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I am submitting herewith a dissertation written by Richard B. Townsend entitled "Investigation of the Relationship Between Disciplinary Experiences, Television Viewing and Social Violence." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Education, with a major in Educational Psychology.

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INVESTIGATION OF THE RELATIONSHIP BETWEEN DISCIPLINARY EXPERIENCES, TELEVISION VIEWING AND SOCIAL VIOLENCE

A Dissertation

Presented for the

Doctor of Education

Degree

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Richard B. Townsend

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ABSTRACT

Faced with a level of violence in society that has had a markedly adverse impact on our institutions and our quality of life, scientists and social theorists have offered a number of explanations and recommendations directed toward primary or secondary prevention. Two possible factors in the development of violent behavior which have received attention from social learning theorists are the effects of our society's attitudes toward children and child rearing and the effects of popular media and especially television. It has been suggested that children learn to be violent by watching the violent modeling of corporal punishment at home and at school and the dramatization of violent problem solving techniques by television heroes and villains.

This study, based on a population of 151 male undergraduates, looked at the relationships between the disciplinary experiences reported, past and present television viewing, and the levels of violence reported in the lives of young adults. Further, this study looked for indications of physiological desensitization to scenes of violence based on heart rate reactivity to a videotaped boxing dramatization.

Findings indicate that 11% of the subjects reported having been bruised or otherwise injured by their parents. Only 3% reported never having been physically punished. All reported watching some television as children.

Analysis of variance results indicated that groups differing in severity of discipline and groups differing in frequency of discipline

also differed in the amount of violence reported in their present lives. Groups reporting more severe childhood punishment or more frequent punishment also reported more current violent behavior. Social violence measures were also significantly positively correlated with a measure of exposure to television violence during 1972. Groups did not differ on heart rate response to the boxing scene. A regression analysis found that disciplinary effects and television effects were largely additive in the prediction of the obtained social violence scores. Results of this study were interpreted from cognitive behavioral and social learning theory perspectives.

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CHAPTER I

INTRODUCTION

A wave of violence has swept across the United States, leaving in its wake staggering crime rates, considerable human suffering, the loss of many political and cultural leaders, and contributing to a decline in the general quality of life found here. It has also led to increasing interest and speculation among both the general public and among social scientists about the causes of violence and aggression. Numerous causes have been proclaimed, ranging from the devil, to the "permissiveness" of Dr. Spock, to food additives, to a doomsday philosphy created by the potential atomization of us all at any moment by a nuclear holocaust, to the effects of socioeconomic disenfranchisement of the poor and some minority groups, to a breakdown in respect for the traditional institutions and/or the specific institution known as the family. While some of these causes have been subjected to scientific inquiry, others, for example the devil, are not readily amenable to scientific investigation.

Two lines of scientific investigation have developed thus far very separately, both turning up positive evidence of a relationship to violence. Physical abuse or neglect with excessive reliance on corporal punishment has been found related to delinquency in adolescents and to violent criminal behavior in adults. Watching violent television programming has also been found to be related to violent or inappropriately aggressive behavior, at least among some people.

The use of corporal punishment as a disciplinary technique has widespread acceptance in homes and schools in the United States.

Steinmetz and Straus (1973, 1974) found that between 84% and 97% of parents in the United States and England reported using corporal punishment at some point in their children's lives. Corporal punishment in schools is legal in 46 states, is banned in three states (Maine, Massachusetts, New Jersey), and is temporarily suspended in one state (Hawaii).

A large number of individuals and organizations concerned with children's rights, child development, and the prevention of child abuse have called for the abolition of corporal punishment at least from the schools (National Education Association, 1972; American Psychological Association, 1975). Organizations like the Committee to End Violence Against the Next Generation (EVAN-G) have been created to combat the use of corporal punishment and to promote alternatives.

Despite the controversies created by such groups and despite the widespread use of corporal punishment, there remain comparatively few scientific studies of corporal punishment, and especially of its psychological and behavioral effects on children. Scientific studies are hampered by the numerous technical and procedural problems inherent in attempting to study corporal punishment. No scientist could ethically spank, paddle, or whip a child in order to measure its impact on any dimension, so that all studies must be post hoc or field studies. Field studies, studying the effects of corporal punishment in a setting where it is already employed, have been tried (for example, Mercurio, 1971); however, they suffer from the impossibility of controlling a large number of setting events, the number of swats or the force of the

swats, or the post intervention (paddling) events. Presumably, too, few schools who use corporal punishment extensively would welcome scientific study of its effects on children for fear of its potential to generate controversy and bad publicity.

Those, the vast majority, who use corporal punishment rarely write about it or attempt to justify its use. It is assumed, perhaps because of its survival through the ages, to be a tried and true method. In fact, corporal punishment appears to have roots sunk deep into our societies' religious heritage, cultural traditions and mores, and into our legal foundations (these will be examined more closely in a later section of this study).

There is, however, increasing evidence of a positive correlation between the level of physical punishment children are subjected to and the extent of their delinquent, and especially aggressive delinquent behavior (Eron, 1971; Feshback, 1971; McCord, McCord & Howard, 1961; Reidy, 1976; Welsh, 1976). Research findings have been strong enough and consistent enough to lead Walsh to develop what he calls the "Belt Theory of Delinquency." The Belt Theory postulates a causative relationship between what Welsh calls "Severe Parental Punishment" (SPP) and aggressive delinquent acts. A basic tenant of the Belt Theory is that, as a child is repeatedly subjected to SPP over a period of years, the child becomes habituated to punishment and desensitized to violence and aggression.

The effects of television violence have been studied using laboratory experimental designs, field survey techniques, and in a few

cases using field experimental strategies. Andison (1977) examined the methodology and findings of 67 studies that (1) dealt with the relationship between television violence and aggression, (2) presented an hypothesis that was accepted or rejected, and (3) used television or a film that could have been aired as a stimulus. Andison found 4.1% (3) with weak negative correlations ($-.30 \geq r \leq -.10$; $.05 \geq p \leq .10$); 19.2% (25) finding no significant correlation ($-.09 \geq r \leq .09$); 37% (27) with weak positive correlations ($.10 \geq r \leq .30$; $.05 \geq p \leq .10$); 34.2% (25) with moderate positive correlations ($.31 \geq r \leq .70$; $.05 \geq p \leq .01$); and 5.5% (4) with strong positive correlations ($r \geq .71$; $p < .01$). Andison concluded that "It seems reasonable to tentatively accept the 'TV violence as a stimulant to aggression' theory . . . at least until further, contradicting study is completed concerning this matter." He also called for "some curtailment" of the violence portrayed.

Andison is not alone in expressing concern about the levels of violence on television. Other groups including the Coalition for Better Television (CBT), the National Coalition on Television Violence (NCTV), Action for Children's Television (ACT), and the National Parent-Teacher Association's TV Action Center (NPTA-TVAC) are all monitoring TV programming and urging a major reorientation for TV programming away from violence. The Coalition for Better Television, an offshoot of the Moral Majority, created considerable concern both inside and outside the television industry when they announced a boycott of the sponsors of objectionable television programs. The boycott, scheduled to begin on June 1, 1981, was at the last moment postponed indefinitely.

Television industry spokespersons and defenders have responded by questioning the methodology of some of the indicting research, by pointing out that violence greatly predates television, by pointing out that on television crimes and inappropriate aggression are almost invariably punished and by claiming that the conflicts between clearly good and evil forces may have a positive catharctic effect for some people experiencing psychological conflict.

This study examines the histories behind these two major factors in child rearing: corporal punishment and television violence. This study first looks at the rationale behind the use of corporal punishment and the manner in which it became such a prominent part of child rearing and educating practices in the United States. Secondly, it looks at the far briefer history of concern about the effects of viewing television violence.

The third chapter reviews research literature on the effects of punishment, and especially corporal punishment, on children and the research on the physiological and behavioral effects of viewing violent programs. In light of findings from animal research, studies on the etiology of delinquency and the effects of abuse, and studies on the effects of viewing of violent television programs it was hypothesized that television violence and physical punishment will have a desensitizing effect on physiological reactions to violence or aggression and on aggressive behavior, and further that the interaction of these two factors will have a compounding effect leaving those children exposed to both more desensitized to aggression and more likely to be inappropriately violent or aggressive. Evidence of desensitization considered

in this study was sought from heart rate (HR) changes brought about by viewing videotaped scenes of violence and aggression. Violent and inappropriately aggressive behaviors were measured by a self-report index.

CHAPTER II

HISTORICAL ROOTS

When considering the effects of corporal punishment it is helpful to first have some insight into the rationale, goals and history of its use. The first section of this chapter will consider the religious, social, and legal history of corporal punishment from ancient times to the present. The two sections following this will briefly consider current arguments in favor of and in opposition to the continued use of corporal punishment. Finally, this chapter examines the roots of the current controversy about violence on television.

Selective History of Corporal Punishment in Western Society

Overview. In his impressive work The History of Childhood (1974), DeMause has chronicled the abuses and physical and emotional terrorization of children through the ages. In a later work (1975) he summarized his findings by saying, "The further back in history we went, the lower the level of child care we found, and the more likely children were to have been killed, abandoned, whipped, sexually abused and terrorized by their caretakers." It seems that severe punishment, sometimes extending all the way to murder, has always been thought of as necessary for good child rearing and that its efficacy has only very recently been seriously challenged.

Corporal punishment before Christ. Children in the ancient societies had a rough and frequently short life. In Rome, Greece,

Judea, Persia and in other ancient societies infanticide was legal and common until the Roman emperor Justinian in the 4th century A.D. banned the practice. The most common method of killing was exposure, abandoning infants in the wilds. A census of families gaining Milesian citizenship between about 228-220 B.C. identified 70 families composed of 118 sons but only 28 daughters. Second century inscriptions at Delphi show that, of 600 families, only 1% raised two daughters. Besides daughters, babies who were sickly, deformed, or otherwise abnormal were also exposed.

The gods of the ancient Gauls, Celts, Egyptians, Moabites, at times Israelites, and to a lesser extent Romans and Greeks demanded human-child sacrifices. The first born son of a noble family was a prime candidate for sacrifice, being an especially valuable and pleasing gift to gods with names like Che'mosh, Ba'al, or Molech. Children were sealed into the walls of structures to magically strengthen them. Jericho's walls were so strengthened; to this day, when children play "London Bridge is Falling Down," they are reenacting a child sacrifice to a river goddess.

From ancient society on to medieval European society demons called changelings were thought to exist. These demons could steal infants or small children and could assume the appearance of the stolen child. Changelings were thought to be uncooperative, fussy or quick to anger or cry, and were considered generally evil. If an infant was replaced in the night by a changeling, the only course of action open to the caretaker was to kill it. Over the course of decades it is impossible to estimate the number of babies killed as changelings.

The idea that misbehaviors were caused by devils or demons was once a fundamental truth and continues to be reflected in common English expressions like "What's gotten into you?" or "He's a real devil!"

Corporal punishment was perhaps originally justified as an attempt to exorcise evil spirits. These spirits were thought to live in the body of the offender, usually in the buttocks. If the body was hurt, it became uncomfortable for the spirit or demon and it would leave. These ancient attitudes, too, continue to be reflected in modern expressions like, "I'll beat the devil out of you!" Severe punishment could, and was justified by reasoning that the evil that had hold of the child would only be eliminated by heroic and dramatic efforts.

It was against this background of severe parental discipline, infanticide, child sacrifice to blood-thirsty gods, and the perception of children as prone to demonic possession, that Solomon inherited the throne of Judea from his father, David. Solomon's major achievements include development of a central government, which, according to Heaton (1974), he patterned after the existing governmental structure of Egypt. His government was staffed by a coterie of well-born commoners trained in special schools for their roles in the bureaucracy. At that time private and public life were not separate, nor was government and religion or religion and science. Originally the biblical book of Proverbs appears to have been a course for students preparing to enter government service, and it covered most aspects of how they were to live. I Kings 3:12 reports that God gave Solomon the gift of great wisdom; this too was consistent with the Egyptian tradition of ascribing godly powers (including wisdom) to the ruler.

The wisdom of King Solomon, as recorded in the Book of Proverbs has often been cited as a religious basis for strict and even severe use of corporal punishment. Proverbs 13:24 says, "He who spares the rod hates his son, but he who loves him is diligent to discipline him." Proverbs 23:13 says, "Do not withhold discipline from a child; if you beat him with a rod, he will not die."

In these and other verses Solomon admonishes fathers to whip their sons. It is interesting to note that in the entire book of Proverbs no mention is made of using a rod on daughters, nor is the right to whip a child extended to the mother, elder, or teacher. I Kings 11:3 says Solomon had 700 wives and 300 concubine so it is difficult to imagine how he could have followed his own guidance. Of the fate of his children little is known, with the sole exception of his heir Rehobo'am. When Rehobo'am was petitioned for a redress of grievances by Jerobo'am whom his father (Solomon) had persecuted and driven into exile, his sages and advisors counciled reconciliation and gratiousness. Instead Rehobo'am chose to threaten still heavier persecution, and that act ultimately led to the breakup of his kingdom. In fact, Rehobo'am's life could hardly be considered a classic testimonial to his father's expertise on childrearing. It comes much closer to resembling a classical pattern of the cyclical nature of the child abuse syndrome; raised violently he was severely violent in his dealings with others.

Solomon, born a Jew, the son of David, remembered for his wisdom, died a heathen. I Kings 11:5-8 reports that he abandoned the Lord and built temples to Ash'toreth, Milcom, Chemoth and Molech. It is most

fortunate that Solomon's wisdom and his attitudes toward children during this final period of his life are not held forth for the world to emulate; Molech was perhaps the bloodiest of all the ancient gods of Judea, a god worshipped by the burning sacrifice of children (see Leviticus 20:2-5; or MacKenzie, undated).

Of all the Old Testament, it seems probably that Solomon's precepts on whipping have been the most frequently quoted and misquoted. While Proverbs 13:24 does say, "Chasten thy son while there is hope and let not thy soul spare the rod for his crying," Proverbs does not say, "Spare the rod and spoil the child." Strangely, the latter quote comes from a poem titled Hudibras (Part II, Canto 1, 1.884), written by Samuel Butler and published in 1664. The section of the poem from which this line is drawn is an account of an amorous lady urging her suitor to submit to flagellation in order to prove his love for her. Hudibras is a suggestive and satirical poem, an unusual source for a quote so widely attributed to the Bible.

Corporal punishment after Christ. Corporal punishment was nearly universal for many decades after Solomon. Flagellation was very much a normal part of life during the ancient and middle ages. The slave or servant, the apprentice, wife, child, student, or outlaw could expect a whipping at the pleasure of the parent, master, husband, judge, confessor, or other authority figure. Quintilian, in the first century A.D., sounding very much like a modern child care reformer, wrote the following in The Training of an Orator.

> With respect to whipping schoolboys, though it be an established practice, and Chrysippus is not averse to it. First, it is a base and slavish treatment; and certainly if it were not for the youth of those who are made to suffer, it might be deemed an injury that might call for redress. Besides, if a disciple is of such a mean disposition that he is not mended by censures, he will, like a bad slave, grow equally insensible to blows. Lastly, if masters acted as they ought, there would be no occasion for chastisement; but the negligence of teachers is now so great, that instead of causing their disciples to do what they ought, they content themselves with punishing them for not having done it. Besides, though you may compel the obedience of a boy, by using the rod, what will you do with a young man, to whom motives of a quite different nature must be proposed? Not to add, that several dangerous accidents which are not fit to be named, may be occasioned either by the fear or the pain attending such punishments. Indeed, if great care is not taken in choosing teachers of proper dispositions, I am ashamed to say to what degree they will sometimes abuse their power of lashing; but I shall dwell no longer on that subject, concerning which the public know already too much.

Despite the objections of Quintilian, flagellation and other forms of corporal punishment continued throughout Europe. A very rare and unusual book, the History of Flagellation (anonymous, undated, privately published and according to a publisher's preface based on an earlier work Historia Flagellantium by Abbe Jocobus Boileau who lived in the 17th century) recounts numerous humorous, extreme, or unusual instances of flagellation. The work was written with the expectation that in the future that "virile custom" would cease to exist, and that people of the future would find it difficult to believe that whipping had once been such an accepted part of life. Most of the incidents it recalls are of the chastisement of adults for sins or crimes against the church, or are of flagellations people received at the hands of their hold confessors.

Another book, A History of the Rod by the Rev. William M. Cooper (undated, probably written in mid-19th century England) includes

extensive documentation of the use of the rod on children at home and at school. In Paris a holy order of priests, "the Good Fathers of St. Lazare," not only ran a school for boys that used whipping extensively, but also operated a whipping service. For payment of a fee the fathers would whip any person, child or adult, who could be brought to or tricked into coming to their establishment. Business was so prosperous that letters to the fathers instructing payment was literally as good as cash in 17th century Paris (Cooper, undated, page 320).

All schools of the time, those for girls as well as those for boys, used the rod. Schools operated by nuns were rumored to be especially severe, though it is quite possible that Rev. Cooper's perceptions on that point may have been in part caused by English prejudices against the Catholic Church and France. There was at that time a considerable trade in sado-masochistic pornography in England, much of it supposedly factual accounts of extensive and highly sexualized flagellation in French convents.

Childermas or All Innocent's Day was celebrated in France by the whipping of all the children. The whippings were supposed to help the children remember Herod's murder of the innocent children. Flagellation of children began in the nursery, where nurses whipped infants because, they thought, it developed the flesh and hardened the skin. After a child was weaned he or, somewhat less frequently, she was considered eligible for corporal punishment, usually administered with a verge. A verge was a bundle of switches tied to a handle, and was applied to either naked or covered buttocks.

France was less tied to the rod than many other countries. Whipping was never a part of France's legal code. In the early 18th century many of France's most noted intellectuals began to argue against the whipping of children. King Henri IV was brought up with frequent whippings and firmly believed in Solomon's precepts concerning child rearing. He gave orders that his son, the dauphin, was to be frequently whipped and applied the verge to his son in person at times. The dauphin's mother countermanded the king's orders whenever she could, sometimes without his knowledge.

In the later 1700's two extremely influential French leaders, Jean-Jacques Rousseau and the Doctor-General Francois-Amedee Doppet, began efforts to eliminate corporal punishment from French schools. Rousseau's efforts were primarily through his autobiography Confessions, which was published in 1782, four years after his death. In his autobiography Rousseau recounts the whippings he received at home and at school, and then to the shock and amazement of the society of the times, related these experiences to his hopeless addiction to masturbatory fantasies of flagellation. Rousseau, because of his international stature, could not easily ignored or dismissed, even posthumously.

Francois Doppet seized Confessions and followed it up with a physical explanation of the means through which flagellation arouses sexual passions. In 1788 he published a treatise entitled "Aphrodisiaque extreme, ou traite de fouet" which argued strongly against school or ecclesiastical flagellation. Educators in France listened to Doppet, and shortly thereafter corporal punishment was outlawed in French schools.

In French homes child discipline tended to be far more lax than in much of the world. In Round My House: Notes of Rural Life in France in Peace and War, by Philip Hammerton (1876, page 275), it is reported that the middle class never used corporal punishment, though among peasants it was common. The Manual des Jeunes Meres (1884) by Mme. Millet-Robinet, a widely read book on child rearing, advised parents never to hit their children.

In contrast to France, Germany was renowned for its frequent and severe use of whipping. German law prescribed flogging for men or women who violated a wide range of laws. In the 17th and 18th centuries these whippings were frequently conducted in public on the partially or completely naked body of the criminal, whose crime may have been no worse than being a vagrant. Ladies of higher social standing might, at the discretion of the judge, be allowed to wear an undergarment.

A 19th century German schoolmaster was proud of having administered 911,527 strokes with a stick, 124,000 lashes with a whip, 136,715 slaps with his hand, and 1,115,800 boxes on the ear. Prussian teachers were empowered to administer corporal punishment to their students even after school hours and off school grounds. Children were sometimes whipped upon entering and leaving the class, especially if the student was leaving for a holiday (Cooper, page 339). A popular school rhyme of the time commemorates that practice:

Uitslag, inslag,
Heele wake speuldag!

English translation:

Kick us out, kick us in,
Weeks of holiday begin.

Dr. Daniel Gottlieb Moritz Schreber was a prominent German physician who, during the early 1800's, set himself up as an authority on child psychology. He wrote numerous books, some of which went into as many as 26 editions. One, Education Toward Beauty by Natural and Balanced Furtherance of Normal Body Growth, of Life Supporting Health, and of Mental Ennoblement, Especially by the Use, if Possible, of Special Education Means: for Parents, Educators, and Teachers (Schreber, 1858), included the following summary of child development and the goals of child discipline:

> The noble seeds of human nature sprout upwards in their purity almost on their own if the ignorable ones, the weeds, are sought out and destroyed in time. This must be done ruthlessly and vigorously. It is a dangerous error to believe that flaws in a child's character will disappear but the root remains, shows itself in poisoned impulses, and has a damaging effect on the noble tree of life. A child's misbehavior will become in the adult a serious fault in character and opens the way to vice and baseness. (1858, page 140)

Corporal punishment was prescribed for infants whose crying was the first evidence of "self-will." Complete obedience and respect for authority, combined with absolute submission of self-will were the cornerstones of Dr. Schreber's method.

> One must look at the moods of the little ones that are announced by screaming without reason and crying . . . . If one has convinced oneself that no real need, or disturbing or painful condition, no sickness is present, one can be assured that the screaming is only and simply the expression of a mood, a whim, the first appearance of self-will . . . . One has to step forward in a positive manner: by quick distraction of the attention, stern words, threatening gestures, rapping against the bed . . . or, when all this is of no avail: by moderate, intermittent, bodily admonishments consistently repeated until the child calms down or falls asleep. (1858, page 60)

Absolute suppression of these evil elements was to continue throughout the youth of the child. After punishment the child was to plea for forgiveness. The child could show no sign of anger and should feel indebted to the punisher.

Dr. Schreber's influence was far reaching, and many children were brought up in Germany in accordance with his methods. Of his own children, two boys and three girls who were raised by his methods, one son committed suicide, the other, Daniel Paul Schreber spent much of his adult life in Sonnenstein Asylum where he wrote Memoirs of My Nervous Illness. One daughter was diagnosed "hysterical," another never married and apparently lived a life of semi-isolation, and no records have been found of the third daughter.

"Flog your son while there is still hope! Foolishness resides in the heart of the child, flogging drives it out." These words, paraphrasing the edicts of Solomon, appeared in a Swedish newspaper in 1899. In Sweden, as elsewhere, children were expected to obey instantly and without question or be whipped. Radda Barnen, the Swedish Save the Children Foundation, reports that even in the 19th century infanticide was common. The preface to Halsingelagen, an ancient legal code, says, "He who lives unpunished and without the law, he shall without honor die." Both Radda Barnen and current publications of the Swedish government report that this was a much quoted text in Sweden (SOU 1978:10).

In 1920 Swedish law was changed to give children's best interests top priority over "parental rights," though corporal punishment was

still expressly permitted. In 1949 parent-child relationships became part of the Swedish legal code. In 1966 Swedish law was again changed, removing the explicit permission for parents to use corporal punishment, redefining certain forms of punishment and over-punishment as assault but still not banning corporal punishment outright. In 1977 Sweden added the following to their "Code relating to Parenthood and Guardianship":

> A child may not be subjected to physical punishment or other injurious or humiliating treatment. (Chapter 6, Paragraph 3, 2nd Section)

With that act, Sweden became the first, and still the only, nation to completely ban all forms of corporal punishment, not only from the schools but also from the homes. In Sweden nobody has the right to hit anybody.

If Germany was known for the severity of corporal punishment and Sweden for the zeal with which corporal punishment is being suppressed, England might be remembered for the tenacity with which the use of corporal punishment has continued. In fact, flagellation was so deeply rooted in English tradition and culture that in the 1800's French and Italian writers were referring to it as "Le Vice Anglais" (e.g., Peladan, 1896). During the 19th century England had an international reputation for its flagellant pornography, and lengthy discussions of the utility and techniques for the use of corporal punishment could be found in "respectable" newspapers and magazines (Gibson, 1978, page 233). The Englishwoman's Journal and the Family Herald were far from the first of the English journals to include a regular public

column on corporal punishment, but they were unique in that, as their titles suggest, they were in general clean family entertainment publications. Nonetheless, the volume of correspondence they received on the subject and the detailed descriptions that the letters contained, albeit couched in Victorian euphemisms, suggest an absolute fascination with the subject.

Collections of letters from these and other journals were put into booklet form. One such booklet, Experiences of Flagellation (unknown author, date of publication, or publisher) included as an introduction to the topic, a brief treatise on the necessity of corporal punishment. The following excerpts probably reflect many of the popular Victorian attitudes toward child development and corporal punishment.

> That God has ordained corporal punishment no man can doubt. Even the atheist allows that Nature has ordained it. Moreover, it is ordained for discipline and government. (page 2)

> We have no desire to make fire less cruel than it is; this would destroy its utility. Our duty is to respect its authority, and teach our children to respect it; for so long as we treat it with respect, it will deal very gently and tenderly with us. It is the most sacred material type of God Himself, who is severe as fire if you transgress His immutable and inviolable laws; but gentle as warmth if you do not. (pages 2-3)

> Now, a parent or teacher who pledges himself never to use the rod, does violence to the Divine law and deprives the child of the benefit of that holy fear which is an indispensable feature of all moral government. (page 6)

> To pledge ourselves not to whip a disobedient child who really deserves it, is really to pledge ourselves not to do our duty. "He that spareth the rod" on such an occasion, as Solomon, an old-fashioned philosopher, has remarked, "hateth the child."

> The world is a battle-field, an arena of fierce, of animated, or interested conflict. It is a world of authority and obedience. (page 11)

These quotes, and the letters which they preceded in the original publication, clearly highlight the system of values and traditions which supported England's extensive use of corporal punishment. Solomon gave voice to God's edicts. Corporal punishment is an unavoidable part of God's plan. Children must be brought up to obey immediately and to respect authority without question. Authority begins at home, and is exemplified by a child's obedience to his or her parents. A child's self-will must be broken since it stands as an obstacle to obedience and submission. Self-will is an evil which, left unchecked, results in an evil antisocial adulthood. Authority is established and rooted upon the ability to enforce one's will on another, even to the extent of inflicting physical pain and emotional humiliation upon another; hence authority is based on the ability and willingness to use corporal punishment.

And use corporal punishment the English did. Whipping was the prescribed punishment for some breaches of the law, and, until fairly recent times, was used to enforce order in the royal navy and in prisons. Eton, one of England's largest and most prestigious preparatory schools, was renowned for its adherence to "Solomon's wisdom." Not only did teachers and the head master whip the boys of Eton but boys in the upper division whipped boys in the lower divisions. Each Eton boy was routinely billed half-a-guinea for birch, to cover the costs of the birch whips used at Eton. A vulgar but popular expression for "teacher" was "bum bruiser."

Efforts to reform England's schools and to eliminate or moderate the use of corporal punishment go at least as far back as 1669 when The Children's Petition: or, A Modest Remonstrance of that intolerable grievance our Youth lie under, in the accustomed Severities of the School-discipline of this nation was published in an effort to convince Parliament to act on behalf of England's school children. Several additional efforts were made beginning in the 1800's, but England remains one of the relatively few countries still allowing corporal punishment in its schools. The other nations allowing corporal punishment are in most cases English-speaking former colonies of England; they include the United States, Canada, Australia, New Zealand, and South Africa.

The settlers who came to America from England brought with them many of their customs and traditions, including the acceptance of corporal punishment. They brought with them the religious justification for corporal punishment given to them by Solomon and the Book of Proverbs, the legal tradition of public whippings for certain offenses, the educational traditions created by schools like Eton of birching for any host of transgressions, and perhaps most importantly the cultural tradition of child discipline requiring submission to authority, the submission of the child's self-will to the will of the parent.

The pillory at Williamsburg has been carefully restored; a tourist attraction documenting the older roots of contemporary corporal punishment. Cooper (undated) reports that slaves in the South were beaten at their master's will, with the only restrictions being that

they could not be killed or maimed. Schools in the new world, from their inception, employed corporal punishment. A North Carolina school had the following code of rules and penalties:

> For boys and girls playing together, four lashes; for failing to bow at the entrance of strangers, three lashes; for blotting copy book, two lashes; for scuffling, four lashes; for calling each other names, three lashes; [etc.]

Manning (1959) has noted that the "good old days" of discipline in public schools of the United States was characterized by minimally competent or at times incompetent teachers too frequently using abusive forms of corporal punishment to enforce obedience and to motivate students. Noting that the National Commission on the Causes and Prevention of Violence has suggested that the United States is preeminent among advanced industrial nations in levels of violence (Steinmetz & Straus, 1974), and has been violent since colonial days, Williams (1973) has related traditional child-rearing techniques, educational practices, and government policy towards children both as a possible cause and an effect of a violent tradition and heritage. Hyman and McDowell (1979) recall a story that could be symbolic of William's contention. A chief of the ill-fated Nex Perce Indians went on a peace mission to a white man's camp, where he observed a soldier hitting a child. The story says that at that point the chief reined in his horse and said to his companion, "There is no point in talking peace with barbarians. What could you say to a man who would strike a child?"

Corporal punishment of children continues to be an accepted form of discipline in schools and homes throughout most of the United States. While whipping has been legally eliminated from use by prisons, the

military, the judicial courts, even ironically from public facilities for juvenile delinquents, it remains legal and acceptable practice in most public schools in the United States.

Arguments in Favor of Corporal Punishment

The use of corporal punishment appears to usually be defended as either an effective and available means of controlling the behavior of children, or as a necessary tool for building character and instilling certain desirable traits like respect and self-control. The former justification is based on very practical considerations; while the latter has roots reaching back to Solomon and is deeply intertwined with religious beliefs, traditions and cultural mores. Transcending both of these orientations supporting corporal punishment are two very significant facts: first, corporal punishment is as American as cowboys. Probably most American adults were spanked at home and paddled at school when they were children. Second, with the exception of a few states, corporal punishment by schools is quite legal. A 1977 Supreme Court ruling (Ingraham vs. Wright) found that corporal punishment did not violate the Eighth Amendment to the Constitution, which forbids cruel or unusual punishment. Further, while parents have sued schools for instances of corporal punishment which seemed especially cruel or undeserved and unnecessary, court decisions have frequently ruled in favor of the schools and community support frequently sides with the schools. Consequently those who support the use of corporal punishment in school have law, popular opinion and tradition bolstering their arguments.

School approval of corporal punishment is a critical issue when viewed from the perspective offered by Gil (1979):

> Schools are often perceived by parents as bearers of cultural norms concerning proper child rearing practices and discipline. Hence, when schools and other child care settings employ practices [like] . . . corporal punishment . . . they convey a subtle message to parents, namely that such measures are appropriate, as they are sanctioned by educational authorities and "experts." (page 6)

Presumably, most persons who use corporal punishment assume it is an effective method of controlling behavior. Adah Maurer, Executive Director of the Committee to End Violence Against the Next Generation (EVAN-G), said:

> Corporal punishment is quick and easy. In many cases it produces sudden quiet in a whole cohort of kids although only one was smacked. (Maurer, 1977, page 5)

When Dr. Lansing Reinholz rather courageously addressed the National Invitational Conference on Child Abuse (1979), arguing that corporal punishment ought to be maintained as a disciplinary alternative for public schools he titled his speech "A practical defense of corporal punishment in the schools"; his defense was simply that it is effective, less harmful than suspension, and is inexpensive.

That corporal punishment does produce an immediate and sometimes dramatic change in behavior is an important point. Learning theory has by now rather firmly established that immediate negative reinforcement is a potent inducement to learning. A child's errant behavior is a negative stimulus for the educator or parent who responds by spanking or paddling the child. The child, in discontinuing the behavior immediately after the spanking, reinforces the spanker's behavior. Most

other methods of changing behavior produce less obvious and dramatic change, change that is gradual over extended periods of time. Reinforcement that is delayed and less obvious is less effective than immediate and dramatic reinforcement, and people tend to repeat those behaviors that are most strongly reinforced. Consequently it is not surprising that many people are convinced that corporal punishment is an effective form of discipline, or that extinction of that behavior is a difficult process.

Religious justification. Solomon's precepts have not been completely forgotten, in fact they are still perceived as inspired by God by many fundamentalist Christians. A popular slogan says, "God said it, I believe it, that settles it," and when that religious orientation is applied to the Book of Proverbs it is quite clear that children should be whipped. Recently the Reverend Billy Graham recommended that Christians study Proverbs and apply its teachings in their lives (My Answer, 3-19-81).

As has been noted before, obedience to authority is the critical element. If teachers have "in loco parentis" authority over the child, the parent's authority is delegated by God. As the parents must obey God's laws, including the devine edict regarding the whipping of children, so the child must obey the rules of the parent. Authority is given to the parent by God, who is the ultimate authority. Children develop respect for the authority of God by first developing respect for the authority of the parent. That respect, characterized by immediate

and unquestioned obedience, is instilled by a system of rewards and punishments analogous to the divine rewards of heaven and hell.

Sword of The Lord Publications distributes books and pamphlets written by the evangelist Dr. John R. Rice and other members of his ministry. One booklet, originally copyrighted in 1946 and still distributed, is entitled Correction & Discipline of Children. It presents a clear and uncompromising statement of this fundamental perspective. Among other things, it states that:

> There is a very definite reason why children also need punishment occasionally. . . . They are sinful in nature . . . . Everyone has a nature that, if not curbed, may lead to murder, to adultery, to blasphemy, to defiance of God, to Hell itself! (page 3)

> Parents should stand in the place of God before their children, to a remarkable degree. . . . The authority of parents over their children is to be unlimited, and children are to obey their parents in all things! (pages 4-5)

> Proverbs 20:30 says, "The blueness of a wound cleanseth away evil: so do stripes the inward parts of the belly." A blue bruise cleanses away evil from the character, when rightly given; stripes do the same for the inward life, says the Scripture. . . . One who gets soundly punished for sin will learn to fear sin and then to hate it. . . . Certainly, then, sometimes punishment should be so vigorous as to leave stripes on a child. (page 11)

> We might safely take the Bible at face value and follow it implicitly, knowing that no objection will be valid against the Word of God. (page 27)

The Reverend Dr. Rice recommends that when whipping a child the whipping should continue until the child cries, and then continue until the child stops crying. "When the child's will is surrendered" (page 17) the goal of whipping has been reached, but not until an attitude of submission has been obtained.

While Rice's opinions clearly represent an extreme, corporal punishment seems to be widely accepted as a necessary ingredient in the development of respect. Respect in that context clearly means unquestioning obedience; and when violated that obedience to authority can be immediately reinstated by whipping.

Arguments in Opposition to Corporal Punishment

Those who oppose the use of corporal punishment generally argue that it is an ineffective method for changing behavior, that it is potentially dangerous, that it has undesirable psychological consequences, and that the use of corporal punishment has a negative impact on the punisher, the environment, and on society in general. Typically, as was noted earlier, the opponents do not argue that whipping does not have an immediate effect, but rather they question the duration of the desired effect. Whipping may stop bad behavior in the present, but it may not have a positive effect on behavior one or two days after the whipping. In fact, the lasting effects of corporal punishment may be undesirable.

Vockell (1977) listed eight disadvantages of corporal punishment, including:

1. It teaches what is wrong, but cannot teach what is right.
2. It is extremely difficult to proportion the severity of the punishment to the seriousness of the offense.
3. It generally bears no direct relationship to the offense.
4. Corporal punishment may encourage inappropriately aggressive behavior.

5. Side effects may include avoidance of retaliatory behaviors and suppression of spontaneous behavior.

6. Among older children peer prestige may give corporal punishment a positive reinforcing value.

7. Too often the punisher is feeling frustration, exasperation or anger.

8. It is hard to combine it with negative reinforcement at its end. Vockell argues that with the possible exception of very young children and autistic children, other behavioral techniques are available that do not have these disadvantages.

The American Psychological Association is opposed to the use of corporal punishment (1975) on the following grounds:

1. It reduces the likelihood of using more effective, humane, and creative interactions with children.

2. It may adversely affect the child's developing self-concept and self-esteem.

3. It models inappropriate coercive and aggressive behavior for children to learn from.

4. Its effectiveness is dependent upon controlling a number of elusive variables, that left uncontrolled, may produce a wide range of undesirable effects and negate any potential benefit.

Many activists in efforts to prevent child abuse are firmly opposed to allowing schools to use corporal punishment (e.g., Gil, 1979; Hyman, 1980; Williams, 1979). Gil, quoted earlier, and others see schools as modeling violent disciplinary techniques, which gives those techniques

legitimacy. Parents see the schools using violent techniques and conclude that, since schools are staffed by trained professionals who are presumed knowledgeable about child management, development, discipline and education, and since these people approve of hitting children, the use of corporal punishment must be good. Most child abuse cases begin by an adult's desire to discipline a child in an appropriate fashion. The schools, by making hitting appropriate, may be contributing to the child abuse problem. Child abuse is only the extreme in a continuum of violence against children: a continuum that begins with a mild spanking and extends through paddling to child murder. The goal is to end violence against children.

A History of Concern about Television Violence

In 1954 Senator Estes Kefauver chaired a congressional subcommittee to investigate juvenile delinquency. One of the factors the committee investigated was the relationship between violent television programming and delinquency. Senator Kefauver's committee concluded that viewing violent television programs could be potentially harmful to young children. Networks were urged to reduce the level of violence presented.

Since the time of Senator Kefauver's investigations, there has been continuous concern about the influence of the pervasive violence on commercial television. The issue has been raised not only by government committees but also by concerned citizens, mental health professionals, and researchers. Armed sometimes with logic, other times with case studies of real crimes consciously patterned after media presentations

of fictional crimes, and at times armed with scientific research findings, these groups have urged the networks to reorient programs, if not to promote prosocial behavior, at least to avoid teaching that violence is acceptable. The networks, while at times readjusting the style of the presentation of violence, have not been overly responsive to the broader issue of violent programming.

Following the release of the findings and conclusions of Senator Kefauver's committee, the television industry pledged to patrol itself. Senator Thomas Dodd had assumed the chair of the committee in 1961 when a follow-up investigation showed that TV violence had increased. Again the committee expressed deep concern about the possible effects of high levels of violence. By 1964 reruns of earlier violent programs had again added to the total of violent content on television.

During Dodd's 1961 Senate subcommittee investigations, a number of newspaper accounts of criminal acts inspired by or using techniques learned from television were entered into the record. These included a New York Journal-American story reported on December 22, 1960, of two boys, eleven and seven years old, arrested for burglary having stolen over $1,000 in cash and valuables. They told officials that they had learned the techniques by watching how burglaries were done on television.

Far more chilling, Schramm, Lyle, and Parker reported (1961) a case of a maid who found a seven-year-old boy sprinkling ground glass in his family's lamb stew dinner. It was, reportedly, a purely experimental act without malice. The boy wanted to see whether it really worked as well as he had seen it work on television.

In 1968 the National Association for Better Radio and Television reported that "the average child between ages five and fifteen watches the violent destruction of more than 13,400 persons (on television)." That same year, Ellison, a psychiatrist, estimated that, by the age of sixteen, a child may have seen as many as 20,000 homicides portrayed in movies and on television. Then, as now, cartoons were the most violent programs. Gerbner (1972) reported that during 1967, 1968, and 1969 cartoons averaged at least one violent episode every two minutes all Saturday morning, including advertising time.

In 1969 the Mass Media Task Force of the National Commission on the Causes and Prevention of Violence reviewed the research available at that time and concluded that there was sufficient evidence of a relationship to call for a general reduction in the level of televised violence, especially in cartoons. The commission had been formed due to the tremendous national concern about our increasingly violent society. The assassinations of John and Robert Kennedy and Martin Luther King, among others; the race riots in Watts, Newark, Detroit and in many other urban areas; the sometimes violent anti-war demonstrations and police responses to demonstrations; the murder rate that had been steadily mounting since 1958; the violent demonstrations that swept the colleges, universities, and even the high schools; and perhaps the nightly news coverage of combat scenes and body counts from the war in Southeast Asia all led to a tremendous concern about violence and our society's ability to keep from tearing itself apart. Television's role as a tool to prevent violence as well as its role as a possible cause for the violence was under study.

After two years of work, the twelve scientists on the Scientific Committee on Television and Social Behavior issued the 1972 Surgeon General's Report by the Scientific Advisory Committee on Television and Social Behavior. The advisory committee concluded that, while there were problems inherent in each of the research approaches to the investigation of the relationship between the violence on television and aggression, including laboratory experimental studies (e.g., not close enough to "real life" conditions), surveys and field-based studies (e.g., the possibility of uncontrolled third variables) and experimental field studies (e.g., the few were almost impossible to control), the convergence of evidence suggested a causal relationship. In essence, the conclusion was that violence on television can increase the likelihood of violence in society. Other researchers who have since reviewed the literature (e.g., Comstock et al., 1978) have come to the same conclusion. Another major government-sponsored study, released during the summer of 1982, again supported assuming a causal relationship (NIMH, 1982).

These findings combined with the undiminished overall pattern of violence in television has led to the creation of a number of citizen's groups, four of which were named earlier; the Coalition for Better Television (CBT), The National Coalition on Television Violence (NCTV), Action for Children's Television (ACT), and the National Parent-Teacher Association's T.V. Action Center (NPTA-TVAC). While each of these organizations profess concern, their specific concerns and tactics differ sharply. CBT has gained the greatest national exposure due to

its association with the Moral Majority. Violence is only one aspect of objectionable programming according to CBT, and it is apparently of less significance to them. Evidence indicates that either CBT's efforts relating to violence have been extraordinarily ineffective and misdirected or they are fraudulently misrepresenting their concerns.

The other three organizations named above have made a point of distinguishing themselves from the Moral Majority and CBT. ACT has launched a campaign against CBT because of what it calls, "the censorship tactics of the Coalition for Better Television that threaten the exchange of ideas in a free society" (New York Times, April 18, page 39). Joining the attack, NCTV pointed out (NCTV Newsletter, April 1981) that CBT's January 1981 list of objectionable programs "was a litany of very low violence programs: Ladies Man, It's A Living, Taxi, Three's Company, Flo, and WKRP in Cincinnati, with Love Boat named as also objectionable" (page 2). Further, NCTV reported that the March 1981 Newsletter for the National Federation for Decency (NFD), CBT's parent organization, gave "only 4% of its column space to the violence issue while 60% went to sex and 36% to drugs" (page 2). A later NCTV press release (June 14, 1981) noted that in the NFD newsletters for April and May the violence problem made up only 2% of the column space, while sex was up to 72%, alcohol and drugs 17%, psychics 7% and dirty words 2%. Jerry Falwell, founder of the Moral Majority, wrote a book, Listen, America (1980), cataloging his, and by association the Moral Majority's major social concerns. One chapter is devoted to television. An informal assessment of its content found one paragraph or about 3% of

the chapter focused on the issue of violence, while sexual immorality accounted for 40%, biases in news coverage accounted for 27% of its content, descriptions of the power of the medium 15%; the remainder of the content was split between materialism and TV's presentation of alternative lifestyles. The one paragraph on violence was limited to descriptions of violent crimes that were apparently modeled after crimes portrayed on television. Dr. Falwell wrote that, while he was "concerned about excessive violence," he was "far more concerned about the invasion of illicit sex into prime time" (page 195).

In response to CBT's giving such low priority to violence, Dr. Radecki, head of NCTV, called for CBT and NFD to "leave violence off their lists and leave it to NCTV if they are not going to take it seriously" (NCTV Press Release, June 14, 1981). Further, the evidence indicates that, rather than influence broadcasters to reduce violent content, CBT has had the opposite effect; by focusing so singularly on sex, despite proclamations of broader concerns, they have created a "No sex, lotsa action" orientation toward the Fall 1981 season. A number of new police adventure programs have been added, and violence is a taken for granted ingredient in such shows. Bruce Cox, head of programming for Comptom Advertising, was quoted in a June 14, 1981, NCTV press release as saying that it "is certain that the Moral Majority and other pressure groups had an effect on the new programming."

CHAPTER III

RESEARCH REVIEW

Effects of Physical Punishment

As was noted earlier, there are very few controlled or direct scientific studies of the psychological or behavioral effects of corporal punishment. Procedural safeguards for the protection of human subjects would absolutely prohibit such a study from being perpetrated on children. The technical problems in controlling a host of variables would also pose a nearly insurmountable obstacle. It is unlikely that direct controlled and rigorous studies will be forthcoming.

There are, however, less direct sources of information on the effects of corporal punishment on children. A number of laboratory studies have examined the uses and effects of punishment, usually on animals. While there are dangers to generalizing findings from animal studies to human, especially where complex emotionally provocative and cognitively loaded behaviors are concerned, learning theorists have come up with a number of basic principles applicable to this study.

A second source of information includes studies of the psychological and behavioral characteristics of abused children. Abused children have been exposed to extensive punishment and a number of researchers have investigated the effects of that punishment upon them. Again, there are dangers in overgeneralizing since abused children have experienced extreme punishment, and because abuse does not occur in isolation. There remains a "chicken or the egg" dilemma with abused

children; did the child's problem behaviors help to bring on abusive treatment, or did the abusive treatment create the problem behaviors. Also, abuse is generally only one of a host of problems present in abusive families, and it is difficult to determine whether findings reflect the effects of the abuse or the effects of the many problems in the child's home.

As was pointed out in the APA (1975) position paper on corporal punishment, the effects of corporal punishment are likely to be determined by a number of variables. These variables include the immediacy of the punishment (Azrin, 1956; Parke & Walters, 1967); the consistency with which the punishment is dealt out for misbehaviors (Azrin, Holz & Hake, 1963; Azrin & Holz, 1966); the severity of the punishment (Azrin & Holz, 1966; Church, 1963; Johnston, 1972; Solomon, 1964; Parke & Walters, 1967); and other events happening prior to, during or after the punishment (Azrin, 1958; Azrin & Holz, 1966; Ayllon & Azrin, 1966). In terms of actual practice in schools and homes, some of these variables are difficult or impossible to completely control, and to the extent they are uncontrolled the effects of punishment are progressively less likely to be those effects expected or desired.

Punishment is most effective when it immediately follows the punished behavior (Azrin, 1956, 1966; Parke & Walters, 1967). The longer the delay the less effective it is likely to be (Butler, 1958; Camp, 1965). Azrin and Holz (1966) found punishment was most effective when it was introduced suddenly and with complete surprise. Corporal punishment, for optimal effectiveness then, should be given immediately

upon the child's misbehavior and should not be preceded by discussion or warning.

In practice this is not how punishment is usually handled by schools (Maurer, 1979). School systems typically refer to corporal punishment as a "last resort" used only after other methods have failed. Other methods might include talking with the child about the problem behavior, warning about the possible consequences of that behavior, and threatening to use corporal punishment. During this process the element of surprise is certainly lost.

After the child has misbehaved the teacher may make a determination that corporal punishment is warranted. At this point each school and system has its own policies about who may give corporal punishment, and when, where, and under what conditions it may be given. Many school systems, out of fear of litigation if for no other reason, require the paddling to occur outside the classroom in front of an adult witness. Frequently, the principal must be involved in some manner and in some cases the child's parents must receive prior notification. Successfully navigating regulations such as these, and finding and involving the appropriate people requires time. Consequently, in most cases, corporal punishment cannot immediately follow the behavior being punished. At the least, there will be several minutes delay, and it is easy to imagine a delay of several hours. All immediacy is lost. The child during this time will probably be aware of all the activity and its goal. Again, surprise is lost.

Punishment that comes on gradually and with warning, as is described above, is more likely to produce habituation (Azrin, Holz &

Hake, 1963; Masserman, 1946). The punished behavior is then likely to continue undiminished, regardless of continued or even increased punishment. These findings would seem to suggest that under the conditions described above corporal punishment might serve only to make undesired behaviors more resistant to change.

The child does not cease to exist, however, between the time of the punished behavior and the time of the punishment. During that time the child exhibits numerous behaviors, each of which is in closer temporal proximity to the punishment. The behavior having the closest temporal proximity when administering corporal punishment is frequently quiet submission; the child lays across the parent's lap or leans against the wall waiting to be hit without fighting back or running. It is that behavior which may be most directly associated with the punishment. The child may associate submission with pain.

The more extreme the punishment the more effective it will be in suppressing the punished behavior (Azrin & Holz, 1966; Church, 1963; Johnston, 1972; Solomon, 1964; Parke & Walters, 1967). Dr. John R. Rice, the evangelist quoted earlier, is correct that severe punishment that leaves bruises is more likely to suppress the punished behavior. To punish a child that severely is, however, physically dangerous for the child (Friedman & Friedman, 1979), and, while the exact operational definition of child abuse is debatable, many people would consider such a severe thrashing to be abuse, which is illegal everywhere in the United States. Severe punishment also produces strong emotional side effects (Brady, 1958; Maier, 1949; Solomon & Wayne, 1954), it models

highly aggressive behavior which is likely to be learned (Bandura, 1962; Bandura, Ross & Ross, 1961; Bandura & Walters, 1963), is likely to produce escapist behavior (Azrin & Holz, 1966), and may produce disruptive and or aggressive behavior (Azrin & Holz, 1966; Delgado, 1963; Ulrich & Azrin, 1962).

The escapist behavior noted above may include running away from home, truancy from school, tardiness, or dropping out of school. One other escape is emotional withdrawal from relationships, which is unhealthy and nonconducive to happiness in and of itself, but which also makes further social control of the individual's behavior impossible. It is worth noting that all these behaviors have been found to be diagnostic indicators of child abuse (Green, 1977; Martin & Rodehoeffer, 1980).

To the extent that punishment is less severe it will be less effective, and it may also serve to desensitize the child to punishment. If the punishment is not aversive, it is not punishment and it will not suppress behavior. As it becomes more aversive, it becomes more able to suppress behavior, but it would be impossible to predetermine what level of severity is necessary and sufficient to suppress the punished behavior. Punishment that is too mild will only serve to diminish fear of punishment.

To be most effective, punishment should be meted out on each occurrence of the punished behavior (Azrin, Holz, & Hake, 1963). When punishment is on an interval ratio, the behavior being punished continues at a somewhat lower rate until time for the anticipated

punishment when it temporarily drops to close to zero. If the behavior is not punished in some settings, but is punished in others, that behavior is likely to increase in settings in which it is not punished (Azrin & Holz, 1966). It is also likely to become more resistant to control (Terrace, 1966).

When punishment is used in an attempt to suppress antisocial or aggressive behaviors, the above factors ought to be carefully considered. Unless every occurrence of the behavior is punished, punishment should not be expected to completely eliminate the behavior. If a child is at times beyond the control of parents or teachers, then the punished behavior may become more frequent at those times.

Punishment may signal impending reinforcement (Ayllon & Azrin, 1966). If this occurs, punishment may cease to be punishing, and hence lose its ability to suppress behavior. Azrin (1958) found that punishment could in fact become reinforcing. In school peer status may be associated with paddling, negating the suppressing ability of the paddling. At home children sometimes act naughty in order to gain attention. The attention, given as the adult punishes, is reinforcing. The punishment is ineffective and in that example, unnecessary.

Finally, punishment has been found to increase the likelihood of aggression. Bongiovanni (1979) found evidence in the literature of two kinds of aggression. The first, operant aggression, involves a direct attack on the punisher. If such an attack is successful in ending the punishment, it has been negatively reinforced. The second kind of aggression, elicited aggression, consists of aggressive acts directed

toward other people or things in the environment. Schools using corporal punishment may increase the likelihood of fights or other acts of aggression between students. They may also be creating an environment prone to vandalism.

Studies of abused children. The studies cited so far seem to indicate that corporal punishment does have, at least in some cases, the potential to teach aggression and to desensitize children to punishment and violence. Careful control of the setting events, the positive and negative reinforcers in operation, the timing and the severity of the punishment, and the consistency of the punishment all are necessary in order to have reasonably firm control over the behavioral efficacy of corporal punishment. In practice these variables are probably poorly understood by the general public, are under the best circumstances difficult to control at home, and are virtually impossible to control at school. In addition, mild to serious physical complications, emotionality, and social withdrawal and aggression are potentially dangerous side effects for the punished child, and in the case of aggression, perhaps for society.

Abused children, who have experienced serious or extensive corporal punishment, do in fact show many of these traits. The physical effects of abuse have been amply documented elsewhere (e.g., see for example Kempe, 1980). Current estimates suggest that as many as 6,000 children will die of abuse this year.

Numerous practitioners and researchers have noted high rates of emotional disturbance among abuse victims (e.g., Elmer, 1967; Kline &

Christianson, 1975; Stephenson & Lo, 1974). Withdrawal, hostility, anxiety, and aggression are all traits frequently noted among abused children. Bender (1976) found that some abused children seem to purposefully provoke abusive treatment.

Perhaps the most disturbing aspect of the literature on the effects of abuse on children, and certainly the most thoroughly documented, is the relationship between abuse and violent aggression. Numerous post hoc studies and case studies of violent adult criminals have found high levels of physical punishment in their childhoods (Bach-y-Rita, Lion, Climent & Ervin, 1971; Curtis, 1963; Duncan, G. M., et al., 1958; Miller & Looney, 1974; Richette, 1969). Additional studies of adolescent murderers indicate that many killed their abusive parent and most were abused (Duncan, J., 1971; Sadoff, 1971; Tanay, 1973). Miller and Looney (1974) described the making of a murder as starting with the habituation and desensitization of the murderer to violence as a result of abuse.

Reidy (1976) found that abused children were more aggressive in both play and fantasy. Eron (1971) found that children who were punished more severely at home for aggressive behavior were rated as more aggressive by their peers at school. Button found that most delinquents in his study (1973) had been severely physically punished at home. Welsh has done several progressively more careful and extensive studies of the relationship between severe physical punishment and delinquency (1976, 1981) and reports such dramatically high correlations that they strongly suggest causation.

Welsh has developed a theory of the etiology of aggressive delinquency which he calls the "Belt Theory of Delinquency" (1976, 1981). The belt theory of delinquency postulates that those children who are victims of "Severe Parental Punishment" (SPP), which is defined as any type of physical discipline utilizing an object capable of inflicting physical injury including belts, boards, extension cords, fists or the equivalent, but excluding open hands, switches, and minor forms of corporal punishment, are more likely to develop aggressively delinquent behaviors. There are three stages in this process: First, from 0-3 years old the child is not often beaten and so develops normally; second, as the child becomes old enough to punish (3-5), the parents begin SPP and as a result the child becomes increasingly active and angry and may exhibit destructive or otherwise aggressive behaviors at home or in the community; stage three (5-13) involves continuation of SPP as the child develops behavior problems in school and at home. As the parents continue to use SPP the child gradually becomes habituated to punishment. Eventually either because the child becomes too old or too big to hit with equinimity, or, because the child becomes desensitized to punishment, the fear of punishment no longer is an effective restraint on behavior. The child is still angry and has learned aggressive behavior, and without restraints is now quite difficult to control. It is at this point, usually during adolescence, that the child is most likely to commit a violent act. Consistent with this theory, studies have found that violent crime peaks at age fifteen (West, 1966).

It should be noted that while Welsh's term is "Severe Parental Punishment," many schools continue to employ corporal punishment that is extreme enough to fit within the given definition of SPP. Many school systems use paddles which are boards used to hit children on the buttocks. Any issue of the Last ? Resort (a bimonthly publication of the Committee to End Violence Against the Next Generation) includes numerous cases of children who have been physically injured by paddling.

Effects of Viewing Television Violence

Two aspects of the effects of viewing violence on television are of primary interest to this study. The first aspect examined is the relationship between viewing violence on television and exhibiting subsequent violent or inappropriately aggressive behavior. As was described earlier, in 1977 Andison published a review of 67 studies of this relationship. He found 5.5% reported a strong positive relationship ($r \geq .71$), 34.2% reported a moderate positive correlation ($.31 \leq r < .71$), and 37% found a weak positive relationship ($.10 \leq r \leq .30$), while only 4.1% found a weak negative correlation; the remaining 19.2% found no relationship. The second aspect of interest is the possibility that television violence desensitizes viewers to real violence and aggression; of special interest to this study are those few studies that have looked at the effects of viewing television violence on the psychophysiological responsiveness of viewers to subsequent scenes of violence.

Studies of the relationship between viewing violence and violent behavior. There are three research approaches to studying the

relationship between viewing violence on television and behaving violently. The first is laboratory-based experimentation in which a control group and one or more experimental groups are exposed to similar controlled laboratory conditions while specified key variables are manipulated. The second approach is in using a field-based correlational design. These studies typically correlate some measure(s) of the subjects' exposure to television violence with other measures of violent or aggressive behavior. The third approach, and the least used, probably due to its complexity, is field-based experimental. Field-based experimental designs attempt to manipulate exposure to violent programming in the subject's own natural environment, and then to measure aggressive behavior, again in the subject's natural environment.

In Liebert, Neale and Davidson's review of research on the relationship between viewing violence and acting violently (1973), they noted four major research questions that have been addressed in experimental studies. Studies have asked whether subjects, generally children, learn new aggressive behaviors from television; whether viewing violence affects the subject's acceptance of aggression; whether it has a disinhibiting effect on the subject's behavior; and whether, after watching violence on television, subjects are more willing to actually hurt others. Affirmative responses to any of these four research questions would probably indicate increased likelihood of subsequent violent or inappropriately aggressive behavior.

In Bandura's now famous study of young children's imitation of filmed violence (1963), data was obtained that supports an affirmative

answer to the first question. Children were randomly assigned to one of four groups. The first group viewed a live model displaying unusual and highly violent play behavior with an inflated Bobo doll. The second group viewed a cartoon-like film of a cat pommeling a Bobo doll in a manner similar to the modeling for the first two groups. The fourth group, the control group, saw no modeling of violence. Each child went through the experimental procedure alone.

Next the children in Bandura's study were intentionally frustrated by initially telling them they could play with some highly attractive toys; then at the point at which they became involved with the toys, the toys were taken away. The children were then taken to a playroom with a number of aggressive and nonaggressive toys. Their behaviors were rated in several predetermined categories of imitative or nonimitative aggression or nonaggression.

The three experimental groups, who had seen aggressive and violent play modeled, were significantly more violent in their play than the control group. Interestingly, cartoon modeling was not significantly different from real life or film modeling in its effect on subsequent play. Children who had seen violent play modeled were significantly more likely to employ those aggressive techniques they had seen modeled than were children who had not seen a model. Bandura's study seems to indicate that children can and do learn novel aggressive behaviors from television.

Critics of Bandura's work (e.g., Noble, 1975) argue that the experimental situation created by Bandura was so different from the

"real world" that his findings are ungeneralizable to television viewing in general. Further, the Bobo doll was not a human being and, in fact, was designed to be beaten, so the behavior exhibited was socially approved. While these criticisms are in part justifiable, Bandura's study did show that the children's techniques and the extent of aggression were affected by modeling, whether the model was real or symbolic.

A few years later Hicks found that preschool children could recall much of the violent content from a television program seen as much as eight months earlier (1968). Hicks exposed the children to a ten-minute program with considerable aggressive content. Six months later in one study (1965) and eight months later in another study he offered the children candy as a reward for remembering violent behaviors they had seen. About 40% of the hostile acts performed by the model were recalled. Consequently it seems that long-term recall is operative in the learning process.

Dominick and Greenberg's research (1972) found evidence that the second question would be answered affirmatively; children who watch violent programming do seem more accepting of violence. For a sample of over 800 fourth, fifth, and sixth graders, they obtained data on each child's actual exposure to the twenty most violent programs then on television. They correlated this data with the children's expressed willingness to use violence, their perceptions of the effectiveness of violence, the extent to which they suggested the use of violence in hypothetical situations and to a measure of their approval of

aggression. All measures were significantly positively correlated, though they did report that parental approval of aggression was more strongly correlated. The evidence suggests that children who watch more violence on television are more willing to accept violence.

Further evidence of this rather disturbing conclusion comes from a series of three studies conducted by Drabman and Thomas (1974, 1975; Drabman, Thomas & Jarvie, 1977). The first study involved 44 third and fourth grade students, half of whom saw an eight-minute long Hopalong Cassidy film. The other half, the control group, saw no film. The children were then asked to watch a television that they were led to believe was a closed circuit monitor of two preschool children in a nearby trailer. They were told to notify the researcher if the children got into trouble. Actually, the children were watching a videotape of preschoolers who started out playing nicely but eventually called each other names, started pushing one another around, and finally were fighting. Those children who had seen the violent Hopalong Cassidy film waited significantly longer before notifying the researcher ($p < .034$).

Their second study was similar to the first except that the experimental group watched a fifteen-minute television detective story and the control group watched fifteen minutes of baseball. The results of the second study were consistent with the first. Exposure to television violence resulted in significantly slowing down response time ($p < .023$).

Their third study was identical to the second except that the subjects were fifth graders. Again those children who had seen the violent film were significantly slower to respond ($p < .032$).

Both the Drabman and Thomas studies and the Dominick and Greenberg study seem to indicate that children see violence as more appropriate, less alarming, and more normal after exposure to television violence. If this is true after a fairly brief laboratory exposure, and among young children, then there is just cause to speculate about what the effects of decades of heavy exposure to violence might produce.

The third question was whether viewing television violence has a disinhibiting effect on behavior, whether it can lead a subject to behave in ways that he or she otherwise would not. A 1969 study by Hanratty et al. suggests that this question should be answered affirmatively.

Four and five year old boys were divided into two groups, half of whom saw a 2½ minute videotape of an adult male insulting, shooting and beating a clown. After watching the tape, the children were brought to a playroom where a woman in a clown outfit was standing idly by. None of the children who had not seen the aggression videotape aggressed against the clown. Obviously there are strong social prohibitions against attacking other people, and the clown did nothing to provoke attack. There were attacks upon the clown by children who had seen the videotape, however, including an attack by a child who hit the clown so hard that she had a red mark on her arm hours later.

The last question is perhaps the most significant: Does viewing violence on television increase the possibility that one person will hurt another? The Hanratty study just cited seems to indicate that it does, but there are other studies that are even more disturbing.

In a series of studies by Berkowitz and Geen (1966, 1967) male subjects who had watched a boxing match ostensibly gave more shocks to an associate who had provoked them than those subjects who had watched a race. In the 1967 study cited above the design was expanded to include two groups who witnessed the boxing match. Prior to viewing the film, one group was told that the loser was a scoundrel, the other group was told he was a good man. Those who had witnessed the scoundrel get beaten gave significantly more shocks to the accomplice who had provoked them than did those who had witnessed a sympathetic protagonist being beaten or those who had watched a race.

Hartmann reported a study in which the subjects were male adjudicated juvenile delinquents between 13 and 16 years of age. Half the subjects were angered (aggression-arousal) by unwarranted and critical comments made by an anonymous confederate supposedly in another room connected for sound by an intercom. Actually the confederate's comments were tape recorded. Subjects were then randomly assigned to one of three groups. Each group saw a two-minute basketball film, the first minute of which was identical in all three groups. For the control group, the second minute consisted of continued active but cooperative basketball. For both experimental groups, the second minute brought a fight. For one experimental group, the film focused on the pain cues of the loser, for the other group it focused on the violent acts of the fight (e.g., flying fists, kicking, etc.).

Subjects were then asked to assist in a learning experiment using shocks. Ostensibly they were to shock the confederate when he made a

wrong answer. The duration and intensity of the shock was up to the subject. Analysis of the data showed that both aggression arousal and film treatments were important sources of variance. Those who saw the film with pain cues gave significantly more intense shocks. Those who watched either fight film gave more intense shocks than did controls. Those who had been angered gave more intense shocks than did those who had not.

Both the Hartmann and the Berkowitz and Geen studies described above give evidence that witnessing television portrayals of violence or aggression can have an impact on a subject's willingness to inflict pain on others. Since the inflicted pain was with the approval of authority figures, it is somewhat different from disapproved or antisocial aggression. Again these were laboratory studies which are inherently different from the "real world" and the differences must be accounted for before generalizing findings to the natural setting of people at home watching prime time television. It is because of these considerations that it is important to look further at some of the field investigations of the link between television and violence.

McIntyre and Teevan did a major study involving 2,300 male and female junior and senior high school students (1972). Each student was asked to name his or her four favorite television programs, which were then rated for violence and averaged together to give a single violence score for each child. These scores were then correlated with self-reported levels of violence, delinquency, defiance of parents, political activism, and involvement with legal officials (which represented more

severe forms of delinquent behavior). All correlations were positive and significant.

The extent of exposure to television violence was indexed by McLeod, Atkin and Chaffee by having their adolescent subjects estimate how frequently they watched each of 65 television programs that had been rated for violence (1972). For each child, each show's frequency score was multiplied by its violence rating and then these 65 scores were added together to give one total score. Self reports of aggression as well as parents and peers reports were obtained, scored, and correlated. Again, the correlations were positive and significant. In addition a correlation of past viewing and present aggression was similar to present viewing and aggression, except that past viewing was slightly more highly correlated, suggesting that there is a cumulative effect over time.

McLeod and company are not the only researchers to detect a cumulative effect based on correlations between past viewing and present behavior. Eron obtained mothers' reports of their third grade children's television viewing habits, from which he measured exposure to violence. He correlated that measure with peer reports of aggressiveness (1963), and found a significant positive correlation for boys only.

Ten years later Lefkowitz, Eron, Walder, and Huesman did a follow-up study involving 460 of the original 875 children from Eron's study (1972). They found a higher correlation between third grade viewing and current aggressiveness than between current viewing habits and aggressiveness. Analysis of their data showed no correlation between

aggressive behavior in the third grade and current viewing habits. These results suggest that the positive correlations reported do not stem from aggressive people choosing to watch aggressive programming, but rather from the effects of aggressive programming on the viewer.

Physiological desensitization. Several studies have looked at the relationship between psychophysiological responsiveness to televised scenes of violence and previous exposure to televised violence. Berger (1962) reported that adults experience changes in skin conductance when viewing a confederate ostensibly receiving painful electrical shocks. Osburn and Endsley (1971) reported that children were also aroused by aggressive scenes on television.

Cline et al. (1973) hypothesized that extensive television viewing could cause desensitization to scenes of violence. Based on parental interviews, children ranging in age from five to twelve were placed in high and low television exposure groups. Both groups were shown a fourteen-minute film containing (a) two minutes of nonviolent skiing, (b) a four-minute chase sequence, and (c) an eight-minute boxing match sequence. Between-rounds scenes in the boxing match were treated as nonviolent baseline periods as was the two minute ski film. Skin conductance was measured continuously, as was blood volume pulse amplitude.

Skin conductance (GSR) tracings were scored by counting the number of "bumps" that exceeded 500 ohms during specified periods of time. Blood volume pulse amplitude changes were measured by taking

measurements of needle tracings from the diastolic through the systolic peak at specified points on the record.

Results showed that the two groups were not significantly different in GSR readings prior to the film or during neutral or nonviolent segments. They were, however, significantly different ($p < .05$) in the number of GSR responses emitted during the violent segments. Similarly, they were significantly different in percentage of change in blood volume pulse amplitude between violent and nonviolent film sequences. Cline et al. concluded that their results were consistent with hypothesized desensitization.

Gange, Gabrenya, Geen and Quanty followed with a similar study (1976) examining the relationship between overall exposure to television and programming preferences to arousal to violent and nonviolent films. Subjects were grouped on the basis of the extent of past exposure to television and the subjects' self-reported preference for violent programming. It is significant that in this study high exposure subjects averaged only 14.5 hours of television per week, considerably below the 42.0 hour average in the study by Cline et al. Dependent measures included heart rate, skin resistance response, and high, low, and average skin resistance measures elicited by subjects during each of twelve 30-second periods. Subjects were shown an exciting but non-violent film and a boxing match sequence.

Results only partially replicated the findings of Cline et al. Significant differences between high and low exposure subjects were found on heart rate and average skin resistance only.

Thomas, Horton, Lippincott, and Drabman investigated the desensitization effects of violent programming in two parallel studies (1977); one involving children, the other involving college students. The dependent variable used was GSR, which was measured in a manner identical to the procedure used by Cline et al. Subjects were randomly assigned to experimental or control groups. The experimental group was shown an excerpt from a violent police drama, while the control group was shown a film of a nonviolent volleyball game. Both groups were then shown a videotape, for the children, a fight between two preschoolers, and for the students, news tapes of the riots outside the 1968 Democratic National Convention.

With the exception of adult females, subjects were were shown the aggressive tape prior to the experimental tape were less physiologically reactive as indicated by a count of GSR bumps. Again this research supported a hypothesis that viewing violence on television may cause desensitization.

CHAPTER IV

METHODOLOGY

Statement of the Problem

Both the viewing of violent television programs and the experiencing of Severe Parental Punishment (SPP) have been associated with the development of inappropriately aggressive or delinquent behaviors. Viewers of extensive violence on television have been found to be less physiologically reactive to videotaped scenes of violence. Welsh's Belt Theory of Delinquency hypothesizes desensitization to aggression and violence as a result of repeated experiences as a victim of violent disciplinary tactics. Desensitization should be evident in physiological reactivity.

This study attempts to look at the interaction effects between the extent of corporal punishment experienced as a child and the subject's exposure to violent television programming, on physiological reactions to televised scenes of violence, and on a behavioral measure of violence. According to social learning theory, people who have experienced SPP as children and people who have watched a lot of violence on television should have experienced some desensitization to portrayals of violence which should be evident in their physiological reactivity. They have also been provided with considerable modeling of violent behavior, so it would be expected that they would behave more violently. People who have experienced both should be the most highly desensitized and the most violent.

Hypotheses

1. The extensive use of corporal punishment and its more severe forms results in desensitizing a child to violence and aggression which will be evident in a subject's heart rate reactions to a videotaped scene of violence.

2. The extensive use of corporal punishment and its more severe forms provide a model of aggressive behavior to a child, who will consequently behave more violently as an adult.

3. Increased exposure to television violence causes decreased psychophysiological responsiveness, as measured by heart rate changes, to scenes of televised violence.

4. Increased exposure to television violence models violent behavior which increases the likelihood of subsequent violent behavior.

5. People who have been exposed to both frequent or severe punishment and high rates of television violence will be least physiologically responsive to scenes of violence.

6. People who have been exposed to both frequent or severe punishment and high rates of television violence will behave most violently.

Subjects

A total of 151 subjects were involved in this study. All subjects were male undergraduate students enrolled in introductory or social psychology courses where they earned extra credit for their participation. All subjects spent the majority of their childhood in Minnesota, North or South Dakota. Due to the racial composition of this area, all

subjects were white. All subjects were between the ages of 18 and 28, with 85% between the ages of 19 and 22.

Apparatus

Apparatus for this research included Sony videotape equipment and Coulbourn electronic equipment for heart rate monitoring. A Sony-Matic Portable Videocorder was attached by cable to a 19" television monitor. The monitor was located in a sound-proof psychology department laboratory on Moorhead State University campus, and was positioned four feet in front of the subjects seat.

The videotape shown was of a seven and one-half minute excerpt from Stanley Kramer's 1949 movie production of The Champion. The selected segment is of a "championship" boxing match at the climax of the movie. It was filmed in black and white. This particular segment was selected because of its graphic fight presentation and because it has been used previously in several related studies (Cline, Croft & Courrier, 1973; Gange, Gabrenya, Geen & Quanty, 1976).

For the measurement of heart rate, Coulbourn equipment was used including a Photo Reflective Densitometer (T-23-40) connected to a Pulse Monitor Optical Densitometer (571-40) which was in turn connected to a Retriggerable One-Shot (S52-12). Each R wave in the heart beat resulted in an electrical pulse transmitted from the Retriggerable One-Shot to an NP-7 Printout Counter. The counter was programmed to print its count every ten seconds. All Coulbourn equipment with the obvious exception of the pulse monitor were located outside the laboratory.

Dependent Measures

There were four major dependent variables for this study: violent aggression, violent victimization, social violence and heart rate. The first three above are measures derived from the Social Violence Index (see Appendix A). They, and heart rate as a measure, are described below.

Violent aggression. Ten items from the Social Violence Index form the Violent Aggression scale. All of the items of the scale involve hitting, fighting, threatening, or purposefully destroying property. Each of the ten items is stated in a behaviorally specific form. For example, item 1 asks, "Have you hit a person of your sex and age in the past 5 years." For each of the ten items subjects could respond either "no," "once," "several times" or "frequently." "No" was scored "0," "once" was scored "1," "several times" was scored "3," and "frequently" was scored "5." The violent aggression score is the sum of the scale item scores.

Violent victimization. The violent victimization scale is parallel to the violent aggression scale except that each item is stated so that the subject is on the receiving end of the violent behavior. As an example of this, item 3 asks, "Have you been hit by a person of your age and sex in the past five years?" Response options and scoring are identical to those reported above. Again, items involve such experiences as being hit, threatened, or fighting.

Social violence. The social violence scale is the total score obtained from all 18 items of the Social Violence Index. It should be noted that because there are two items which appear on both the violent aggression scale and the violent victimization scale, the social violence score is not necessarily equal to the sum of the two subscales. This score is a measure of the overall level of violence in the subjects' life.

Heart rate. The photo reflective densitometer for monitoring heart rate was clipped to the index finger of the subject's left hand. The number of heartbeats per 10 seconds was recorded continuously from ten minutes prior to beginning the videotape until 10 minutes after the end of the videotape.

Three critical one minute segments of the videotape were identified. The first critical segment was one minute and twenty seconds into the tape and corresponded to the first actual boxing sequence. The second followed the end of the first by one and one-half minutes, and corresponded with intensified fighting. The final critical sequence came at the very end of the seven and one-half minute tape and corresponded to the climax of the boxing match during which the "champion" knocks out his opponent.

Independent Measures

There were three sources of independent variables for this study: the Home Discipline Questionnaire (see Appendix B), a current television viewing checklist (see Appendix C), and a 1972 television checklist (see

Appendix D). These three sources of data provided information about the subject's past and present television viewing practices and about disciplinary experiences the subjects had as boys. Each of these measures is described below.

Home Discipline Questionnaire (HDQ). The HDQ contains a series of questions on the disciplinary techniques the subject's parents used, and on the frequency and severity of their use of physical punishment. All questions were behaviorally stated, with multiple choice responses. ANOVA group classifications, the criteria of which are described later, were derived directly from items 1 through 3 of the HDQ. Item 4 provided a measure of the subject's perceptions, as a child, of the appropriateness of the discipline. Only items 1 through 4 were used in this study.

Current television viewing. Each subject was given a listing of prime time network television programs and Showtime and Home Box Office cable movies from the week preceding their involvement in this study. Subjects were asked to check each program they watched during that week. These measures were derived from this data: total television viewing time, total violence exposure, and average violence content of programs watched. Viewing time was simply the sum total of the lengths of each program the subject reported watching.

Each program and movie broadcast during the experimental period was being rated for violent content by paid raters working for the National Coalition on Television Violence (NCTV). Violence ratings are made

based on carefully documented criteria established by NCTV (see Appendix E). NCTV runs on-going internal checks of rater drift and interrater reliability. Pearson product moment correlations for the first "average in the low 70's" and for the later "in the upper 70's" according to Dr. Tom Radecki (1983).

Each regularly scheduled network program was weighted according to the programs quarterly NCTV average rating. Movies and specials were weighted according to the NCTV rating given for the specific television airing of the program. A subject's total violence exposure score was the sum total of the weightings of each program the subject reported watching.

Television viewing in 1972. Subjects were given a checklist of prime time network programs and Saturday morning cartoons from the fall, 1972 television season. Subjects were instructed to "check each program you remember watching regularly about ten years ago when you were a child." This data provided three measures: 1972 viewing time, 1972 exposure to violence, and 1972 average violence content of program watched. Again, 1972 viewing time was obtained by simply adding the lengths of each program watched.

Each program on the list had been rated for violence content by thirty-five undergraduate students who reported remembering the program. Students rated programs on a 5 point scale with a range of 0 to 4. Programs given a zero were, in the memory of the rater, free of violent content. Programs rater 4 were remembered as highly violent. For each program on the listing an average rating was obtained (see Appendix F).

The 1972 exposure to violence was the sum total of the subsequently derived weightings for each half hour of all programs watched. An average violence rating for programs watched was obtained by dividing the number of half hours of television watched by the total exposure to television violence.

Procedure

All subjects were seen individually in the psychology laboratory at Moorhead State University. Each was given a copy of the consent form, asked to read it and, if he so chose, to sign.

After signing the consent form, subjects were seated in a chair in a sound proof room furnished with the chair and a 19" Sony videotape monitor sitting on a 5' high portable television stand. Regardless of the subject's hand dominance, the photo sensor for monitoring heart rate was clipped on the subject's left hand index finger, and a writing board was placed across the subject's lap.

The subject's left hand was placed into a dark box that was made to keep the hand stationary and in darkness. Movement or fluctuations in lighting can cause the photo sensor to miss heartbeats or to record heartbeats that did not occur. As the experimenter set the sensitivity of the photo sensor the subject was asked to fill out the Social Violence Index and the Home Discipline Questionnaire.

When the sensitivity level was set and the two forms were completely filled out, the subject was shown a seven and one-half minute segment of The Champion. After the film segment was over the subject was asked to complete the demographic data and television viewing forms.

When all forms were completed the photo sensor was disconnected, any questions the subject might have were answered, and the subject was thanked for his participation.

Several weeks into the data collection process it became obvious that the photo sensor being used was not functioning adequately. A new sensor was ordered, and subsequently used. Heart rate data collected prior to the use of the new sensor was discarded. During the several weeks delay the researcher developed a method for collecting data on childhood television viewing habits. Data on this dimension were collected from those subjects who participated in this study after the break. For those subjects, the listing involved was given only after all the other measures were completed.

ANOVA Group Classification Criteria

Five classification procedures were used to create groupings for ANOVA analysis, two based on disciplinary experiences and three based on television viewing measures. Each of the systems employed are presented below.

Home discipline: severity. Three levels of home discipline severity were established, based on questions one and three of the Home Discipline Questionnaire. Subjects who were either not spanked or reported mild spankings with the hand, but nothing more severe and who were never bruised or injured by a spanking, were classified as having experienced mild parental discipline. Those subjects who were punished more severely, but were never bruised or injured by the punishment, were

classified as having experienced moderate physical discipline. Subjects who reported that they were "beaten extensively" or who were bruised or otherwise injured by the disciplinary techniques employed were classified as having experienced severe physical discipline.

Home discipline: frequency. Classification for frequency was based on the subject's response to Home Discipline Questionnaire item 2. While seven responses were available only five were actually used; no subjects reported daily or multiple daily spankings. Analyses used the five naturally resulting levels of frequency.

Television: current viewing time. For all subjects the amount of time spent watching prime time television during the week prior to their participation in this study was computed. A median point split of 7.8 hours divided the subjects into low viewing time vs. high viewing time groups.

Television: 1972 viewing time. Subjects filled out a checklist of all prime time television programs from 1972, checking those programs they remembered "watching regularly." The length of all checked programs was added together and the mean and standard deviation computed. Subjects with z scores above .44 were classified as having a high 1972 viewing time. Subjects with z scores below -.44 were classified as having a low 1972 viewing time. Those subjects with a z score between ±.44 were classified as having a mid range 1972 viewing time.

Television: current violence viewing. NCTV ratings of all programs watched were added together to give a single measure of recent exposure to television violence. Three groups were created, again by establishing cutpoints at scores equivalent to z scores of ±.44.

Statistical Analyses

Hypotheses 1 through 3 were tested with analysis of variance. For Hypotheses 1 and 3 the dependent measure, heart rate, was repeated. Hypothesis 4 was tested with a series of Pearson Product Moment Correlations, with one-tailed tests of significance. Hypothesis 5 was tested with a trials by discipline by television exposure analysis of variance. Hypothesis 6 was tested with a multiple regression analysis. The significance level for acceptance or rejection of hypotheses was set at $p = .05$.

Frequency, correlational, one-way and regression procedures were done using the Statistical Package for the Social Sciences (SPSS, 1975) programs for necessary calculations. One way procedures involving a repeated measure and two way analysis were done using Biomedical Computer Programs (BMDP, 1977). All computer work was done on Minnesota's State University computer system.

CHAPTER V

RESULTS

This chapter will first present normative results for the Social Violence Index, the Home Discipline Questionnaire, and the television viewing surveys. Second it will present statistical tests of the six hypotheses. Each hypothesis will be treated separately here and results will be integrated in Chapter VI.

Normative Findings

Social Violence Index. A total of 150 subjects turned in scorable Social Violence Index forms. Table 1 presents means and intercorrelations for each of the three scales. The Violent Aggression and Violent Victimization scales are essentially subscales of the Social Violence scale so their very high correlations with Social Violence would in part by expected due to their shared items.

Table 1

Social Violence Index Scale Norms and Intercorrelations

	VA	VV	SV	Mean	Standard deviation
Violent aggression (VA)	--	.76*	.92*	5.8	4.4
Violent victimization (VV)	--	--	.93*	6.1	5.0
Social violence (SV)	--	--	--	10.2	6.7

*$p \leq .001$.

Home Discipline Questionnaire. A total of 148 subjects turned in usable Home Discipline Questionnaire forms. Subjects were first asked whether they had experienced each of eight forms of punishment during their preschool or elementary years. Frequency data for each are presented in Table 2. Subjects were next asked how frequently they were spanked, whether spankings or whippings ever left bruises or other injuries, and finally whether, at the time, they felt they were appropriate. Table 3 presents frequency data for these questions, while Table 4 presents intercorrelations.

Television viewing measures. Six measures of television viewing were obtained: time spent watching in 1972, total violence content of programs watched in 1972, average violence content of programs watched in 1972, total viewing time during current week, average violence content, and total violence content of programs watched during the week. Means, standard deviations and ranges for each measure are presented in Table 5. Intercorrelations are presented later under Hypothesis 4.

Hypothesis 1

Hypothesis 1 states that increased physical discipline will lead to decreased heart rate responsiveness to scenes of violence. Because of substantial group differences on heart rate, HR1 was used as a covariate. Two ANACOVA with repeated measures tested this hypothesis; the first tested whether severity of discipline had this effect while the second tested whether frequency had this effect.

Table 2

Frequencies for Disciplinary Experiences

Technique	n (148)	Percentage
1. Timeout	63	41.7
2. Talking or scolding	133	88.1
3. Mild spanking	100	66.2
4. Hard spanking	62	41.1
5. Hit with fist	4	2.6
6. Spanked with an object	35	23.2
7. Whipped	20	13.2
8. Beaten extensively	0	0

Table 3

Frequencies of Spanking, Bruising, and for Perceptions of Appropriateness

Variable		Absolute frequency	Percent
1. Spanking frequency	a. never	5	3.5
	b. rarely	94	62.5
	c. once a month	25	16.9
	d. once a week	21	14.2
	e. several times each week	3	2.0
2. Bruising	a. never	132	89.2
	b. occasionally	15	10.1
	c. half the time	1	0.6
3. Appropriateness	a. never	12	8.1
	b. occasionally	44	29.7
	c. half the time	24	16.2
	d. usually	62	41.9
	e. always	6	4.1
			100.0

Table 4

Intercorrelations Between Three Measures of Corporal Punishment Experiences

	Frequency	Bruise	Appropriateness
Frequency	--	.32**	-.19*
Bruising		--	-.25**
Appropriateness			--

*$p < .01$.

**$p < .001$.

Table 5

Mean, Standard Deviation and Range for Six Measures of Television Viewing

Variable	$\bar{x}$	S.D.	Low	High
1972 viewtime[a] (hrs per week)	21.2	7.6	4.5	39.5
1972 total violence content[a]	60.8	21.3	17.1	108.6
1972 average violence content[a]	2.2	0.4	1.4	4.3
Current viewtime[b] (hrs per week)	8.2	6.7	0	28.0
Current violence content[b]	31.2	31.0	0	141.5
Current average violence content[b]	4.6	3.7	0	17.6

[a]$n = 95$.

[b]$n = 128$.

Severity. Table 6 presents results of a trials by severity analysis of variance. Mechanical limitations led to the loss of heart rate data on 50 subjects, so that ANOVA results are based on a population of 92 subjects. Of these subjects, 43 were in the group having experienced mild punishment, 71 experienced moderate punishment, and only 8 were classified as having experienced severe punishment. F-ratios other than for the covariate did not reach significance at the .05 level.

Frequency. Table 7 presents a test of Hypothesis 1 based on frequency of discipline. The same mechanical limitations described above affected this analysis, which is based on 93 subjects. Of the 93, 62 were identified as rarely punished, 14 as moderately frequently punished, and 17 as frequently punished. Two F-ratios were significant. Subjects across groups showed a statistically significant heart rate increase during the videotape presentation. Groups did not differ significantly based on the frequency with which they had experienced physical punishment. Groups did differ significantly on the covariate.

Hypothesis 1 was not confirmed by this study. Subjects did not significantly differ in their responsiveness to the videotape based on either the frequency or the severity of their disciplinary experiences.

Hypothesis 2

The second hypothesis states that increased physical discipline as a child will be associated with increased violent behavior. Again, tests were run for both severity and frequency. Dependent variables

Table 6

Trials by Severity Analysis of Variance

Source	Sum of squares	Degrees of freedom	Square	F
Homedis	205.04590	2	102.52295	2.36104
HR1 covar	17058.85596	1	17058.85596	392.85450*
Error	3821.20947	88	43.42283	
Trials	37.27898	1	37.27898	2.55888
Trials × Homedis	36.24948	2	18.12474	1.24411
Error	1296.59248	89	14.56845	
Pooled regression coefficient for HR1 = .94				

*$p < .001$.

Table 7

Trials by Frequency of Punishment Analysis of Variance

Source	Sum of squares	Degrees of freedom	Square	F
Freq.	88.18457	2	44.09229	.99564
HR1 covar	17255.78320	1	17255.78320	389.65065**
Error	3941.38989	89	44.28528	
Trials	69.01048	1	69.01048	4.72136*
Trials × Freq.	17.41498	2	8.70749	.59572
Error	1315.49866	90	14.61665	
Pooled regression coefficient for HR1 = .96				

*$p < .05$.

**$p < .001$.

were the violent aggression, victimization and social violence scores from the Social Violence Index. One way ANOVA's were used to test this hypothesis, and group mean differences were tested using the Student-Newman-Keuls (Winer, 1971) procedure.

Severity. Table 8 presents the results for ANOVA's for the three dependent variables. Incomplete or incorrect forms led to the loss of 5 subjects, data from 146 subjects were included in these computations. Of these subjects, 68 were classified as mildly disciplined, 62 as moderately disciplined, and 16 as severely disciplined.

As predicted, groups did significantly differ on measures of violent aggression and social violence. The Student-Newman-Keuls test, Table 9, showed that the group having experienced the most severe punishment reported significantly more violent aggression and higher rates of general social violence than did the mild or moderately punished groups.

Frequency. Table 10 presents results of ANOVA's for the three dependent variables. Data from 147 subjects were included in these calculations.

Results for all three dependent variables reached significance. The Student-Newman-Keuls procedure, Tables 11 and 12, did not identify any groups as significantly different.

An a posteriori contrast, shown on Table 13, between groups means using the Least Significant Difference test (Winer, 1971) with alpha set at .05 found group 2, those rarely physically punished, to have

Table 8

Analysis of Variance for Home Discipline by Three Measures of Violence

Source	Degrees of freedom	Sum of squares	Mean squares	F
VIOAGG				
Between groups	2	170.1573	85.0786	4.43*
Within groups	143	2753.9871	19.1881	
Total	145	2914.0544		
VIOVIC				
Between groups	2	141.5862	70.7931	2.86
Within groups	143	3535.9749	24.7271	
Total	145	3677.5611		
SOCVIO				
Between groups	2	537.4222	268.7111	4.39*
Within groups	143	8763.4052	61.2826	
Total	145	9300.8274		

*$p < .05$.

Table 9

Student-Newman-Keuls Multiple Comparisons Test of SVI Violent Aggression and Social Violence Scores for Subjects from Mild, Moderate, or Severe Discipline Backgrounds

Punishment	Moderate	Mild	Severe	Shortest significant range
SVI violent aggression score				
(Means)	(5.3)	(5.6)	(8.9)	
Moderate		0.3	3.6*	3.35
Mild			3.3*	2.81
Severe				
SVI social violence score				
(Means)	(10.3)	(10.4)	(16.5)	
Moderate		.13	6.2*	3.35
Mild			6.1*	2.81
Severe				

*$p < .05$.

Table 10

Analysis of Variance for Frequency of Punishment by Three Measures of Violence

Source	Degrees of freedom	Sum of squares	Mean squares	F
Violent aggression				
Between groups	4	223.2832	55.8208	2.95*
Within groups	142	2691.4646	18.9540	
Total	146	2914.7479		
Violent victimization				
Between groups	4	310.6774	77.6693	3.72*
Within groups	142	3370.6418	23.7369	
Total	146	3681.3192		
Social violence				
Between groups	4	841.4915	210.3729	3.53**
Within groups	142	8463.1738	59.5998	
Total	146	9304.6653		

*$p < .05$.

**$p < .01$.

Table 11

Student-Newman-Keuls Multiple Comparisons Test of SVI Violent Aggression Scores for Subjects Differing on Frequency of Punishment

Frequency	Rare	Monthly	Never*	Weekly	Several times weekly*	Shortest significant range
Means	5.1	6.0	7.2	7.7	11.3	
Rare	.9			2.6		3.91
Monthly				1.7		3.68
Never				0.5		3.35
Weekly						2.81
Several times weekly						
(n = 174)	(94)	(24)	(5)	(21)	(3)	

*n too low for comparison.

Table 12

Student-Newman-Keuls Multiple Comparisons Test of Social Violence Scores for Subjects Differing on Frequency of Punishment

Frequency	Rare	Monthly	Never*	Weekly	Several times weekly*	Shortest significant range
Means	9.4	12.3	14.9	15.0	18.7	
Rare		3.9	5.5			3.91
Monthly			2.6			3.68
Never						3.35
Weekly						2.81
Several times weekly						
(n = 147)	(94)	(24)	21)	(5)	(3)	

*n too low for comparison.

Table 13

Frequency of Discipline Groups Differing at the .05 Level on the Least Significant Difference Test on Measures of Violent Aggression and Social Violence

	Means	Frequency of physical discipline	Never	Rare	Monthly	Weekly	Several times weekly
Violent aggression	7.2	Never					
	5.1	Rare				*	*
	6.0	Monthly					*
	7.7	Weekly		*			
	11.3	Several times weekly		*	*		
		(n = 147)	(3)	(94)	(24)	(21)	(3)
Social violence	15.0	Never					
	9.4	Rare				*	*
	12.3	Monthly					
	14.9	Weekly		*			
	18.7	Several times weekly		*			
		(n = 147)	(5)	(94)	(24)	(21)	(3)

*p < .05.

significantly lower aggression and social violence scores than those physically punished weekly or more frequently. Group 1, made up of those never physically punished weekly or more frequently was not significantly different from any of the other groups. Within group variance was high for group 1, which had comparatively high mean violence scores. A possible explanation for group 1's aberrant findings will be given in the discussion chapter.

The least significant difference tests support Hypothesis 2. More severe and more frequent forms of corporal punishment experiences do appear to be related to increased social violence. Those punished more frequently and those punished most severely reported the highest levels of all three measures of violence.

Hypothesis 3

Hypothesis 3 states that increased exposure to television violence will be associated with decreased heart rate changes during viewing of televised violence. Hypothesis 3 was tested by two ANACOVA using two measures of current television exposure: reported viewing time and the NCTV violence ratings total for all programs watched, with heart rate a repeated trials measure and HR1 a covariate.

Viewing time. Table 14 presents an ANOVA table for viewing time broken down by a median point split with heart rate a repeated dependent measure. Valid heart rate data was obtained for 37 subjects classified as low television viewing and for 41 subjects in the high television exposure group. While the main effect, a slight increase in heart rate

during the videotape presentation, is evident, the F-ratio for an effect by viewing time was not significant.

Table 14

Trials by Television Viewing Time Analysis of Variance

Source	Sum of squares	Degrees of freedom	Mean square	F
Viewtime	4.21338	1	4.21338	.10841
HR1 covar	13551.64233	1	13511.64233	347.64948*
Error	2914.92798	75	38.86571	
Trial	68.28760	1	68.28760	5.02584*
Trial × Viewtime	52.59529	1	52.59529	3.87091
Error	1032.63521	76	13.58731	

*$p < .001$.

NCTV rating. Again with the NCTV ratings score, an ANACOVA with the NCTV rating score broken down by a median point split and with heart rate a repeated dependent variable was used to test the hypothesis. The split resulted in 49 subjects with valid heart rate data in the low violence exposure group, and 46 in the high violence exposure group. Table 15 presents the results. Again too, the main effect of the videotape on heart rate is evident, but F-ratio's for an effect based on this measure of exposure to violence did not reach significance.

Neither measure significantly affected heart rate responses to the videotape. This study did not support Hypothesis 3.

Table 15

Trials by Exposure to Television Violence Analysis of Variance

Source	Sum of squares	Degrees of freedom	Mean square	F
NCTV rating	88.55298	1	88.55298	2.05004
HR1 covar	17472.02417	1	17472.02417	404.48527***
Error	3974.00439	92	43.19570	
Trials	98.20020	1	98.20020	6.77436*
Trials × NCTV rate	.60020	1	.60020	.04141
Error	1348.11525	93	14.49586	

*$p < .001$.

Hypothesis 4

Hypothesis 4 states that increased exposure to violence on television will be associated with increased violent behavior. Hypothesis 4 was tested by one-tailed Pearson correlations between the six measures of television exposure and the three measures from the Social Violence Index. These correlations are presented in Table 16.

Table 16

Correlations Between Television Measures and Social Violence Measures

	Violent aggression	Violent victimization	Social violence
Current viewtime[a]	.05	.11	.09
NCTV rating total[a]	.05	.05	.04
Average NCTV rate[a]	-.10	-.13	-.15*
1972 viewtime[b]	.23*	.33**	.33**
1972 rate total[b]	.24*	.30**	.30**
1972 rate average[b]	.11	-.01	.03

*$p < .05$; **$p < .01$; [a]$n = 130$; [b]$n = 77$.

Results partially support Hypothesis 4. A clear pattern of all relationships is evident between 1972 television viewing and all three violence measures. On the other hand, there were no significant correlations between current viewing and the violence measures. There does appear to be a positive relationship between television viewing during middle childhood and violent behavior during young adulthood. No relationship was found between current viewing habits and violent behavior.

Hypothesis 5

Hypothesis 5 states that those subjects who have been both exposed to more violent television and have been victims of more severe forms of corporal punishment will be least affected by seeing violence. Hypothesis 5 was tested by a two way ANACOVA for a repeated measure, with heart rate dependent and current television viewing time and discipline severity independent. Again, as with the previous tests of heart rate change, mechanical problems caused the loss of 50 subjects; a total of 91 subjects had all data necessary to be included in this analysis. Eight of the remaining subjects had experienced severe punishment, punishment severe enough to cause bruises or other injuries; based on the median split five of these were high television viewers while three watched television less than average. All other groups had between 20 and 22 subjects. Table 17 presents the ANACOVA table.

Of the obtained F-ratios, only the covariate reached significance. Again the low number of cases in two critical cells combined with the

unequal distribution of cases virtually precluded reaching significant levels. Consequently, this study failed to support Hypothesis 5.

Table 17

Trials by Television Viewing by Discipline Severity
Analysis of Variance

Source	Sum of squares	D.F.	Mean square	F
Viewtime	.49768	1	.49768	.01280
Homedis	197.25952	2	98.62976	2.63643
Viewtime × Homedis	24.71851	2	12.35925	.31784
HR1 covar	12832.99756	1	12832.99756	330.02272*
Error	2683.07837	69	38.88519	
Trials	20.16981	1	20.16981	1.45085
Trials × Viewtime	21.72255	1	21.72255	1.56254
Trials × Homedis	34.30537	2	17.15269	1.23382
Trials × Viewtime × Homedis	18.55020	2	9.27510	.66717
Error	973.14378	70	13.90205	

*$p < .001$.

Figure 1 is a graphic representation of heart rate changes for each of the six groups. While group differences did not reach statistically significant levels, it is worth noting that the two groups showing the greatest increases were both made up of subjects having been mildly punished. The only group to show a decline and the only group to show no change in heart rate were the two groups made up of subjects who experienced severe discipline.

Figure 1. Cell heart rate averages for groups broken down by disciplinary experiences and current television viewing.

Solid lines represent low exposure to television, broken lines represent high exposure.

Group 1--Mild discipline, low television
Group 2--Mild discipline, high television
Group 3--Moderate discipline, low television
Group 4--Moderate discipline, high television
Group 5--Severe discipline, low television
Group 6--Severe discipline, high television

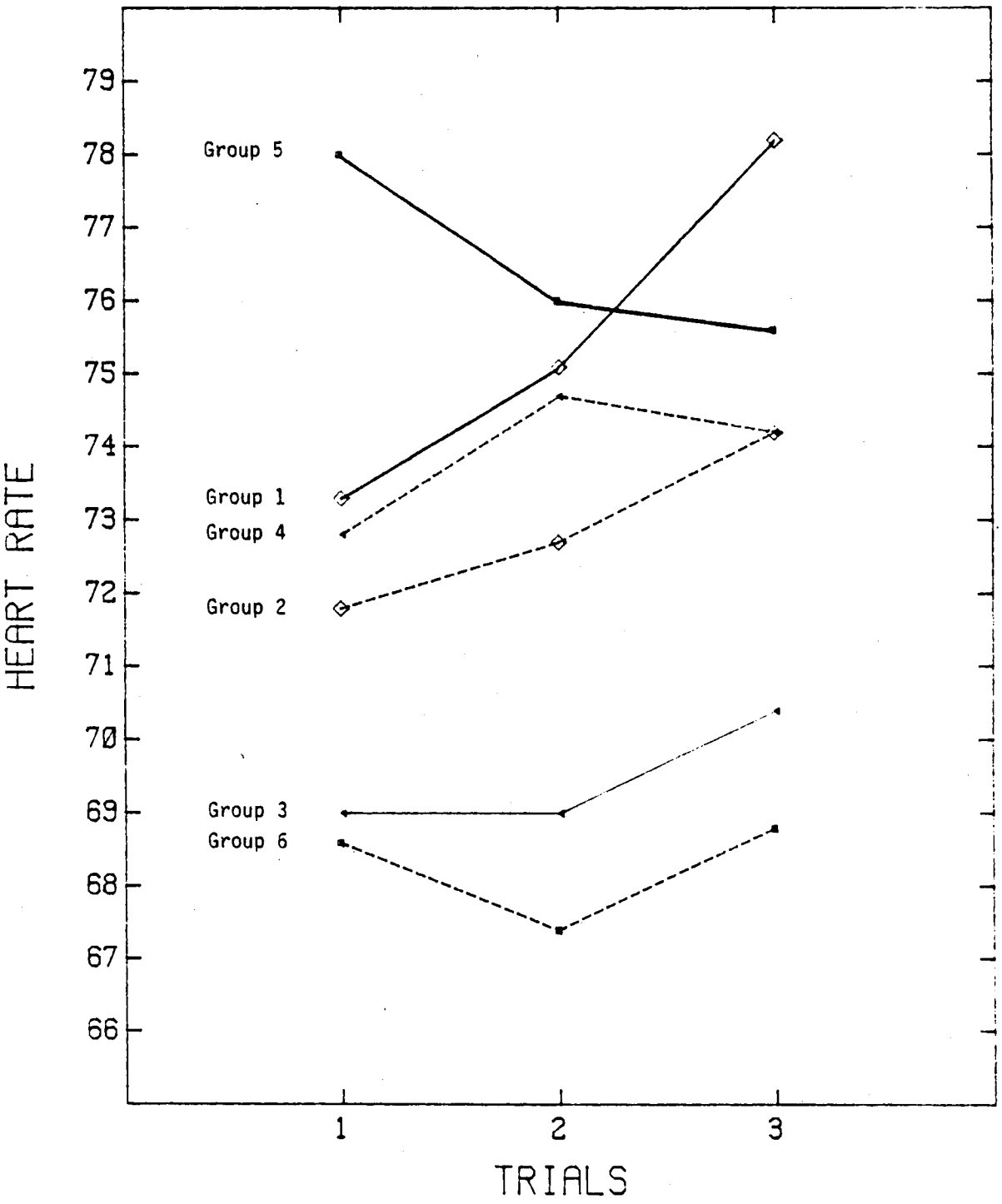

79
78
77
76
75
74
73
72
71
70
69
68
67
66
HEART RATE
Group 5
Group 1
Group 4
Group 2
Group 3
Group 6
1
2
3
TRIALS

Figure 1.

Hypothesis 6

Hypothesis 6 states that both television viewing and corporal punishment experiences will contribute to the development of violent behavior, and that those subjects who are high on measures of both will typically report the most violent behavior. To test hypothesis 6 a regression equation was developed that included the six measures of television exposure, the frequency of physical punishment, the methods of punishment reported, the occurrence of bruising or other injuries, and the child's feelings about the appropriateness of the punishment. The Social Violence Index social violence score was used as the dependent variable. Listwise deletion of missing data was used in the analysis. Variables were entered stepwise.

Table 18 presents a regression summary table including simple correlations, multiple correlations, beta weights, and the R-square measure of variance accounted for. The first four variables entered accounted for about one third of the variance in the measure of social violence, and from that point on each of the remaining variables contributed little to the accuracy of the prediction.

The amount of violence the subject was exposed to on television as a child was the single best predictor. The frequency with which the child was spanked was second and was largely additive, losing little of its predictive value when considered in unison with the former. The child's feelings about the appropriateness of the discipline was third and having been scolded was fourth. Scolding may gain its predictive strength due to its negative relationship with spanking.

Table 18

Regression of Television Viewing and Discipline Experiences with Social Violence Score

Variable	Multiple R	R Square	Simple R	Beta
1972 TV violence exposure	.370	.137	.370	.332
Frequency of corporal punishment	.479	.247	.337	.256
Felt punishment inappropriate	.553	.306	-.288	-.245
Punished by scolding	.572	.327	-.253	-.081
Punished by spanking	.586	.343	.063	.210
1972 Choice of violent programs	.599	.359	.052	.151
Current exposure to TV violence	.609	.371	.139	.242
Having been bruised by punishment	.620	.384	.317	.231
Having been hit with an object during punishment	.630	.397	.049	-.142

Bruising was the only variable having a substantial correlation with social violence that did not enter the equation in the top four. As was noted earlier, bruising is significantly negatively correlated with feelings of the discipline's appropriateness, and significantly positively correlated with the frequency of punishment. Since both frequency and appropriateness were entered early they appear to have largely accounted for bruising's predictive contribution.

The regression equation does support the sixth hypothesis. While current television viewing does not appear to play a significant role in the development of social violence in this population, television viewing as a child is related. So, too are experiences of corporal punishment. Both severity and frequency of the punishment as well as the child's perceptions of the punishment's appropriateness contribute to the prediction of violent behavior.

CHAPTER VI

DISCUSSION

Discussion of the results will parallel, up to a point, their presentation in the preceding chapter. First the basic findings of the Home Discipline Questionnaire and the television viewing surveys will be discussed. Next each hypothesis will be discussed separately. Finally, this chapter will present a theoretical formulation based on cognitive behavioral psychology for the manner in which these variables interrelate in the development of violent behavior.

Survey Results

Home Discipline Questionnaire. The HDQ survey results present data that show the wide range of disciplinary techniques currently being employed. The range of experiences reported extend from subjects who were never physically punished and felt that the disciplinary experiences they did have were usually appropriate to subjects who were hit with a fist and whipped until bruised, and who felt the punishment was never appropriate.

Tables 2 and 3 (page 69) show that a substantial percentage of the subjects reported rather severe disciplinary experiences. Twenty-three percent were spanked with an object. Four subjects were hit with a parent's fist while elementary or preschool aged. Table 3 shows that only five subjects, or 3% were "never" spanked. The majority, about 62%, were spanked "rarely" while more than 16% were spanked once a week or more.

Eleven percent of the subjects reported that they had at some time been bruised or otherwise injured by their parents while being punished. Since bruises and injuries are frequently considered defacto evidence of child abuse these results suggest that, at least by that criterion of abuse, 11% of the subjects were physically abused. If such a high rate were present nationally, and there is no reason to suspect it is not, then over five million children twelve years old or younger are being bruised or injured by their parents.

About 46% of the subjects felt that their discipline was "usually" or "always" appropriate. The inverse of that is that over half reported that their parents discipline was appropriate only "half the time" or less. Apparently many boys were putting up with spankings and whippings that they saw as inappropriate.

There were low but significant negative correlations between perceived appropriateness of the discipline and the frequency of punishment ($r = -.19$, $p < .001$). Boys who are physically punished more frequently, by implication, tend to be punished more severely. In broad generalities then, the boys who were punished more frequently were punished more severely and felt the punishment was less deserved.

Television viewing surveys. On the average, students watched slightly more than eight hours of prime time television during the week prior to their involvement in the study. They ranged in viewing time from a few who watched none to one who watched 28 hours which was the maximum obtainable exposure. To look at the data another way, while on average the subjects were spending about 7% of their waking time

watching television, some spent at least 25%, and quite possibly more, of their time watching television.

Analyses of Hypotheses

Hypothesis 1. Hypothesis 1, that the heart rates of subjects would respond differently to a videotaped violent scene depending on their experiences of physical punishment, was not confirmed by this study. For all subjects combined there was a 2.3 beats per minute increase in heart rate during the course of the videotape. While two of the three groups, based on severity of punishment, showed that increase, those most severely punished actually showed a small overall drop in heart rate.

When groups were broken down based on frequency of discipline, all groups showed overall increases, though for those punished most frequently the increase amounted to less than one heart beat per minute. For comparison, those rarely punished averaged an increase of 2.8 beats per minute. If cases were distributed more evenly, it seems quite possible that the differences between groups noted above would reach statistical significance.

Because of the methodological problems, it is difficult to interpret these findings within the context of Welsh's Belt Theory of Delinquency (1976). Welsh hypothesized a physiological desensitization which was not statistically demonstrated by this study. The predicted trend, based on a visual comparison, is present. Further research to support or reject Welsh's model is indicated.

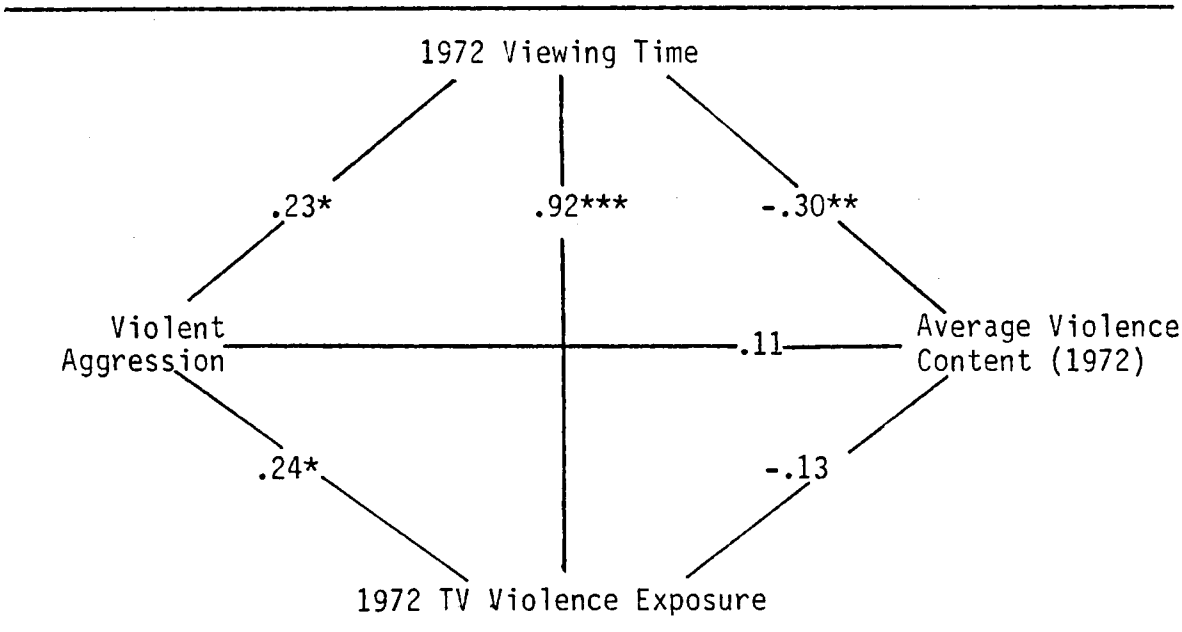
Hypothesis 2. Analysis of variance results rather strongly support the second hypothesis. Self report measures of violent aggression and social violence showed significant differences when groups were compared that differed in severity of physical punishment or differed on frequency of physical punishment. Those subjects who were severely punished reported significantly more violently aggressive behavior and a significantly higher level of general social violence. Similarly those who were punished more frequently reported significantly higher levels of violent aggression and social violence.

This finding is partially supportive of Welsh's Theory. As Welsh has noted, severe parental punishment does substantially increase the probability of violent aggression. While Welsh focused on the technique of punishment, the use of an instrument capable of inflicting damage, this study indicates that the technique is less important than actual harm. Groupings were based on severity of punishment, with two groups composed of subjects who fit Welsh's definition of severe parental punishment, which is determined by technique. The group of subjects spanked "with an object," "whipped," or beaten but who were never bruised or otherwise injured were not different in violence levels from those who were mildly disciplined. It is only those who were, in fact, injured who were substantially higher in violent behavior. Obviously, all subjects who were injured were disciplined using the more severe techniques, but that bruising or injuring appears to be a critical element in the development of violent behavior.

Hypothesis 3. Hypothesis 3, that increased exposure to television violence will be associated with decreased heart rate changes during the viewing of a violent scene, was not supported by this study. There was no evidence that differences in exposure to violence on television effected heart rate responsiveness. Neither measure of exposure, simple viewing time nor exposure to violence, was found related to differences in heart rate. This finding appears contradictory to the findings of Cline et al. (1973) and Thomas et al. (1977). Both the Cline and the Thomas studies looked for arousal with children and adolescents, and both found evidence of physiological desensitization. Perhaps children habituate more readily to the violence on television. Certainly additional research is called for looking at television and the habituation to aggression.

Hypothesis 4. Analysis of the intercorrelations of the three measures of television viewing from 1972 and the violent aggression score from the SVI, and presented in Figure 2, suggest some striking relationships. First, the extremely high correlation (.92) between the time spent watching television and the measure of exposure to violence suggests that these two variables are virtually synonymous. There is no escaping the conclusion that in 1972, network programming that appealed to male children consistently presented violence. Boys watching network television were children watching violence.

Secondly, children who watched less television appear to have watched the more violent programs. There is a significant negative correlation (-.30) between the time spent watching television and the



* p<.05
** p<.01
*** p<.001

Figure 2. Intercorrelations between SVI violent aggression score and three measures of television viewing in 1972.

average violence rating of those programs watched. Interestingly, while viewing time is significantly related to later violent aggression, average violence content is not. Consequently it seems logical to assume that boys prone to become violent are not choosing to watch violence, as has been suggested by some critical of research in this area, but rather that those exposed to more television violence are more likely to behave violently.

This is an important, if subtle, differentiation. While it is true that correlation does not prove causation, the pattern of correlations found in this study do strongly suggest a causative relationship between repeated exposure to violent programming and later adult violent behavior. The child who watches little television, but watches more violent programs, is less likely to become a violent adult than the child who watches a great deal of television including both highly violent and less violent programs.

Such findings are consistent with social learning theory expectations. Behavior which is modeled more frequently is more likely to be copied. High levels of exposure to television violence repeatedly models violent aggression and physical means of problem solving. From a social learning theory perspective, it would actually be surprising if learning and copying from such modeling were not to occur. Since the major competing theory, that persons prone to violence choose to watch the more violent programs, simply is not supported by these findings, it is difficult to find an explanation for the relationship that does not directly implicate television in a causative role.

In an excellent review of the literature on television viewing and physiological arousal, Zillman (1982) noted that entertainment value of a program was related to its ability to arouse. Sexual content and violent content are quite probably the two strongest arousers, leading Zillman to hypothesize that television drama without them would be unentertaining, and that curtailment of one will lead to an increase of the other.

The dilemma for network television producers and sponsors is obvious. Since those boys who watch less television appear to watch the more violent programs, and since those who watch more television watch both the violent and the less violent, the producer seeking high ratings from children should, from a strictly business standpoint, promote violent content. A violent program is more likely to appeal, apparently and unfortunately, to both heavy television viewers and those who watch less television. Expecting self monitoring or voluntary cutbacks in sponsorship of violent programs for children runs contrary to capitalistic self interest for the sponsor. The network rating wars are legend, and are directly related to profit. Again, it is in the network's capitalistic self interest to air violent children's programs.

On the other hand, based on the premise that violence is bad for our society, it is in society's best interest to somehow limit our children's viewing diet of violence. While it is beyond the scope or intent of this project to propose public policy, the dilemma created by the relationships presented above should be considered by those who are in a position to formulate public policy. Of the correlations between

the three measures of current television viewing and the three measures of violence only one reached significance. That significant correlation was a very small negative correlation (-.15) between the average violence content of programs watched and the measure of overall social violence. Overall this study did not find a relationship between current viewing habits and actual violence among young adults. The one significant correlation found was consistent with the discussion above in that those who chose to watch a more violent program did not necessarily behave more violently. As a rule violent people did not appear to seek out violent programs.

While the relationship between television viewing and violence is important, a vital aspect of this study is how that relationship interacts with other factors, specifically disciplinary experiences, in the development of violent behavior. The interaction of these factors is the focus of discussion of the final two hypotheses.

Hypothesis 5. Since neither groupings based on disciplinary experiences nor based on television viewing habits were found by one way ANOVA's to significantly differentiate heart rate responses, it is perhaps not surprising that a two way ANOVA using these variables did not produce significant results. As has been noted previously, after testing 151 subjects the breakdown by cells was so badly lopsided, with some cells having so few cases, that finding significant differences was almost precluded. From a statistical standpoint Hypothesis 5 was not supported; disciplinary experiences and television viewing habits were

not found to interact to produce a different pattern of heart rate responses to a violent stimulus.

Figure 1 (page 82), is a graph of the heart rate patterns of the six groups. The overall pattern, all subjects combined, shows a gradual steady increase in heart rate during the viewing of the boxing match. Only one group had a steady decline in heart rate; that group was composed of those who were severely discipline and watched less television. One group showed essentially no change; that group was composed of those who were severely disciplined and watched more television. The group showing the greatest increase was of those who were light television viewers who were mildly disciplined.

While a two way analysis of variance with repeated measures was not able to show a significant effect, visual inspection of these patterns suggests a trend in the hypothesized direction. Perhaps, a design that assured adequate representation in all cells would have found the hypothesized relationship. Certainly if the marked differences in response patterns between the severely punished and mildly punished held up when the number of severely punished was balanced, a significant difference would result. Further study of this relationship appears justified despite this study's failure to support the hypothesis.

Hypothesis 6. Hypothesis 6 was supported by the regression equation produced when the television and discipline variables were entered with a stepwise procedure. As was noted in the Results chapter, the violence content of television viewing during childhood was the best single predictor, followed by frequency of physical discipline.

Further, these two variables were largely independent and consequently additive. When the child's perceptions about the appropriateness of the discipline were added, a multiple correlation of .55 ($p < .001$) was obtained with the SVI social violence score, accounting for about one-third of the variance of the SVI score.

Perhaps in light of Bandura's findings (1962) these results should not be surprising. Modeling of behavior is modeling, be the model live, on television or animated. Hitting is violent behavior whether the hitter is on television or is a parent spanking a child. Television viewing and home discipline could be considered analogous to the lecture and laboratory approach to teaching; one watches and then one does; this is a good approach to teaching.

The following section of this chapter expands the formulation of a model for the development of violent behavior. It will be argued, based on recent work in cognitive behavioral psychology, that the critical element is less what the children have learned, and more of what no one has taught them. While a simpler learning theory approach does not conflict with the above described findings, a cognitive approach perhaps offers a better fit.

Synthesis and a Theory

As has been said several places and in several ways previously, this study found a significant relationship between disciplinary experiences, television viewing as a child and the development of social violence. This study did not find statistically significant evidence of physiological desensitization to violence, though the suggestion that

desensitization may be occurring, despite this study's failure to show it, has been offered.

The effect of television. A clear pattern of significant correlations between measures of television viewing during childhood and young-adult violent behavior is supportive of the contention that there is a relationship between television viewing during childhood and the development of violent behavior. The pattern of correlations does not support a contention that violent people seek out violent programs. Rather, the correlations suggest that the total amount of exposure to violence is, of the variables considered, the single best predictor of adult violence.

This finding is consistent with much previous work. As an NIHM Summary Report (1982) notes,

> the evidence seems overwhelming that televised violence and aggression are positively correlated in children. The issue now is what processes produce the relation. Four such processes have been suggested; observational learning, attitude changes, physiological arousal, and justification processes. (p. 38)

The NIMH report goes on to recommend that future research should not only study television and those four processes, but also characteristics of the child that lead to the child being more or less affected by television. The findings of this study have implications for both areas.

Kaplan and Singer (1976) suggested that people who are already violent may select violent programs to justify their behavior. Data presented earlier argue against this hypothesis. The one significant

correlation between average violence level of programs watched and actual violent behavior was a small negative correlation, indicating a relationship in the opposite direction from that predicted by Kaplan and Singer's theory.

This study did not find evidence of the predicted desensitization. A main effect of the televised scene was shown, but subjects who watched more television or who watched more violence on television did not respond differently from those who reported watching less television during the week prior to their involvement. More research in this area is indicated.

Observational learning and attitude change, both of which may be occurring, remain two very viable explanations. They probably should not be thought of in any sense as mutually exclusive. It is notable, however, that since home discipline experiences and television viewing both contribute substantially to the obtained prediction equation they may well contribute to different aspects of the development of violence. Were both television and discipline, for example, to primarily affect the development of violence by providing a model of violence it seems logical to assume there would be a substantial overlap in their impact on children. Little overlap was found. They appear to be very independent factors.

Since they are rather independent and additive it follows that children high in both are at greatest risk for developing violent behaviors. Table 19 shows cell social-violence averages for the six cells created by a 2 × 3 breakdown of home discipline severity and

childhood exposure to television violence. These data, if nothing else, rather dramatically support a call for further research into the interrelationship between these two variables. The low number of severely punished subjects for whom childhood television data was available dictate caution in drawing implications, but they do provide a basis for the hypothesis that severely punished children are among those most strongly affected by exposure to television violence.

Table 19

Severity of Discipline by Childhood Exposure to Television Violence Breakdown--Social Violence Score Cell Averages

	Mild punishment	Moderate punishment	Severe punishment
Low TV	8.0	10.4	14.3
(n)	(18)	(16)	(3)
High TV	12.1	10.6	19.7
(n)	(16)	(20)	(3)

The effect of discipline. Welsh's Belt Theory of Delinquency (1976) postulated a relationship between severe parental punishment and the development of delinquent behavior. This study indirectly offers support to that theory's conclusions, though not in all cases to the described mechanisms. Those subjects who had been bruised or otherwise injured by their parents did report significantly more violent behavior. Actual disciplinary techniques, however, appear far less important than

the severity or the frequency of the disciplinary experiences. It is not whether the parent uses his or her hand to spank, but how hard the child is hit and how frequently.

Secondly, while some desensitization to violence may occur, and that in fact may contribute to the development of violent behavior, it does not appear to be sufficiently pronounced as to be the primary or sole mechanism effecting violent behavior. Desensitization to the fear of punishment, also a part of Welsh's formulation, was not studied.

Frequency of punishment and the child's perceptions of the appropriateness of the discipline are aspects of punishment not dealt with in Welsh's theory. Both bear a significant relationship to severity of punishment, but, too, both contribute to the development of violent behavior in their own rights. Neither contradicts Welsh's theory, but both offer the promise of expanding that theory.

Certain questions arise based on this study's findings. Three questions will be posed, then subsequently a model will be offered that will hopefully provide a basis for their answers. The three questions are: first, why do those subjects who reject the appropriateness of their parents more violent disciplinary techniques also report more violent behavior that those who saw the violent techniques as appropriate? Second, why does the modeling on television supplement, rather than duplicate the modeling effects of violent discipline? Finally, why are some subjects, exposed to both, still low in violent aggression?

Why do those subjects who rejected the appropriateness of their parents more violent disciplinary techniques also report more violent

behavior than their colleagues who accept the use of those violent techniques? It seems logical to assume that those who accepted the appropriateness of severe punishment would be more accepting of the appropriateness of using physical methods in other situations. But, in fact, the opposite appears true.

As Bandura long ago demonstrated (1962) the modeling of aggression produces the same behavior whether the model was physically present, seen on television or animated. Why then are television modeling and the modeling of disciplinary violence such independent variables? It seems logical to assume that, in terms of their effect, they would be duplicative. High on either would be expected to produce more aggression, but high on both should not accentuate the problem. In fact, though, the opposite is true. One appears to potentiate the effect of the other.

Finally, while significant group mean differences were found, all groups had some individuals who reported little or no violent aggression. At least one subject with both severe parental punishment and higher levels of childhood television viewing reported no violently aggressive behavior. How could the effects of these experiences seemingly miss some subjects?

A cognitive behavioral approach. It is proposed that learned behaviors and desensitization only form half of the story. Of equal importance are behaviors not learned. Becoming violent involves not merely the learning of violent behaviors (a normal two year old may have a behavioral repertoire which includes hitting), but also the failure to

learn methods to cognitively regulate anger and stress and the failure to master interpersonal problem solving skills.

Novaco (1979) has written a detailed analysis of the cognitive regulation of anger and stress including an approach to clinical intervention. He sees anger as an affective stress reaction, usually provoked by aversive psychosocial events. The response to that reaction is mediated by factors including the persons appraisal of the provocation, expectations, skills in coping with the physical effects of the arousal, and problem solving skills. Anger can be an appropriate and adaptive response, but can also be responded to maladaptively. An example of an usually maladaptive response is violent aggression.

Butler and Meichenbaum (1981) and Spivak, Platt, and Shure (1976) have described one critical aspect of Novaco's analysis, the person's interpersonal problem solving skills, as including: Problem sensitivity, alternative solution thinking, means-ends thinking, consequential thinking, and causal thinking. Butler and Meichenbaum define these aspects as follows:

1. Problem sensitivity--an awareness of problems that beset human interactions, and the ability or willingness to examine what may have gone wrong in any given interpersonal interaction.
2. Alternative-solution thinking--the ability to generate a wide variety of potential problem solutions by suspending judgment and withholding censorship of ideas.
3. Means-ends thinking--the ability to articulate step-by-step means to problem solution (a skill that encompasses recognition of obstacles, alternatives, and social consequences, as well as an appreciation that interpersonal problem solving is a complicated and often time-consuming process).
4. Consequential thinking--the tendency to consider consequences of social acts in terms of oneself as well as others, and to generate alternative consequences to any act of significance before deciding what to do.

5. Causal thinking--an appreciation of social and personal motivation, the realization that how one feels and acts may have been influenced by (and, in turn, may have influenced) how others feel and act.

It is proposed that parents who rely more heavily on physical discipline are not, themselves, using many of these skills. By not using the skills they are failing to provide a model for the child of those cognitive behaviors most necessary for the appropriate handling of interpersonal problems. Without models, how is the child to learn the intrapersonal or interpersonal behaviors for coping or problem solving?

For parents, problem sensitivity would imply an early awareness of developing problems and the probability of non-judgmental reflection on a chain of events that may have led to the development of the problem. As a parent discusses the "problem" with a child the parent is bringing to the child's attention the fact that a problem exists and that it is perhaps related to feelings or behaviors the child is expressing. Not only is the parent modeling a behavior, the parent is communicating a value system that says "let us identify the problem now before it becomes larger."

In discussing "the problem" the parent is also likely to explicitly model causal thinking. The problem has a cause and an effect, and in fact through the child effects others. The child is unhappy. The parent helps the child identify the cause of the unhappiness, and quite probably expresses feelings of empathetic concern. The child, then, is exposed to modeling of causal thinking.

In working with the child to develop solutions to the problem the parent may model one or more of the solution fomenting strategies:

alternative-solution thinking, means-end thinking, and or consequential thinking. A plan is developed that, it is hoped, will help end the disturbing feelings or behaviors.

A willingness to talk and to listen, an awareness of the possibility of precipitating causes, and a concern for the effects of behavior are attitudes modeled in this process. The specific cognitive strategies used to identify problems and to engender solutions are modeled. If the child, with or without the parent's help, uses these skills successfully then, with the problem's solution, the child is negatively reinforced. This increases the likelihood that the child will again try these methods, and ultimately that the child will be more skillful in interpersonal relationships.

Parents get angry at their children. How a parent responds to that anger varies. Some parents, when angry, hit. Some use words to chastise. Some physically separate themselves from the child. Again, as before, the parent is modeling. Those parents who have developed self regulation strategies that enable them to feel and communicate that anger without losing self control are modeling adaptive behaviors. The child sees how a person can be angry, but not out of control. Specific behaviors employed by the parents, for example taking a brief time to relax tense muscles or to identify emotions can be copied by the child.

Unfortunately, not all parents have these behaviors in their repertoires. If the parent does not use these strategies, the parent is more likely to let smaller problems grow bigger. The parent is more likely to lose self control in anger and to hurt the child. Still the

parent is modeling. The parent is now, however, modeling the adaptive behaviors described earlier.

The answers to the questions asked earlier follow logically and testably from this perspective. Why do subjects who saw their parents' harsh tactics as inappropriate also report more violent behavior themselves? Their evaluations of their parent's behavior probably hold some validity. Quite possibly their parent's actions were less appropriate. As evidenced by being less appropriate, they were less able to handle the confrontations, stresses, and anger that occur naturally in families, and so they modeled fewer effective coping behaviors and problem solving skills. Having no models the children developed fewer of these skills to use to avoid violent confrontations. Consequently, they are more likely to find themselves in violent situations.

Why are television and physical punishment so additive since they model the same behavior? Television may well increase the acceptability of violent behavior. The contribution that a less appropriate punishment style makes is not only the model of violence, though that may be important, but also the failure to model more effective coping and problem solving strategies. The children grow up without necessary cognitive skills. Theoretically, television could model these skills, though perhaps less effectively than parents, and recent work in television's ability to teach presocial behavior (e.g., Friedrich & Stein, 1973) offers a thread of hope that at some point it will. However, home remains a primary source for the development of

interpersonal skills. When the skills taught are mal-adaptive it should not be surprising that the child's behavior is mal-adaptive.

Why are some people, exposed to both severe punishment and higher levels of television viewing, not higher in social violence? "Significant other" models of behavior other than the punishing parent may be available to the child. The spouse of the punishing parent, another relative or friend may be available and able to provide the model for the needed cognitive skills. Consequently, though the child may be exposed to much violence, the child may develop in his or her repertoire of behaviors those skills needed to handle relationships quite well. The critical element, then, is whether that effective model exists for the child.

The implications of changing perspectives on the development of violence are worth considering. While violent behaviors may be modeled and learned, intra and inter personal social skills also need to be modeled and subsequently learned if violent confrontations are to be avoided. Implications stretch from psychotherapeutic interventions to the criminal justice system, from approaches to the prevention of child abuse to the handling of discipline problem children in schools. As noted earlier Novaco has already developed a therapeutic program for intervention with anger and stress. While he only tangentially related that approach to problems involving violent behavior, it seems appropriate to consider its utility with persons convicted or referred due to acts of violence, especially those stemming from aroused emotions. It also may provide a framework for intervention with child

abusers and with abused children. Since, from this framework, both the abuser and the abused would be expected to lack the basic skills and techniques, it would be appropriate to teach those techniques. This theoretical perspective sheds light on the frequently cited cycle of violence; the abuser growing up to be abusive. The abused child has not learned alternative strategies or coping skills, and is consequently "at risk" of abusing.

In schools, it is essential to model appropriate social skills and problem solving skills. These skills appear sufficiently important to justify actively teaching them, rather than just passively modeling them. Unfortunately, not only are they rarely purposefully addressed, policies and practices currently in effect in many schools actually promote quite the opposite. Too, frequently teachers themselves cannot or will not model these behaviors.

Corporal punishment in the schools is an especially inappropriate and noxious practice. When it is used not only the child being punished, but the entire class of children are denied an opportunity to learn more humane and effective problem solving strategies. This research, as well as an earlier study (Townsend & Wielkiewicz, 1983) on the relationship between corporal punishment and violence, justifies demanding that schools start accepting their responsibility to develop citizenship in students. To do so requires an abandoning of practices more in tune with authoritarian domination and power in favor of approaches capable of producing skills in interpersonal problem solving and coping.

If as a society we are interested in decreasing the level of violence that has so badly hurt the quality of our life, then we must look at how our children are taught. They can be taught at home, at school, and on television to be violent or they can be taught how to live in harmony with others.

Further Research

A cognitive behavioral approach to the development of violent behavior suggests that the cognitive rules, self regulating mechanisms, and problem solving strategies necessary to keep interpersonal confrontations nonviolent may not be as developed among those raised more violently. The findings of this study are consistent with that theoretical formulation, but further study is indicated.

The child's perceptions of the appropriateness of discipline seems an important factor in determining the impact of the discipline. This study has found a relationship between the frequency of discipline, the severity of discipline and the child's perceptions of the appropriateness of the discipline. It would seem an important issue to study how these and other factors relate to perceived appropriateness for children at various developmental levels.

If, as has been suggested here, the development of violent behavior is at least as much a result of what has not been learned as it is a result of what has been learned, then psychological intervention for delinquents and for child victims of abuse should include treatment strategies designed to facilitate the learning of those cognitive

behaviors and skills that are lacking. In and of itself, this could be a fertile area for further research.

This study did not find the expected differences in heart rate responsiveness, but methodological problems may have contributed to this failure. Further study of possible desensitization is warranted. Trends noted in the data are promising.

All of the findings reported here are based on a male population. It would be appropriate to study the relationship among these factors for females.

Limitations

This study was based on a population of undergraduate males attending a medium sized north central university. The region is overwhelmingly populated by people of Scandinavian and central European ancestry. All subjects were caucasian. These characteristics limit the generalizability of the findings, especially those findings of a descriptive nature. Other, culturally different areas may well approach discipline differently. Obviously, the results of this study cannot be generalized to females. It is also quite possible that a non-college population would differ from the sample used in this study.

The approach to sampling used, combined with the design of this study, resulted in very unbalanced ANOVA cells. Because of the loss of heart rate data on some subjects, those hypotheses involving heart rate measures were based on a further reduced population. The combination of these design and technical problems causes substantial reservation about

the confidence with which the statistical rejection of the heart rate related hypotheses are presented.

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APPENDICES

APPENDIX A

SOCIAL VIOLENCE INDEX

DO NOT PUT YOUR NAME ON THIS FORM
to protect your privacy this form is number coded

NUMBER_____

Social Violence Questionnaire

_____ 1. Have you hit a person of your sex and age in the past five years?

a) no
b) once
c) several times
d) frequently

_____ 2. Have you hit a person of your age and the opposite sex in the past five years?

a) no
b) once
c) several times
d) frequently

_____ 3. Have you been hit by a person of your age and sex in the past five years?

a) no
b) once
c) several times
d) frequently

_____ 4. Have you been hit by a person of the opposite sex during the past five years?

a) no
b) once
c) several times
d) frequently

_____ 5. Have you been involved in a physical fight with a person of your sex during the past five years?

a) no
b) once
c) several times
d) frequently

_____ 6. Have you been involved in a physical fight with a person of the opposite sex during the past five years?

a) no
b) once
c) several times
d) frequently

_____ 7. Did you ever get into trouble for fighting at school? (e.g. sent to principal, expelled, suspended, ETC.)

a) no
b) once
c) several times
d) frequently

_____ 8. Have you ever been in trouble with the law for an act of violence?

a) no
b) once
c) several times
d) frequently

_____ 9. Have you hit one of your parents in the past five years?

a) no
b) once
c) several times
d) frequently

_____ 10. Have you hit a sibling (brother or sister) in the past five years?

a) no
b) once
c) several times
d) frequently

_____ 11. Have you been hit by one of your parents in the past five years?

a) no
b) once
c) several times
d) frequently

_____ 12. Have you been hit by a sibling in the past five years?

a) no
b) once
c) several times
d) frequently

_____ 13. Have you been the victim of a violent crime?

a) no
b) once
c) several times
d) frequently

_____ 14. Have you purposefully destroyed or defaced public property in the past 5 years?

a) no
b) once
c) several times
d) frequently

_____ 15. Have you threatened to physically hurt someone of your age in the last 5 years?

a) no
b) once
c) several times
d) frequently

_____ 16. Has someone threatened to physically hurt you in the last 5 years?

a) no
b) once
c) several times
d) frequently

_____ 17. Has someone purposefully destroyed something of yours that you valued in the last 5 years?

a) no
b) once
c) several times
d) frequently

_____ 18. Have you been forced to do something against your will under the threat of violence in the last 5 years?

a) no
b) once
c) several times
d) frequently

APPENDIX B

HOME DISCIPLINE QUESTIONNAIRE

PLEASE DO NOT PUT YOUR NAME ON THIS FORM

DISCIPLINE QUESTIONNAIRE

number _____

1. Which of the following disciplinary techniques did your parents use with you when you were young (preschool through elementary school years)? (Check all that are appropriate)
   _____ a. Time out (e.g. sent to room, stood in corner, etc.)
   _____ b. Talking or scolding
   _____ c. Mild spanking with hand
   _____ d. Spanked hard with hand
   _____ e. Hit with fist
   _____ f. Spanked with an object (e.g. hairbrush)
   _____ g. Whipped (e.g. with extension cord, belt, etc.)
   _____ h. Beaten extensively
   _____ i. Other _____

2. How frequently were you spanked?
   _____ a. Never
   _____ b. Rarely
   _____ c. Up to once a month
   _____ d. Up to once a week
   _____ e. Several times each week
   _____ f. Daily
   _____ G. Several times daily

3. Did spankings or whippings leave bruises or other injuries?
   _____ a. Never
   _____ b. Occasionally
   _____ c. About half the time
   _____ d. Usually
   _____ e. Always

4. Did you at the time feel that disciplinary techniques were appropriate?
   _____ a. Never
   _____ b. Occasionally
   _____ c. About half the time
   _____ d. Usually
   _____ e. Always

5. In retrospect do you now feel that the disciplinary techniques used were appropriate?
   _____ a. None of it was appropriate
   _____ b. Sometimes it was appropriate
   _____ c. Usually it was appropriate
   _____ d. It was always appropriate

6. Do you plan to use, or are you using the same techniques with your children?
   _____ a. Yes
   _____ b. No
   _____ c. I do not plan to have children

APPENDIX C

TELEVISION CHECKLIST

(SAMPLE)

SUNDAY - October 31

6:00	_____	Soccer Made in Germany	PBS
	_____	60 Minutes	CBS
	_____	Voyagers	NBC
	_____	Robert Schuller Special - Religion	ABC
7:00	_____	Nature - Documentary	PBS
	_____	Archie Bunker's Place	CBS
	_____	Chips	NBC
	_____	Matt Houston	ABC
7:30	_____	Gloria	CBS
8:00	_____	Masterpiece Theater	PBS
	_____	Jeffersons	CBS
	_____	Movie - "Halloween"	NBC
	_____	Movie' "The Wild Women of Chasity Gulch"	ABC
8:30	_____	One Day at a Time	CBS
9:00	_____	Boyd Chtistenson Interviews	PBS
	_____	Trapper John	CBS
9:30	_____	Eric Sevaried's Chronicle - News Magazine	PBS
10:00	_____	News	CBS
	_____	News	NBC
	_____	News	ABC
HBO	_____	Bear Island	
HBO	_____	Halloween II	

MONDAY - November 1

6:00	_____	Nightly Business Report	PBS
	_____	News	CBS
	_____	News	NBC
	_____	Little House on the Prairie	ABC

6:30	_____	MacNeil, Lehrer Report	PBS
	_____	Mash	CBS
	_____	Entertainment Tonight	NBC
7:00	_____	Great Performances	PBS
	_____	Square Pegs	CBS
	_____	Little House on the Prairie	NBC
	_____	That's Incredible	ABC
7:30	_____	Private Benjamin	CBS
8:00	_____	All Star Tribute to Ernest Tubb	CBS
	_____	Movie - "Born Beautiful"	NBC
	_____	Movie - "Burbaker"	ABC
8:30	_____	Magic of Dance - Documentary	PBS
9:00	_____	Six Great Ideas - Discussion	PBS
10:00	_____	Dick Cavett	PBS
	_____	News	CBS
	_____	News	NBC
	_____	News	ABC
HBO	_____	Crystal Gayle	
HBO	_____	Paternity	

TUESDAY - November 2

6:00	_____	Nightly Business Report	PBS
	_____	News	CBS
	_____	News	NBC
	_____	Little House on the Prairie	ABC
6:30	_____	MacNeil, Lehrer Report	PBS
	_____	Mash	CBS
	_____	Election Coverage	NBC
7:00	_____	Nova	PBS
	_____	Election Coverage	CBS

	_____	Election Coverage	ABC
8:00	_____	Mystery	PBS
9:00	_____	Sound Festival	PBS
10:00	_____	Dick Cavett	PBS
	_____	News	CBS
	_____	News	NBC
	_____	News	ABC
HBO	_____	Prince of the City	
HBO	_____	Ghost Story	

WEDNESDAY - November 3

6:00	_____	Nightly Business Report	PBS
	_____	News	CBS
	_____	News	NBC
	_____	Little House on the Prairie	ABC
6:30	_____	MacNeil, Lehrer Report	PBS
	_____	Mash	CBS
	_____	Entertainment Tonight	NBC
7:00	_____	Previn and the Pittsburg	PBS
	_____	Seven Brides for Seven Brothers	CBS
	_____	Real People	NBC
	_____	Tales of the Gold Monkey	ABC
8:00	_____	Stanley Kramer on Film - Profile	PBS
	_____	Alice	CBS
	_____	Facts of Life	NBC
	_____	Fall Guy	ABC
8:30	_____	Filthy Rich	CBS
	_____	Family Ties	NBC
9:00	_____	Non Fiction TV Documentary	PBS
	_____	Tucker's Witch	CBS

	_____	Quincy	NBC
	_____	Dynesty	ABC
10:00	_____	Dick Cavett	PBS
	_____	News	CBS
	_____	News	NBC
	_____	News	ABC
HBO	_____	So Fine	
HBO	_____	Money Mattery	
HBO	_____	Catch a Rising Stairs	
HBO	_____	10th Anniversary	

THURSDAY - November 4

6:00	_____	Nightly Business Report	PBS
	_____	News	CBS
	_____	News	NBC
	_____	Little House on the Prairie	ABC
6:30	_____	MacNeil, Lehrer Report	PBS
	_____	Mash	CBS
	_____	Entertainment Tonight	NBC
7:00	_____	Sneak Previews	PBS
	_____	Magnum P.I.	CBS
	_____	Fame	NBC
	_____	Joanie Loves Chaci	ABC
7:30	_____	Night Times	PBS
	_____	Star of the Family	ABC
8:00	_____	Wild America	PBS
	_____	Simon & Simon	CBS
	_____	Cheers	NBC
	_____	Too Close for Comfort	ABC
8:30	_____	Hitch Hikers' Guide to the Galaxy	PBS

	_____	Taxi	NBC
	_____	It Takes Two	ABC
9:00	_____	Austin City Limits	PBS
	_____	Knots Landing	CBS
	_____	Hill Street Blues	NBC
	_____	20/20	ABC
10:00	_____	Nigh Times	PBS
	_____	News	CBS
	_____	News	NBC
	_____	News	ABC
HBO	_____	True Confessions	
HBO	_____	Crystal Gayle	

FRIDAY - November 5

6:00	_____	Nightly Business Report	PBS
	_____	News	CBS
	_____	News	NBC
	_____	Little House on the Prairie	ABC
6:30	_____	MacNeil, Lehrer Report	PBS
	_____	Mash	CBS
	_____	Entertainment Tonight	NBC
7:00	_____	Washington Week in Review	PBS
	_____	Dukes of Hazzard	CBS
	_____	Powers of Matthew Star	NBC
	_____	Benson	ABC
7:30	_____	Wall Street Week	PBS
	_____	Odd Couple	ABC
8:00	_____	N.D. This Week	PBS
	_____	Dallas	CBS
	_____	Kight Rider	NBC

	_____	Greatest American Hero	ABC
9:00	_____	Chrysler: Once Upona Time and Now	PBS
	_____	Falkon Crest	CBS
	_____	Remington Steele	NBC
	_____	The Quest	ABC
10:00	_____	Night Times	PBS
	_____	News	CBS
	_____	News	NBC
	_____	News	ABC
HBO	_____	Ghost Story	
HBO	_____	Paternity	

SATURDAY - November 6

6:00	_____	Direct Selling	PBS
	_____	News	CBS
	_____	News	NBC
	_____	Little House on the Prairie	ABC
6:30	_____	Market to Market	PBS
	_____	Dance Fever	CBS
	_____	Wild Kingdom	NBC
7:00	_____	All Creatures Great and Small	PBS
	_____	Walt Disney Movie "No Deposit No Reture"	CBS
	_____	Diff'rent Strokes	NBC
	_____	T.J. Hooker	ABC
7:30	_____	Silver Spoons	NBC
8:00	_____	Body in Question	PBS
	_____	Movie "One Shoe Makes it Murder"	CBS
	_____	Gimme A Break	NBC
	_____	Love Boat	ABC
8:3-	_____	Love, Sidney	NBC

9:00	_____	Matinee of the Bijou - "High Gear"	PBS
	_____	Devlin Connection	NBC
	_____	Fantasy Island	ABC
10:00	_____	News	CBS
	_____	News	NBC
	_____	News	ABC
HBO	_____	Sherlock Holmes	
HBO	_____	True confessions	

APPENDIX D

1972 TELEVISION LISTING

These programs were aired on network television during 1972. Please check those programs you remember watching.

1.	Walt Disney Show		26.	Bill Cosby Show	
2.	Gunsmoke		27.	Let's Make a Deal	
3.	The Carol Burnett Show		28.	MASH	
4.	The Bold Ones		29.	New Dick Van Dyke Show	
5.	The FBI		30.	The Protectors	
6.	Marcus Welby, M.D.		31.	Night Gallery	
7.	The Brady Bunch		32.	The Mouse Factory	
8.	Hawaii Five-O		33.	Maude	
9.	Bonanza		34.	NBC Reports	
10.	Here's Lucy		35.	The Golddiggers	
11.	Laugh-in		36.	Candid Camera	
12.	Ironside		37.	Adam-12	
13.	The Dean Martin Show		38.	Search	
14.	Love American Style		39.	The Waltons	
15.	The Mod Squad		40.	Flip Wilson Show	
16.	Medical Center		41.	Sonny and Cher Comedy Hour	
17.	Room 222		42.	Sanford and Son	
18.	The Doris Day Show		43.	Banyon	
19.	Anna and the King		44.	World of Survival	
20.	The Sandy Duncan Show		45.	Monday Night Football	
21.	Mannix		46.	Temperature's Rising	
22.	Macmillan and Wife		47.	The Paul Lynde Show	
23.	Johnny Mann's Stand up and Cheer		48.	The Adventures of Black Beauty	
24.	I've Got a Secret		49.	Owen Marshall, Counselor at Law	
25.	Wait Till Your Father Gets Home		50.	The odd Couple	

51. Davey and Goliath _____
52. The Jetsons _____
53. Cannon _____
54. Police Surgeon _____
55. Banacek _____
56. Young Dr. Kildare _____
57. Hollywood Squares _____
58. Circus _____
59. The Adventurer _____
60. Ghost Story _____
61. George Kirby Show _____
62. The Rookies _____
63. Safari to Adventure _____
64. The Parent Game _____
65. Julie Andrews Hour _____
66. The Men - "Assignment Vienna" _____
67. The Partridge Family _____
68. Casper the Friendly Ghost _____
69. Bugs Bunny / Road Runner Hour _____
70. Scooby - Doo _____
71. Pink Panther Show _____
72. Patchwork Family _____
73. Amazing Chan and the Chan Clan _____
74. Josie and the Pussycats in Outer Space _____
75. Zoocrama _____
76. The Houndcats _____
77. The Barkleys _____
78. The Jackson Five _____
79. The Brady Kids _____
80. Dodo _____
81. H.R. Pufnstuf _____
82. Sabrina _____
83. The Flintstones _____
84. Underdog _____
85. Roman Holidays _____
86. Sealab 2020 _____
87. The Osmonds _____

APPENDIX E

NCTV RATING CRITERIA

The following criteria have been provided by the National Coalition on Television Violence and are presented in full.

N.C.T.V. TELEVISION VIOLENCE MONITORING PROJECT *

General Operating Procedures:

NCTV is a national public interest organization devoted to reducing excessive and unrealistic depictions of violence in the mass media. Research (including over 600 studies during the last 25 years) has clearly demonstrated that such excessive media violence does have harmful effects on viewers and society-at-large, and poses a public health hazzard of possibly major proportions. It is NCTV's goal to bring pressure where necessary to effect a 75% decrease in current levels of television violence.

NCTV monitors prime-time and Saturday morning network television programming on a weekly basis for violent content and program sponsorship. Monitoring is carried out by a staff of paid, trained personnel utilizing videocassette recorder equipment to tape and replay programs to be monitored. A set of systematic guidelines (attached) is used to define and clarify those acts which will and won't be counted in the monitoring process. The guidelines focus on "interpersonal violence", defined briefly as "the deliberate and hostile use of overt force by one individual against another". Each week certain programs are viewed and scored by more than one monitor in order to run reliability checks on the application of the guidelines.

Scores are accumulated for the networks (including PBS and HBO), individual programs, and sponsors and released publicly at least once each quarter. Other segments of commercial TV (such as "soap operas" and fringe-time programming) are monitored as adequate justification or interest arises. NCTV also monitors newly-released big screen movies as they become available in the theatres. Further, NCTV is currently monitoring comic books and popular men's magazines for violent depictions. Future anticipated projects include monitoring foreign television, popular paperback books, and the monitoring of alcohol consumption on American TV. While currently focussing on the violence issue, NCTV is more broadly concerned with the portrayal and over-representation of anti-social (overtly hurtful, criminal, abusive) behaviors in general in all media.

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*Project Director: Rob Gluck, M.A., Midwest Regional Office

Note: No single set of guidelines, as follow, will ever meet with the full agreement and approval of all concerned parties, and it is further acknowledged that elements of subjectivity and arbitrariness inevitably enter in to any such monitoring system. However, we have herein attempted to simultaneously take into account past monitoring systems, the pertinent scientific research, and a degree of common sense, in deriving a system which can be applied with a fair amount of objectivity and reliability.

These guidelines are revised and refined approximately every 3 months as needed.

CODING GUIDELINES FOR TELEVISION MONITORS:

GENERAL DEFINITION: "Interpersonal violence" -- The deliberate and hostile use of overt force (or the immediate and direct threat thereof) by one individual, an agent, coercively against another individual, a victim.

I. BASIC COMPONENTS OF INTERPERSONAL VIOLENT ACTS

A. AGENT AND VICTIM --

Violent acts must include an agent, who commits the violence, and a victim, toward whom the violence is directed. They may be one-and-the-same.

NOTE: At least one of the participants, either the agent or the victim, must be viewed or heard. The presence of the other participant may only be implied, so long as the implication is strong and clearcut.

B. OVERT FORCE --

Violent acts must include the use of overt force, or an immediate and direct threat thereof, in a coercive (aggressive and/or compelling manner).

NOTE: An act can count as violence only if some part of the act or force itself is viewed or heard in process. Actions that are purely implied or verbally reported after-the-fact do NOT count, nor do violent consequences by themselves count.

C. INTENT --

Violent acts must be committed with deliberate and hostile (hurtful, threatening, or intimidating) intent.

II. FURTHER ELABORATIONS, EXCEPTIONS, AND CATEGORIZATIONS

A. ACCIDENTS --

(Unintentional) violence resulting from accidents does NOT count UNLESS the accidents themselves are a direct result of ongoing violent, hostile, or otherwise highly improper action.

B. ANGER AND EMOTIONAL DISPLAYS

Anger, fear, tension, drama, excitement, and verbal abuse will NOT by themselves be herein regarded as violent. They may be included within a violent context or used to maintain the 'flow' of a violent scene in-between individual violent acts, but do not themselves constitute violence.

C. ANIMALS AND OTHER NON-HUMAN AGENTS/VICTIMS --

1. Violent action by an animal toward a human being counts.
2. Violent action by a human being toward an animal counts IF the animal is a major or ongoing character in the story OR the violence is clearly unprovoked and strictly malicious or abusive in nature.
3. "Sanctioned" forms of violence towards animals, e.g. hunting, fishing, slaughter, branding, etc. will NOT count.
4. Violence between two or more animals will NOT count ULNESS at least one of the animals is a major or central character in the plot.
5. Violence by or against non-human, but humanlike characters, e.g. Martians, animated figures, ghosts, monsters, robots, etc. does count.

D. BOMBS, EXPLOSIONS, AND BOOBY TRAPS --

Bombs and booby-traps that are intended for human beings OR that could potentially harm human beings, intended or not (and not merely property damage) count as violent acts if they go off or otherwise pose a direct threat to their human victims.

E. CHASES --

1. Chase scenes in which the victim intentionally resists or flees the agent count as a single violent act (other additional violent acts may occur in the course of the chase). Following or surveillance activity does not count as chasing.
2. Chases across or around a room or otherwise confined to a short distance or small amount of space will NOT count UNLESS the chase is of such duration and/or intensity as to be deemed violent.
3. Once initiated, a chase does NOT get counted a second time if there is any interlude of fistfighting, gunplay, conversation, etc., followed by more chasing.

F. FLASHBACKS --

Violence within flashback scenes WILL count even if already previously recorded.

G. "HORSEPLAY", PRANKS, ETC. --

Generally, typical "horseplay" (pillow fights, pie fights, playful wrestling, etc.) will not count as violent UNLESS the intent clearly appears to be more potentially hurtful than playful.

H. MERCY KILLINGS --

Mercy killings or euthanasia will NOT count as violent IF carried out by an authorized agent under legal auspices. They WILL count as violence if carried out in an illegal or unauthorized manner.

I. NATURAL CATASTROPHIES --

Violence from natural catastrophes (no agent or intent) will NOT count.

J. POISONING/DRUGGING --

Deliberate acts of poisoning or drugging with ill intent count as violence so long as administration or consumption of the poison/drug is viewed.

K. PROPERTY DAMAGE --

Violence strictly against proprerty or inanimate objects (no victim) and which poses no direct threat to human being will NOT count.

L. PRO-SOCIAL VIOLENCE --

Violent acts carried out solely with the intention of aiding the individual to whom violence is done are known as "pro-social" violence and will NOT count; e.g., medical violence and life-saving violence.

M. RESTRAINTS --

Simple restraints will NOT count as violence. Restraint scenes must involve hostile intent and a strong show of force (or threat thereof) OR be of lengthy duration, before they may qualify as violent acts. (see Addendum II)

N. SLAPSTICK COMEDY AND OTHER NON-DRAMATIC VIOLENCE --

All violent acts are to be judged by the same consistent set of criteria regardless of context. Therefore violent acts are

scored identically whether within a comedic, documentary, or dramatic context. This is done to help insure as much objectivity and consistency in the application of the guidelines as possible. Also, research indicates harmful effects stemming from violent portrayals in any context.

O. SPORTS AND ENTERTAINMENT VIOLENCE --

Violent action that is a normal, sanctioned part of a legitimate sport or that is otherwise part of a prepared performance (circus act, magic tricks, daredevil stunts, etc.) will NOT be counted. Violent action that is NOT a normal or sanctioned part of a sport, stunt, etc. WILL however count.

P. SUICIDE AND SELF-INFLICTED VIOLENCE --

All (witnessed) suicides, suicide attempts, and otherwise intentionally self-inflicted violence WILL count as violence.

Q. THREATS --

1. Purely verbal or gestural threats will NOT count as violence.
2. However, direct and immediate threats toward a victim that involve a weapon or other evident force (including a fist) WILL count.

III. LEVELS OF VIOLENCE --WEIGHTING (see also Addendum IV)

Under the system here being used violent acts receive a weighted score reflecting their relative seriousness. The weighting scale has 3 basic levels and is based both on the agent's intent and the act's consequences.

A. LEVEL C (Highest level, weighted a 5)

Level C consists of:

1. those violent acts employing deadly force with the clear intention of killing, maiming, or otherwise severely incapacitating the victim (e.g., shootings, stranglings, stabbings, poisonings, bombings, hangings, severe beatings, severing a limb, pushing off a cliff, etc.).

2. those violent acts which lead directly to death or maiming, whether intended or not.

3. violent acts which render the victim unconscious.

4. deliberate acts of severe torture.

5. rape assaults.

B. LEVEL A (Lowest level, weighted a 1)

Level A consists of:

1. those violent acts (potentially) resulting in only minor and very momentary pain, if any (mild pushes, grabs, spankings, jerks, pinches, etc.).

2. chases with no weapons or out-of-range weapons.

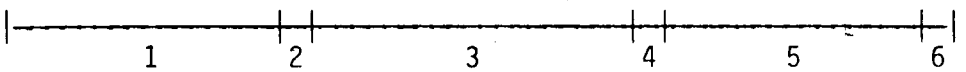
3. immediate and direct threats made with something other than a deadly weapon (fist, rolled-up newspaper, mace, etc.).

4. forceful restraints of short duration or mild restraints of lengthy duration (refer to Addendum II).

C. LEVEL B (Middle level, weighted a 3)

Level B consists of all violent acts not clearly falling into either levels A or C (e.g., fistfights, threats with deadly weapons, strong pushes and slaps, throwing objects at someone, car crashes, kidnapping, kicking, forceful and lengthy restraints, etc.)

NOTE: Special Discretionary Points - At the discretion of the monitor a single point may be added or subtracted to the score for any specific given act if, in the monitor's judgment, the intensity, duration, or mitigating context of the violence is such as to warrant a modification in the weighting normally accorded the given act's level. Thus, Level C acts may actually range from 4 to 6, Level B acts from 2 to 4, and Level A from 1 to 2. The attached Addendum I lists possible examples in pictorial form, of the approximate proportion of acts that might be expected to occur at each level, given a large sample of data.



IV. UNITIZING VIOLENT ACTS

Various scenes (primarily fights, brawls, and chases) may include several successive violent acts. Generally, each of these acts will be counted and weighted separately in accordance with the following guidelines:

A. NEW CHARACTER --

A new violent act has begun whenever a new character (agent or victim) enters the ongoing action, having not previously been a part of the action or its consequences.

B. CHANGE OF AGENT --

A new violent act has occurred whenever the victim of violence in a scene becomes an active and deliberate agent of violence (who is himself attempting to inflict hurt and not acting merely in self-defense).

C. CHANGE OF TYPE OF WEAPON OR FORCE --

A new violent act has occurred whenever the agent changes from one type of weapon or force to another, OR dramatically escalates the magnitude of the force being applied. Once a given type of weapon or force has been counted once within a given scene it does not count again if re-employed at a later point within the same scene unless the ongoing violent action had clearly subsided prior to the re-employment.

D. BREAK-IN-ACTION --

1. Individual violent acts, even if identical, which are separated by a clear break-in-action (during which all violence appears to have subsided) will be counted and weighted as separate acts.

2. Flashbacks do NOT count as breaks-in-action.

3. Acts by a single agent which are strictly contiguous to one another (i.e., that follow naturally or automatically from one another) or else are simultaneous, with no significant pauses intervening will count as one act and not separately. Similarly, successive repetitions of the same act, with no intervening pause or change of action, count as only one act.

   In gunfights and fistfights with two participants each initial act of violence (first shot or punch) by each agent counts as a separate violent act, but successive repetitions of that act do not count so long as there has been no significant break-in-action, change of action, or escalation from the initial commitment to violence (shooting and hitting someone will be regarded as an escalation over shooting and missing; same for swinging and missing, and swinging and hitting).

   In gunfights and fistfights (brawls) including several participants only the initial few participants' entry into the violence shall be counted as separate acts. The larger scale scene of violence shall then be listed as a "gunfight", "Brawl", or other appropriately descriptive term and given a Level C (highest) weighting as an act by itself. If in the course of the scene the camera focuses in for significant durations of time on specific participants who have not been previously recorded then these isolated, focused-in-on acts shall be counted and weighted separately.

ADDENDUM I

Use of Discretional Points:

Generally speaking, acts may be downgraded a single point on the basis of very brief durations, very low intensity or lack of hostile intent, certain mitigating comedic contexts, or purely auditory representation of violence with no visual depiction. Acts may be upgraded a point on the basis of very lengthy durations or graphic visual/audible effects. The following are possible examples of violent acts that, depending upon specific context involved, might warrant a plus-1 or minus-1 "discretionary" point:

Shooting someone in the face at close-range with a shotgun. Blowing up someone by attaching a bomb to them. Beheading or dismembering someone. Massive war scenes (involving many individuals, shooting, bombing, death etc.). Setting someone on fire by pouring gasoline over them and lighting a match.	6 instead of 5
Mercy killing by pulling a life-support plug. Accidental deaths resulting from the use of non-deadly force. Killing of certain lower level animals under some conditions	4 instead of 5
Very lengthy fistfights Holding a gun on someone and beginning to pull trigger, but having the scene cut away to a commercial and not show actual killing. Kicking someone hard in the face causing a broken jaw. Holding someone hostage under severe conditions causing great psychological stress and anguish	4 instead of 3
Spanking a young child with a newspaper and making them cry. Comedic sparring match between a man and a man in a kangaroo suit. Slapping a horse in anger with a hat.	2 instead of 3
Grabbing someone by the collar and holding them for a period of time (or other forms of lengthy restraints). Shooting a fire hose at someone in a hostile fashion.	2 instead of 1

NOTE: In the monitoring of theatre films and HBO (uncut films) a scoring of '7' is permitted for those acts of extreme violence which in the monitor's judgment might likely be edited out if shown on commercial TV.

ADDENDUM II

Weighting of Restraint Scenes:

Restraint scenes are often among the least reliably scored (weighted) scenes between different monitors. The following guidelines are intended to aid monitors in their scoring and increase that reliability:

do not count - mild restraints, involving only mild force over a short duration and with no intent or potential to physically harm.

weighted a 1 - restraints involving EITHER a strong (potentially hurtful) show of force over a short duration of time OR a mild force applied for a lentghy duration.

weighted a 2 - restraints which involve BOTH a strong show of force AND lengthy duration, but still no intent to do lasting physical harm.

weighted a 3 - kidnapping and other lengthy restraints involving the physical removal of the victim against his will from one premises to another under threat of force or actual force.

ADDENDUM III

Program Scoring:

For each program episode monitored NCTV computes a score in terms of violent acts per hour. This score is calculated on the follwoing basis:

A Level B act (or weighting of 3) is regarded as a "standard" violent act. Level A acts therefore,only count mathematically as a third of an act, and Level C acts count as 1 and 2/3 acts. For a given program the total score of all listed acts (weightings) is calculated and then divided by 3 to obtain a number representing the total number of "standard" violent acts in the program. Next, this number is then converted to a per hour basis -- for a half-hour show it must be multiplied by 2, for a 2-hour show multiplied by .5, for a 90-minute show multiplied by .67, and for a 1-hour show remains as is.

ADDENDUM IV

Monitoring of Animation:

Animated shows are monitored using a slightly different weighting scale than that used for prime-time. Because few of the acts included in the Level C prime-time category ever occur in animated programming (or else occur with no lasting consequences), this level (and weighting)

has simply been dropped from cartoon monitoring. Cartoons, therefore, are scored only with 2 levels, weighted a 1 and a 3, with single discretionary points allowed at the option of the monitor. As with prime-time, a weight of 3 is still regarded as the "standard" violent act for purposes of computing the acts/hour score.

APPENDIX F

1972 T.V. VIOLENCE RATINGS

These programs were aired on network television during 1972. Please check those programs you remember watching.

1.	Walt Disney Show	1.4	26.	Bill Cosby Show	1.5
2.	Gunsmoke	3.2	27.	Let's Make a Deal	1.1
3.	The Carol Burnett Show	2.0	28.	MASH	2.3
4.	The Bold Ones	4.0	29.	New Dick Van Dyke Show	1.3
5.	The FBI	3.8	30.	The Protectors	3.5
6.	Marcus Welby, M.D.	1.9	31.	Night Gallery	3.0
7.	The Brady Bunch	1.3	32.	The Mouse Factory	1.0
8.	Hawaii Five-O	3.5	33.	Maude	1.8
9.	Bonanza	2.9	34.	NBC Reports	3.0
10.	Here's Lucy	1.8	35.	The Golddiggers	1.5
11.	Laugh-in	1.7	36.	Candid Camera	1.6
12.	Ironside	3.2	37.	Adam-12	3.2
13.	The Dean Martin Show	1.4	38.	Search	2.0
14.	Love American Style	1.5	39.	The Waltons	1.6
15.	The Mod Squad	3.3	40.	Flip Wilson Show	1.5
16.	Medical Center	2.3	41.	Sonny and Cher Comedy Hour	1.6
17.	Room 222	2.0	42.	Sanford and Son	1.5
18.	The Doris Day Show	1.4	43.	Banyon	1.0
19.	Anna and the King	4.0	44.	World of Survival	1.5
20.	The Sandy Duncan Show	1.3	45.	Monday Night Football	3.3
21.	Mannix	3.6	46.	Temperature's Rising	1.0
22.	Macmillan and Wife	3.1	47.	The Paul Lynde Show	1.4
23.	Johnny Mann's Stand up and Cheer	4.0	48.	The Adventures of Black Beauty	1.5
24.	I've Got a Secret	2.3	49.	Owen Marshall, Counselor at Law	2.0
25.	Wait Till Your Father Gets Home	2.6	50.	The odd Couple	1.5

51.	Davey and Goliath	1.4	78.	The Jackson Five	1.8
52.	The Jetsons	2.3	79.	The Brady Kids	1.3
53.	Cannon	3.4	80.	Dodo	1.0
54.	Police Surgeon	2.3	81.	H.R. Pufnstuf	2.3
55.	Banacek	2.9	82.	Sabrina	1.8
56.	Young Dr. Kildare	1.4	83.	The Flintstones	2.4
57.	Hollywood Squares	1.2	84.	Underdog	3.0
58.	Circus	2.0	85.	Roman Holidays	1.7
59.	The Adventurer	2.7	86.	Sealab 2020	2.1
60.	Ghost Story	1.4	87.	The Osmonds	1.3
61.	George Kirby Show	3.5			
62.	The Rookies	3.6			
63.	Safari to Adventure	1.0			
64.	The Parent Game	1.0			
65.	Julie Andrews Hour	2.5			
66.	The Men - "Assignment Vienna"	1.0			
67.	The Partridge Family	1.4			
68.	Casper the Friendly Ghost	1.8			
69.	Bugs Bunny / Road Runner Hour	3.6			
70.	Scooby - Doo	2.6			
71.	Pink Panther Show	2.7			
72.	Patchwork Family	3.5			
73.	Amazing Chan and the Chan Clan	2.4			
74.	Josie and the Pussycats in Outer Space	1.7			
75.	Zoocrama	3.0			
76.	The Houndcats	3.0			
77.	The Barkleys	2.2			

VITA

Richard B. Townsend was born in Orange, New Jersey on November 29, 1951. He graduated from Summit High School in June 1969. The following September he began college at Huntingdon College in Montgomery, Alabama. In 1971 he transferred to the University of Alabama in Birmingham, and in August 1975 he received a Bachelor of Science degree in Psychology. In the fall he began work on a Master's degree in Counseling and Guidance, and was awarded the degree in December, 1976.

After working for one year at the Center for Developmental and Learning Disabilities in Birmingham he entered the Graduate School of The University of Tennessee, Knoxville, in September 1977. He also worked, until August 1981, as a school psychologist for the Knoxville Public Schools, and as the Coordinator of a federal program for neglected and delinquent children run through the schools. He received the Doctor of Education Degree with a major in School Psychology in December 1983.

Since August 1981 he has been an Instructor in the Psychology Department of Moorhead State University in Moorhead, Minnesota. He is licensed as a psychologist by the State of Minnesota Board of Examiners of Psychologists, and is licensed as a school psychologist by the Department of Education in Minnesota and in Tennessee. He is a member of the National Association of School Psychologists, the North Central Association of School Psychologists, and the Committee to End Violence Against the Next Generation.

Mr. Townsend is married to Marilyn Lindsay Townsend, and is the father of three children.