis proposed his own logical and multidimensional framework for the study of empathy (Davis, 1994, pp. 12-21). The organizational model, unlike much previous empathy theory and research, emphasizes the connectedness of the constructs related to the study of empathy (Davis, 1994). Consequently, Davis defines empathy broadly as:

. . . a set of constructs having to do with the responses of one individual to the experiences of another. These constructs specifically include the processes taking place within the observer and the affective and non-affective outcomes which result from those processes (p. 12).

The Model

Davis' (1994) model (see Figure 1) focuses on what he calls a typical empathy "episode" which consists of an

observer being exposed in some way to a target, after which some response on the part of the observer, cognitive, affective, and/or behavioural occurs. This prototypical episode consists of four constructs: antecedents, processes, intrapersonal outcomes, and interpersonal outcomes.

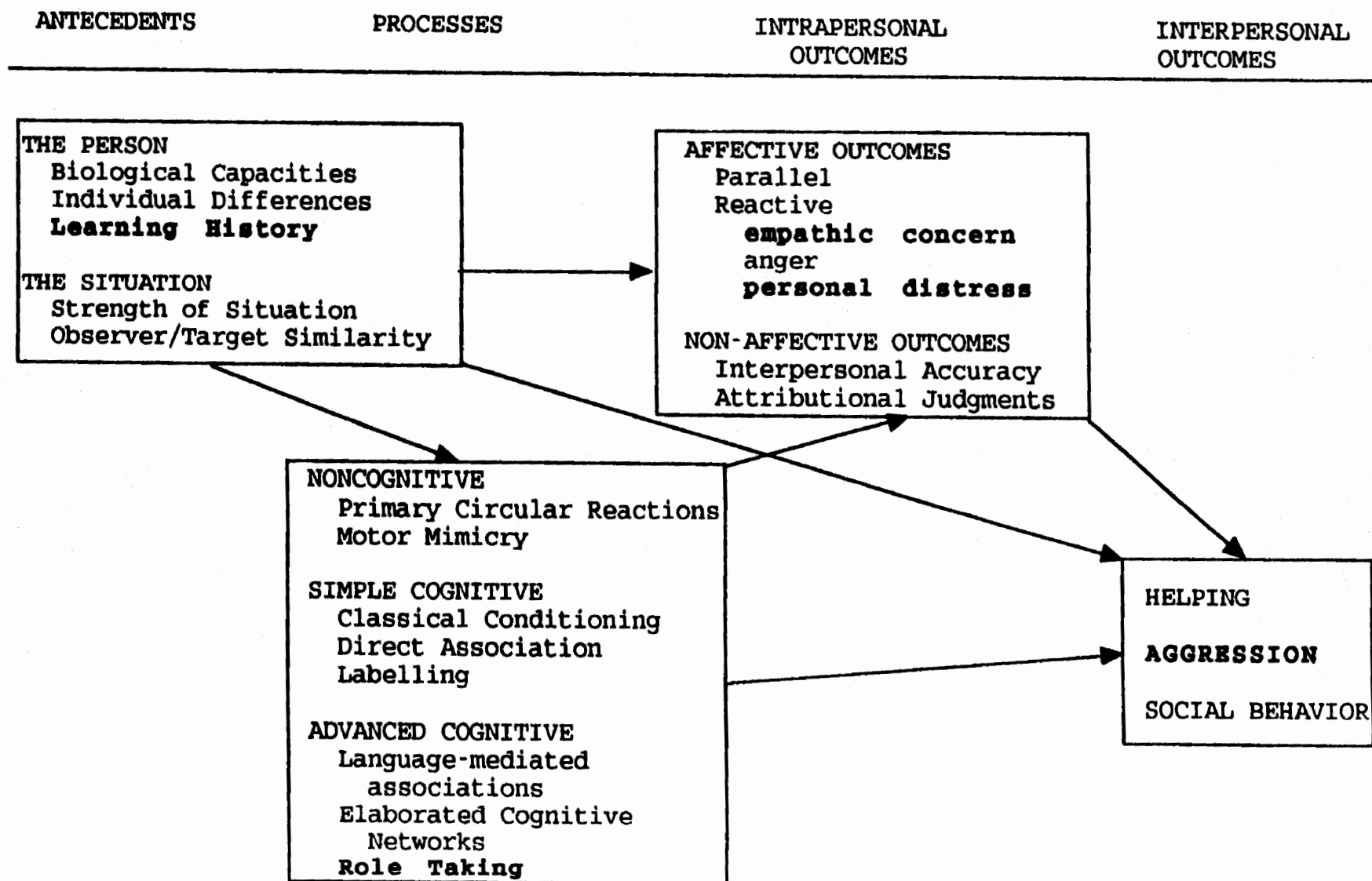
[Insert Figure 1 about here]

Antecedents

Antecedents are the "characteristics" of the observer (e.g., the parent), target (e.g., the child), or the situation that may potentially influence both processes and outcomes of the empathy episode (Davis, 1994). Davis identifies two broad categories of antecedents: person variables and situation variables.

Person variables. Person variables include characteristics such as the observer's capacity for empathy (e.g., perspective-taking ability), previous learning history (e.g., socialization of empathy-related values and behaviours, and cultural background), and individual differences in the tendency to engage in empathy-related processes (e.g., perspective taking) or to experience empathic outcomes (e.g., empathic concern, personal distress) (Davis, 1994, p. 14).

Figure 1: Davis' Organizational Model for the Study of Empathy



Situation variables. According to Davis (1994), every empathy episode occurs in a specific situational context (e.g., a face-to-face encounter, seeing the target on television, reading about the target, etc.). These specific situations vary along two dimensions: strength of the situation (e.g., a strong display of negative emotion by a weak or helpless target) and the degree of similarity between the target and the observer (pp. 14-15). Greater observer-target similarity is associated with increased affective and nonaffective empathic responding in observers (Staub, 1987).

Processes

Processes are the "mechanisms" that generate empathic outcomes in the observer (Davis, 1994, p. 12). Davis identifies three broad classes of empathy-related processes, differentiated by the level of cognitive ability and sophistication required for their operation: noncognitive, simple cognitive, and advanced cognitive processes.

Noncognitive processes. Noncognitive processes include primary circular reactions (e.g., the tendency of newborn babies "to cry in response to hearing other infants cry" and motor mimicry (i.e., the tendency for observers to automatically and unconsciously imitate the facial and bodily cues of the target) (Davis, 1994, p. 15).

Simple cognitive processes. Simple cognitive processes require at least some cognitive ability on the part of the observer (Davis, 1994). These include classical conditioning and direct association (i.e., previous experience with a given stimulus may evoke emotional states in the observer); and labeling (i.e., "the observer uses simple cues to infer something about the target's experience") (Davis, 1994, p. 16). An example of labeling is the simple association that the presence of tears usually means that the target is experiencing sadness.

Advanced cognitive processes. Advanced cognitive processes include language mediated association and perspective taking (Davis, 1994; Hoffman, 1987). In language mediated association, the observer's reaction to the target's situation is produced by an activation of the observer's "language-based cognitive networks which trigger associations with the observer's own feelings or experiences" (Davis, 1994, p. 16). According to Davis, an observer may respond empathically because "personal relevant memories are activated by the target's words" (p. 16).

The most complex cognitive process is perspective taking, in which the observer tries to "understand another by imagining the other's perspective" (Davis, 1994, p. 17). Perspective-taking ability is comprised of three dimensions:

perceptual, the ability to imagine the literal visual perspective of another; cognitive, the ability to imagine the thoughts and motives of another; and affective, the ability to infer the emotions of another (Davis, 1994, p. 7).

Intrapersonal Outcomes

Intrapersonal outcomes are "the cognitive and affective responses produced in the observer which are not manifested in overt behavior toward the target" (Davis, 1994, p. 12). Davis identifies two categories of intrapersonal outcomes: affective and non-affective.

Affective outcomes. Affective outcomes are "the emotional reactions experienced by an observer in response to the observed experiences of the target" (Davis, 1994, p. 17). These affective outcomes are subdivided into two categories: parallel and reactive outcomes.

Parallel affective outcomes. Parallel affective outcomes are the affective reactions of the observer that are "congruent, but not necessarily the same as, that of the target" (Davis, 1994, p. 18). Reactive affective outcomes are the affective reactions of the observer that "differ from the observed affect" of the target (p. 18). Reactive outcomes are empathic reactions to another's state and include reactions such as sympathy, feelings of compassion,

or empathic concern. Feelings of anger and distress are also included in this category. Empathic anger refers to the anger that observers sometimes experience in response to witnessing another being maltreated. Personal distress refers to "the tendency to feel discomfort and anxiety in response to needy targets" (p. 18).

Parallel outcomes usually result from simpler cognitive processes such as motor mimicry and tend to be self-centered in nature (e.g., distress) (Davis, 1994, p. 19). Reactive outcomes require "some higher order processing to recognize and interpret the target's cues" (p. 19) and tend to be other-oriented (e.g., sympathy or empathic anger).

Non-affective outcomes. Non-affective outcomes are primarily cognitive phenomena such as interpersonal accuracy (i.e., the successful estimations of the target's thoughts, feelings, and characteristics) usually resulting from cognitive and affective perspective-taking processes and attributional judgments or explanations for the target's behaviour (Davis, 1994, p. 19).

Interpersonal Outcomes

Interpersonal outcomes are defined as "behaviors directed towards a target which result from prior exposure to that target" (Davis, 1994, p. 19). The three areas which have attracted the most attention from empathy theorists and

researchers are helping behaviour (i.e., how cognitive and affective facets of empathy contribute to the likelihood of observers offering help to needy targets); aggressive behaviour (i.e., the negative association between empathy-related processes and dispositions with aggressive actions); and the role of empathy in social relationships (i.e., the association between empathy-related processes and dispositions with relationship-enhancing behaviours) (p. 19).

Simplified Version of Davis' Organizational Model

In order to better illuminate the components of Davis' organizational model which were examined in this study, a simplified version of Davis' model was created (see Figure 2). The simplified version retains Davis' original structure but includes only those items in each category which were explored in the current study. The variables which remain include the antecedent Learning History, the process of Perspective Taking, the two intrapersonal outcomes of Empathic Concern and Personal Distress, and the interpersonal outcome of Aggression. The first variable, Learning History, focused on the individual's childhood experience(s) of physical punishment. The next three variables, Perspective Taking, Empathic Concern, and Personal Distress are different measures of the main

variable Empathic Ability. The Aggression variable was examined in terms of positive attitudes toward physical punishment. The following section examines the interconnections between the three main variables in order to justify their placement within Davis' model.

[Insert Figure 2 about here]

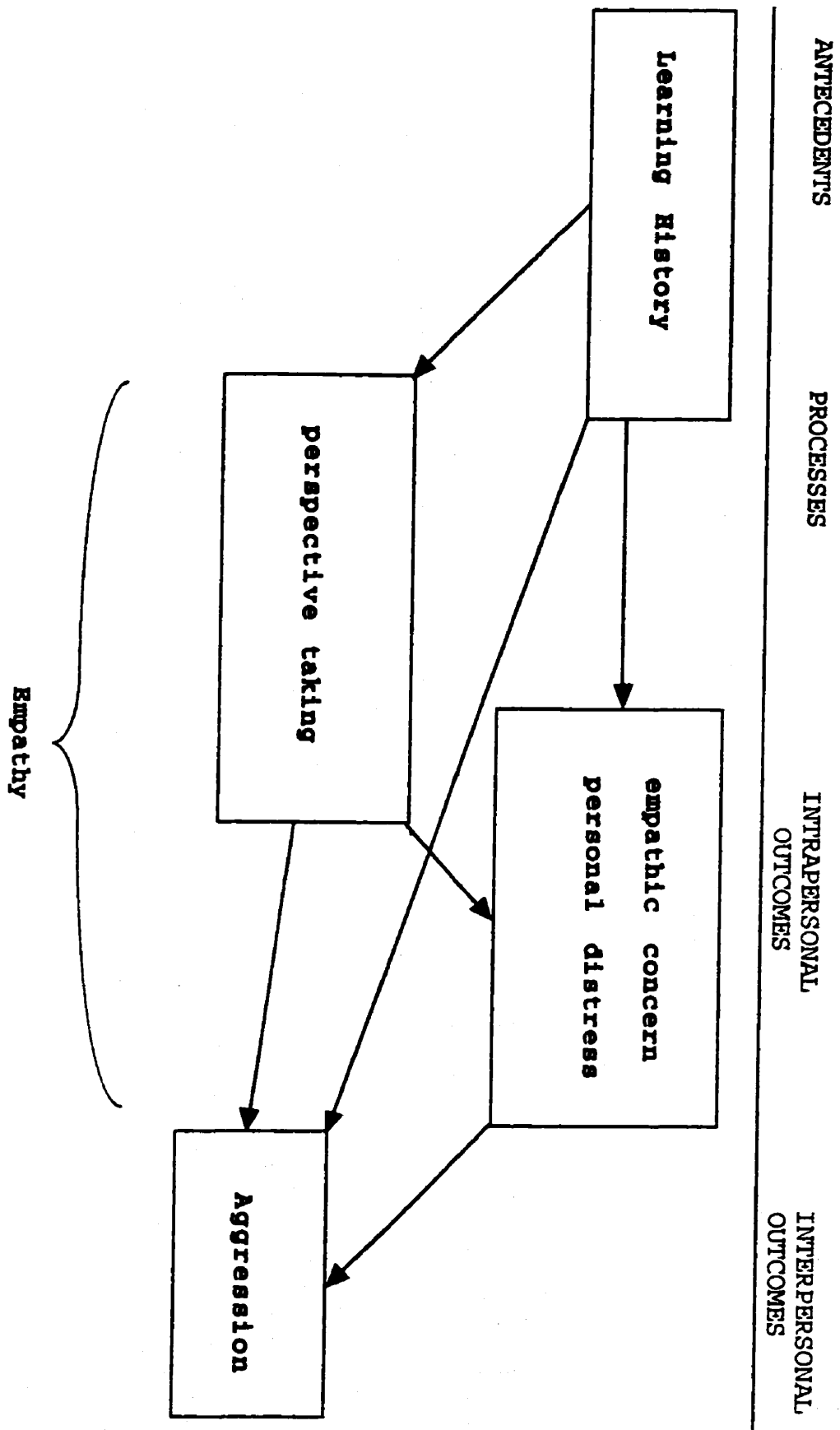
Interconnections Between the Main Variables

Learning History and Aggression

Childhood experience of physical punishment has been shown consistently to correlate with aggression. For example, Thompson (1997) found that in 30 studies examining corporal punishment and aggression in childhood, all 30 found a positive association between the two variables. Similarly, Thompson (1997) found that in eight studies examining corporal punishment and aggression in adulthood, seven of eight found a positive correlation between the two variables.

In terms of aggressive attitudes, one of the strongest predictors of an individual's approval of physical punishment methods may be his or her own history of physical punishment experiences. For example, Buntain-Ricklefs, Kemper, Bell, & Babonis (1994) found that having experienced

Figure 2: Simplified Version of Davis' (1994) Organizational Model



various types of punishment was a highly significant risk factor for currently approving of that particular type of punishment ($p < .01$ for each type they studied).

The link between childhood punishment experiences and later endorsement of the use of physical punishment was also explored by Flynn (1996), who suggests that the practice and acceptance of spanking indicates that it is clearly normative in American society. He found that 81% of Southern U.S. college students either agreed or strongly agreed with the statement "it is sometimes necessary to discipline a child with a good, hard spanking." This and other results generated in the same study led Flynn to conclude that most students have experienced physical punishment, believe it to be effective, and support its use in the past by their parents and/or in the future by themselves on their own children.

Learning History and Empathy

Decreases in empathy have been found among individuals who have been subjected to physical punishment. For example, in a meta-analytic review of the short- and long-term effects of corporal punishment on children, Thompson (1997) found that in six studies, with a total of 1332 participants, there was significant evidence to support the hypothesis that corporal punishment reduces children's

conscience or empathy for others. Similarly, Roe (1980) found that children's empathy level was negatively related to their fear of physical punishment from their parents, particularly from their fathers.

Empathy and Aggression

Although the connection between empathy and aggressive attitudes has not been studied to date, lowered empathy has been shown to relate to aggression itself. For example, Feshbach and Feshbach (1969) found that children who were particularly aggressive also evidenced very limited empathic skills. Rosenstein (1995) found that parents who exhibited low levels of empathy were far more likely to engage in physical child abuse.

According to Feshbach (1983), empathy may play a significant role in the control of aggression. Feshbach (1997) states that "the observation of pain and distress should elicit distress in an empathic observer even if the observer is the [agent] of the aggression" (p.47). In other words, she postulates, "the painful consequence of an aggressive act through the vicarious response of empathy should act as an inhibitor" of future aggressive tendencies in the aggressor (1997, p. 47).

The Generalization of Aggression to Living Creatures

Felthous and Kellert (1986) set about determining

whether aggression against living creatures is generalized. They administered substantive interviews to aggressive criminals, nonaggressive criminals, and noncriminals. The results of their study showed a clear pattern in which the aggressive criminals were far more likely to have participated in animal abuse as children than both the nonaggressive criminals and the noncriminals. The authors concluded that there is indeed a clear relationship between childhood animal abuse and violence directed against people. Similar results were found in a study by Flynn (1999), who questioned university students about childhood animal abuse and their approval of interpersonal violence against children and women in families. Flynn found that respondents who had abused an animal during their childhood or adolescence were significantly more likely to support corporal punishment and to approve of a husband slapping his wife.

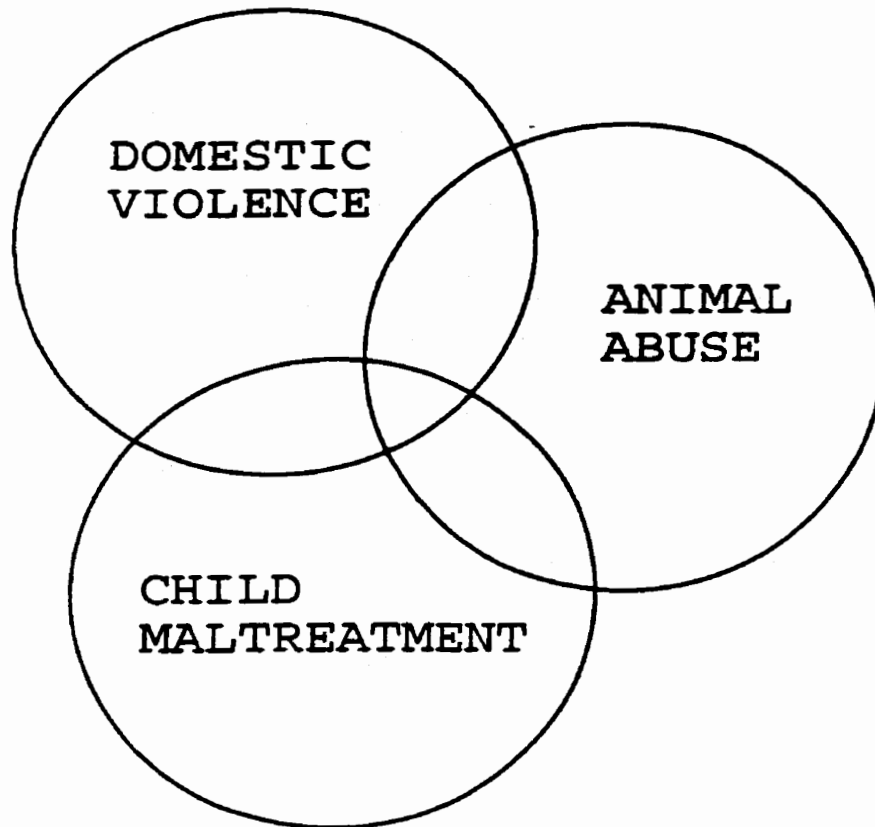
Further evidence of the generalization of aggression to living creatures is offered in the book, "Childhood Abuse, Domestic Violence, and Animal Abuse: Linking the Circles of Compassion for Prevention and Intervention" (Ascione & Arkow, 1999). The book is a compilation of 45 essays by respected authorities in such areas as social work, law, veterinary medicine, child protection, and domestic violence

administration. Each of the essays examines what is called "The Link" between animal abuse, child abuse, and domestic violence. Ascione and Arkow, the editors of the book, put forth a model illustrating the relationship between these three forms of abuse. The model involves three interlocking circles, one representing each of the three forms of abuse. The model clearly indicates that while each type of abuse may occur in isolation, there is often significant overlap between the types of abuse that occur in any given household (see Figure 3).

[Insert Figure 3 about here]

Other evidence of the link between aggression towards humans and animals is offered by Wax and Haddox (1974), who found that animal cruelty, along with persistent enuresis and fire setting, was predictive of adolescent males' vulnerability to assaultive behaviour. A study by DeViney, Dickert, and Lockwood (1983) also found a link between aggression towards humans and animals in a study which showed that among families in which child abuse had occurred, abuse of the family pet had also occurred in 60% of the cases. The authors found several parallels between the treatment of pets and the treatment of children in

Figure 3: The Overlapping Domains of Animal Abuse, Domestic Violence, and Child Maltreatment



abusive families, and suggest that animal abuse may be an indicator of other significant family problems, such as child abuse. Similarly, Flynn (2000) found that 46.5% of battered women who owned pets reported that their batterer had either threatened to harm or had actually harmed their pet.

The Generalization of Empathy to Living Creatures

Although much evidence suggests that aggression is generalized toward living creatures, significant evidence also suggests that empathy is generalized toward living creatures. For example, Ascione (1992) found that empathy for animals generalized to measures of human-directed empathy among certain elementary grade children who had participated in a year-long humane education program. Other evidence of the link between empathy for humans and for animals comes from Poresky (1990), who found that empathy toward children was correlated with empathy for pets, and that subjects with a strong pet bond had higher scores on empathy for children than did subjects without such a bond. Similarly, Poresky and Hendrix (1990) found significant correlations between children's bonds with their companion animals and their empathy scores on a measure of young children's empathy.

Additional Related Variables

A number of additional variables have been suggested in the literature as being related to attitudes toward physical punishment. This section outlines some of these variables, which have the potential to be useful in explaining trends in the data obtained in the current study.

Age of Child

The age of the child has been shown in numerous studies to be linked to both the likelihood and frequency of being physically punished (Holden, Coleman, & Schmidt, 1995). In a study of attitudes toward spanking children, Flynn (1998) found that college students were most likely to judge spanking as appropriate for children of preschool age, followed by children of early school age, and finally older children.

Incidence reports show that spanking does in fact increase in frequency when the child is between 3 and 5 years old and then tends to decrease with age (Clifford, 1959; Lytton, Watts & Dunn, 1998; Wauchope & Straus, 1990). Similar findings were reported by Giles-Sims, Straus, and Sugarman (1995). It should also be noted that although younger children seem to be the most likely to be the recipients of spankings, studies of older children have shown that as many as 50% of children are hit by their

parents during their teenage years (Graziano & Namaste, 1990; Straus & Donnelly, 1993).

Studies employing retrospective self reports have found somewhat different age patterns. For example, Graziano and Namaste (1990) found that college students were most likely to report being spanked between the ages of 7 and 12. The different age-related frequencies reported in this study as compared to those from studies based on parental reports of spanking may be attributed to the difficulty in accurately recalling events which occurred years earlier, particularly at younger ages. Memory suppression may also be a factor in the more severely abusive cases. For example, Rothman, Holens, and DeLuca (1998) found that abuse victims were least confident in their memories when the recalled incidents occurred with high frequency and high duration.

Gender of Child

In terms of gender differences, some research suggests that boys are somewhat more likely to be spanked than girls (e.g., Maccoby & Jacklin, 1974; Day, Peterson, & McCracken, 1998; Giles-Sims, Straus, & Sugarman, 1995). Although this finding is somewhat consistent with the results of a study employing college students' retrospective reports, the gender effects were notably small among college students (Deley, 1988). Further, Holden, Coleman, and Schmidt (1995),

found no gender differences in the spanking frequency of male and female children reported by 39 college educated mothers who gave daily reports over a period of two weeks. Giles-Sims, Straus, and Sugarman (1995) suggest that any gender differences in prevalence that do occur are likely due to socialized gender role expectations. For example, parents may believe that male children are naturally more aggressive, and therefore require greater physical discipline. The situation of course is paradoxical, since parents' spanking results in teaching boys to be more aggressive, which reinforces the traditional gender norms (Giles-Sims, Straus, & Sugarman, 1995).

Maternal Age

Another factor which is related to use of physical punishment is maternal age. The age of the mother has been found to be negatively correlated with the tendency to use physical punishment (Kelley, Sanchez-Hucles, & Walker, 1993). This age effect was found even in a study which used a relatively restricted age range--only mothers between 25 and 34 years old. The older mothers were found to be less likely to spank their children than the younger mothers (Giles-Sims, Straus, & Sugarman, 1995). Similarly, Straus, Gelles, and Steinmetz (1980) found that pro-spanking attitudes are significantly higher among younger adults than

among older adults.

Socioeconomic Status

Socioeconomic status (SES) is another variable that has been shown to correlate with the tendency to use corporal punishment. Giles-Sims, Straus, and Sugarman (1995) found that as SES increases, both the prevalence and chronicity of spanking decrease moderately. A related finding in the same study was that the rate of spanking of 3- to 5-year-old children is higher in families living in poverty, receiving federal aid, or experiencing maternal unemployment for at least 40 weeks of the year. Kelley, Grace, and Elliott (1990) obtained similar results in a vignette study which found that the lower the parents' income, the more acceptable they viewed spanking in the vignettes. Kohn (1977) suggests that parents in low SES groups are more likely to engage in an authoritarian parenting style, which may explain their greater inclination to spank. In contrast, other studies have shown no connection between SES and tendency to spank (e.g., Holden, Coleman, & Schmidt, 1995).

Religious Beliefs

A variable which has been found to be correlated with attitudes towards physical punishment is religious beliefs (Greven, 1990; Flynn, 1996). For example, Flynn (1996) found that Protestants were more likely to favour spanking than

were non-Protestants. A large scale study of over 4000 parents conducted by Ellison, Bartkowski, and Segal (1996) examined the idea that Conservative Protestant parents spank more often than other parents, and found that this notion was supported. In particular, they found that the pattern of responses by participants in the study reflected the tendency of Conservative Protestants to hold beliefs about the inerrancy and authority of scripture (i.e. that the Bible, being the word of God, is infallible and should be followed in a literal manner).

Violence in the Home

As described earlier, the book "Childhood Abuse, Domestic Violence, and Animal Abuse: Linking the Circles of Compassion for Prevention and Intervention" (Ascione & Arkow, 1999) examines what is called "The Link" between animal abuse, child abuse, and domestic violence. The link between domestic violence and child maltreatment has been an issue of debate in contemporary journals for at least the last 20 years (Doyle, 1996). Given the potential link between these variables, their degree of co-occurrence in families is worth examining.

OVERALL SUMMARY AND STATEMENT OF PROBLEM

The knowledge that physical aggression toward children has serious and harmful side effects on both the short- and long-term development of children suggests that measures need to be taken to reduce the prevalence of such behaviours in our society. Normalized disciplinary behaviours, such as spanking, have the potential to escalate to abusive levels, particularly when parents are not well educated about the developmental abilities of children of various ages.

One particularly concerning issue related to the acceptance of physical punishment is the phenomenon of intergenerational transmission. Evidence suggests that attitudes, beliefs, and behaviours related to the physical punishment of children are passed on from parents to children in a repetitious cycle. Unless this potentially never-ending cycle is interrupted, the chronicity of abuse will not decrease substantially in the near future.

A number of studies have shown that an individual's level of empathy relates both to experiences of physical punishment and to aggressiveness. The present study was designed to examine empathy as a potential mediating variable between physical punishment experiences as a child and the eventual development of aggressive attitudes. Participants' physical punishment history, empathic ability,

and current aggressive attitudes were examined within the context of Davis' organizational model of empathy. Based on growing evidence that aggression against living creatures is generalized, the study also sought to determine whether Davis' organizational model would generalize to aggressive attitudes toward animals.

HYPOTHESES

Based on the literature review, five main hypotheses were examined in this study:

- (1) Individuals reporting more frequent physical punishment in their childhood will exhibit lower levels of empathy than individuals reporting less frequent physical punishment.
- (2) Individuals reporting more frequent physical punishment in their childhood will exhibit more strongly aggressive attitudes than individuals reporting less frequent physical punishment.
- (3) Individuals who exhibit lower levels of empathy will exhibit more strongly aggressive attitudes toward children.
- (4) Individuals who exhibit lower levels of empathy will exhibit more strongly aggressive attitudes toward animals.
- (5) Empathy will act as a mediator between physical punishment history and aggressive attitudes.

METHOD

Participants

Participants in the present study were students enrolled in Introductory Psychology at the University of Manitoba, who received course credit for their participation in the study. The participants were randomly distributed one of two versions of the entire questionnaire package. Half of the students received Version A, which included the Attitudes Toward Physical Punishment Scale for Children, and the other half received Version B, which included the Attitudes Toward Physical Punishment Scale for Animals. Power analysis prior to data collection suggested that in order to have a medium effect size and a power of .80, at an alpha level of .05, each group would need at least 64 participants. It was decided that in order to allow for drop-outs and incomplete data, an initial group size of approximately 100 would be adequate for each of the two groups. Ultimately, a total of 216 students were recruited, resulting in two groups of 108.

Measures

Demographic Data

Participants completed a demographic questionnaire which requested information on age, sex, socioeconomic status, age of parents, religion, religiosity, and

experience with pets (see Appendix A). The questions regarding experience with pets were borrowed with permission from a questionnaire developed by Flynn (1999).

Learning History

In order to determine whether or not participants had a learning history that involved physical punishment experiences, a Physical Punishment questionnaire was developed (see Appendix B). The questionnaire asked participants how often they received physical punishment from their mother and their father in two time periods: before becoming a teenager and after becoming a teenager. Possible responses ranged from never to more than 20 times. The physical punishment questions were borrowed with permission from a questionnaire developed by Flynn (1999). A question asking participants if they had ever witnessed violence in the home was placed at the end of this questionnaire rather than with the demographic questionnaire due to its better match with the nature of these questions than with the demographic questions.

Empathy

The Interpersonal Reactivity Index (Davis, 1980, 1983, 1994) was used to examine the amount of empathy shown by participants (see Appendix C). The IRI asks respondents to

indicate the degree to which 28 items describe them on a 5-point Likert scale (1 = does not describe me well; 5 = describes me very well). It is divided into four subscales, each of which consists of 7 items and scale scores range from 0 to 28. The IRI has substantial test-retest reliability, with alpha values ranging from .61 to .81, and internal reliabilities ranging from .70 to .78 (Davis, 1980). Davis (1994) has also reported that the IRI, which has good convergent and discriminant validity, correlated well with existing tests of empathy and with other studies, thus showing good construct validity.

The four subscales which make up the IRI are Empathic Concern, Perspective Taking, Personal Distress, and Fantasy. The Empathic Concern subscale measures an individual's tendency to express warmth, compassion, and concern for others. The Perspective Taking subscale measures an individual's tendency to adopt the point of view of other people in everyday life. The Personal Distress subscale measures feelings of personal unease and discomfort in reaction to the emotions of others. The Fantasy subscale measures the tendency to transpose oneself into the feelings and actions of fictitious characters in books, movies, and plays (Davis, 1983, p. 117).

Overall scores for the subscales of Empathic Concern,

Personal Distress, and Perspective Taking were used in the analyses as these three subscales were most relevant to the present study and each fit into Davis' (1994) organizational model for the study of empathy. The Fantasy subscale has not received as much research attention as the other three subscales (Lubusko, 1996) and does not form part of Davis' organizational model for the study of empathy. For these reasons, it was not examined in the analysis, and was included only to maintain the structural integrity of the IRI questionnaire.

It should be noted that the three subscales which were used in the analysis were each examined as independent entities rather than combined to form an overall empathy score since each subscale measures a very different conceptualization of the construct of empathy.

Aggressive Attitudes

Aggressive attitudes towards children and animals were measured using the Attitudes Toward Physical Punishment of Children and Attitudes Toward Physical Punishment of Animals questionnaires (see Appendices D and E), which were adapted from the Attitudes Toward Spanking questionnaire developed by Holden, Coleman, and Schmidt (1995). The original scale has a test-retest reliability of .76 and Cronbach alpha

ratings of internal consistency ranging from .89 to .91 (Holden, 1999). The adaptations made to the original scale involved changing the word "spanking" to "physical punishment," and changing the words "my child" to "a child" for the human version and to "a dog" for the animal version. For the animal version, the word "parenting" was changed to "pet ownership" and "moral and social conduct" was simplified to "conduct."

Procedure

Participants were recruited from Introductory Psychology classes at the University of Manitoba. The students completed the questionnaires during class time. Each participant received a questionnaire package with an Informational Letter (See Appendix F) on the front page. All packages appeared identical, but in fact they had mixed together so that half contained the Attitudes Toward Physical Punishment of Children questionnaire and half contained the Attitudes Toward Physical punishment of Animals questionnaire, along with the other questionnaires. Participants responded to items directly on their survey forms by circling their responses or filling in blanks as indicated on the form. The time to complete the measures was approximately 30 minutes. After completing the questionnaire package, each participant was given a single page of

Debriefing Information (see Appendix G) which included information on who they could contact if they had any concerns related to issues brought up by their participation in the study.

Statistical Analyses

Empathic ability was measured by three different subscales of the IRI: Empathic Concern, Perspective-Taking, and Personal Distress. Each subscale score was computed by summing its seven component questions on the IRI (after appropriate reversals were computed). For each subscale, a higher score indicated a more strongly empathic response.

Physical punishment experience was examined by looking at each of the four physical punishment questions individually. A total physical punishment score, which would have been obtained by adding each individual's responses on the four physical punishment questions, was considered but ultimately not used in the analysis due to the amount of uncertainty involved in the response intervals. As an example, looking only at physical punishment that occurred before the teenage years, an individual who was hit 100 times by her mother and never by her father would receive a total score of 6 (See Appendix B). On the other hand, an individual who was hit 3 times by her mother and 6 times by her father would receive a total score of 7. Although the

first individual was physically punished far more frequently, the nature of the scale intervals would lead to her having a lower total physical punishment score.

Another possibility for combining the physical punishment scores was examined but also rejected. It would have involved scoring each question as a dichotomy (either received physical punishment or did not receive physical punishment). This method has two problems. The first problem is that it would ignore the frequency of physical punishment, which could potentially be an important factor in the analysis. The second problem is that the number of individuals who would be categorized as never physically punished was significantly smaller than the number of individuals who had been physically punished on at least one occasion. Such a disparity between group sizes leads to a multitude of problems in terms of the strength and reliability of subsequent statistical analyses. In the end, the decision was made to look at physical punishment experience via four separate, non-dichotomous variables, namely Pre-Teen Physical Punishment by the Father, Pre-Teen Physical Punishment by the Mother, Teenage Physical Punishment by the Father, and Teenage Physical Punishment by the Mother.

Aggressive attitude was computed by reversing several

items on the Attitudes Toward Physical Punishment questionnaire and then adding the ten items together for a summary score. The reversed items were #3, "Physical punishment is not an effective method to change a child's (dog's) behaviour for the long term;" #4, "Physical punishment is never necessary to instill proper (moral and social) conduct in a child (dog);" #8, "When all is said and done, physical punishment is harmful for a child (dog);" and #10, "Overall, I believe that physical punishment is a bad disciplinary technique." A higher total score on this scale represented a more positive attitude toward physical punishment, or a more aggressive attitude.

The first hypothesis, that individuals reporting more frequent physical punishment in their childhood will exhibit lower levels of empathy than individuals reporting less frequent physical punishment, was originally to be tested using a t-test for difference in means. However, as described above, due to the large disparity in group sizes when physical punishment was coded as a dichotomous variable, it was decided to treat it as four separate continuous variables. As a result, this hypothesis was tested using correlation analysis rather than a t-test.

The second hypothesis, that individuals reporting more frequent physical punishment in their childhood will exhibit

more strongly aggressive attitudes than individuals reporting less frequent physical punishment, was also tested using correlation analysis for the same reason as was the first hypothesis.

The third and fourth hypotheses, that individuals who exhibit lower levels of empathy will exhibit more strongly aggressive attitudes toward children (hypothesis 3) and animals (hypothesis 4), was also tested using correlation analysis.

The final hypothesis, that empathy would act as a mediator between physical punishment experience and aggressive attitudes, was tested using regression analysis as described by Baron and Kenny (1986). Specifically, Baron and Kenny (1986) indicated that to show that a variable is a mediating variable, three regression equations must be computed and four conditions must hold. In the first regression, the mediator (empathy), must be regressed on the independent variable (physical punishment experience). In the second regression, the dependent variable (aggressive attitude) must be regressed on the independent variable (physical punishment experience). In the third regression, the dependent variable (aggressive attitude) must be regressed on both the independent variable (physical punishment experience) and the mediator (empathy). In order

to be able to conclude that mediation has occurred, four conditions must hold: (1) the independent variable must be shown to have a statistically significant effect on the mediator in the first regression equation; (2) the independent variable must be shown to have a statistically significant effect on the dependent variable in the second equation; (3) the mediator must be shown to have a statistically significant effect on the dependent variable in the third equation; and (4) the effect of the independent variable on the dependent variable must be less in the third equation than in the second equation (Baron & Kenny, 1986).

RESULTS

Data Characteristics

A number of preliminary statistical procedures were conducted in order to determine the characteristics of the data prior to further analysis. As suggested by Tabachnick and Fidell (2001) all data were examined for the presence of outliers, as well as for normality, linearity, and heteroscedasticity. This involved conducting examinations of residual scatterplots, bivariate correlation matrices, and values of skewness and kurtosis. The empathy variables and the aggressive attitude variables all approached normality. The physical punishment variables were slightly positively skewed, particularly the two variables pertaining to physical punishment that occurred during one's teenage years. This result was expected as physical punishment at a high base rate is quite common in this population. Note, however, that Tabachnik and Fidell (2001, p. 74) indicate that in a large sample size, the impact of departures from normality indicated by significant skewness and/or kurtosis do not make a substantive difference in the analysis. As an example, Tabachnik and Fidell (2001, p. 74) state, "underestimates of variance associated with positive skewness . . . disappear with samples of 100 or more cases."

The data were also examined for the presence of

outliers and missing data. Missing data points were more closely examined to determine if any significant relationship existed between the pattern of missing data and any of the independent and dependent variables under examination. The results of the analysis indicated that the missing data were random in nature and involved less than 5% of the sample. For this reason, mean values were used to replace missing data. Mean value substitution is a method which Tabachnik and Fidell (2001) suggest is both appropriate for this pattern of missing data and conservative in nature.

Assessment for multicollinearity among the variables was warranted in the case of the Physical Punishment variables and the Empathy variables. Tabachnik and Fidell (2001) indicate that multicollinearity occurs when pairs of variables have correlation coefficients of .90 or greater (for correlation coefficients which have a maximum value of 1.00). Spearman's rho was the statistic used for the correlations due to the ordinal level nature of the data.

Results indicated that among the Physical Punishment variables, although there were significant correlations, none of the correlation coefficients exceeded .90 (See Table 1). The greatest correlation was between Pre-Teen Physical Punishment by the Mother and Teenage Physical Punishment by

the Mother, with $\rho = .515$ ($p < .001$). Among the Empathy variables there were once again significant correlations, but the largest, between Empathic Concern and Perspective Taking, reached only $\rho = .379$ ($p < .001$) (See Table 2). Since none of the correlations exceeded .90, none of the Physical Punishment or Empathy variables were considered at risk of being multicollinear.

[Insert Tables 1 and 2 about here]

Participant Characteristics

In describing the characteristics of the participants in the study, it is relevant to examine the sample as a whole as well as the differences (if any) between the two groups (those receiving Questionnaire Package A and those receiving Questionnaire Package B). Chi-square analysis was used to determine if there were any statistically significant differences between the responses of Group A and the responses of Group B on any of the demographic questions. The results of the analysis indicated that none of the demographic differences between Groups A and B were statistically significant. For this reason, the following description of the participant characteristics is based on

Table 1

Spearman Correlations between Physical Punishment Variables

Variable	Pre-Teen Physical Punishment by Mother	Teenage Physical Punishment by Father	Teenage Physical Punishment by Mother
Pre-Teen Physical Punishment by Father	.488***	.459***	.225**
Pre-Teen Physical Punishment by Mother		.287***	.515***
Teenage Physical Punishment by Father			.401***

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 2

Spearman Correlations between Empathy Variables

Variables	Perspective Taking	Personal Distress
Empathic Concern	.379***	-.008
Perspective Taking		-.197**

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

the sample as a whole. Note, however, that frequencies for the demographic variables are shown in Table 3 for Groups A and B as well as for the entire sample, for comparison purposes.

[Insert Table 3 about here]

Of the 216 participants in the study, 149 (69%) were female and 67 (31%) were male. The participants ranged in age from 18 to 76 years, with a mean age of 23.04 and a median age of 21.00. The median and modal family income of the participants when they were 18 years of age or younger was \$40,000 to \$59,000; however, 11.6% of participants reported family incomes under \$20,000 and 10.6% of participants reported family incomes over \$100,000.

The religious affiliations of the participants covered a wide range of categories. The most common category was Roman Catholic (n=66, 30.6%), followed by No Religious Affiliation (n=33, 15.3%), Other (n=25, 11.6%), Anglican (n=15, 6.9%), United Church (n=14, 6.5%), and Christian Unspecified (n=12, 5.6%). None of the other categories of religious affiliation garnered more than 5% of the responses.

Table 3

Distributions of Demographic Variables

Variable	Entire Sample	Group A	Group B
<u>Gender</u>			
Male	31.0%	28.7%	33.3%
Female	69.0%	71.3%	66.7%
<u>Children</u>			
Yes	13.0%	15.0%	11.1%
No	87.0%	85.0%	88.9%
<u>Pet Ever</u>			
Yes	86.1%	87.0%	85.2%
No	13.9%	13.0%	14.8%
<u>Kind of Pet Ever</u>			
Dog	72.2%	74.7%	69.6%
Non-Dog	27.8%	25.3%	30.4%
<u>Pet Current</u>			
Yes	57.9%	55.6%	60.2%
No	42.1%	44.4%	39.8%
<u>Kind of Pet Current</u>			
Dog	54.8%	51.7%	57.6%
Non-Dog	45.2%	48.3%	42.4%
<u>Witnessed Violence</u>			
Yes	29.9%	27.2%	32.7%
No	70.1%	72.8%	67.3%

Table 3 (continued)

Variable	Entire Sample	Group A	Group B
<u>Age</u>			
18	16.7%	20.4%	13.0%
19	19.4%	18.5%	20.4%
20	10.6%	7.4%	13.9%
21	9.3%	10.2%	11.1%
22	5.6%	8.3%	10.2%
23	3.7%	5.6%	5.6%
24	4.2%	3.7%	3.7%
25	1.9%	2.8%	5.6%
26	3.7%	2.8%	0.9%
27	2.3%	3.7%	3.7%
28	0.9%	1.9%	2.8%
29	1.4%	1.9%	0.0%
30	0.9%	0.9%	1.9%
31	0.5%	1.9%	0.0%
32	0.9%	0.0%	0.9%
33	0.5%	1.9%	0.0%
34	0.9%	0.9%	0.9%
36	0.9%	1.9%	1.9%
37	1.9%	0.9%	0.9%
42	0.9%	0.9%	0.0%
43	0.9%	0.9%	0.0%
46	0.5%	0.9%	0.9%
47	0.9%	0.0%	0.9%
48	0.5%	0.9%	0.0%
52	0.5%	0.9%	0.0%
76	0.5%	0.0%	0.9%

Table 3 (continued)

Variable	Entire Sample	Group A	Group B
<u>Religion</u>			
Anglican	6.9%	5.7%	8.4%
Baptist	1.9%	1.9%	1.9%
Greek Orthodox	0.5%	0.0%	0.9%
Jewish	0.5%	0.0%	0.9%
Lutheran	4.2%	3.8%	4.7%
Mennonite	2.3%	1.9%	2.8%
Pentecostal	1.4%	0.9%	1.9%
Roman Catholic	30.6%	34.9%	27.1%
Ukranian Catholic	2.8%	1.9%	3.7%
United Church	6.5%	6.6%	6.5%
Protestant Unspecified	2.3%	1.9%	2.8%
Christian Unspecified	5.6%	5.7%	5.6%
Muslim	1.9%	2.8%	.9%
Other Eastern Religion	2.8%	3.8%	1.9%
Atheist	1.4%	2.8%	0.0%
Agnostic	0.5%	0.9%	0.0%
No Religious Affiliation	15.3%	11.3%	19.6%
Other	11.6%	13.2%	10.3%

Table 3 (continued)

Variable	Entire Sample	Group A	Group B
<u>Family Income</u>			
Under \$20,000	12.0%	12.3%	11.7%
\$20,000 to \$39,000	19.1%	18.9%	19.4%
\$40,000 to \$59,000	23.9%	24.5%	23.3%
\$60,000 to \$79,000	22.0%	25.5%	18.4%
\$80,000 to \$100,000	12.0%	9.4%	14.6%
Over \$100,000	11.0%	9.4%	12.6%
<u>Bible is God's Word</u>			
Strongly Agree	9.3%	9.3%	9.3%
Agree	16.2%	16.7%	15.7%
Neutral	31.9%	27.8%	36.1%
Disagree	16.7%	17.6%	15.7%
Strongly Disagree	25.9%	28.7%	23.1%
<u>Bible is the Answer</u>			
Strongly Agree	9.3%	7.4%	11.1%
Agree	18.1%	18.5%	17.6%
Neutral	29.6%	25.9%	33.3%
Disagree	20.8%	23.1%	18.5%
Strongly Disagree	22.2%	25.0%	19.4%

Participants were also asked whether they have children and whether they currently own or had ever owned a pet. Only twenty-eight participants (13%) stated that they have children, but a large percentage of the participants (86.1%) stated that they had owned a pet at some time, and 57.9% stated that they currently own a pet. Of those who had owned a pet at some time, 72.2% had owned dogs. Of those who stated that they currently own a pet, 54.8% were dog owners.

Current level of religiosity was measured by two questions; the first asked participants whether they believe that the Bible is God's word (Religiosity 1), the second asked them whether they believe that the Bible is the answer to all important human problems (Religiosity 2). For both questions, the modal response was neutral, but a greater number of the remaining participants agreed than disagreed.

Group Comparison on the Independent Variables

Of the 216 participants in the study, only 21 (9.7%) reported that they had never experienced physical punishment. The other 195 participants (90.3%) reported that they had experienced physical punishment at least once. As described earlier in the Procedure section, this wide disparity in the number of individuals who had and had not been physically punished led to the decision to treat the

physical punishment variable as a continuous variable rather than as a dichotomy.

Table 4 indicates the frequency of responses on the four physical punishment questions for the whole sample as well as for Groups A and B. The Mann-Whitney U-test was computed to determine whether any significant differences existed between Group A and Group B on the physical punishment measures. No significant differences were found. Groups A and B were also compared on the three empathy measures using the Mann-Whitney U-test. Here again, no significant differences were found.

[Insert Table 4 about here]

Relationship Between the Demographic Variables and the Main Variables

Spearman rank correlation coefficients were computed to examine relationships between the ordinal level demographic variables and the independent and dependent variables (see Table 5). Age difference between participants and their parents were calculated to determine the parents' age at the time the child was born. The calculations were based on reported current age of participants and their parents in the demographic section of the questionnaire.

Table 4

Physical Punishment Frequencies

Variable	Entire Sample	Group A	Group B
<u>Pre-Teen Physical Punishment by Father</u>			
Never	25.5%	30.6%	20.4%
Once	13.4%	14.8%	12.0%
Twice	12.0%	10.2%	13.9%
3-5 times	19.9%	16.7%	23.1%
6-10 times	13.4%	12.0%	14.8%
11-20 times	7.9%	8.3%	7.4%
More than 20 times	7.9%	7.4%	8.3%
<u>Pre-Teen Physical Punishment by Mother</u>			
Never	25.0%	25.0%	25.0%
Once	13.0%	12.0%	13.9%
Twice	15.7%	18.5%	13.0%
3-5 times	14.4%	13.9%	14.8%
6-10 times	13.4%	16.7%	10.2%
11-20 times	7.4%	9.3%	5.6%
More than 20 times	11.1%	4.6%	17.6%

Table 4 (continued)

Variable	Entire Sample	Group A	Group B
<u>Teenage Physical Punishment by Father</u>			
Never	72.2%	74.1%	70.4%
Once	11.1%	13.0%	9.3%
Twice	6.0%	3.7%	8.3%
3-5 times	6.0%	4.6%	7.4%
6-10 times	1.9%	1.9%	1.9%
11-20 times	1.4%	1.9%	0.9%
More than 20 times	1.4%	0.9%	1.9%
<u>Teenage Physical Punishment by Mother</u>			
Never	69.4%	67.6%	71.3%
Once	11.1%	12.0%	10.2%
Twice	7.9%	7.4%	8.3%
3-5 times	3.2%	5.6%	0.9%
6-10 times	4.2%	7.4%	0.9%
11-20 times	1.9%	0.0%	3.7%
More than 20 times	2.3%	0.0%	4.6%

Results indicated that five combinations of variables were significant at the $p < .05$ level. These significant correlations were between (1) Age and Aggressive Attitude toward Children ($\rho = -.240$), (2) Age and Personal Distress ($\rho = -.170$), (3) Religiosity 1 and Personal Distress ($\rho = -.173$), (4) Religiosity 2 and Empathic Concern ($\rho = -.169$), and (5) Religiosity 2 and Perspective Taking ($\rho = -.154$). Using a Bonferroni correction for multiple comparisons, an alpha value of $p = .003$ ($p = 0.05$ divided by 15 predictors) would be more appropriate to rule out Type I error. Therefore, none of the correlations at the $p < .05$ level were considered large enough to be realistically significant, or to warrant further analysis.

The Spearman rank correlation analysis also indicated that two combinations of variables were significant at the $p < .01$ level. These correlations were between (1) Income and Teenage Physical Punishment by the Mother ($\rho = -.211$, $p = .002$), and (2) Income and Personal Distress ($\rho = -.185$, $p = .007$). Due to the significance of the first of these two correlations at $p < .003$, Income was considered a covariate in the regression analyses.

[Insert Table 5 about here]

Table 5

Spearman Rank Coefficients between Demographic Variables and
Main Variables

Variable	Pre-Teen Physical Punishment by Father	Pre-Teen Physical Punishment by Mother	Teenage Physical Punishment by Father	Teenage Physical Punishment by Mother
Age	.007	.034	-.084	.112
Income	.045	-.074	-.090	-.211**
Age Diff. with Mother	-.022	-.076	-.048	-.009
Age Diff. with Father	-.043	-.101	.051	.013
Bible is God's Word	.033	.008	-.009	.002
Bible is Answer	.032	-.057	.019	-.071

Note. N = 216. *p < .05; **p < .01.

Table 5 (continued)

Variable	Aggress. Attitude to Children	Aggress. Attitude to Animals	Empathic Concern	Personal Distress	Perspec- tive Taking
Age	-.240*	-.156	.051	-.170*	-.001
Income	.043	-.087	.061	-.185**	.045
Age Diff with Mother	-.177	-.042	.013	.010	.037
Age Diff with Father	-.058	-.068	.010	.051	.003
Bible is God's Word	-.162	-.148	-.108	-.173*	.054
Bible is Answer	-.097	-.177	-.169*	-.154*	-.050

Note. N = 108 for Aggressive Attitude to Children and Aggressive Attitude to Animals. N = 216 for all other columns. * $p < .05$; ** $p < .01$.

Contingency coefficients were computed to examine relationships between the nominal level demographic variables and the independent and dependent variables (see Table 6). It should be noted that the magnitude of a contingency coefficient is dependent on the dimensions of the table from which it is computed. Therefore, with a variable such as Religion which had 20 possible responses, a large contingency coefficient could occur without significance being attained.

[Insert Table 6 about here]

Using a Bonferroni adjustment for multiple comparisons, alpha was set at $p = .003$ (i.e., $p = .05$ divided by 17 predictors). Two associations were significant at the level of $p < .001$. These significant associations were between (1) Teenage Physical Punishment by the Father and Having Ever owned a Pet, and (2) Empathic Concern and Gender. The first association, while interesting, is not related to the hypotheses in this study. The question regarding pet ownership was designed to look for differences between pet owners and non pet owners in responses to the Attitudes Toward Physical Punishment of Animals questionnaire. As shown earlier, pet ownership did not have a significant

Table 6

Contingency Coefficients for Associations between
Demographic Variables and Main Variables

Variable	Pre-Teen Physical Punishment by Father	Pre-Teen Physical Punishment by Mother	Teenage Physical Punishment by Father	Teenage Physical Punishment by Mother
Gender	.111	.154	.185	.150
Children	.151	.206	.098	.159
Religion	.531	.535	.610	.587
Pet Ever	.154	.181	.380***	.212
Kind Ever	.250	.163	.138	.214
Pet Current	.138	.203	.176	.175
Kind Current	.116	.197	.153	.276
Violence in Home	.177	.233	.283**	.290**

Note. N = 216. *p < .05; **p < .01; ***p < .001.

Table 6 (continued)

Variable	Aggress. Attitude to Children	Aggress. Attitude to Animals	Empathic Concern	Personal Distress	Perspec- tive Taking
Gender	.572	.582	.454***	.334	.331
Children	.498	.557	.238	.309	.334
Religion	.923	.927	.775	.795	.821
Pet Ever	.579	.488	.274	.303	.308
Kind Ever	.540	.522	.368	.255	.312
Pet Current	.571	.534	.282	.304	.313
Kind Current	.609	.548	.383	.341	.366
Violence in Home	.531	.546	.354	.308	.288

Note. N = 108 for Aggressive Attitude to Children and Aggressive Attitude to Animals. N = 216 for all other columns. * $p < .05$; ** $p < .01$; *** $p < .001$.

effect on Attitudes Toward Physical Punishment of Animals.

The second association, between Empathic Concern and Gender, is both relevant to the study and sufficiently large that Gender should be considered a covariate in the regression analyses. The direction of this association indicates that female participants more strongly endorsed items indicating empathic concern for others than did male participants.

Two other associations were significant at the $p < .01$ level. These associations were between (1) Having Witnessed Violence in the Home and Teenage Physical Punishment by the Father, and (2) Having Witnessed Violence in the Home and Teenage Physical Punishment by the Mother. This result was anticipated due to the literature which suggests that child abuse and domestic violence frequently co-occur in families (e.g., Ascione & Arkow, 1999).

Due to the possible differences in the nature of their physical punishment experiences and their perspectives on physical punishment, it was decided that an analysis of the main hypotheses of the study should be conducted using only those participants who had witnessed violence in the home. Differences in the main variables between those who had witnessed violence in the home and those who had not were also examined. Results of these analyses can be found in the

Post Hoc Analysis section of this document (p. 72).

Tests of Hypotheses

The first hypothesis, that individuals reporting more frequent physical punishment in their childhood will exhibit lower levels of empathy than individuals reporting less frequent physical punishment, was tested using one-tailed Spearman Rank correlation analysis. The relationships among the four Physical Punishment variables and the three Empathy variables were examined to determine if any significant correlations resulted. Results, as indicated in Table 7, showed that the more frequently individuals were physically punished by their mothers or fathers before they were teenagers, the less they reported Empathic Concern for others. Results also showed that Personal Distress was positively correlated to frequency of physical punishment by mothers during the teenage years. Hypothesis 1 could not be considered supported, however, since a Bonferroni adjustment would indicate that $p = .007$ should be the cutoff for statistical significance ($p = .05$ divided by 7 predictors). All of the above noted correlations were significant only at the .05 level.

[Insert Table 7 about here]

Table 7

Spearman Rank Coefficients between Physical Punishment
Variables and Empathy Variables

Variable	Pre-Teen Physical Punishment by Father	Pre-Teen Physical Punishment by Mother	Teenage Physical Punishment by Father	Teenage Physical Punishment by Mother
Empathic Concern	-.114*	-.131*	-.071	-.086
Personal Distress	-.005	-.062	.042	.124*
Perspective Taking	-.052	-.068	.021	-.058

Note. N = 216. *p < .05.

The second hypothesis, that individuals reporting more frequent physical punishment in their childhood will exhibit more strongly aggressive attitudes than individuals reporting less frequent physical punishment, was also examined using one-tailed Spearman Rank correlations. As there were two forms of the Attitudes Toward Physical Punishment questionnaire, the correlations were examined separately for each questionnaire type (see Table 8).

For questionnaire A, Attitudes Toward Physical Punishment of Children, the alpha value was set at $p = .01$ ($p = .05$ divided by 5 predictors). The hypothesis was thus supported in only one case: when physical punishment was administered by the mother prior to one's teenage years ($\rho = .292$, $p < .01$),

For questionnaire B, Attitudes Toward Physical Punishment of Animals, again using an alpha value set at $p = .01$, the hypothesis was not supported in any of the cases.

[Insert Table 8 about here]

The third hypothesis, that individuals who exhibit lower levels of empathy will exhibit greater attitudes of aggression toward children, was also tested using one-tailed

Table 8

Spearman Rank Correlations between Physical Punishment and
Aggressive Attitudes

Variable	Pre-Teen Physical Punishment by Father	Pre-Teen Physical Punishment by Mother	Teenage Physical Punishment by Father	Teenage Physical Punishment by Mother
Aggressive Attitude toward Children	.218*	.292**	.085	.190*
Aggressive Attitude toward Animals	.037	.163*	.049	.050

Note. N = 108. *p < .05; **p < .01.

Spearman Rank correlation analysis. After using a Bonferroni adjustment for multiple comparisons, alpha was set at $p = .0125$ ($p = .05$ divided by 4 predictors). For two of the empathy variables, the hypothesis was supported (see Table 9). Results indicated that individuals who exhibit less Empathic Concern have more strongly Aggressive Attitudes Toward Children ($\rho = -.230$, $p < .01$), and that individuals who have less Perspective Taking ability have more strongly Aggressive Attitudes Toward Children ($\rho = -.230$, $p < .001$).

The fourth hypothesis, that individuals who exhibit lower levels of empathy will exhibit greater attitudes of aggression toward animals, was also tested using one-tailed Spearman rank correlation analysis. Again, alpha was set at $p = .0125$ based on the Bonferroni adjustment. The fourth hypothesis was confirmed for the empathy measure of Empathic Concern ($\rho = -.235$, $p < .01$) (see Table 9).

[Insert Table 9 about here]

The final hypothesis, that Empathy will act as a mediator between Physical Punishment Experience and Aggressive Attitudes, was tested using regression analysis. Baron & Kenny (1986) described three regressions that must

Table 9

Spearman Rank Correlations between Empathy Variables and
Aggressive Attitude Variables

Variable	Empathic Concern	Personal Distress	Perspective Taking
Aggressive Attitude toward Children	-.230**	.031	-.404***
Aggressive Attitude toward Animals	-.235**	.079	.007

Note. N = 108. *p < .05; **p < .01; ***p < .001.

be performed in order to establish the existence of a mediating variable. These regressions are: (1) regressing the mediator (empathy) on the independent variable (physical punishment experience); (2) regressing the dependent variable (aggressive attitudes) on the independent variable (physical punishment experience); and (3) regressing the dependent variable (aggressive attitudes) on both the independent variable (physical punishment experience) and the mediator (empathy).

Mediation is demonstrated if four conditions hold: (1) the independent variable predicts the mediator in the first regression equation; (2) the independent variable predicts the dependent variable in the second regression equation; (3) the mediator predicts the dependent variable in the third regression equation; and (4) if the first three conditions all hold in the predicted directions, then the effect of the independent variable on the dependent variable must be less in the third equation than in the second equation (Baron & Kenny, 1986).

Table 10 gives the standardized beta coefficients resulting from the three necessary regressions for each category of Physical Punishment Experience using Empathic Concern as the potential mediating variable between Physical Punishment Experience and Aggressive Attitude toward

Children. None of the first-stage regressions using Personal Distress or Perspective Taking as the potential mediator were significant, so the analyses were discontinued for those variables.

Each of the remaining regressions were conducted in two stages, the first of which factored out the effects of the variables Gender and Income, as these two variables had been shown to be sufficiently strongly correlated with the main variables to be considered covariate.

Although the relationships between the variables generally occurred in the expected directions, the paucity of statistically significant relationships between the variables (see Table 10) necessarily dictated that Empathic Concern could not be considered a mediator in the relationship between Physical Punishment Experience and Aggressive Attitudes Toward Children.

[Insert Table 10 about here]

It should be noted, however, that in all four physical punishment categories the magnitude of the relationship between Physical Punishment Experience and Aggressive Attitudes Toward Children was decreased when the suspected mediator, Empathic Concern, was entered into the regression.

Table 10

Standardized Beta Coefficients for Regressions Exploring
Empathic Concern as a Mediator Between Physical Punishment
Experience and Aggressive Attitudes toward Children

	Regr 1	Regr 2	Regr 3(a)	Regr 3(b)
Pre-Teen Physical Punishment by Father	-.099	.238*	-.149	.224
Pre-Teen Physical Punishment by Mother	-.229*	.300**	-.099	.280**
Teenage Physical Punishment by Father	-.170	.110	-.158	.084
Teenage Physical Punishment by Mother	-.277**	.210*	-.117	.178

Note. N = 108. *p < .05; **p < .01.

Regr 1 = Empathic Concern on Physical Punishment Experience.

Regr 2 = Aggressive Attitude on Physical Punishment Experience.

Regr 3 = Aggressive Attitude on Empathic Concern (3a) and Physical Punishment Experience (3b).

For any given row, mediation is demonstrated if the regression coefficients are significant in the first 3 columns (Regr 1, Regr 2, and Regr 3a) and the coefficient in column 4 (Regr 3b) is less than the coefficient in column 2 (Regr 2).

This result would have been expected if Empathic Concern was in fact found to mediate the relationship.

Table 11 indicates the standardized beta coefficients resulting from the three regressions for each category of Physical Punishment Experience using Empathic Concern as the potential mediating variable between Physical Punishment Experience and Aggressive Attitudes toward Animals. None of the first-stage regressions using Personal Distress or Perspective Taking as the potential mediator were significant, so again the analyses were discontinued for those variables.

As with the analysis for Aggressive Attitudes toward Children, each of the remaining regressions was conducted in two stages. The first stage factored out the effects of the covariates Gender and Income, and the second stage entered the independent variable(s) being examined.

[Insert Table 11 about here]

As with the regressions for Aggressive Attitudes toward Children, none of the combinations resulted in a mediating relationship of statistical significance. Furthermore, the relationship between Physical Punishment Experience and Aggressive Attitude toward Animals was not consistently

Table 11

Standardized Beta Coefficients for Regressions Exploring
Empathic Concern as a Mediator Between Physical Punishment
Experience and Aggressive Attitudes toward Animals

	Regr 1	Regr 2	Regr 3(a)	Regr 3(b)
Pre-Teen Physical Punishment by Father	-.138	-.037	-.214*	-.066
Pre-Teen Physical Punishment by Mother	-.009	.127	-.202	.126
Teenage Physical Punishment by Father	-.001	.013	-.204	.013
Teenage Physical Punishment by Mother	.033	.023	-.205	.030

Note. N = 108. *p < .05.

Regr1 = Empathic Concern on Physical Punishment Experience.

Regr 2 = Aggressive Attitude on Physical Punishment Experience.

Regr 3 = Aggressive Attitude on Empathic Concern (3a) and Physical Punishment Experience (3b).

For any given row, mediation is demonstrated if the regression coefficients are significant in the first 3 columns (Regr 1, Regr 2, and Regr 3a) and the coefficient in column 4 (Regr 3b) is less than the coefficient in column 2 (Regr 2).

decreased by the addition of the hypothesized mediator, Empathic Concern, into the regression.

Post Hoc Analyses

Due to the possibility that the physical punishment experiences of individuals who had witnessed violence in the home might be qualitatively different than for individuals who had not witnessed violence in the home, it was decided that the main hypotheses of the study should be re-examined individually for the group who had reported witnessing violence in the home.

After using the Bonferroni adjustment for multiple comparisons, only one of the hypotheses had significant results with this smaller group. This hypothesis was that individuals who exhibit lower levels of empathy would exhibit greater attitudes of aggression toward children. The hypothesis was tested using one-tailed Spearman rank correlation analysis. Alpha was set at $p = .0125$ based on the Bonferroni adjustment ($p = .05$ divided by four predictors). Results indicated that lesser Perspective Taking ability was associated with greater Attitudes of Aggression toward Children ($\rho = -.339$, $p < .01$, $n = 28$), confirming the hypothesis for this smaller group.

Further post hoc analyses examined the differences in scores on the main variables between those who had

reportedly witnessed violence in the home and those who had reportedly not witnessed violence in the home. A Mann-Whitney test was used to compare the two groups. Results indicated that the two groups did not differ significantly in terms of their attitudes towards physical punishment or their empathic abilities.

Where the difference in these two groups did come across was in their levels of physical punishment experience. Using the Bonferonni adjustment for multiple comparisons, an alpha value of $p = .005$ was used as the cut-off for significance ($p = .05$ divided by 9 predictor variables). Those who had witnessed violence in the home had significantly higher scores on the measure Teenage Physical Punishment by the Father ($z = -3.393$, $p < .001$, $n = 61$).

Overall, the results of these post hoc analyses suggest that there may be differences between the experiences of those who have witnessed violence in the home and those who have not witnessed violence in the home. Further studies should look more closely at these differences and how they may affect one's likelihood of being aggressive and/or being inclined to use physical punishment as a discipline method with either children or animals.

DISCUSSION

Summary of Major Findings

It has been established by a substantial body of previous research that childhood experience of physical punishment correlates with aggression (Thompson, 1997). It has also been established that a history of physical punishment is a strong predictor of current approval of physical punishment as a disciplinary method (Buntain-Ricklefs, Kemper, Bell, & Babonis, 1994).

This study attempted to provide further confirmation of the relationship between physical punishment history and aggression by looking at aggression in the form of approval of physical punishment. To this end, the study asked participants to respond to questions about their childhood physical punishment experiences and about their current attitudes towards physical punishment. In the case of participants' attitudes towards the physical punishment of children, the results confirmed the hypothesis that a history of pre-teen physical punishment by the mother is related to current approval of physical punishment as a disciplinary technique. In the case of participants' attitudes towards the physical punishment of animals, the results were in the expected direction but were not statistically significant.

These results suggest that although a history of physical punishment may affect one's attitude toward physical punishment of children, it may not generalize to one's attitude toward physical punishment in general, and in particular to one's attitude toward physical punishment of animals.

Prior research has also established a relationship between childhood physical punishment experience and reduced empathy in children (Thompson, 1997; Roe, 1980). This study attempted to further substantiate the relationship between a history of physical punishment and reduced empathy for others. Participants who had been physically punished as children were compared to participants who had not been physically punished as children on three empathy subscales from Davis' Interpersonal Reactivity Index (1980, 1983, 1994). Differences in empathy between those who had been physically punished and those who had not been physically punished were in the direction suggesting that physical punishment experience reduces empathy for others, although the relationship was not a statistically significant one.

A number of explanations for the lack of statistical significance of the relationship are possible. One explanation is that the IRI was not an appropriate measure of the type of empathy involved in seeing an individual

subjected to physical punishment. Another explanation is that although empathy for others may be reduced during childhood if one is subjected to physical punishment, this effect may diminish with the passage of time.

Another relationship which has been established by prior research is the relationship between decreased empathy and increased aggression (e.g. Feshbach & Feshbach, 1969; Rosenstein, 1995). To further explore this relationship, the current study examined the empathy of participants and their aggressive attitudes toward children and animals in the form of approval of physical punishment. The results of the study confirmed that in both cases, aggression toward children and aggression toward animals, those who had more strongly aggressive attitudes had lower levels of empathy on at least one of the three empathy subscales.

The final hypothesis of the current study was that empathy would act as a mediator in the relationship between physical punishment experience and the development of aggressive attitudes towards children and animals. This hypothesis was based on the organizational model proposed by Davis (1994) for the study of empathy. In this model, Davis placed the empathic process of perspective taking and the intrapersonal outcomes of empathic concern and personal distress between the antecedent of learning history (in this

study, physical punishment history) and the interpersonal outcome of aggression (in this study, aggressive attitudes), suggesting a possible mediating relationship. Although the relationships between the variables generally held in the expected directions, the strength of the relationships could be at best labeled as a trend. The hypothesis that empathy acts as a mediator between physical punishment experience and the development of attitudes of aggression could therefore not be confirmed.

A final comparison is warranted in this study. The comparison is that of individuals' aggressive attitudes toward children and individuals' aggressive attitudes toward animals. The results may suggest that the relationship among physical punishment experience, empathy, and attitudes of aggression is weaker when the target of aggression is an animal than when the target of aggression is a child. However, it should be noted that the strength of the relationship between Physical Punishment Experience and Empathic Concern was also substantially weaker in the group which received the Aggressive Attitudes toward Animals questionnaire than it was in the group that received the Aggressive Attitudes toward Children questionnaire. These measures were independent of the Aggressive Attitude measure, suggesting that there may have been some inherent

differences in the groups which were not related to different Aggressive Attitudes toward Children and Animals.

Felthous and Kellert (1986) suggested that aggression against living creatures is generalized. This study suggests that although there may be an overlap between attitudes of aggression toward humans and attitudes of aggression toward animals, the relationship may not be identical in strength.

Clinical Implications

Clinically, this study has both replicated previous findings as well as suggested the possibility of additional dimensions in the study and treatment of individuals who have experienced physical punishment. As demonstrated by others, and further substantiated in this study, a history of physical punishment is related to feelings of decreased empathy for others and increased inclinations toward aggression. Clinicians dealing with clients who have a low level of empathic concern for others or who exhibit strongly aggressive tendencies should be alert to the possibility that the client may have experienced a high level of physical punishment as a child. Clinicians should also be cognizant of the relationship between a childhood history of physical punishment and current approval of physical punishment as a disciplinary technique. In an effort to

interrupt the intergenerational cycle of violence which has been shown to occur in families experiencing physical abuse (e.g., Covell, Grusec, & King, 1995), clinicians should be armed with a plethora of ideas for alternative methods of child discipline which do not involve physical punishment.

A dimension in the study and treatment of clients who have experienced physical punishment which has been much less widely examined is the relationship between physical punishment experience and aggression toward animals. This study did not find strong evidence of a relationship between these variables. Nevertheless, since other researchers have found that individuals who have a propensity to aggressive and violent acts against animals also have a propensity for such acts against humans (e.g. Felthous & Kellert, 1986), this relationship should be still worthy of clinical consideration. Children who are cruel to the family pet, for example, may be offering warning signs of future violent behaviour directed toward humans. In terms of treatment and prevention, some evidence suggests that increasing empathy toward animals through humane education programs can also increase individuals' empathy toward humans (Ascione, 1992).

Limitations and Implications for Further Study

One of the major limitations of the current study is the use of a sample of university students as participants.

The primary concern with the use of this population lies in the question of the appropriateness of generalizing from the results of this study to other populations.

Another limitation of the current study pertains to the use of the term "physical punishment" in the questionnaires. Many of the studies used for comparison used different terms such as "spanking" or "slapping." The use of the term "physical punishment" left a great deal of room for interpretation on the part of the respondents to the questionnaire. The current study also did not attempt to distinguish between participants who had received mild forms of physical punishment and participants who had received physical punishment that reached abusive levels, a difference that could be critical in terms of its effects on empathy and aggressive attitudes.

A further limitation of the current study is its lack of specificity in terms of definition of empathy. In an attempt to identify empathy as a mediator between physical punishment experience and aggressive attitude development, the study openly made use of three very different conceptualizations of the term empathy in the hopes that at least one would present itself strongly as a mediating variable. Based on the results of this study, it would seem that the specific conceptualization of empathy as Empathic

Concern has the most potential for demonstrating the relationship between physical punishment experience, empathic ability, and aggressive attitudes. As such, further studies might focus solely on Empathic Concern as an empathy measure.

It is important to note that the current study is correlational in nature and cannot therefore be used to imply causation between any of the variables. Numerous other factors may be the cause of a correlation between two variables. For example, a strongly supportive family environment may be the cause of both a lack of physical punishment and a high degree of empathy for others. It is also important to note that participants in the study were asked to rely on their memories of childhood physical punishment, which may be far from accurate.

A number of improvements to the current study are recommended for further study. One such improvement would be the use of a longitudinal study format in which parents provide self-reports of the use of physical punishment with their children. In this longitudinal study the empathy and attitudes of aggression of the children could be studied as the children age, which might better establish the relationships identified in the current study.

Random samples of participants (rather than University

students alone) would also improve the results of the study in that it would allow for greater generalizability.

A clearer conceptualization of the empathy variable would also improve further studies, as would more finely tuned instruments designed to study that specific conceptualization of empathy. For example, since Empathic Concern appeared to be the empathy variable most strongly affected by Physical Punishment Experience in this study, further studies should look at other instruments which measure Empathic Concern, defined as it is by Davis (1994).

Another recommendation for improving further studies in this area would be to use a physical punishment questionnaire which is designed to offer interval level data rather than ordinal level data, as was the questionnaire used in this study. For example, participants could be asked how many times they recall being physically punished and be given a blank in which to insert their responses, rather than being given a set of intervals from which to choose. More powerful analyses would have been possible with interval level data.

Two final recommendation for improvement would be to make use of more specific terminology for physical punishment, and to more clearly differentiate between individuals who have been subjected to physical punishment

at levels that would be considered abusive. Physical punishment should be described in clear, behavioural terms, such as "contact between the parent's hand and the child's buttocks," if spanking alone is to be studied. In terms of differentiating between abusive and non-abusive levels of physical punishment, additional questions about the frequency and severity of physical punishment might further elucidate the differentiation. Notably, however, the distinction between abusive and non-abusive levels of physical punishment has been consistently unclear in the literature and the line between the two has been consistently difficult to define.

Overall Summary and Conclusions

This study has shown that a history of physical punishment is significantly related to current approval of physical punishment as a disciplinary technique for use with children. When the object of the physical punishment was an animal, the relationship to physical punishment experience was not significant, although trends in the hypothesized direction were apparent in the data.

Empathy, although not shown to be a significant mediator in the relationship between physical punishment experience and aggressive attitudes, did appear to have an effect on how strongly an individual would approve of

physical punishment of children. This result was significant for the empathy measures of Empathic Concern and Perspective Taking. Greater approval of physical punishment of animals was also significantly related to decreased empathy in the form of Empathic Concern, but not in the form of Perspective Taking.

The results of this study suggest that if we, as a society, are concerned about the continued use of physical punishment by parents with their children, there are ways that we can have a positive impact on this process.

First, we can help those who use physical punishment with their children to develop a stronger sense of empathic concern and perspective taking ability. Since these two measures of empathy were shown to be significantly lower in individuals who approve of physical punishment, the development of greater empathy may ultimately result in a reduction in parents' approval of physical punishment and thereby their use of it with their own children.

Second, we can work towards interrupting the cycle of perpetuation of aggression which occurs when children, who have themselves been the victims of physical punishment, develop attitudes favouring physical punishment as a discipline method to use with their own children.

Third, we can examine more closely the differences

between our level of agreement with physical punishment methods in some cases but not others. For example, does our lesser ability to see things from the perspective of an animal increase our willingness to physically punish it? Would similar difficulties in relating to the perspectives of one's own child increase one's likelihood of using physical punishment on that child? Addressing these and other related issues may help us develop a society in which all children can feel safe and secure as they develop into healthy adults.

REFERENCES

- Aber, J. & Allen, J. (1987). Effects of maltreatment on young children's socioemotional development: An attachment theory perspective. Developmental Psychology, 24, 406-414.
- Ascione, F. R. (1992). Cruelty to animals in childhood and adolescence. Presentation at the American Humane Association Conference, "Protecting children and animals: Agenda for a nonviolent future," Herndon, VA.
- Ascione, F. R. & Arkow, P. (1999). Child Abuse, Domestic Violence, and Animal Abuse: Linking the Circles of Compassion for Prevention and Intervention. Indiana: Purdue University Press.
- Barahal, R., Waterman, J., & Martin, H. (1981). The social cognitive development of abused children. Journal of Consulting and Clinical Psychology, 49, (4), 508-516.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. Journal of Personality and Social Psychology, 51, (6), 1171-1182.
- Buntain-Ricklefs, J. J., Kemper, K. J., Bell, M., Babonis, T. (1994). Punishments: What predicts adult approval. Child Abuse & Neglect, 18, (11), 945-955.

- Carroll, J. C. (1977). The intergenerational transmission of family Violence: The long-term effects of aggressive behavior. Aggressive Behavior, 3, 289-299.
- Cicchetti, D. & Beeghly, M. (1987). Symbolic development in maltreated youngsters: An organizational perspective. New Directions for Child Development, 36, 47-68.
- Clifford, E. (1959). Discipline in the home: A controlled observational study of parental practices. Journal of Genetic Psychology, 95, 45-82.
- Covell, K., Grusec, J. E., & King, G. (1995). The intergenerational transmission of maternal discipline and standards for behavior. Social Development, 4, (1), 32-43.
- Daley, M., & Wilson, M. (1991). A reply to Gelles: Stepchildren are disproportionately abused, and diverse forms of violence can share causal factors. Human Nature, 1991, 2, (4), 419-426.
- Davis, M. H. (1980). A multidimensional approach to individual differences in empathy. JSAS Catalog of Selected Documents in Psychology, 10, 85.
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. Journal of Personality and Social Psychology, 44, 113-126.

- Davis, M. H. (1994). Empathy: A Social Psychological Approach. Dubuque, IA: Brown & Benchmark.
- Davis, P. W. (1996). Threats of corporal punishment as verbal aggression: A naturalistic study. Child Abuse and Neglect, 20 (4), 289-304.
- Day, R. D., Peterson, G. W., & McCracken, C. (1998). Predicting Spanking of Younger and Older Children by Mothers and Fathers. Journal of Marriage and the Family, 60, 79-94.
- Deley, W. W. (1988). Physical punishment of children: Sweden and the U.S.A. Journal of Comparative Family Studies, 19, (3), 419-431.
- DeViney, E., Dickert, J., & Lockwood, R. (1983). The care of pets within child abusing families. International Journal for the Study of Animal Problems, 4, 321-329.
- Durrant, J. E. (1996). Public attitudes toward corporal punishment in Canada. In D. Frehsee, W. Horn, and K. Bussmann (Eds.). Family Violence Against Children: A Challenge For Society. New York: Walter de Gruyter.
- Durrant, J. E. & Rose-Krasnor, L. (1995). Parental Beliefs and Practices in Canada: Implications for Reducing Rates of Corporal Punishment. Report submitted to the Family Violence Prevention Division of Health Canada.
- Egeland, B., Jacobvitz, D., & Papatola, K. (1987).

Intergenerational continuity of abuse. In R. J. Gelles & J. B. Lancaster (Eds.), Child abuse & neglect: Biosocial dimensions (pp. 255-276). New York: Claire de Gruyten.

Eisenberg, N. & Miller, P. (1987). The relation of empathy to prosocial and related behaviours. Psychological Bulletin, 101, 91-119.

Ellison, C. G., Bartkowski, J. P. & Segal, M. L. (1996). Do Conservative Protestant parents spank more often? Further evidence from the national survey of families and households. Social Science Quarterly, 77, 663-673.

Felthous, A. R., & Kellert, S. R. (1986). Violence against animals and people: Is aggression against living creatures generalized? Bulletin of the American Academy of Psychiatry and the Law, 14, (1), 55-69.

Feshbach, N. D. (1983). Learning to care: A positive approach to child training and discipline. Journal of Clinical Child Psychology, 12, (3), 266-271.

Feshbach, N. D. (1997). Empathy: The formative years, Implications for clinical practice. In A. C. Bohart & L. S. Greenberg (Eds.), Empathy reconsidered, (pp.33-59). Washington, D.C.: American Psychological Association.

Feshbach, N. D., & Feshbach, S. (1969). The relationship

between empathy and aggression in two age groups.

Developmental Psychology, 1, 102-107.

Finkelhor, D. (1979). Sexually Victimized Children. New York: Free Press.

Flynn, C. P. (1996). Regional differences in spanking experiences and attitudes: A comparison of Northeastern and Southern college students. Journal of Family Violence, 11, (1), 59-80.

Flynn, C. P. (1998). To spank or not to spank: The effect of situation and age of child on support for corporal punishment. Journal of Family Violence, 13 (1), 21-37.

Flynn, C. P. (1999). Animal abuse in childhood and later support for interpersonal violence in families. Society and Animals, 7 (2), 161-172.

Flynn, C. P. (2000). Woman's best friend: Pet abuse and the role of companion animals in the lives of battered women. Violence Against Women, 6 (2), 162-177.

Gelles, R. J. (1978). Violence toward children in the United States. American Journal of Orthopsychiatry, 48, 580-592.

Gelles, R. J. (1991). Physical violence, child abuse, and child homicide: A continuum of violence, or distinct behaviours? Human Nature, 2, (1), 59-72.

Giles-Sims, J., Straus, M. A., & Sugarman, D. B. (1995).

- Child, maternal, and family characteristics associated with spanking. Family Relations, 44, 170-176.
- Gladstein, G. A. (1984). Understanding empathy: Integrating counselling, development, and social psychology perspectives. Journal of Counselling Psychology, 30, 467-482.
- Graziano, A. M. & Namaste, K. A. (1990). Parental use of physical force in child discipline. Journal of Interpersonal Violence, 5, 449-463.
- Greven, P. (1990). Spare the child: The religious roots of punishment and the psychological impact of physical abuse. New York: Knopf.
- Gruen, R. & Mendelsohn, G. (1986). Emotional responses to affective displays in others: The distinction between empathy and sympathy. Journal of Personality and Social Psychology, 51, 609-614.
- Hoffman, M. L. (1987). The contribution of empathy to justice and moral judgement. In N. Eisenberger & J. Strayer (Eds.) Empathy and its development (pp. 47-80). Cambridge: Cambridge University Press.
- Holden, G. W., Coleman, S. M., & Schmidt, K. L. (1995). Why 3-year-old children get spanked: determinants as reported by college-educated mothers. Merrill-Palmer Quarterly, 41, 431-452.

- Holden, G. W. (1999). Personal correspondence.
- Kadushin, A., & Martin, J. (1981). Child abuse: An international event. New York: Columbia University Press.
- Kelley, M. L., Sanchez-Hucles, J., & Walker, R. R. (1993). Correlates of disciplinary practices in working- to middle-class African-American mothers. Merrill-Palmer Quarterly, 39, 252-264.
- Kohn, M. (1977). Class and conformity: A study of values (2nd ed.). Chicago, IL: University of Chicago Press.
- Lubusko, A. A. (1996). Communicative Empathy in Para-professionals Working in Telephone Crisis Intervention. Unpublished doctoral dissertation. University of Manitoba, Winnipeg, Manitoba, Canada.
- Lytton, H., Watts, D., & Dunn, B. E. (1998). Continuity and change in child characteristics and maternal practices between ages 2 and 9: An analysis of interview responses. Child Study Journal, 18, 1-15.
- Maccoby, E. E. & Jacklin, C. N. (1974). The psychology of sex differences. Stanford, CA: Stanford University Press.
- Moore, B. (1990). The origins of empathy. Motivation and Emotion, 14, 75-80.
- Moore, D. W. & Straus, M. A. (1987). Violence of parents

toward their children. Durham, NH: Family Research Laboratory, University of New Hampshire.

Poresky, R. H. (1990). The young children's empathy measure: reliability, validity and effects of companion animal bonding. Psychological Reports, 66, (3), 931-936.

Poresky, R. H., & Hendrix, C. (1990). Differential effects of pet presence and pet-bonding on young children. Psychological Reports, 67, (1), 51-54.

Roe, K. V. (1980). Toward a contingency hypothesis of empathy development. Journal of Personality and Social Psychology, 39, (5), 991-994.

Rosenstein, P. (1995). Parental levels of empathy as related to risk assessment in child protective services. Child Abuse & Neglect, 11, 1349-1360.

Rothman, D. B., Holens, P. L., & De Luca, R. V. (1998). Confidence of memory and its relationship to the frequency and duration of childhood sexual abuse.

Poster session presented at the annual meeting of the Canadian Psychological Association, Edmonton, Alberta, Canada.

Runtz, M. G. (1991). Coping strategies, social support, and recovery from physical and sexual maltreatment during childhood. Unpublished doctoral dissertation.

University of Manitoba, Winnipeg, Manitoba, Canada.

- Runtz, M. G. & Schallow, J. R. (1997). Social support and coping strategies as mediators of adult adjustment following childhood maltreatment. Child Abuse & Neglect, 21, 211-226.
- Schneider-Rosen, K., & Cicchetti, D. (1984). The relationship between affect and cognition in maltreated infants: Quality of attachment and the development of visual self-recognition. Child Development, 55, 648-658.
- Staub, E. (1987). Commentary on Part I. In N. Eisenberg & J. Strayer (Eds.), Empathy and its development (pp. 103-115). Cambridge: Cambridge University Press.
- Straus, M. A. (1995). Corporal punishment of children and adult depression and suicidal ideation. In J. McCord (Ed.), Coercion and punishment in long-term perspectives, (pp. 59-77). Cambridge: Cambridge University Press.
- Straus, M. A. & Donnelly, D. (1993). Corporal punishment of teen age children in the United States. Youth and Society, 24, 419-442.
- Straus, M. A., Gelles, R. J., & Steinmetz, S. K. (1980). Behind Closed Doors: Violence in the American Family. Garden City, New York: Doubleday/Anchor.
- Szalita, A. (1981). The use and misuse of empathy in

- psychoanalysis and psychotherapy. The Psychoanalytic Review, 68, 3-21.
- Tabachnik, B. G., & Fidell, L. S. (2001). Using Multivariate Statistics. Needham Heights, MA: Allyn & Bacon.
- Thompson, E. E. (1997). The short-and long-term effects or corporal punishment on children: A Meta-Analytic Review. Unpublished manuscript. University of Texas at Austin.
- Wax, D. E. & Haddox, V. G. (1974). Enuresis, fire-setting, and animal cruelty: A useful danger signal in predicting vulnerability of adolescent males to assaultive behavior. Child Psychiatry and Human Development, 4, 151-157.
- Wauchope, B. & Straus, M. A. (1990). Physical punishment and physical abuse of American children: Incidence rates by age, gender, and occupational class. In M. Straus & R. Gelles (Eds.), Physical violence in American families: Risk factors and adaptations to violence in 8,145 families (pp. 133-148). New Brunswick, NJ: Transaction Publications.
- Williams, C. (1990). Biopsychosocial elements of empathy: A multidimensional model. Issues in Mental Health Nursing, 11, 155-174.
- Wispé, L. (1987). History of the concept of empathy. In N.

Eisenberg & J. Strayer (Eds.), Empathy and its development (pp. 17-37). Cambridge: Cambridge University Press.

Zigler, E. & Hall, N. W. (1989). Physical child abuse in America: Past, present, and future. In D. Cicchetti & V. Carlson (Eds.), Child maltreatment: Theory and research on the causes and consequences of child abuse and neglect (pp. 38-73). Cambridge: Cambridge University Press.

APPENDIX A

Demographic Information

Demographic information is collected for statistical purposes only. Please answer each question as accurately as you can.

- 1) Age at last birthday: _____
- 2) Sex (circle one):
 - (01) male
 - (02) female
- 3) Current Age of parents: Mother _____ Father _____
- 4) Estimated yearly family income when you were 18 years and younger (circle one):
 - (01) Under \$20,000
 - (02) \$20,000 to \$39,000
 - (03) \$40,000 to \$59,000
 - (04) \$60,000 to \$79,000
 - (05) \$80,000 to \$100,000
 - (06) Over \$100,000
- 5) In what religion were you raised? (circle one):
 - (01) Anglican
 - (02) Baptist
 - (03) Greek Orthodox
 - (04) Jewish
 - (05) Lutheran
 - (06) Mennonite
 - (07) Mormon
 - (08) Pentecostal
 - (09) Presbyterian
 - (10) Roman Catholic
 - (11) Ukrainian Catholic
 - (12) United Church
 - (13) Protestant Unspecified
 - (14) Christian Unspecified
 - (15) Muslim
 - (16) Other Eastern Religion
 - (17) Atheist
 - (18) Agnostic
 - (19) No Religious Affiliation
 - (20) Other (specify: _____)

- 6) Please rate your level of agreement with the statement, "The Bible is God's word and everything happened or will happen exactly as it says."
- (1) strongly agree
 - (2) agree
 - (3) neutral
 - (4) disagree
 - (5) strongly disagree
- 7) Please rate your level of agreement with the statement, "The Bible is the answer to all important human problems."
- (1) strongly agree
 - (2) agree
 - (3) neutral
 - (4) disagree
 - (5) strongly disagree
- 8) Do you have any children?
- (01) Yes
 - (02) No
- 9) Did your family ever own any pets when you were a child?
- (01) Yes
 - (02) No
- 10) If so, what kind(s)? (Circle all that apply)
- (01) Dog
 - (02) Cat
 - (03) Bird
 - (04) Fish
 - (05) Horse
 - (06) Reptile (turtle, snake, lizard, insect, spider)
 - (07) Rabbit, hamster, mouse, guinea pig, gerbil
 - (08) Other (please specify _____)
- 11) Do you currently own any pets?
- (01) Yes
 - (02) No
- 12) If so, what kind(s)? (Circle all that apply)
- (01) Dog
 - (02) Cat
 - (03) Bird
 - (04) Fish
 - (05) Horse
 - (06) Reptile (turtle, snake, lizard, insect, spider)
 - (07) Rabbit, hamster, mouse, guinea pig, gerbil
 - (08) Other (please specify _____)

APPENDIX B

Physical Punishment Experiences Questionnaire

The following questions ask about physical punishment that you received from your parents during your childhood. The questions ask about two time periods: before you were a teenager (age 12 and younger) and after you became a teenager (age 13 and older).

1. BEFORE you were a teenager, about how often would you say your parents (or stepparents) used physical punishment, like spanking, slapping, or hitting you?

Father/Stepfather

- (00) Never
- (01) Once
- (02) Twice
- (03) 3-5 Times
- (04) 6-10 Times
- (05) 11-20 Times
- (06) More than 20 Times

Mother/Stepmother

- (00) Never
- (01) Once
- (02) Twice
- (03) 3-5 Times
- (04) 6-10 Times
- (05) 11-20 Times
- (06) More than 20 Times

2. AFTER you became a teenager, about how often would you say your parents (or stepparents) used physical punishment, like spanking, slapping, or hitting you?

Father/Stepfather

- (00) Never
- (01) Once
- (02) Twice
- (03) 3-5 Times
- (04) 6-10 Times
- (05) 11-20 Times
- (06) More than 20 Times

Mother/Stepmother

- (00) Never
- (01) Once
- (02) Twice
- (03) 3-5 Times
- (04) 6-10 Times
- (05) 11-20 Times
- (06) More than 20 Times

3. Have you witnessed violence in your home? (00) NO (01) YES

APPENDIX C

Interpersonal Reactivity Index (IRI)

Instructions. The following statements inquire about your thoughts and feelings in a variety of situations. For each item, indicate how well it describes you by choosing the appropriate number on the scale at the top of the page: 1, 2, 3, 4, or 5. When you have decided on your answer, circle the number on the line below the question. READ EACH ITEM CAREFULLY BEFORE RESPONDING. Answer as honestly as you can. Thank you.

ANSWER SCALE:

1	2	3	4	5
DOES NOT DESCRIBE ME WELL	< - - - - - >			DESCRIBES ME VERY WELL

1. I daydream and fantasize, with some regularity, about things that might happen to me.
1 2 3 4 5
2. I often have tender, concerned feelings for people less fortunate than me.
1 2 3 4 5
3. I sometimes find it difficult to see things from the "other guy's" point of view
1 2 3 4 5
4. Sometimes I don't feel sorry for other people when they are having problems.
1 2 3 4 5
5. I really get involved with the feelings of the characters in a novel.
1 2 3 4 5
6. In emergency situations, I sometimes feel ill-at-ease.
1 2 3 4 5

ANSWER SCALE:

1	2	3	4	5
DOES NOT				DESCRIBES
DESCRIBE	<-	- - - - -	->	ME VERY
ME WELL				WELL

7. I am usually objective when I watch a movie or play,
and I don't often get completely caught up in it.
1 2 3 4 5
8. I try to look at everybody's side of a disagreement
before I make a decision.
1 2 3 4 5
9. When I feel someone being taken advantage of, I feel
kind of protective towards them.
1 2 3 4 5
10. I sometimes feel helpless when I'm in the middle of a
very emotional situation.
1 2 3 4 5
11. I sometimes try to understand my friends better by
imagining how things look from their perspective.
1 2 3 4 5
12. Becoming extremely involved in a good book or movie is
somewhat rare for me.
1 2 3 4 5
13. When I see someone get hurt, I tend to remain calm.
1 2 3 4 5
14. Other people's misfortunes do not usually disturb me a
great deal.
1 2 3 4 5

ANSWER SCALE:

1	2	3	4	5
DOES NOT				DESCRIBES
DESCRIBE	< - - - - -			ME VERY
ME WELL				WELL

15. If I am sure I'm right about something, I don't waste much time listening to other peoples arguments.
 1 2 3 4 5
16. After seeing a play or movie, I have felt as though I were one of the characters.
 1 2 3 4 5
17. Being in tense emotional situations scares me.
 1 2 3 4 5
18. When I see someone being treated unfairly, I sometimes don't feel very much pity for them.
 1 2 3 4 5
19. I am usually pretty effective in dealing with emergencies.
 1 2 3 4 5
20. I am often quite touched by things that I see happen.
 1 2 3 4 5
21. I believe that there are two sides to every question and try to look at them both.
 1 2 3 4 5
22. I would describe myself as a pretty soft-hearted person.
 1 2 3 4 5

ANSWER SCALE:

1	2	3	4	5
DOES NOT				DESCRIBES
DESCRIBE	< - - - - -			ME VERY
ME WELL				WELL

23. When I watch a good movie, I can very easily put myself in the place of a leading character.
- | | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
24. I tend to lose control during emergencies.
- | | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
25. When I'm upset at someone, I usually try to "put myself in their shoes" for a while.
- | | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
26. When I am reading an interesting story or novel, I imagine how I would feel if the events in the story were happening to me.
- | | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
27. When I see someone who badly needs help in an emergency, I go to pieces.
- | | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
28. Before criticizing somebody, I try to imagine how I would feel if I were in their place.
- | | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

APPENDIX D

Attitudes Toward Physical Punishment of Children

Using the rating scale below, rate how much you currently agree or disagree with each statement about physical punishment of children.

- 1....Strongly disagree
- 2....Moderately disagree
- 3....Slightly disagree
- 4....Neither
- 5....Slightly agree
- 6....Moderately agree
- 7....Strongly agree

- _____ 1. Physical punishment is a normal part of parenting.
- _____ 2. Sometimes physical punishment is the best way to get a child to listen.
- _____ 3. Physical punishment is not an effective method to change a child's behaviour for the long term.
- _____ 4. Physical punishment is never necessary to instill proper moral and social conduct in a child.
- _____ 5. Sometimes, the only way to get a child to behave is with physical punishment.
- _____ 6. One of the best ways for a child to learn "no" is to use physical punishment on him/her after disobedience.
- _____ 7. If a child is given physical punishment for a misbehaviour, he or she should always be given physical punishment for that misbehaviour.
- _____ 8. When all is said and done, physical punishment is harmful for a child.
- _____ 9. I believe it is the parents' right to use physical punishment on their children if they think it is necessary.
- _____ 10. Overall, I believe that physical punishment is a bad disciplinary technique.

APPENDIX E

Attitudes Toward Physical Punishment of Animals

Using the rating scale below, rate how much you currently agree or disagree with each statement about physical punishment of pet dogs.

- 1....Strongly disagree
- 2....Moderately disagree
- 3....Slightly disagree
- 4....Neither
- 5....Slightly agree
- 6....Moderately agree
- 7....Strongly agree

- _____ 1. Physical punishment is a normal part of dog ownership.
- _____ 2. Sometimes physical punishment is the best way to get a dog to listen.
- _____ 3. Physical punishment is not an effective method to change a dog's behaviour for the long term.
- _____ 4. Physical punishment is never necessary to instill proper conduct in a dog.
- _____ 5. Sometimes, the only way to get a dog to behave is with physical punishment.
- _____ 6. One of the best ways for a dog to learn "no" is to use physical punishment on him/her after disobedience.
- _____ 7. If a dog is given physical punishment for a misbehaviour, he or she should always be given physical punishment for that misbehaviour.
- _____ 8. When all is said and done, physical punishment is harmful for a dog.
- _____ 9. I believe it is the dog owners' right to use physical punishment on their dog if they think it is necessary.
- _____ 10. Overall, I believe that physical punishment is a bad disciplinary technique.

- - -

APPENDIX F

Informational Letter to Students

Dear Student:

We would like to ask you to participate in this study of family experiences and personal attitudes by filling out this questionnaire. You may find that some of the questions are of a personal nature, but it is important to keep in mind that **EVERYTHING YOU ANSWER HERE IS COMPLETELY ANONYMOUS**. We do not ask for your name, and we have carefully avoided asking questions that might identify you indirectly. All questionnaires will be guarded carefully, and no one but the researcher will have access to them.

You are under no obligation to participate. As much as we would like your cooperation, you should not feel obliged to complete the questionnaire. If at any point while filling out the questionnaire you decide you no longer wish to participate, you may stop wherever you are and fill in no more. Simply turn in your questionnaire at the end of the period along with everyone else, and no one will be aware that your questionnaire is incomplete. If you choose to leave the experiment you will not lose your participation credit.

If you choose to answer this questionnaire, please proceed to the next page and begin. Please answer all questions as honestly as you can and remember not to put your name or student number on any of the pages.

Thank-you for your cooperation.

Pamela L. Holens, M.Ed.
Rayleen V. DeLuca, Ph.D.
Department of Psychology
University of Manitoba

APPENDIX G

Debriefing Information Given to Students

PUNISHMENT EXPERIENCES AND PERSONAL ATTITUDES STUDY

As indicated at the beginning of this study, some of the questions you have been asked to answer have been of a personal nature. We would like to reassure you that all of your responses are strictly confidential, cannot be traced to you, and will be analyzed in terms of group rather than individual data.

The study was designed to examine the relationship between experiences of childhood physical punishment, attitudes towards physical punishment, and empathy. The purpose of the study was to determine whether empathy acts as a mediating variable in the relationship between childhood experiences of physical punishment and the eventual development of aggressive attitudes towards children and animals. Two slightly different sets of questionnaires were distributed. Your questionnaire asked you either about your attitudes toward physical punishment of children or about your attitudes toward physical punishment of animals. The study was designed so that you were not asked about both sets of attitudes because it is possible that answering one set of questions may affect one's responses to another similar set of questions. This procedure makes comparison between the two sets easier and more valid.

Your contribution to this research has been much appreciated. As this is an ongoing study, we would appreciate your willingness not to discuss this study with other students who have not yet completed the survey. If, as a result of your participation, you have questions about the study or its subject matter you can contact the primary investigator by leaving a message at 474-9222. If you would like a one-page summary of the results of the study once they are available, please send an e-mail to the principal investigator at pholens@cc.umanitoba.ca. If you feel a need to anonymously discuss your feelings about childhood physical punishment experiences or any other concerns that you have become aware of during this study, telephone counselling is available through Klinik at 786-8686.

Pamela L. Holens, M.Ed.
Rayleen V. DeLuca, Ph.D.
Department of Psychology
University of Manitoba
474-9222 (Psychological Service Centre)