



SCHOOL of
GRADUATE STUDIES
EAST TENNESSEE STATE UNIVERSITY

East Tennessee State University
**Digital Commons @ East
Tennessee State University**

Electronic Theses and Dissertations

8-2000

Adult's Perceptions of Children's Aggressive Play with Advertised and Non-Advertised Toys.

Lori J. Klinger

East Tennessee State University

Follow this and additional works at: <http://dc.etsu.edu/etd>

Recommended Citation

Klinger, Lori J., "Adult's Perceptions of Children's Aggressive Play with Advertised and Non-Advertised Toys." (2000). *Electronic Theses and Dissertations*. Paper 23. <http://dc.etsu.edu/etd/23>

This Thesis - Open Access is brought to you for free and open access by Digital Commons @ East Tennessee State University. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of Digital Commons @ East Tennessee State University. For more information, please contact dcadmin@etsu.edu.

ADULTS' PERCEPTIONS OF CHILDREN'S AGGRESSIVE PLAY
WITH ADVERTISED AND NON-ADVERTISED TOYS

A Thesis

Presented to

The Faculty of the Department of Psychology

East Tennessee State University

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts in Psychology

by

Lori J. Klinger

August 2000

APPROVAL

This is to certify that the Graduate Committee of

Lori J. Klinger

met on the

6th day of July, 2000.

The committee read and examined her thesis, supervised her defense of it in an oral examination, and decided to recommend that her study be submitted to the Graduate Council, in partial fulfillment of the requirements for the degree of Masters of Arts in Clinical Psychology.

Dr. Peggy Cantrell
Chair, Graduate Committee
Dr. Jon B. Ellis
Dr. Andrea Clements

Signed on behalf of
the Graduate Council

Dr. Wesley Brown
Dean, School of
Graduate Studies

ABSTRACT

ADULTS' PERCEPTION'S OF CHILDREN'S AGGRESSIVE PLAY WITH ADVERTISED AND NON-ADVERTISED TOYS

by

Lori J. Klinger

This study examined adults' perceptions of aggression in toys and toy commercials targeted toward young boys. The subjects, 262 undergraduate psychology students, completed the Buss/Perry Aggression Questionnaire and rated either a videotape of 10 boy-oriented toy commercials or slides of 10 non-advertised boy-toys. Parental status, exposure to an advertised versus non-advertised toy, and level of self-reported aggression were assessed to determine their relationship to perceptions of aggressiveness in a toy's image and predicted play with the toy.

Univariate analyses of variance and paired sample t-tests were conducted. The results indicate that toys advertised in commercials are judged to portray more aggressive images than non-advertised toys. Additionally, a person's tolerance of aggression in his or her own life may influence his/her perceptions that aggression is acceptable in certain situations, such a fantasy toy play. Finally, gender stereotyping still appears to be influential in determining appropriate toy play for boys and girls.

INSTITUTIONAL REVIEW BOARD APPROVAL

This is to certify that the following study has been filed and approved by the Institutional Review Board of East Tennessee State University.

Title of Grant or Project: Adults' Perceptions of Children's Aggressive Play with Advertised and Non-advertised Toys.

Principle Investigator: Lori J. Klinger

Department: Psychology

Date Submitted:

Institutional Review Board, Chair _____

DEDICATION

This manuscript is dedicated to my best friend, Missy Boone, for her cherished support of me as a graduate student and as a person. Thanks for always being there. I appreciate all your delicious meals, your unrelenting patience, your uncanny ability to find misplaced items, and your continuous encouragement of my educational goals -- all were nourishing to my mind and body. Your presence in my life the past few years has given me strength in only a way you would know. I also want to thank you for introducing me to the wonderful world of dachshunds -- Mouse and Maggie's paper training and irrational fondness for paper brought out the humor in the chaos I called "my research."

ACKNOWLEDGEMENTS

My gratitude and appreciation is extended to all those who made the completion of this manuscript possible. In particular, I want to thank my committee members, Dr. Jon Ellis and Dr. Andi Clements, for the guidance and support they provided in making this manuscript into a professional product that exemplifies the quality graduate education I experienced here at East Tennessee State University. I would also like to extend my sincere appreciation to the chair of my committee, Dr. Peggy Cantrell, for her wisdom, patience, and humor that nourished me throughout every stage of this project.

I would also like to extend my gratitude to two special friends. I thank Missy Boone for her dogged assistance in what appeared to be endless data entry, and I thank James Hamilton for his hints on how to complete this project and how to enjoy life to its fullest.

CONTENTS

	Page
APPROVAL	ii
ABSTRACT	iii
INSTITUTIONAL REVIEW BOARD	iv
DEDICATION	v
ACKNOWLEDGEMENTS	vi
LIST OF TABLES	x
Chapter	
1. INTRODUCTION	1
Theoretical Perspectives on Aggressive Behavior.....	5
Biological-instinctual Theories.....	5
Frustration-aggression Theories.....	6
Socio-behaviorist Theories	6
Social Learning Theory.....	7
Cognitive Information Processing Model.....	7
Cultural Spillover Effect.....	8
Theoretical Perspectives on Advertising to Children	9
Theories on Advertising’s Persuasion of Children.....	9
Theories of Child Development and Advertising	10
Theoretical Perspectives on Parenting.....	11
Whiting’s Love-oriented and Nonlove-oriented Theory	12
Moschis’ Family Communication Patterns.....	13

Chapter	Page
Empirical Findings on Observed Violence	13
Empirical Findings on Advertising to Children.....	14
Empirical Findings on Parenting, Aggression, and Television-viewing.....	15
Statement of the Problem.....	17
Hypotheses	18
2. METHOD.....	19
Participants.....	19
Measures	19
Apparatus, Toy Commercials, and Toy Pictures	21
Procedure	22
Research Design.....	24
3. RESULTS	25
Univariate Analyses of Variance	25
Paired t-Test Analyses	31
Cross Tabulation Analyses	32
4. DISCUSSION	34
Interpretations	34
Future Research	38
REFERENCES.....	40
APPENDICES.....	47
Appendix A: Aggression Questionnaire	48
Appendix B: Advertised Toy Survey.....	50
Appendix C: Nonadvertised Toy Survey	52

Chapter	Page
Appendix D: Demographic Questionnaire.....	54
Appendix E: Instructions	56
VITA	58

LIST OF TABLES

Table	Page
1. SUMMARY OF CELL SIZES FOR ANALYSIS OF VARIANCE	25
2. DIFFERENCES IN ADVERTISING, SELF REPORT OF AGGRESSIVENESS AND PARENTAL STATUS ANALYSIS OF VARIANCE: TOY'S IMAGE.....	26
3. SUMMARY OF SIMPLE EFFECTS: TOY'S IMAGE.....	27
4. DIFFERENCES IN ADVERTISING, SELF REPORT OF AGGRESSIVENESS AND PARENTAL STATUS ANALYSIS OF VARIANCE: PREDICTED PLAY.	28
5. SUMMARY OF SIMPLE EFFECTS: PREDICTED PLAY	29
6. DIFFERENCES IN ADVERTISING, SELF REPORT OF AGGRESSIVENESS AND PARENTAL STATUS ANALYSIS OF VARIANCE: PREDICTED BOY PLAY.....	30
7. DIFFERENCES IN ADVERTISING, SELF REPORT OF AGGRESSIVENESS AND PARENTAL STATUS ANALYSIS OF VARIANCE: PREDICTED GIRL PLAY.....	31
8. DIFFERENCES IN PREDICTED PLAY OF A CHILD, A BOY, AND A GIRL: PAIRED SAMPLE TESTS	32
9. DIFFERENCES IN APPROPRIATENESS OF A COMMERCIAL FOR A BOY OR GIRL: PAIRED SAMPLE TESTS	32

CHAPTER 1

INTRODUCTION

Violence has become a prominent public health concern in America. From 1985 to 1994, the number of recorded assaults, robberies, rapes, and murders grew by 40%. One demographic group, despite its low representation in the population, was responsible for 26% of this increase in violence--the American youth (Snyder & Sickmund, 1995). This alarming trend in violence includes a 249% increase in gun-related murders committed by juveniles (Federal Bureau of Investigation, 1995). The statistics also show that juveniles between the ages of 12 and 17 are more likely to become victims of crime than any other age group other than 18-24 year olds. Youth victimization is also detrimental to society since the experience of being a victim of crime has been found to influence some victims' own inclination for perpetuating violence, committing crimes, and later using adult aggression in intrafamilial relationships (Snyder & Sickmund, 1995).

Psychological research has demonstrated that violence is a learned behavior, despite the widespread layman's belief that aggression is genetic (Bandura & Huston, 1961; Bandura, Ross, & Ross, 1963; Lovaas, 1961; McCord & McCord, 1958; Mussen & Rutherford, 1961; Sears, Whiting, Nowlis, & Sears, 1953; Snyder & Sickmund, 1995). The American Psychological Association (APA, 1993) reported that many factors contribute to a child's risk profile for becoming violent. In particular, environmental factors include the home, parenting style, school, and neighborhood (Singer, Singer, & Rapaczynski, 1984). Another notable feature of aggression is it is very stable from childhood through adulthood (Olweus, 1979). Early childhood social experiences,

therefore, appear to shape future socialization, even those that cause maladaptive developmental pathways such as aggression.

One area of concern has been the impact of the environmental factor of television, specifically television violence, on children's behavior (Bandura et al., 1963; Huesmann, 1986; Sanson & diMuccio, 1993). In the past 45 years, Americans have significantly increased the amount of time they spend watching television. In 1996, 98% of American households owned a television (Myers, 1996). American children spend more time watching television than any other daily activity but sleep. The typical household has the television on seven hours a day and children ages' 2-11 watch an average of 28 hours a week (Liebert & Sprafkin, 1988). An additional concern about television is the level of violent programming viewed by children. Huston, Watkins, and Kunkel (1989) reported that the average child will have observed 8,000 murders and 100,000 violent acts on television by the time the youngster completes elementary school.

Gerbner and Signorielli (1990) reported that during the years 1987 to 1989, 20-25 acts of violence per hour occurred on children's Saturday morning shows, as opposed to five acts per hour of violence during prime time viewing. In 1995, in a "day in the life of TV entertainment" survey, the children's cartoon, *VR Troopers*, ranked as the seventh most violent program overall, with 64 violent scenes. The popular *X-Men* and *GI Joe* cartoons followed not too far behind with 44 and 39 violent acts, respectively (Media and Public Affairs, 1995). In another 1995 study, researchers singled out eight Saturday morning shows (such as *X-Men* and *Mighty Morphin Power Rangers*) as having "sinister combat violence" as opposed to slapstick violence (*Bugs Bunny*) and "tame combat violence" (*Spiderman*) (Lawthon, 1995). According to the National Television Violence

Study (Kunkel, Wilson, Donnerstein, & Blumenthal, 1995), 58% of television programs contain violence; 73% of programs with violence have no remorse; and 40% of the violent acts on television are initiated by characters portrayed as heroes or attractive role models for children.

Since the 1950s television has undergone scrutiny from parents, legislators, child developmental experts, communication media specialist, and a host of other social critics as to the potential negative effects of the medium on children. In the past three decades, three major national studies - the Surgeon General's Commission Report on the Impact of Television Violence (1972), the National Institute of Mental Health Ten-Year Follow-up (1982), and the Report of the American Psychological Association's Task Force on Television in Society (1993) - have concluded that heavy exposure to violence on television is a significant contributor to violence in society.

No one influence accounts for or causes aggression and antisocial behavior... Small influences can combine to increase the likelihood of the outcome (aggression). Small influences can combine appreciably, even though their individual contribution may be nugatory. Also, individual influences can interact (synergistically combine) with other influences and very much affect the outcome (Kazdin, 1994, p. 374).

Because even small effects can have social consequences, it makes logical sense that the content of the television commercials may have a socialization impact on children similar to the way television programming seems to.

U.S. children are estimated to see over 100 television commercials a day, accumulating to 7.5 hours of commercials, many repetitive, each week (Himmelstein,

1984). A survey by the Center for Media and Public Affairs in 1995 noted a 30% increase in violence in commercials since 1992. In fact, the rate of violent scenes in the commercials in 1995 (948) almost equaled the total amount of violent scenes (1002) in all television programming in 1992 (Center for Media and Public Affairs, 1995).

A recent trend in children's advertising has also been the marketing approach of using a program-length commercial - a program designed solely as a vehicle to promote toy products (Kunkel, 1988). Examples of such programs are He-Man, The Care Bears and Masters of the Universe. In 1987, 40 shows were connected to toys according to TV Guide (Wilson & Weiss, 1992). Condry, Bence, and Scheibe (1988) conducted a content analysis of commercials that indicated that 67% of all toy advertisements were for toys related to children's programming. As owners of these advertised toys, children may be able to bring these programs "to life" any time they want through fantasy play.

While the television has become children's "constant companion" in many households, parents are still presumed to be the most significant environmental factor in a child's social learning process. Some experts are convinced that programming and advertising on television undermine parental authority and often create alienation toward parents and their parenting style (Rothenberg, 1983). Parents are often placed in a dilemma over a child's desire for an advertised toy that the parent deems incongruent with their family values (Connor, 1989). Studies have shown that heavy television-viewing children, especially at Christmas, are more disappointed about not receiving an advertised toy than light television-viewing children (Goldberg & Gorn, 1977). Additionally, women (which include mothers) are considered "vulnerable consumers" by advertisers (and critics of target marketers). Parents as a category also appear to be a

manipulated, target market; parents, desiring to please their child, may have a diminished capacity to understand the negative aspects of an advertised toy or they may minimize the toy's impact to justify purchasing the favored toy (Ringold, 1995). Additionally, research indicated that people who engage in a behavior, such as aggressiveness, view that behavior less harshly than people who do not engage in the behavior (Connor, 1989). Parents' tolerance for aggressive acts in their own lives may diminish their capacity to understand the potential impact that an aggressive toy may have on their child's behavior.

Theoretical Perspectives on Aggressive Behavior

Aggression, "the problem of evil," has long been the concern of philosophers, theologians, and more recently, behavioral scientists. Three major psychological perspectives on aggression have been proposed over the years: biological-instinctual, frustration-aggression, and socio-behavioristic (Corning & Corning, 1971; Selg, 1971).

Biological-instinctual Theories

The biological-instinctual originated in Freud's postulate that man is endowed with an instinctive, aggressive appetite. This aggressive instinct is derived from the death instinct. According to Freud, within each person, two primitive instincts, the death instinct (destruction) and the life instinct (Eros) oppose each other. The life instinct tries to preserve a living being while the death instinct strives to disintegrate life. The life instinct tries to help a person by making the death instinct externalize its self-destruction onto objects outside of its self. This transfer of self-destruction is the aggression instinct and it usually results in motor aggression (cited in Selg, 1971).

Ethologist Konrad Lorenz also supported a similar position concerning an instinctual, aggressive drive. He defined aggression as a '...fighting instinct in beast and

man ...which is directed against members of the same species ...to ensure the survival of the individual and species' (cited in Selg, 1971, p.50). According to Lorenz, primitive humans were bred with an aggressive instinct, an impulse that civilized man is now not allowed to "spontaneously discharge." Lorenz considers competitive sports to be one way modern man has redirected this aggressive instinct (cited in Selg, 1971)

Frustration-aggression Theories

Supporters of the frustration-aggression hypothesis explain aggression as a secondary drive induced by frustration of a desired goal. Dollard and colleagues believed interference in obtaining a desire frustrates a person to the extent the individual acts out aggressively. Leonard Berkowitz later modified this hypothesis by proposing that frustration increases the probability of aggression when a desire is thwarted. Unlike the original frustration-aggression hypothesis, Berkowitz's revision concedes that not all frustration leads to aggression and not all aggression is the result of frustration (cited in Corning & Corning, 1971; cited in Selg, 1971).

Socio-behaviorist Theories

Socio-behaviorists, however, posited that violent behavior is a learned behavior gained from observations in one's environment. The socio-behaviorist perspective is most often used to explain how television violence can influence aggressive behavior, especially in children. Three socio-behavioristic theories- Bandura's Social Learning Theory, Huesmann's Cognitive Information-Processing Model, and Straus's Cultural Spillover Theory - lend support for the central theme of this study and warrant further explanation.

Social Learning Theory.

Bandura's social learning theory supports the view "...that human behavior is transmitted whether deliberately or inadvertently, largely through exposure to social models" (Bandura, 1971, p.1). According to Bandura, learning is a continuous process and observed outcomes of others' actions influence one's behavior in much the same way as having experienced the consequences personally. Observed behaviors that are rewarded increase the likelihood that the particular behavior will be modeled, and observed behaviors that are punished decrease the likelihood that the behavior will be modeled. However, observed behaviors that are considered transgressions but do not have consequences are more likely to be modeled as if the behavior had been rewarded (Bandura, 1973).

Advances in technology and the media have allowed social learning to extend beyond real-life models to symbolic models, as shown on television and films. In Bandura's view, television is a "superb tutor" and it influences viewers' "...aggressive tendencies primarily by teaching them how to aggress and by the way in which it portrays the functional value of the coercive behavior" (Bandura, 1973, p. 271). Television provides children with many opportunities to observe aggression and its consequences. Aggressive behavior that is condoned or receives no adverse consequences (both situations often experienced by indestructible, fantasy television characters) is, therefore, more likely to be modeled by children as behavior that has been rewarded.

Cognitive Information-Processing Model.

Huesmann's model is an extension of social learning theory. Huesmann suggests that social behavior is controlled by "cognitive programs or scripts" that are stored in memory. Children learn an aggressive script from observing aggressive behavior and

encoding this behavior in an internal representation. The script is rehearsed through fantasy play, making the script easier to access and allowing it to become more generalized than the original script. The child can retrieve and act out the script when a specific cue that was present during encoding becomes present in the environment at the time of retrieval (Huesmann, 1986, 1988).

The marketing approach of program length commercials with toys linked to the children's programming has significant bearing on this perspective. Based on Huesmann's model, one could propose that

exposure to violent cartoon characters and subsequent play with toys based on the cartoon series will influence children's behaviour by providing them with an opportunity to rehearse the aggressive scripts initially stored in memory or strengthened through viewing the cartoon(Sanson & diMuccio, 1993, p.93).

A toy acts as a specific cue to retrieve the encoded script learned from the aggressive program. The children can rehearse the script in fantasy play or generalize the script through aggressive acts. Huesmann's model helps make the connection between social learning of television violence with environmental cues, such as toys, which when advertised, are a significant portion of children's programming and their social learning experience.

Cultural Spillover Effect.

Straus (1991) postulates in his Cultural Spillover Theory that the presence and acceptance of violence in one sector of life legitimizes it in other aspects of life.

The more society uses force to secure socially desirable means...[such as

physical punishment in school]...the greater tendency for those engaged in illegitimate behavior to use force to attain their own ends (Straus, 1991, p. 137).

The Cultural Spillover Theory may be applicable to children's socialization and television viewing, since television in America is a significant cultural source of violence. According to Straus's theory, condoning violent programming as entertainment can legitimize violence in other areas of society. This view has implications for this study since children can observe violent acts legitimized by their appearance during children's programming. In addition, parents' passive permission in allowing them to watch the shows and toy commercials and the parents' overt support of purchasing program-related toys reinforce the acceptance of the observed aggression.

Theoretical Perspectives on Advertising to Children

Commercial advertisements are a persuasive source of information that attempts to change a consumer's behavior. Four theories -- two based on advertising's persuasion of children and two on child development - help demonstrate how commercials have the potential to be significant socialization tools for children.

Theories on Advertising's Persuasion of Children

While no direct evidence has been found to show advertisements actually change behavior, theoretical predictions indicate that adolescents may be vulnerable to persuasion by advertisements (Covell, 1992). According to imaginary audience ideation theory, children will attend to information that promises a valued image that children admire or strive to become (Elkind & Bowen, 1979). Erikson's (1968) embryonic identity theory predicts that children will attend to information that defines valued

personal characteristics. As such, children may desire to attain a certain image or personal characteristic that is portrayed by an admired television character or toy, regardless of the aggressive nature of that character or toy. This presents a concern for parents as they may actually be exposing their children to maladaptive role models through television programming and related toys.

Theories of Child Development and Advertising

Piaget's (1952) cognitive development theory provides a foundation for understanding children's response to advertising's effect. According to Piaget, children go through stages of cognitive maturity along with affective maturity. Affectivity involves emotions, feelings, and higher order drives like "will." From ages 2-7 (preoperational stage), children develop language, symbolic play, classifications, and generalizations that lead to the beginning of affective stability; from 7-12 years (concrete operations stage), children understand the conservation of objects which extends toward the conservation of values/feelings and the making of autonomous moral decisions. By ages 12-15 (formal operations stage), adolescents have developed deductive reasoning and reflective capabilities which lead to juridical and idealistic feelings. The developmental stage of a child is very important, because not until the concrete stage can operational children hold enduring attitudes about an object/feeling (Phelps & Hoy, 1996). Preoperational children have less stable attitudes, fail to organize information meaningfully, and still have difficulty distinguishing fantasy from reality (Collins, 1976).

Critics of Piaget's view argue that children as young as 3- and 5-years old are able to distinguish mental representations of themselves from others. According to the child's theory of mind, children around age three engage in make-believe play, indicating

a distinction between appearance and reality. They gain an appreciation that a false belief can exist and that mental representations are not always the actual state of the world. They also begin to comprehend that people's beliefs influence behavior (Taylor & Carlson, 1997).

While Piaget's cognitive development theory and the child's theory of mind may disagree on the age period of a child's grasp of reality, both theories support the position that children, based on their cognitive development, are vulnerable to the socialization messages of television. Taylor and Carlson (1997) found support that 4-year-old children who watch more television than their peers scored lower on theory of mind performance tasks. For example, high television-viewing children had a harder time separating their views from others. When shown that a closed box labeled "candy" was actually empty, the high-television watching child predicted other people would also know the box was empty without looking inside. Parents, therefore, need to be aware of their children's cognitive capabilities and understand how these capabilities impact their child's defenses against television's fantasy programming and commercial persuasion.

Theoretical Perspective on Parenting

Parenting is a complex human interaction that has been extensively studied by psychologists. Several theories exist to explain parenting style, family communication patterns, and disciplinary techniques. Two theoretical perspectives on parenting that have been associated with research on parental supervision are Whiting's love-oriented and nonlove-oriented theory and Moschis' theory of family-communication patterns.

Whiting's Love-oriented and Nonlove-oriented Theory

Whiting's theory centers on the proposal that a child develops self-control by

internalizing the standards of his or her parents. The internalization process is on a continuum with fear on one end and guilt on another. If internalization of standards is low, parents try to maintain control through external punishment (fear); if internalization is high, parents try to use the child's feelings (guilt) to control behavior (Bandura, 1959; Whiting & Child, 1953).

Based on this perspective, Whiting proposed two broad categories of discipline: love-oriented techniques and nonlove-oriented techniques. Love-oriented techniques involve discipline where the child is rewarded by love and punished by withholding love. Love-oriented techniques involve keeping the child oriented toward seeking the parents' love. Praise from parents teaches self-love so when love is withheld for inappropriate behavior, the child has learned to self-praise himself or herself for unnoticed good behavior or the child can chide himself or herself for the bad behavior, inhibiting repetition of such future behavior (Whiting & Child, 1953).

Nonlove-oriented techniques, on the other hand, focus on physical means of discipline such as tangible rewards, physical punishment, or loss of privileges such as activities or possessions. The love-oriented method's goal is to make the child conform and accept the parents' demands while maintaining a love relationship. The nonlove-oriented method, however, tends to cultivate fear and avoidance of the parents, lessening the child's dependency on them. Whiting's theory on parenting has been supported by several empirical studies (Bandura, 1959) and presents a basis for understanding discipline styles used by parents in addressing television-viewing habits and aggressive behavior.

Moschis' Family Communication Patterns

Moschis developed his theory on two uncorrelated patterns of communicating by parents. Socio-oriented messages promote deference to parents and close supervision of children's behavior; concept-oriented messages emphasize children developing their own skills and competencies. Combining these two dimensions, Moschis proposed there are four types of family-communication patterns: laissez-faire, protective, pluralistic, and consensual (cited in Carlson, Grossbart, & Walsh, 1990).

According to Moschis, parents who believe in laissez-faire use neither form of messages and engage in little conversation with their children about behavior. Protective parents stress obedience and limit their children's exposure to outside information. Parent who emphasize pluralistic family-communication encourage their children to explore ideas without insisting on obedience to authority. And finally, the fourth type, consensuals, use both forms of messages and encourage their children to explore ideas but also to maintain concepts similar to the parents (cited in Carlson et al., 1990). Moschis' four different type of parental communication patterns indicate that various parents may differ in the amount of supervision they deem necessary in monitoring children's behavior. This theory has implications for this study, because the various levels of supervision may also extend to children's viewing of television and their requesting or purchasing of toys.

Empirical Findings on Observed Violence

Some of the first studies on observed violence were conducted by Bandura and his colleagues. In one study, children viewed either a film with a model hitting a bobo doll or a control film. Children who witnessed the aggressive film with the model hitting the doll were more likely to engage in aggressive play and aggression during free play

(Bandura, Ross, & Ross, 1963). Greer, Potts, Wright, and Huston (1982) investigated the effects of commercials on children's social behavior. Children who saw high salient commercials displayed more aggression than those who viewed low salient commercials did. Sanson and diMuccio (1993) also found that children who had exposure to a male-oriented cartoon and male-oriented toys displayed higher levels of aggressive play than those who had exposure to a neutral cartoon did and neutral toys did.

A relationship between violence and television watching has also been shown in longitudinal studies. Singer et al. (1984) conducted a five-year study on children ages 4-9 years old. Heavy preschool viewing of television was moderately related to later aggression levels. Controlling for prior aggression, Singer et al. found the factors of heavy viewing of violent shows, the amount of preschool viewing, and parental disciplinary style all combined in contributing to later levels of aggression. Huesmann, Lagerspertz, and Eron (1984) conducted a 22-year follow up study on the violent television viewing of 875 eight-year-olds. At age 30, those men who watched a lot of violent television as children were more likely to have been convicted of a crime.

Other studies have also shown that exposure to observed violence can increase a child's tolerance for violence in real-life situations (Drabman & Thomas, 1974; Drabman & Thomas, 1975). These results echo the Surgeon General's Report (1972) which found support that repetitive exposure to violence on television can cause "emotional blunting" and lead to acceptance of violence as a way of life.

Empirical Findings on Advertising to Children

Not surprisingly, most of the research on advertising to children has been conducted by the advertising industry that understands the direct purchasing power of

children (\$6 billion annually) and youngsters' indirect influence on household purchases (\$130 billion annually) (Macklin, 1996). Empirical studies show that imaginary audience ideation is affected by age, product, and gender (Covell, 1992); the impact of advertising is affected by the children's purpose for watching specific commercials (Van Evra, 1995); children's recall of brand name is greater as a result of visual and repeated exposures of a product (Macklin, 1994a, 1994b); and a child's attitude towards an advertisement can influence purchase intent (Phelps & Hoy, 1996). Studies also show that children below the age of seven have a difficult time distinguishing between children's commercials and children's programs, but as children age, their skepticism toward advertising and awareness of advertisers' tactics increase, as predicted by Piaget's theory of cognitive development (Phelps & Hoy, 1996).

Empirical Findings on Parenting, Aggression, and Television-viewing

Research conducted on the relationship between children's aggressive behavior and television has involved various measures to include parent variables such as education level, income, self-ratings of aggression, and parenting style. The Chicago Circle Study by Eron (1982) involved a three-year longitudinal study of 672 children and 591 parents. Both child and parent variables were analyzed. Physical punishment by parents, or non-love oriented techniques as defined by Whiting, related significantly to aggressive behavior for both boys and girls. Additionally, a child whose parents expressed dissatisfaction with the child's accomplishments had high ratings of aggressiveness. Both father and mother's aggression were also highly related to boys' aggression. Replication studies of the Chicago Circle Study occurred in rural New York, Finland, and Poland; the parent-child interaction variables remained consistent regardless

of location.

Singer et al. (1984) obtained data that suggested that future aggression is “strongly predicted by a combination of heavier viewing of violent TV shows, preschool heavy TV viewing, and a family that emphasizes physical discipline and the assertion of power” (p. 83). Results of a study by Hart, Nelson, Robinson, Olsen, and McNeilly-Choque (1998) on Russian children also corroborated a link between parenting style and childhood aggressive behavior. Nonlove oriented techniques such as parental coercion significantly correlated with children’s aggression towards peers. Harralson and Lawler found in 1992 that Type A behavior in parents was comparable to a controlling parenting style. Parents who demanded high achievement and high control tended to have children who were rated higher on impatience and aggressiveness. Anxious and oppositional children also tend to interpret ambiguous situations threatening. Barrett, Rapee, Dadds, and Ryan (1996) found that anxious children selected avoidant solutions to these situations while oppositional children chose aggressive alternatives. After family discussions, the level of avoidant behavior by the anxious children and aggressive behavior by the oppositional children increased, providing evidence that inappropriate parenting processes can enhance aggressive and anxious behavior in children. Finally, the research literature also suggests that proper parental supervision is a key factor in reducing juvenile delinquency (Fischer,1983).

Parenting style also influences the amount of television viewed by children and the level of violent programming permitted. Research indicates that most parents do not limit or monitor television-viewing time. Using Moschis’ theory of family-communication patterns, Carlson et al. (1990) found that pluralistics and consensuals

coview television and talk about advertisements with their children more than laissez-faires and protectives. While protectives and consensuals control viewing of television more, the children of laissez-faires and pluralistics watch less television. Parents' tolerance for aggression in their own life and in their parenting style may influence their acceptance of aggressiveness in children's programming and commercials promoting toys associated with these programs. Parents, their own tolerance for aggression, and how this tolerance influences their parenting, therefore, appear to be relevant factors in analyzing the relationship between television and aggressive behavior in children.

Statement of the Problem

Scientific support exists to show that watching violence on television may cause children to behave in aggressive or harmful ways towards others (Bandura et al., 1963; Greer et al., 1982; Huesmann et al., 1984; Sanson & diMuccio, 1993; Singer et al., 1984). The observation of aggression may also extend to the content of toy commercials shown during children's programming. Additionally past research indicates that children have limited defenses against commercial persuasion and even parents themselves may become vulnerable consumers in their desire to fulfill their children's toy demands. Parental attitudes about violence and television content, especially in commercials promoting socialization tools such as toys, are therefore essential factors in the assessment of the environmental variables that may "synergistically combine" to cause aggressive behavior in children.

The intent of this study is to examine parents' perceptions of aggressive content in television toy commercials targeted toward young boys. Because male-oriented children's programming is heavily laden with violent acts and parents purchase these

“boy-toys” for their children based on toy commercials related to these programs, the parents may inadvertently be legitimizing aggressive behavior through their child’s fantasy play with these toys. The primary areas of interest are:

- 1) Are parents aware of aggressive content in boy-toy commercials?
- 2) Do parents believe a child will play in an aggressive manner with boy-toys?
- 3) Is there a difference in parents’ perceptions of aggressive play with advertised boy-toys versus non-advertised boy-toys?
- 4) Will parents’ tolerance of aggression in their own life influence their perceptions of aggression in toy commercials and children’s play with these toys?

Hypotheses

The following hypotheses are proposed:

- 1a. Parents and nonparents will differ in their perceived aggressiveness in all toys.
- 1b. Parents and nonparents will differ in perceived aggressive play in all toys.
- 2a. Advertised toys will differ from non-advertised toys in perceived aggressiveness.
- 2b. Advertised toys will differ from non-advertised toys in predicted aggressive play.
- 3a. Adults with low and high levels of self-reported aggression will differ in perceived aggressiveness in all toys.
- 3b. Adults with low and high levels of self-reported aggression will differ in predicted aggressive play in all toys.
- 4a. The interactions among the three independent variables in perceived aggressiveness in the toys will be significant.
- 4b. The interactions among the three independent variables in predicted play will be significant.

CHAPTER 2

METHOD

Participants

Participants in this study included 262 adults, ages ranging from approximately 18 to 55, with the mean age being 21.64. About 60% were women and 40% men. The predominant race was Caucasian with an average income between \$10,000-\$15,000. The majority of the participant were single (78.7%) while 12.5% were married, and 4.9% were divorced. The participants were obtained from freshmen, sophomore, and junior level psychology courses at East Tennessee State University where they received extra credit for their participation as per department policy. Participants were classified as parents versus nonparents according to their response on the demographic questionnaire. For the purpose of this study, an individual who is a birth parent of a child or a primary caregiver of a child living in his/her household (to include stepchildren, foster children, or any other individuals under the age of 18) was defined as a parent. From our participant sample, 18.1% met this definition of parent.

Measures

Participants received a packet containing the Aggression Questionnaire (see Appendix A), a toy survey on advertised toys (see Appendix B) or non-advertised toys (see Appendix C), and a demographic questionnaire (see Appendix D). A page of written instructions (see Appendix E) preceded the Aggression Questionnaire to explain the quantification of self-reported aggression and to control all participants' progression to the toy survey portion of the packet.

The Aggression Questionnaire by Buss and Perry (1992) contains 29 items which participants rate on a Likert scale of one (least characteristic) to five (most characteristic). The questionnaire is comprised of four distinct subscales: Physical Aggression, Verbal Aggression, Anger, and Hostility. The internal consistency of the four factors and total

score have been assessed with the alpha coefficient for the total score being +.89 and the subscales ranging from +.72 to +.85. The test-retest reliability over a nine-week period on 372 subjects (ages 18-20 years old) was .80 and suggests adequate stability over time. Other research conducted using peer nominations on aggression correlated with self-reports of aggression have reported correlations from .33 to .40 (Eron, Walder, & Lefkowitz, 1971; Huesmann, Eron, Lefkowitz, & Walder, 1984). In consideration of these other studies, Buss and Perry's (1992) Aggression Questionnaire offers modest but adequate evidence for construct validity.

Buss and Perry (1992) have reported a mean of 77.8 with a standard deviation of 16.5 for men and a mean of 68.2 with a standard deviation of 17.0 for women, with the range of their inventory being 37-137. In this study the terms "low level" and "high level" of self-reported aggression were based on each participants' score on the Aggression Questionnaire. The distribution of scores for this study was positively skewed, with a mean of 71.6 and a median of 68.0. Because the gender of the participants was not analyzed as a factor in this study, "low level" was defined by this researcher as less than 68.0 and "high level" as greater than 68.0.

The toy surveys assessing participants' perception of predicted play with the advertised and non-advertised toys used a Likert-type scale. Participants rated the aggressiveness of the toy's image and predicted level of aggressiveness in a child's play from one (None) to seven (A Lot). The appropriateness of the commercials and toys for a specific gender was also rated one (Not At All) to 7 (A Lot). Additionally the likelihood of buying the toy was rated from one (Not Very Likely) to seven (A Lot).

For the purposes of this study, "aggressiveness" refers to any act that shows unfriendly action or behavior. This might include war play, possible harmful behavior such as pushing and tripping, acts of fighting to include punching, slapping, and kicking, acts of destroying objects, buildings, people and creatures, or any act that might be thought of as damaging and hurtful (American heritage dictionary, 1991). This definition

was placed at the top of each page that participants used to rate the toys. Additionally, a non-advertised toy was defined as a toy not advertised in a television commercial (to the best of the researcher's knowledge, i.e., not appearing on the tape of advertised toys used in this study).

A demographic questionnaire was also administered to each participant to obtain personal information. Data were gathered on age, gender, income level, marital status, parental status, number, gender, and age of children (if applicable), number of televisions in household, number of hours spent viewing television, ownership of television by children (if applicable), number of hours children spent viewing television (if applicable), and number of hours spent viewing television with children (if applicable).

Apparatus, Toy Commercials, and Toy Pictures

The initial sample of commercials used in this study was obtained by taping television programming of different major networks (ABC, CBS, FOX, NBC, and Nickelodeon) during a two-week period, from 3:00-6:00 PM EST on weekdays and from 8:00 AM-12:00 AM EST on Saturdays and Sundays. This method has been adapted from Macklin and Kolbe's study (1984) on stereotyped sex-roles perceived in children's commercials and Anderson's unpublished master's thesis (1996) on adult perceptions of aggressive content in children's toy commercials. Only toy commercials were included in the study.

The videotaped toy commercials were viewed by two adults blind to the purpose of the study. These two raters identified and labeled the gender-orientation of the commercials. The method of classification was based on the work of Macklin and Kolbe (1984), Welch, Huston-Stein, Wright, and Plehal, (1979), and Anderson (1996). Commercials were classified as "male-oriented" if only boys or male voices were present in the commercial; "female-oriented" if only girls or female voices were present; and "neutral" if both boys and girls or both male and female voices were present. Only those commercials with 100% agreement of gender orientation across raters were used. From

the “male-oriented” toy commercials, 10 commercials were selected by random.

The two raters then categorized each toy in the 10 commercials as Action Figures, Toy Vehicle, Toy Weapon, Sports Related, or Game. The raters had 100% agreement with the toy categories. All male-oriented toy commercials were re-taped onto one tape in random order. Participants rating the advertised toys viewed the taped toy commercials using a television and videocassette recorder.

The non-advertised toys were initially selected from a list of boy-toys (for ages 5-12 approximately) displayed at a local discount store. Namebrand toys and boy-toys that had been advertised on the taped television commercials were eliminated from the list. The two raters categorized the remaining boy-toys on the list into the five areas of Action Figure, Toy Vehicle, Toy Weapon, Sports Related, and Game. From these categories, 10 toys were randomly selected based on the ratio established by the toy commercials. The final 10 boy-toys were photographed with all advertising on the packaging removed. Slides of the toys were then made. Participants completing the survey on non-advertised toys viewed the slide by means of a slide projector. Exposure of the slide was approximately the average time length of a taped toy commercial. The order in which the slides were shown was in the same random order (by toy category) as that of the toy commercials.

Procedure

Selection of undergraduate psychology classes used in this study was based on the scheduling convenience of instructors. Available classes were randomly selected to view the toy commercials or slides of the non-advertised toys.

For the participants viewing the advertised toys, each subject was seated in an individual seat and given a packet containing the Aggression Questionnaire, the survey for advertised toys, and a demographic questionnaire. The following directions were given:

Please read the instructions on the front page and then complete the

questions on Page 2. Do not continue beyond Page 2 until told to do so. (Pause for about 10 minutes or until all Aggression Questionnaire are completed) I am interested in your opinion of some toys. You will view some toy commercials. After each commercial, there will be a 30-second pause for you to complete a rating form and answer some questions. There will be 10 commercials so please keep up with the video. I will say the commercial number before each commercial to help you keep track of which page you should be on. After the last commercial, complete the demographic questionnaire on the last page of the packet. Please do not put your name on any pages or talk during the survey. Do you have any questions?

Each commercial was approximately 30 seconds. This portion of the study lasted approximately 30 minutes.

For the participants viewing the non-advertised toys, each subject was seated in an individual seat and given a packet containing the Aggression Questionnaire, the survey for non-advertised toys, and a demographic questionnaire. The following directions were given:

Please read the instructions on the front page and then complete the questions on Page 2. Do not continue beyond Page 2 until told to do so. (Pause for about 10 minutes or until all Aggression Questionnaire are completed) I am interested in your opinion of some toys. You will view some slides of toys. After each toy slide, there will be a 30-second pause for you to complete a rating form and answer some questions. There will be 10 slides so please keep up with the presentation of the slides. I will say the slide number before each slide to help you keep track of which page you should be on. After the last slide, complete the demographic questionnaire on the last page of the packet. Please do not put your name

on any pages or talk during the survey. .Do you have any questions?

Each slide presentation lasted approximately 30 seconds. This portion of the study was approximately 30 minutes.

After the packets had been collected from both the commercial and slide groups, all participants were debriefed on the purpose of the research and provided with information on how to obtain the study results if desired.

Research Design

Independent variables for the study are the stimulus variables of viewing the toy commercial or slides of non-advertised toys, the demographic variable of parental status, and organismic variable of the level of self-reported aggression. The dependent variables are the participant's perceived aggressiveness in the toy's image and in a child's predicted play with the toys.

This study employs a 2 X 2 X 2 (Advertising Status of Toy X Parental Status X Level of Self-Reported Aggression) between-subjects factorial design with unequal cell sizes for each dependent variable (the aggressiveness in the toy's image and the aggressiveness in a child's play with the toy). An alpha level of $p \leq .05$ was set prior to experimentation. A test of simple effects was also conducted for all significant interactions (Hinkle, Wiersman, & Jurs, 1994).

CHAPTER 3

RESULTS

Univariate Analyses of Variance

From the participant sample, 244 cases were analyzed using univariate analyses of variance. A summary of the cell sizes is displayed in Table 1.

TABLE 1
SUMMARY OF CELL SIZES FOR ANALYSES OF VARIANCE

Group	Toy Advertising Status	
	Advertised	Non-advertised
Parent		
Low Aggressiveness	13	9
High Aggressiveness	12	11
Nonparent		
Low Aggressiveness	54	50
High Aggressiveness	45	50

N=244

An analysis of variance of participants' responses to questions concerning the aggressive image displayed by the advertised and non-advertised boy-toys is presented in Table 2. Evaluation of the data directly related to hypotheses 1a, 2a, 3a, and 4a revealed significant differences between three groups. There was a significant difference between the group viewing advertised toys versus the group viewing the non-advertised toys, supporting hypothesis 2a. There was a significant difference between participants with

low levels of self-reported aggression versus those with high levels of self-reported aggression, supporting hypothesis 3a. Hypothesis 1a was not supported, as there was not a significant difference in the toy's image between parents and nonparents.

TABLE 2
DIFFERENCES IN ADVERTISING, SELF-REPORT OF AGGRESSIVENESS AND PARENTAL STATUS ANALYSIS OF VARIANCE: TOY'S IMAGE

Source	Sum of Squares	df	Means	Mean Square	F
Parent/Nonparent	1.358	1	3.523/3.329	1.358	1.803
Advertised/Non-advertised	17.624	1	3.775/3.076	17.624	23.397*
Low Aggress./High Aggress.	7.444	1	3.199/3.653	7.444	9.882*
Advertise*Parental	.153	1		.153	.203
Aggress.*Parental	3.231	1		3.231	4.289*
Advertise*Aggress.	2.497	1		2.497	3.314
Advertise*Aggress.*Parental	.156	1		.156	.208

* $p \leq .05$

Part of hypothesis 4a was supported as the interaction of self-reported aggression and parental status was significant. See Table 3 for summary of simple effects. Analysis of the means of this interaction indicated that parents with high levels of self-reported aggression ($M = 3.8999$) rated the toy's image as significantly more aggressive than parents with low levels of self-reported aggression ($M = 3.146$), nonparents with low levels of self-reported aggression ($M = 3.251$) and nonparents with high levels of self-reported aggression ($M = 3.406$). Additionally, the remaining interactions -- advertising status and parental status, advertising status and level of self-reported aggression, and advertising status, parental status and level of self-reported aggression -- were not significant.

TABLE 3

SUMMARY OF SIMPLE EFFECTS: TOY'S IMAGE

Interaction	Sum of Squares	df	Means	Mean Square	F
Advertise*Parental.	.153	1		.153	.203
Advertised*Parent			3.904		
Non-advertised*Parent			3.141		
Advertised* Nonparent			3.646		
Non-advertised*Nonparent			3.012		
Aggress.*Parental	3.231	1	3.231		4.289*
Low Aggress.*Parent			3.146		
Hi Aggress.*Parent			3.899*		
Low Aggress.*Nonparent			3.251		
Hi Aggress.*Nonparent			3.406		
Advertise*Aggress.	2.497	1		2.497	3.314
Advertised*Low Aggress.			3.679		
Non-advertised*Low Aggress.			2.718		
Advertised*Hi Aggress.			3.871		
Non-advertised*Hi Aggress.			3.435		
Advertise*Aggress.*Parental	.156	1		.156	.208
Advertised*Low Aggress.*Parent			3.692		
Non-Advertised*Low Aggress.* Parent			2.600		
Advertised*Hi Aggress.*Parent			4.117		
Non-advertised*Hi Aggress.*Parent			2.682		
Advertised*Low Aggress.* Nonparent			3.667		
Non-advertised*Hi Aggress.* Nonparent			3.188		
Advertised*Hi-Aggress.* Nonparent			3.624		
Non-advertised*Low Aggress.* Nonparent			2.836		

*p ≤ .05

An analysis of variance of the second dependent variable, predicted aggressive play with the toys, revealed significant differences for hypothesis 2b (advertised versus non-advertised) and 3b (low self-reported aggression versus high self-reported aggression). Hypothesis 1b (parents versus nonparents) and hypothesis 4b (interactions) were not supported. The differences of the three independent variables in terms of predicted aggressive play are presented in Table 4 with a summary of simple effects in Table 5.

TABLE 4
DIFFERENCES IN ADVERTISING, SELF-REPORT OF AGGRESSIVENESS AND PARENTAL STATUS ANALYSIS OF VARIANCE: PREDICTED PLAY

Source	Sum of Squares	df	Means	Mean Square	F
Parent/Nonparent	1.921	1	3.523/3.329	1.921	2.540
Advertised/Non-advertised	11.809	1	3.964/3.392	11.809	15.619*
Low Aggress./High Aggress.	5.472	1	3.483/3.873	5.472	7.237*
Advertise*Parental	.105	1		.105	.139
Aggress.*Parental	1.712	1		1.712	2.264
Advertise*Aggress.	.375	1		.375	.496
Advertise*Aggress.*Parental	.376E-03	1		.376E-03	.011

*p ≤ .05

TABLE 5

SUMMARY OF SIMPLE EFFECTS: PREDICTED PLAY

Interaction	Sum of Squares	df	Means	Mean Square	F
Advertise*Parental	.105	1		.105	.709
Advertised*Parent			4.106		
Non-advertised*Parent			3.480		
Advertised* Nonparent			3.822		
Non-advertised*Nonparent			3.304		
Aggress.*Parental	1.712	1		1.712	.134
Low Aggress.*Parent			3.490		
Hi Aggress.*Parent			4.097		
Low Aggress.*Nonparent			3.477		
Hi Aggress.*Nonparent			3.648		
Advertise*Aggress.	2.497	1		2.497	3.314
Advertised*Low Aggress.			3.820		
Non-advertised*Low Aggress.			3.146		
Advertised*Hi Aggress.			4.108		
Non-advertised*Hi Aggress			3.638		
Advertise*Aggress.*Parental	8.376E-03	1		8.376E-03	.208
Advertised*Low Aggress.*Parent			3.846		
Non-Advertised*Low Aggress* Parent			3.133		
Advertised*Hi Aggress.*Parent			4.367		
Non-advertised*Hi Aggress.*Parent			3.827		
Advertised*Low Aggress.* Nonparent			3.794		
Non-advertised*Hi Aggress.* Nonparent			3.448		
Advertised*Hi-Aggress.* Nonparent			3.849		
Non-advertised*Low Aggress.* Nonparent			3.159		

*p ≤ .05

The predicted play analyzed in Table 4 refers to a child of no specific gender. Additional responses to predicted play discriminated between the gender of the child playing with the toy. Table 6 presents the results of an analysis of variance when the dependent variable was predicted “boy” play and Table 7 when the dependent variable was predicted “girl” play. Hypotheses 2b (advertised versus non-advertised) and 3b (low self-reported aggression versus high self-reported aggression) were supported for predicted child play, “boy” play, and “girl” play while Hypotheses 1b (parents versus nonparents) and 4b (interactions) were not supported regardless of the child’s gender.

TABLE 6
DIFFERENCES IN ADVERTISING, SELF-REPORT OF AGGRESSIVENESS AND
PARENTAL STATUS ANALYSIS OF VARIANCE: PREDICTED BOY PLAY

Source	Sum of Squares	df	Means	Mean Square	F
Parent/Nonparent	1.509	1	4.178/3.972	1.509	1.711
Advertised/Non-advertised	9.966	1	4.340/3.810	9.966	11.303*
Low Aggress./High Aggress.	4.731	1	3.893/4.258	4.731	5.366*
Advertise*Parental	2.058E-03	1		2.058E-03	.002
Aggress.*Parental	1.496	1		1.496	1.696
Advertise*Aggress.	5.643E-03	1		5.643E-03	.064
Advertise*Aggress.*Parental	.371	1		.371	.421

* $p \leq .05$

TABLE 7

DIFFERENCES IN ADVERTISING, SELF-REPORT OF AGGRESSIVENESS AND
PARENTAL STATUS ANALYSIS OF VARIANCE: PREDICTED GIRL PLAY

Source	Sum of Squares	<u>df</u>	Means	Mean Square	F
Parent/Nonparent	.798	1	3.006/2.857	.798	1.135
Advertised/Non-advertised	4.120	1	3.100/2.762	4.120	5.860*
Low Aggress./High Aggress.	3.313	1	2.780/3.083	3.313	4.713*
Advertise*Parental	9.641E-03	1		9.641E-03	.014
Aggress.*Parental	.882	1		.882	1.255
Advertise*Aggress.	2.531E-03	1		2.531E-03	.004
Advertise*Aggress.*Parental	8.949E-03	1		8.949E.03	.127

* $p \leq .05$

Paired t-Test Analyses

Paired sample t-tests on the predicted play involving a non-gender specific child, a boy, and a girl had significant differences (see Table 8). A girl was predicted to play less aggressively ($M = 2.897$) than a non-gender specific child ($M = 3.623$) and a boy ($M = 4.039$). The predicted play of a non-gender specific child was also significantly different from that of a girl or a boy.

TABLE 8

DIFFERENCES IN PREDICTED PLAY OF A CHILD, A BOY AND A GIRL:PAIRED SAMPLE TESTS

Paired Samples	Means	df	t
Child/Boy	3.623/4.039	251	19.704*
Child/Girl	3.627/2.897	253	20.790*
Boy/Girl	4.039/2.897	252	26.983*

* $p \leq .05$

A paired sample t-test on the appropriateness of a toy commercial for a boy or girl also had a significant difference (see Table 9). The toy commercials were rated as more appropriate for boys ($M = 5.406$) than girls ($M = 3.994$).

TABLE 9

DIFFERENCES IN APPROPRIATENESS OF A COMMERCIAL FOR A BOY ORGIRL: PAIRED SAMPLE TESTS

Paired Samples	Means	df	t
Boy/Girl	5.406/3.994	125	14.101*

* $p \leq .05$ Cross Tabulation Analyses

A cross tabulation analysis was conducted on the frequency of toys rated highly aggressive being purchased by the participants. Toys with an aggressive image rated a 5 or higher (on a scale of 1 to 7) were analyzed against participant's likelihood of buying that toy (5 or higher on a scale of 1 to 7). Thirty-eight percent of the participants would

buy the toys rated highly aggressive. Based on parental status, 40% of the parents stated that they would buy the toys rated highly aggressive versus 37% of nonparents. An analysis on toy ownership indicated that 12.7% of the parents had children who owned the toys rated highly aggressive.

CHAPTER 4

DISCUSSION

The purpose of this study was to examine adults' perceptions of aggressive content in toy commercials targeted toward young boys. Specifically, the researchers examined whether a participant's parental status, exposure to an advertised versus non-advertised toy, and level of self-reported aggression would influence their perceptions of the toy's image and predicted play with the toys. Data analysis statistically supports all hypotheses related to advertising status and level of self-reported aggression but does not support the hypotheses concerning parental status or interactions among the independent variables.

Interpretations

Present results support the hypothesis that toys advertised in commercials portray more aggressive images and predictions of more aggressive play than toys that are not advertised on television. This evidence supports previous research by Huston-Stein et al. (1981) that action and violence in television programming act as "additive contributions" to behavior. The intensity and activity of the actors or characters in the commercials appear to have had an impact on the viewers. Participants who watched the commercials rate the toys and predicted play with them as more aggressive than participants who were presented with similar toys in still slides. The "additive contributions" of action and violence in toy commercials also lend support for Bandura's (1963, 1973) social learning point of view and Huesmann's (1986) cognitive scripting. The appeal of the violent activity by heroic television characters (especially if they go unpunished) may be copied

by children in play or cognitively encoded for future situations.

Another focus of the study is to examine the effect of self-reported aggression on the perception of a toy's image and predicted play with the toy. The present results indicate that individuals with high levels of self-reported aggression perceive a toy's image and predicted play with it as more aggressive than individuals with low levels of self-reported aggression. These results support Connor's 1989 findings that people who engage in a behavior, such as aggression, view that behavior less harshly than those who do not engage in the behavior. The results are also consistent with Straus' Cultural Spillover Effect (1991) that accepting violence in one aspect of life legitimizes violence's presence in other areas. A person's tolerance of aggressive acts in his or her own life may influence their perceptions that aggressiveness is not only acceptable but also expected in certain situations, such as fantasy toy play.

Contrary to the investigators' expectations, there was no significant difference between parents and nonparents in their perceptions of a toy's image and predicted play with the toy. As a family's gatekeeper to toys, parents are vulnerable to the persuasions of their children and relentless target marketers (Christensen & Stockdale, 1991; Ringold, 1995). While research indicates that parents may minimize the negative aspects of a favored toy (Ringold, 1995), parents in the present study rate a toy's image and predicted play similarly to nonparents. While this may be interpreted as parents withstanding outside demands, additional statistical analysis showed that the likelihood that parents or nonparents would buy toys rated highly aggressive is equal (40% versus 37%). One factor that could have influenced these findings is the small sample size of parents (n=48) with respect to the total number of participants (N=262). Additionally, because many of

the participants are 18- and 19-years old, they may have rated the toys as applicable to themselves and not necessarily another younger child. This is supported by hand-written comments stating personal opinions about the toys. For example, one participant wrote, “I don’t like playing games,” and another commented with “It doesn’t interest me.”

Only one interaction of the independent variable was significant. Parents with high levels of self-reported aggression rated the toy’s image as more aggressive than parents with low levels of self-reported aggression and nonparents with low and high levels of aggression. This significant interaction supports Connor’s (1989) position that people who tolerate a certain behavior within themselves can identify with this behavior. Parents with high levels of self-reported aggression could possibly perceive certain toys as being aggressive in nature since aggression may be an acceptable part of their life and their children’s upbringing.

It also interesting to note that the differences in predicted play between participants with low and high levels of self-reported aggression and participants viewing advertised and non-advertised toys remained significant regardless of whether the dependent variable is described as “child playing,” “boy playing” or “girl playing” with the toys. Most noteworthy is the comparison of the three mean values for predicted play. Boys are rated as playing more aggressively than a child and more aggressively than girls. Girls are rated as playing less aggressively than a child and less aggressively than boys. This finding supports the socialization of aggression in females and males proposed by Bandura (1963, 1973). Boys are socialized into male roles and are expected to display higher levels of aggressive behavior than girls who are socialized in gentler feminine roles. Gender stereotyping appears to be a factor in determining a child’s level of

aggressive play in this study. This is not surprising as children's toys and television programming have a history of gender stereotyping (Bandura, 1986; Brown, 1998; Christensen & Stockdale, 1991; Macklin and Kolbe, 1984)

The investigators also find gender stereotyping evident in the comparison of whether the commercials used in this study are appropriate for both boys and girls. The commercials (which were targeted by the advertisers toward boys) are rated significantly more appropriate for boys than girls. Past research indicates that advertisers do target children's gender and promote sex-role stereotyping by emphasizing emotions and beauty in commercials for girls and power and violence in those for boys (Lippert, 1993; Macklin & Kolbe, 1984). Our results indicate that the participants in our study hold gender-role values similar to those promoted by children's programming.

While past research (Carlson et al., 1990) indicates that most parents do not monitor or limit their children's television watching, responses from parents in our study indicate some parents are making an effort to supervise and educate their children about television programming. The parents indicate they view on average 2.97 hours of television. Their children view 2.79 hours of television of which 1.97 hours involves co-viewing with the parents. Thirty-one percent of the parents state they discuss the content of television shows with their child "A lot," while 52% state "Sometimes" and 17% "Not at all." Twenty-one percent of the parents say they discuss the intent of commercials with their child "A lot," while 43% claim "Sometimes" and 36% "Not at all." Seventy percent of the parents limit the kinds of toys with which their child can play, most restricting guns, swords, and toys that promote violence or gore. Of the toys rated highly aggressive in the study, 12.7% of the parents say their child owns that particular toy.

Possible limitations to the present study include the participant sample and the status of the non-advertised toys. Only college students were tested in the present study, limiting the generalizability of the results. Additionally, as previously mentioned, the sample size of parents should be larger to ensure all statistical cells have more than adequate representation. Finally, although the researchers feel confident none of the non-advertised toys have been televised in commercials, many participants indicated they had seen commercials for some of the toys. Several of the non-advertised toys are generic versions of namebrand toys and may have been generalized by the participants as being those seen in commercials.

Future Research

The results of this study demonstrate the need for additional research on the effects of toy commercials on children's play behavior. To reduce the amount of violence shown on television, some child advocates feel the Federal Communications Commission (FCC) should tighten regulations on children's television programming. The impact of tougher regulations is questionable, because historically, violators of such FCC policies have rarely been punished, and many toy advertisers have begun to circumvent current legislation by encouraging children to access their advertisements on unregulated Internet websites (Albiniak, 1998; Mundy, 1999).

Perhaps future research should be directed towards establishing effective educational programs for parents and children so they can appreciate the impact media advertising has on children. The investigators in this study are currently involved in research concerning effective communication styles used by parents in discussing toy commercials. It would also be interesting to conduct a similar study involving only

aggressive toys to see if significant differences still exist. Additionally, it would be interesting to replicate the study using older children and compare the results to the current adult findings.

REFERENCES

References

- Albiniak, P. (1998). FCC finds stations violating kids TV law. Broadcasting & Cable, 161-162.
- American heritage dictionary (2nd ed.). (1991). Boston: Houghton Mifflin.
- American Psychological Association, Commission on Violence and Youth (1993). Violence & youth: Psychology's response (Vol. 1) [Summary Report]. Washington, DC: Author.
- Anderson, C. (1996). Perceptions of the aggressive content in children's television toy commercials. Unpublished master's thesis, East Tennessee State University, Johnson City, Tennessee.
- Bandura, A. (1959). Adolescent aggression. New York: Ronald Press Company.
- Bandura, A. (1971). Psychological modeling. Chicago: Aldine & Atherton.
- Bandura, A. (1973). Aggression: A social learning analysis. Engelwood Cliffs, New Jersey Prentice-Hall, Inc.
- Bandura, A., & Huston, A. (1961). Identification as a process of incidental learning. Journal of Abnormal Social Psychology, 63, 311-318.
- Bandura, A., Ross, D., & Ross, S. (1963). Imitation of film-mediated aggressive modes. Journal of Abnormal and Social Psychology, 66, 3-11.
- Barrett, P., Rapee, R., Dadds, M., & Ryan, S. (1996). Family enhancement of cognitive style in anxious and aggressive children. Journal of Abnormal Child Psychology, 24, 187-203.
- Buss, A, & Perry, M. (1992). The aggression questionnaire. Journal of Personality and Social Psychology, 63, 452-459.
- Carlson, L., Grossbart, S., & Walsh, A. (1990). Mother's communication orientation and consumer-socialization tendencies. Journal of Advertising, 19, 27-38.
- Center for Media and Public Affairs. (September, 1995). Study finds rise in TV

guns and violence. CMPA Archive: Day of TV Violence 1995. [On-line] Available:
<http://www.cmpa.com/archive/viol95.htm>

Christensen, K., & Stockdale, D. (1991). Predictors of toy selection criteria of preschool children's parents. Children's Environments Quarterly, 8, 25-36.

Condry, J., Bence, P., & Scheibe, C. (1988). Nonprogram content of children's television. Journal of Broadcasting and Electronic Media, 32, 255-270.

Connor, K. (1989). Aggression: Is it in the eye of the beholder? Play and Culture, 2, 213-217.

Corning, P., & Corning, C. (1971). Toward a general theory of violent aggression. Social Scientific Information, 11, 7-35.

Covell, K. (1992). The appeal of image advertisements: Age, gender, and product differences. Journal of Early Adolescence, 12, 46-60.

Drabman, R., & Thomas, M. (1974). Does media violence increase children's toleration of real-life aggression? Developmental Psychology, 10, 418-421.

Drabman, R., & Thomas, M. (1975). Does TV breed indifference? Journal of Communication, 25, 86-89.

Elkind, D., & Bowen, K. (1979). Imaginary audience behavior in children and adolescents. Developmental Psychology, 15, 38-44.

Erikson, E. (1968). Identity, youth and crisis. New York: W. W. Norton.

Eron, L. (1982). Parent-child interaction, television violence and aggression of children. American Psychologist, 37, 197-211.

Eron, L., Walder, L., & Lefkowitz, M. (1971). Learning of aggression. Boston: Little/ Brown.

Federal Bureau of Investigation. (1995). Juveniles and violence (updated). Washington, DC: Author.

Fischer, D. (1983). Parental supervision and delinquency. Journal of Perception and Motor Skills, 56, 635-640.

Gerbner, G., & Signorielli, N. (1990). Violence profile, 1967 through 1988-89: Enduring patterns. Unpublished manuscript. University of Pennsylvania. In J. Hughes & J. Hasbrouck, (1996). Television violence: Implications for violence prevention. School Psychology Review, 25, 134-151.

Greer, D., Potts, R., Wright, J., & Huston, A. (1982). The effects of television commercial form and commercial placement on children's social behavior and attention. Child Development, 53, 611-619.

Goldberg, G., & Gorn, M. (1977). The impact of television advertising on children from low income families. Journal of Consumer Research, 4, 86-88.

Harralson, T., & Lawler, K. (1992). The relationship of parenting styles and social competency to Type A behavior in children. Journal of Psychometric Research, 36, 625-634.

Hart, C., Nelson, D., Robinson, C., Olsen, S., & McNeilly-Choque, M. (1998). Overt and relational aggression in Russian nursery-school-age children: Parenting style and marital linkages. Developmental Psychology, 34, 687-697.

Himmelstein, H. (1984). Television myth and the American mind. New York: Praeger.

Hinkle, D., Wiersma, W., & Jurs, S. (Eds.).(1994). Applied statistics for the behavioral sciences. Boston: Houghton Mifflin.

Huesmann, L. (1986). Psychological processes promoting the relation between exposure to media and aggressive behavior by the viewer. Journal of Social Issues, 42, 125-139.

Huesmann, L. (1988). An information processing model for the development of aggression. Aggressive Behavior, 14, 13-24.

Huesmann, L., Eron, L., Lefkowitz, M., & Walder, L. (1984). Stability of aggression across time and generations. Developmental Psychology, 20, 1120-1134.

Huesmann, L., Lagerspertz, K., & Eron, L. (1984). Intervening variables in the TV

violence-aggression relation: Evidence in two countries. Developmental Psychology, 20, 746-775.

Huston, A., Watkins, B., & Kunkel, D. (1989). Public policy and children's television. American Psychologist, 44, 424-433.

Kazdin, A. (1994). Interventions for aggressive and antisocial children. In L.D. Eron, J. H. Gentry, & P. Schegel (Eds.), Reason to hope: A psychosocial perspective on violence and youth (pp. 341-382). Washington, DC: American Psychological Association.

Kunkel, D. (1988). Children and host-selling television commercials. Communication Research, 15, 71-92.

Kunkel, D., Wilson, B., Donnerstein, E., & Blumenthal, E. (1995). Measuring violence: The importance of context. Journal of Broadcasting and Electronic Media, 39, 284-291.

Lawthon, M. (1995). Children's TV still too violent, report says. Education Week. [On-line]. 15. Available: <http://www.edweek.org/ew//vol-5/04tv.h15>

Liebert, R., & Sprafkin, J. (1988). The early window: Effects of television on children and youth. New York: Pergamon Press.

Lippert, M. (1976). The effects of violent films upon aggressive institutionalized females. Dissertation Abstracts International, 36, 5803-5804.

Lovaas, I. (1961). Effect of exposure of symbolic aggression on aggressive behavior. Child Development, 32, 37-44.

Macklin, M. (1994a). The effects of an advertising retrieval cue on young children's memory and brand evaluations. Psychology and Marketing, 11, 291-311.

Macklin, M. (1994b). The impact of audiovisual information on children's product-related recall. Journal of Consumer Research, 21, 154-164.

Macklin, M. (1996). Preschoolers learning of brand names from visual cues. Journal of Consumer Research, 23, 251-261.

- Macklin, M., & Kolbe, R. (1984). Sex-role stereotyping in children's advertising: Current and past trends. Journal of Advertising, 13, 34-42.
- McCord, J., & McCord, W. (1958). The effects of parental role models on criminality. Journal of Social Issues, 14, 66-74.
- Mundy, A. (1999). Television advertising and children. Mediaweek, 9, 32-33.
- Mussen, P., & Rutherford, E. (1961). Effects of aggressive cartoons on children's aggressive play. Abnormal Journal of Social Psychology, 62, 461-464.
- Myers, D. (Ed.) (1996). Social psychology. New York: The McGraw-Hill Companies, Inc.
- National Institute of Mental Health. (1982). Television and behavior: Ten years of scientific progress and implications for the 1980's, (Vol. 1.), Rockville, MD: US Department of Health and Human Services.
- Olweus, D. (1979). The stability of aggressive reaction patterns in human males: A review. Psychological Bulletin, 85, 852-875.
- Phelps, J., & Hoy, M. (1996). The Aad-Ab-PI relationship in children: The impact of brand familiarity and measurement timing. Psychology and Marketing, 13, 77-105.
- Piaget, J. (1952). Origins of intelligence in children. New York: International Universities Press.
- Ringold, D. (1995). Social criticism s of target marketing: Process or product. American Behavioral Scientist, 38, 578-592.
- Rothenberg, M. (1983). The role of television in shaping the attitudes of children. Journal of American Academy of Child Psychiatry, 41, 86-87.
- Sanson, A., & diMuccio, C. (1993). The influence of aggressive and neutral cartoons and the toys on the behavior of preschool children. Australian Psychologist, 28, 93-99.
- Sears, R., Whiting, J., Nowlis, V., & Sears, P. (1953). Some child-rearing antecedents of aggression and dependency in young children. Genetic Psychology

Monographs, 47, 135-236.

Selg, H. (1971). The making of aggression. New York: St. Martin's Press.

Singer, J., Singer, D., & Rapaczynski, W. (1984). Family patterns and television viewing as predictors of children's beliefs and aggression. Journal of Communication, 34, 73-89.

Snyder, H., & Sickmund, M. (1995). Juvenile offenders and victims: A national report. Washington, DC: Office of Juvenile Justice and Delinquency Prevention.

Straus, M. (1991). Discipline and deviance: Physical punishment of children and violence and other crime in adulthood. Social Problems, 38, 133-149.

Surgeon General's Scientific Advisory Committee on Television and Social Behavior. (1972). Television and growing up: The impact of television violence. (Report to the Surgeon General, US Public Health Service). Washington, DC: US Government Printing Office.

Taylor, M., & Carlson, S. (1997). The relation between individual differences in fantasy and the theory of mind. Child Development, 68, 436-455.

Van Evra, J. (1995). Advertising's impact on children as a function of viewing purpose. Psychology and Marketing, 12, 423-432.

Welch, R., Huston-Stein, A., Wright, J., & Plehal, R. (1979). Subtle sex-role cues in children's commercials. Journal of Communication, 29, 202-209.

Whiting, J., & Child, I. (1953). Child-training and personality. New Haven, CT: Yale University Press.

Wilson, B., & Weiss, A. (1992). Developmental differences in children's reactions to toy advertisements linked to a toy-based cartoon. Journal of Broadcasting and Electronic Media, 42, 371-395.

APPENDICES

APPENDIX A

THE AGGRESSION QUESTIONNAIRE

Rate the following statements about yourself on a scale of one (not characteristic) to five (very characteristic):

- | | | | | | |
|--|---|---|---|---|---|
| 1. I tell my friends openly when I disagree with them. | 1 | 2 | 3 | 4 | 5 |
| 2. I am an even tempered person. | 1 | 2 | 3 | 4 | 5 |
| 3. Given enough provocation, I may hit another person. | 1 | 2 | 3 | 4 | 5 |
| 4. When people are especially nice to me, I wonder what they want. | 1 | 2 | 3 | 4 | 5 |
| 5. If someone hits me, I hit back. | 1 | 2 | 3 | 4 | 5 |
| 6. I am sometimes eaten up with jealousy. | 1 | 2 | 3 | 4 | 5 |
| 7. My friends say I am somewhat argumentative. | 1 | 2 | 3 | 4 | 5 |
| 8. I can think of no good reason for ever hitting a person. | 1 | 2 | 3 | 4 | 5 |
| 9. I sometimes feel like a powder keg ready to explode. | 1 | 2 | 3 | 4 | 5 |
| 10. I have been so mad I have broken things. | 1 | 2 | 3 | 4 | 5 |
| 11. I sometimes feel people are laughing at me behind my back. | 1 | 2 | 3 | 4 | 5 |
| 12. When people annoy me, I may tell them what I think of them. | 1 | 2 | 3 | 4 | 5 |
| 13. I often find myself disagreeing with others. | 1 | 2 | 3 | 4 | 5 |
| 14. I have trouble controlling my temper. | 1 | 2 | 3 | 4 | 5 |
| 15. If I have to resort to violence to protect my rights, I will. | 1 | 2 | 3 | 4 | 5 |
| 16. Sometimes I fly off the handle for no good reason. | 1 | 2 | 3 | 4 | 5 |
| 17. At times I feel I have gotten a raw deal out of life. | 1 | 2 | 3 | 4 | 5 |
| 18. I have threatened people I know. | 1 | 2 | 3 | 4 | 5 |
| 19. Other people always seem to get the breaks. | 1 | 2 | 3 | 4 | 5 |
| 20. Some of my friends think I am hotheaded. | 1 | 2 | 3 | 4 | 5 |
| 21. Once in a while I can't control the urge to strike another person. | 1 | 2 | 3 | 4 | 5 |
| 22. I am suspicious of overly friendly strangers. | 1 | 2 | 3 | 4 | 5 |
| 23. I know that "friends" talk about me behind my back. | 1 | 2 | 3 | 4 | 5 |
| 24. I flare up quickly but get over it quickly. | 1 | 2 | 3 | 4 | 5 |
| 25. I can't help getting into arguments when people disagree with me. | 1 | 2 | 3 | 4 | 5 |
| 26. There are people who have pushed me so far that we came to blows. | 1 | 2 | 3 | 4 | 5 |
| 27. When frustrated, I let my irritation show. | 1 | 2 | 3 | 4 | 5 |
| 28. I wonder why sometimes I feel so bitter about things. | 1 | 2 | 3 | 4 | 5 |
| 29. I get into fights a little more than the average person. | 1 | 2 | 3 | 4 | 5 |

APPENDIX B

ADVERTISED TOY SURVEY

RATING SCALE

“Aggression” refers to any act that shows hostile action or behavior. This might include war play, pushing, tripping, punching, slapping, kicking, any acts of fighting, destroying objects, buildings, people, or creatures, or any act that might be thought of as damaging or hurtful.

1. The amount of aggression displayed in this toy commercial.

1	2	3	4	5	6	7
None			Some			A Lot

2. The amount of aggression a **child** would display while playing with this **toy**.

1	2	3	4	5	6	7
None			Some			A Lot

3. The amount of aggression a **boy** would display while playing with this **toy**.

1	2	3	4	5	6	7
None			Some			A Lot

4. The amount of aggression a **girl** would display while playing with this **toy**.

1	2	3	4	5	6	7
None			Some			A Lot

5. Rate how appropriate this **commercial** is for a **boy**.

1	2	3	4	5	6	7
Not at all			Somewhat			A Lot

6. Rate how appropriate this **toy** is for a **boy**.

1	2	3	4	5	6	7
Not at all			Somewhat			A Lot

7. Rate how appropriate this **commercial** is for a **girl**.

1	2	3	4	5	6	7
Not at all			Somewhat			A Lot

8. Rate how appropriate this **toy** is for a **girl**.

1	2	3	4	5	6	7
Not at all			Somewhat			A Lot

9. How likely would you be to buy this toy?

1	2	3	4	5	6	7
Not Likely			Somewhat			Very Likely

If Not Likely, why? _____

10. If you have a child, does your child own this toy? Yes No

APPENDIX C

NON-ADVERTISED TOY SURVEY

APPENDIX D

DEMOGRAPHIC QUESTIONNAIRE

APPENDIX E
INSTRUCTIONS

Instructions

Prior to handing out the survey packets, the researcher will instruct all participants to not open their packets until told to do so. The following instructions will be on the first and will be read to the participants:

Thank you for participating in the following research on (toy commercials and) toys. The purpose of this research is to assess opinions on the content of (toy commercials and) play that adults might expect from a child playing with these toys. Please do not write your name on your packet and please answer all questions as best as you can. You will be shown (videotaped commercials) slides of toys that are coordinated with specific pages of the survey, so it is important that you follow my instructions and not work ahead or go back to previous questions.

At this time please open your packet to Page 2 and answer all the questions on this page. Stop at the end of this page and place your pen down.

Now I will show you some (toy commercials) slides of toys. After the presentation of each (commercial) slide, there will be a 30-second pause for you to answer questions pertaining to this (commercial) slide. There will be 10 (commercials) slides with a pause after each one. I will announce the (commercial) slide number prior to presentation so you can make sure you are on the correct survey page. After completing the questions on the tenth (commercial) slide, please complete the demographic questionnaire on the last page. If at any time you need more time to answer questions on any (commercial) slide, please raise your hand and I will pause the (tape) slide presentation until you are caught up. Does anyone have any questions?

VITA

LORI J KLINGER

Personal Data Date of Birth 10/24/65
 Place of Birth: Ashland, Pennsylvania
 Marital Status: Single

Education: United States Military Academy,
 West Point, NY, B. S. Life Sciences, 1988
 East Tennessee State University
 Johnson City, TN, M.B.A., 1996
 East Tennessee State University
 Johnson City, TN, M. A. Clinical Psychology, 2000

Professional Graduate Assistant, East Tennessee State University, Department
Experience: of Psychology, 1998-2000.

Research: Tennessee Psychological Association Convention – March 1999
 Tennessee Psychological Association Convention – March 2000

Honors and Secretary, Graduate Student Association of Psychology, 1999-2000
Awards: Member, Psi Chi Honor Society