This is to certify that the

dissertation entitled

THE EFFECTS OF ARGUMENTATIVENESS, VERBAL AGGRESSIVENESS, AND SITUATIONS ON PERCEPTIONS OF INTENT AND PROPENSITY TOWARDS VIOLENCE IN ADOLESCENT BOYS

presented by

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has been accepted towards fulfillment
of the requirements for

Ph.D degree in Communication

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Date 11-10-95

THE EFFECTS OF ARGUMENTATIVENESS, VERBAL AGGRESSIVENESS, AND SITUATIONS ON PERCEPTIONS OF INTENT AND PROPENSITY TOWARDS VIOLENCE IN ADOLESCENT BOYS

by

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A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Communication

1995

ABSTRACT

THE EFFECTS OF ARGUMENTATIVENESS,
VERBAL AGGRESSIVENESS, AND SITUATIONS ON
PERCEPTIONS OF INTENT AND PROPENSITY TOWARDS
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Many studies have focused on the relationship between either dispositional or situational variables and aggressive behavior. Few of these inquiries have focused on children, and fewer still have systematically meshed these two approaches. This investigation assesses the effects of one situational variable (intention) and two personality variables (argumentativeness and verbal aggressiveness) on perception of intent and propensity toward violence in adolescent boys.

The primary subjects of this investigation were 79 eight-grade boys. Subjects first filled out modified versions of the Argumentativeness and Verbal Aggressiveness Scales. Perception of intent and propensity towards violence scores were derived from responses to three hypothetical situations, where the intention of a transgressor was manipulated.

The hypothesized three-way interaction between argumentativeness, verbal aggressiveness and situation did not exist for either perception of intent or propensity towards violence. This was due largely to the fact that none of the argumentativeness predictions were realized. However, much of the remaining verbal aggressiveness and situation data were consistent with the reasoning that led to the hypotheses.

Specifically, there was a verbal aggressiveness by situation interaction effect on perception of intent. That is, verbal aggressiveness affected perception of intent only in the ambiguous condition. Further, there was a verbal aggressiveness main effect and a situation main effect on propensity towards violence. Individuals high in verbal aggression responded with a greater propensity towards violence in all conditions, though this difference was not significant in the clearly unintentional condition. Subjects demonstrated a greater propensity towards violence in the clearly intentional condition than in the other two conditions. Further, subjects demonstrated a greater propensity towards violence in the ambiguous condition than in the clearly unintentional condition. Finally, post hoc analyses revealed that perception of intent mediated the verbal aggressiveness and propensity towards violence relationship.

To my grandmother, Rocca Lucy Roberto, and to

the memory of my grandfather, Joseph Leonard Roberto

ACKNOWLEDGMENTS

A number of people deserve and have my appreciation for making the completion of this dissertation possible. To begin with, I thank Bill Donohue, the chair of my dissertation committee. I also thank my three committee members, Joel Cutcher-Gershenfeld, Sandi Smith, and Steve Wilson for the feedback and encouragement they provided throughout this project. I am especially indebted to Steve Wilson for the significant amount of time and energy he has expended on this project. I am also grateful for the insights he has shared with me over the past five years. I have learned as much about teaching and research from Steve as I have from all other individuals combined. Steve is a true scholar in every sense of the word, and it has been an honor working with him.

I also wish to thank the remaining faculty and staff of the Department of Communication at Michigan State University. Although not directly involved in this dissertation, they have provided me with the requisite skills and services necessary to complete this project. Jim Dearing deserves to be singled out for the large part he played in my graduate education. I learned a great deal from Jim and thank him for always allowing me to be myself.

Many of my colleagues also deserve and have my thanks. Penny Avery and Kristen Salomonson have been great friends and have made the graduate school experience much more enjoyable. I am also grateful to Ron Hidalgo and Gary Meyer for helping me grow both personally and professionally during my tenure at Michigan State University.

I also thank the students, parents, faculty, staff, and administrators at the junior high school where data collection took place. Their cooperation made the completion of this project more enjoyable and timely.

Lastly, a few nonprofessional acknowledgements seem in order. My father, Joseph Roberto, and my mother, Martha Gouin, have my thanks for their financial and emotional support.

Although I have dedicated this effort to my grandparents, Joseph Leonard and Rocca Lucy Roberto, they deserve to be thanked again here. They have been behind me 100% since the moment I was born. Their complete and unconditional love will remain with me for the rest of my life. I cannot wait until I have children and grandchildren so I can pass on what I have learned from them.

My little sister, Christina Roberto, has been and always will be a bright spot in my life. She has inspired me more then she can possibly imagine.

And last, but not least, I would like to thank my good friends Lonnie Miller and Deborah Blanc for their ongoing interest in both my personal and professional lives. These

individuals have always made me feel welcome in their lives, and I want them to know that they are always welcome in mine.

To conclude, I have been exposed to many words of wisdom throughout my life. Words that are either so witty and sharp that the bring an instant smile to my face, or words that ring so deeply true that they send chills up my spine. But two sayings have been, and continue to be, guiding forces in my life. Interestingly, they both come from the same source; The Little Prince by Antoine de Saint-Exupery. As this rite of passage nears completion, I feel compelled to remind myself of them once again: "All grown ups were once children -- although few of them remember it," and "What is essential is invisible to the eye."

TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

TABLE OF CONTENTS (Continued)

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

CHAPTER I

INTRODUCTION

Interpersonal violence is a pervasive problem in our society. A significant amount of research has investigated the influence of either dispositional or situational variables on violent behavior. On one hand, there are those researchers who focus primarily on the relationship between personality traits and the likelihood that one will respond in a violent manner during a communication episode. For instance, several researchers have suggested a relationship between personality variables such as competitiveness (Hammock & Richardson, 1992; Luper-Foy, 1990; Wilson & Daly, 1985) or cognitive abilities (Guerra & Slaby, 1990) and interpersonal violence. On the other hand, research guided by the symbolic interactionist perspectives, particularly the work of impression management theorists, attributes the cause of violent incidents to the social context. Tedeschi (1984), Felson (1978, 1982) and their associates (see Tedeschi, 1981; Felson & Tedeschi, 1993) argue that the characteristics of a situation account for the escalation from more normative conflict to aggression and violence.

The purpose of this investigation is to assesses the effects of one situational variable (i.e., perceived

intentional attack) and two personality variables (i.e., argumentativeness and verbal aggressiveness) on perception of intent and propensity towards violence in adolescent boys. Perceived intentional attack is one situational variable that has been consistently shown to be related to aggressive behavior in adults (Felson, 1978, 1982; Felson & Steadman, 1983; Leary and Kowalski, 1990) and children (Dodge, 1980; Dodge & Coie, 1987; Dodge & Crick, 1990; Dodge & Tomlin, 1987) alike. Argumentativeness and verbal aggressiveness are two personality variables that have been shown to be related to interspousal violence in adults (Infante, Chandler, & Rudd, 1989; Infante, Sabourin, Rudd, & Shannon, 1990; Sabourin, Infante, & Rudd, 1993).

To date, however, few conceptual or empirical comparisons of the situational and personality views exist. The purpose of this study will be to bridge this gap in the literature. Towards this end, the balance of Chapter One will provide the reader with an in depth understanding of the relationship between perception of intent, argumentativeness, verbal aggressiveness and interpersonal aggression. In doing this, the reader will first be provided with a discussion of youth violence as a social problem. This review will make it painfully clear that interpersonal violence is a widespread problem facing the youth of today. Next, a review of three specific literatures that have generated a fair amount of research concerned with aggressive behavior will commence. The first

two, impression management theory and social information processing, have regularly been used to help understand the role perception of intent plays in the interpersonal violence process. The third, the argumentative deficiency model, focuses primarily on the role two personality variables, argumentativeness and verbal aggressiveness, play in interpersonal violence. This chapter will conclude with discussion of the hypotheses suggested by these lines of research.

In Chapter Two, the method used to test the hypotheses will be presented. This chapter will open with a description of the adolescents who served as the subjects in this study. This will be followed by an outline of the specific procedures employed during each stage of this investigation.

Chapter Three will discuss the results of these procedures. This chapter begins by outlining the reliability and validity of the instrumentation used to measure the variables under study. Next tests of the specific hypotheses will be presented. This chapter will conclude with a discussion of the post hoc analyses that were conducted to provide a better understanding of the primary results.

Chapter Four contains a discussion of said results. Here the findings regarding all instrumentation and hypotheses and research questions will be discussed. The strengths, weaknesses, and implications of this

investigation will also be presented. Here, particular attention will be paid to the practical application suggested by the results of this study.

Youth Violence as a Social Problem

Is youth violence a social problem? A walk through many school hallways and classrooms provides an answer to this question. Most junior and senior high schools are laced with posters sponsored by the National Crime Prevention Council, urging students to "take a bite out of crime." Many of these posters deal with violence prevention. A review of the local or national news media on a regular basis provides a similar answer; barely a day goes by where youth violence is not mentioned. Such coverage is not limited to the popular press. For instance, one cannot open up an issue of The Journal of the American Medical Association from the past several years without reading about youth violence. The government, teachers, parents, and even the children themselves are confronted with this issue on a daily basis.

In determining whether or not youth violence is a social problem, three basic questions need to be answered: (1) How many children are affected by youth violence annually? (2) Between which individuals does youth violence usually occur? And (3) How is youth violence being referred to by the government officials who have jurisdiction over this issue? The answers to these three

questions will reveal the extent to which youth violence can be viewed as a social problem facing our society.

The first question is a number question; "How many kids does youth violence affect?" To answer this question, the results of two nationwide studies conducted during the early 1990's will be consulted. The first study found that 8% of all students in ninth- through twelfth-grade have been in at least one physical fight that resulted in an injury requiring treatment by a doctor or nurse within the past thirty days (Division of Injury Control, National Center for Environmental Health and Injury Control, Division of Adolescent and School Health, National Center for Chronic Disease Prevention and Health Promotion, and Center for Disease Control, 1992, p. 3009). The second study found that 42% of all students report having been in at least one such fight in the last twelve months (Moore, Sandau-Christopher, Sadier, Scalise, Gay, Stalvey, Schroeder, Pelton, Biehr, Harris, Strunk, Chiotti, R., Owens-Nausler, Grenert, Chioda, Cole, Meurer, Abelson, Sheffield, Ruzicka, Balsley, Sutter, del Pilar Cherneco, Fraser, Carr, Word, Simpson, Lacy, Tye, Nehls-Lowe, Anderson, 1992, p. 2495). Both of these studies note that male students are up to four times more likely to report an incidence of physical fighting than female students.

Further support for this supposition is clearly found in statements like "homicide is the second leading cause of death for persons aged 15-24 years, and nonfatal violence

often precedes fatal violence among young persons" (Division of Injury Control, National Center for Environmental Health and Injury Control, Division of Adolescent and School Health, National Center for Chronic Disease Prevention and Health Promotion, and Center for Disease Control, 1992, p. 3010). The government is so concerned with this problem that it has set several national health objectives for the year 2000 -- "Objective 7.9 is to reduce by 20% the incidence of physical fighting among adolescents aged 14-17 years...Objective 7.10 is to reduce by 20% the incidence of weapon-carrying by adolescents aged 14-17 years (Moore et al., 1992, p. 2498). It is clear, then, that physical fighting is a common form of interpersonal violence among adolescents, and that a great many children are affected by it on a regular basis.

The second question one must ask is, "Who's fighting who?" As Zylke (1988) puts it, these numbers "reflect friends and family resolving arguments tragically" (p. 2621). As Mason and Proctor (1992) note, "teenaged victims described their attackers as an acquaintance almost twice as often as adults" (p. 3003). Several government agencies also note that "among students who were involved in a physical fight, the most recent physical fight was more likely to have been with an acquaintance" (Division of Injury Control, National Center for Environmental Health and Injury Control, Division of Adolescent and School Health, National Center for Chronic Disease Prevention and Health

Promotion, and Center for Disease Control, 1992, p. 3010). In short, the figures outlined above do not represent acts of random violence. Nor do they reflect violence that is committed for some economic gain. It has been suggested that it is a lack of conflict resolution skills or other communication deficiencies that leads to such violence (Zylke, 1988; Moore et al., 1992; Division of Injury Control, National Center for Environmental Health and Injury Control, Division of Adolescent and School Health, National Center for Chronic Disease Prevention and Health Promotion, and Center for Disease Control, 1992).

The final question that sheds light on whether or not youth violence is a social problem is, "How is violence being referred to by the powers that be?" Quite frankly, they use the gravest of terms. Mason, the Assistant Secretary for Health, and the head of the United States Public Health Service, views youth violence as "an epidemic as frustrating as the acquired immunodeficiency syndrome and as debilitating as such past scourges as polio" (Mason & Proctor, 1990, p. 3003). Others argue that "although traditionally physical violence has been considered a criminal justice issue, it is also a legitimate public health issue" (Zylke, 1988, p. 2621). Still others contend that "within the last decade, injury and death from violence have become one of the most critical health problems this country faces" (Randall, 1990, p. 2612). Novello, the former Surgeon General, Public Health Service, and her

colleagues (Novello, Shosky, & Froehlke, 1992) refer to an "epidemic of violence" and write that "violence in the United States is a public health emergency" (p. 3007). These authors go on to argue that "although violence is not a disease in the 'classic' sense, its impact on personal and public health is as profound as that of many physiologic ills -- perhaps more so" (p. 3007). Further, it has been suggested that "whatever definition we use, violence has become a problem of epidemic proportion in our society" (Novello et al., 1992, p. 3007).

In sum, it has been shown that physical fighting effects a large number of youth; by some estimates up to 50% of all children are affected each year. It has also been demonstrated that most of these incidents are between people who know each other. Finally, when the strongest of terms are used to describe interpersonal violence, terms such as "epidemic," "disease," "public health emergency," and "the most critical health problem this country faces," it is hard to consider it anything but an important social issue facing the youth of today. Perhaps Mason and Proctor (1992) capture this best when they note that "for many children today, violence is not a drama that unfolds on television or film. It's a reality that they have known since birth and witness routinely on the streets of their neighborhoods and even in their own homes" (p. 3003). The discussion now turns to a review of three literatures that have provided some insight into such aggressive behavior.

Intention

Impression Management Theory

Impression management refers to the process by which people attempt to control the impressions others form of them. Accordingly, impression management theory (IMT) suggests that "much of human behavior is designed to obtain favorable reactions from an audience" (Felson, 1978, p. 205). Unlike traditional symbolic interaction theorists who commonly focuses on both internal and external audiences and on both private and public behaviors, IMT stresses the importance of external audiences and focuses on public behaviors. According to an impression management approach, an interaction's "outcome is not predetermined by either the characteristics or the initial goals of participants" (Felson, 1978, p. 211). Such statements point to the importance of situational characteristics during interaction.

Impression management is best viewed as a continuum. At one end are situations in which people are virtually oblivious to others' reactions to them. At the other end are situations where people attend consciously to the aspects of themselves that others can observe. Most of the time, though, people operate between these extremes.

Researchers have applied IMT to a variety of interpersonal phenomena. For example, IMT has been used to generate explanations for interpersonal aggression, attitude

change, social facilitation, social anxiety and inhibition, and self-handicapping, just to name a few. The reader is referred to Tedeschi (1981) for a more extensive review of these literatures.

Leary and Kowalski (1990) sought to reduce the many variables that affect impression management to the smallest possible set of theoretically meaningful factors. In doing this, they determined that impression management involves two discrete processes: impression motivation and impression construction. Each of these components operates according to different principles and is affected by different antecedents. For the sake of brevity, only a brief overview of these components and their antecedents are provided here. Since this discussion is derived largely from Leary and Kowalski (1990), the reader is referred to the original article for a more detailed discussion of this model, including a more complete discussion of the evidence supporting the existence of each component.

Under certain circumstances, people become motivated to control how others see them. This process is referred to as impression motivation. Leary and Kowalski (1990) identify three factors that influence the degree to which people are motivated to control how others perceive them. The first of these, goal-relevance of impressions, advances that people will become more motivated to impression manage when the impression they make are relevant to the fulfillment of one or more goals (e.g., social or material outcomes, self-

esteem maintenance, and identity development). The second component concerns the value of desired goals. Simply put, "impression motivation should increase with the value of the goal an individual hopes to attain for which his or her public impression is relevant" (Leary & Kowalski, 1990, p. 38). The final factor, discrepancy between desired and current image, involves discrepancies between the image one would like others to hold of oneself and the image one believes others already hold. The greater the discrepancy, the greater the motivation to impression manage. In other words, people have a latitude of images that they regard as acceptable to project. When they believe that the impressions others have of them fall outside this range, they become motivated to manage their impressions.

The concerns of the second component of this model, impression construction, are twofold. Given that a person is motivated to create an impression, one need determine (1) the kind of impression one wants to make, and (2) how one will go about making that impression. Five factors come in to play at this point. The first is the self-concept. Leary and Kowalski (1990) suggest that the self-concept is the primary determinant of the impressions people try to project. Second, there are desired and undesired identity images. Simply put, self-presentation is "affected not only by how people think they are, but by how they would like to be and not be" (Leary & Kowalski, 1990, p. 40). Third, are role constraints, which refer to the expectations an

individual holds regarding how a person who occupies a role is to behave. Here people try to ensure that their public image is consistent with current role demands. Fourth, there are target values, which refers to an individual's tendency to tailor their public image to the perceived values and preferences of significant others. Finally, "the impressions people try to create are affected by how they think they are currently regarded by others and by how they think others may perceive them in the future" (Leary & Kowalski, 1990, p. 41). This component is referred to as current and potential social image.

Leary and Kowalski's (1990) approach draws a central distinction between the processes that motivate impression-relevant behavior and those that determine the content of those behaviors. These authors believe, however, that these two processes are sometimes mistakenly confounded in real-world encounters. These authors provide the following example to illustrates this point:

> "An interaction with a job interview may have two effects. Assuming that one wants the job, it increases the applicant's motivation to engage in impression management. In addition, the situation provides the parameters within which the applicant's impression-relevant behaviors occur. Certain impressions become salient (such as those involving job related competence), and certain constraints of self-presentation are imposed (particularly if the interviewer possesses one's academic records and letters from previous employers).
>
> To be precise, however, different facets of the interview affect each of these processes. The interviewer's power to mediate valued outcomes increases impression motivation, whereas his or her possession of information about the applicant imposes constraints that affect impression construction" (p. 43).

Long before this overview of IMT was synthesized, Felson (1978) viewed aggression as one form of impression management. In his ground-breaking piece, Felson (1978) sought to explain how interpersonal conflict tends to result in attacks on the situational identities of interactants, and proceeded to show why these attacks tend to produce retaliation. Most of the propositions he discusses parallel those of Leary and Kowalski's (1990), though a few do not. Thus a discussion of each of these propositions seems appropriate here. Again, for the sake of brevity, only a brief overview of these propositions is provided. The reader is referred to Felson (1978) for a more complete discussion of the evidence supporting each proposition.

Before dealing with each of these propositions, the relationship between impression management and aggression is presented. Felson (1978) suggests that "interpersonal conflict tends to result in attacks on the situational identities of interactants...[which] tend to produce retaliation" (p. 205). That is, individuals are much more likely to express their disapproval of others and their actions during conflict. The expression of such disapproval constitutes the initial attack. If this attack <u>altercasts</u>, or places the target into an unfavorable situational identity, the likelihood of retaliation increases. Felson (1978) goes on to state that there are at least two reasons an insult, or initial attack, is likely to result in a counterattack. First, "an insult releases the target from

the obligation to be polite toward the person who has attacked him"; and second, "a successful counterattack is one effective way of nullifying the imputed negative identity" (p. 207).

According to Felson (1982), the basic determinant of aggression is perceived intentional attack. This notion is captured by Proposition 1: "Altercasting a person into a negative situational identity tends to result in retaliation, when the target perceives the behavior as illegitimate and intentional" (Felson, 1978, p. 208, emphasis added). This proposition is particularly important since intention is one of the variables that will be analyzed in this study.

Proposition 2 states that "conditions or events that negate the situational identity imputed by an unanswered attack make retaliation less likely" (Felson, 1978, p. 209). Four types of conditions or events may make retaliation less likely: (1) the attack lacks credibility, (2) a third party intervenes and retaliates on one's behalf, or (3) a third party intervenes in the role of mediator, and (4) the aggressor apologizes, even if their sincerity is in question.

To illustrate this latter possibility, Schwartz, Kane, Joseph, and Tedeschi (1978) and Darby and Schlenker (1982) found that subjects tended to judge transgressors depicted in stories to be less liable to punishment if they made apologies. Ohbuchi, Kameda, and Agarie (1989) directly

examined victim's reactions to apology. In a series of studies these authors found that when a harm-doer apologized for their wrongdoing, in contrast to when they did not, the subjects generally had more favorable impressions of them, felt more pleasant, and refrained from severe aggression toward them. These authors go on to state that "it is noteworthy that this study successfully demonstrated the inhibitory effects of apology on aggression at the behavioral level" (Ohbuchi et al., 1989).

As Felson (1978) puts it, "a participant in an aggressive encounter has two relevant (external) audiences: the antagonist(s) and third-party onlookers. The audience may altercast ego into a situational identity or, by revealing its values, may indicate how a favorable situational identity might be achieved" (p. 208). In other words, IMT suggests that an audience may serve one of two functions. In the first instance, the external audience altercasts an individual into an unfavorable situational identity. If this identity is greatly discrepant from the image an individual desires, one might become motivated to impression manage. This notion parallels the discrepancy between desired and current self image aspect in Leary and Kowalski's (1990) impression motivation component. In the latter instance, the external audience is a third party onlooker who may indicate how a favorable situational identity might be achieved (e.g., by revealing their values).

Felson's (1978) Proposition 3 and Proposition 4 deal with these notions. The former states that "persons will alter their aggressive behavior in order to be consistent with the perceived values of the third-party audience," and the latter states that "ego is more likely to retaliate against alter if a third party observes alter's attack on him" (p. 209). That is, the mere presence of onlookers makes retaliation more likely. As Leary and Kowalski's (1990) note, persons alter their behavior to make it acceptable to onlookers (e.g., behavior is tailored to a target's values). These propositions note that the same holds true for aggressive behavior.

Proposition 5 states that "ego will tend to conceal evidence of having lost an aggressive encounter and will tend to reveal evidence of having participated or won" (Felson, 1978, p. 210). This proposition is related to Leary and Kowalski's (1990) notion of current or potential social image. Recall that amongst other things, this component deals with how an individual thinks others may perceive them in the future. Another's knowledge that one has lost an aggressive encounter may constrain the individual's subsequent attempts at impression management. Felson's (1978) sixth and final proposition states that "the greater a person's concern for identity, the more likely he is to alter his aggressive behavior in order to attain a favorable situational identity or avoid a negative situational identity" (Felson, 1978, p. 210). This

highlights the importance an individual's self concept plays in impression management.

Although all of these propositions are somewhat relevant to the current research (at a minimum, they point to a number of things that must be controlled for), Proposition 1 and Proposition 2 are the most directly relevant. In one way or another, both of these propositions deal with the influence of perceptions of intention on subsequent aggressive behavior. Proposition 1 clearly states that intentional attack tends to result in retaliation, whereas Proposition 2 concerns how an aggressor might alleviate any perception of intent, which, in turn, reduces the likelihood of a counterattack (e.g., by apologizing).

It is important, however, that the remaining propositions be considered when manipulating intention, since they may confound the results if they are not adequately controlled. For instance, in many studies intention is manipulated by eye-witness testimonies (e.g., Dodge, 1980; Dodge & Tomlin, 1987). Thus, it appears that the responses obtained in these studies were at least partially due to the presence of third parties.

Felson (1982) tested these propositions by asking subjects to describe four conflict incidents of varying severity. Specifically, subjects were asked to describe the last dispute they were in: 1) where a gun or knife was used; 2) that involved hitting but no gun or knife; 3) that

involved shouting or name-calling, but no hitting or weapons; and 4) where they were really angry at another person but said nothing about it. These four levels of conflict severity constituted the dependent variable under study. The purpose of this procedure was to determine what factors affect severity of outcome. Towards this end, subjects were also asked: 1) Were accounts given? 2) Did someone say something bad about you (i.e., were you insulted)? 3) Was there anybody else there at this time? 4) Did they try and stop or encourage the dispute?

The hypothesis regarding insults received support; respondents were more likely to engage in verbal disputes (v. doing nothing) and to engage in hitting/slapping (v. verbal disputes) when they were insulted. Interestingly, the likelihood of hitting/slapping (v. verbal disputes) was substantially more likely if both participants were male (v. female-female or cross-sex conflicts). The hypothesis that incidents would be more severe when others were present received partial support since it occurred only when the participants in the conflict were of the same sex. The hypotheses regarding the effects and roles of observers (i.e., instigators v. mediators) received support as well. As expected, instigation increased the odds of hitting/slapping (v. verbal disputes) while mediation significantly decreased the likelihood of aggression. Lastly, it was found that accounts by either the respondent or the antagonist decreased the likelihood of physical

violence. This last finding implies that if either the respondent or the antagonist suggest that their behavior was unintentional, their actions were less likely to lead to violence. Thus, perceptions of intention affect violence.

Felson and Steadman (1983) further examined the role situational factors play in disputes leading to criminal violence. They assessed whether physical retaliation occurs to alleviate face-saving concerns (e.g., to defend one's honor) or for other strategic reasons (e.g., to defend one's physical well being). Although it was difficult to conclude which of these two concerns was the major cause of criminal violence, a fair amount of the data suggested the importance of identity concerns. Amongst other things, the data revealed that a reciprocity principle was operating; "identity attacks lead to identity counterattacks...and physical attacks lead to physical counterattacks" (Felson & Steadman, 1983, p. 68). These results were interpreted as confirmation for the supposition that "the successive behaviors of a participant are more a function of the antagonist's behavior than they are of his or her own earlier actions, demonstrating again the importance of interaction in these instances" (Felson & Steadman, 1983, p. 69). It was also found that victims are more likely to be killed if they behaved aggressively (i.e., engaged in identity attacks, threats, or physical attacks); a point that will be returned to later.

Also of interest is the order in which these events

unfold. It appears that identity attacks tend to occur early in the incident, followed by influence attempts and noncompliance. Physical violence often occurs when the victim will not comply with the offender's wishes. Evasive actions tend to occur at a late period, "apparently too late to have any effect" (Felson & Steadman, 1983, p. 70). The final stage involves physical attack.

Before continuing, it is worth taking a moment to discuss the applicability of impression management to youth populations. Unfortunately, very little research explicitly dealing with children's impression management skills exists. In fact this author is aware of only one study which applies impression management concepts to children. This study, conducted by Hatch (1987), investigated impression management in the kindergarten classroom.

A discussion of Hatch's (1987) specific findings is not provided here since they are only remotely related to the hypotheses in this investigation, and would add little to the current discussion. It is Hatch's (1987) general conclusions that are of interest since they show the relevance of impression management to child populations. In brief, Hatch (1987) found that children do take the anticipated effects of their actions on their own faces and the faces of others into account as they interact with peers. Not surprisingly, though, the structures of children's face-work practices are incomplete in relation to their adult counterparts.

Anderson (1994) presents a fair amount of anecdotal evidence regarding the applicability of impression management concepts to physical aggression in youth populations. The "the code of the streets," Anderson (1994) notes, "revolves around the presentation of self...to be respected, it is important to have the right look" (pp. 86, 88). Anderson (1994) specifically emphasizes the role third party antagonists and onlookers play in youth violence. He explains that "if a person is assaulted, it is important, not only in the eyes of his opponent but also in the eyes of his 'running buddies,' for him to avenge himself" (p. 88).

Remember, what is important here is that children begin to understand the intricacies of impression management well before they reach adolescence. This evidence provides support for the expectation that many of the models, propositions, and findings discussed above will hold true for adolescent populations as well, at least to some degree. Further support of the specific expectations regarding the intention aspects of IMT is also found in the social information processing model. The discussion now turns to a presentation of this evidence.

Social Information Processing

In a series of studies by Dodge and his colleagues (e.g., Dodge, 1980; Dodge & Coie, 1987; Dodge & Crick, 1990; Dodge & Tomlin, 1987), the effect of perceived intention was examined. In an early piece, Dodge (1980) performed a

clever experiment where he had aggressive and nonaggressive children from grades 2, 4, and 6 "compete" in a puzzle-assembly task. Their competitor was in fact a fictitious boy in the next room. Halfway through the task the experimenter announced that they would stop for a break, and the subject's puzzle was taken into the next room in a feigned attempt to allow each of the boys to evaluate the other's performance (through earlier efforts the subject believed they could hear what was going on in the room housing the fictitious child). At this point each subject heard one of three conditions: hostile, benign, or ambiguous. These conditions represented the clearly intentional, clearly unintentional and ambiguous conditions respectively.

Next, both puzzles were placed alone in the room with the subject (whose puzzle had been disassembled) to get a measure of their response. Response codes ranged from "disassembled one or more pieces of other's puzzle" (most aggressive) to "helped assemble the other's puzzle" (least aggressive). Results revealed that when a peer's intention is clearly stated, aggressive boys alter their retaliatory behavior according to that intention as appropriately as do nonaggressive boys (i.e., both aggressive and nonaggressive boys responded aggressively in the hostile condition and without aggression in the benign condition). It was only in the ambiguous condition that aggressive boys react as if the peer had acted with hostile intent (i.e., aggressively)

while nonaggressive boys behave as if the peer had acted with a benign intent (i.e., nonaggressively).

In a second study, Dodge (1980) told subjects hypothetical stories about peers they had previously identified as aggressive or nonaggressive. In all instances these stories were worded so that the intention of the peer was ambiguous. Children were then asked to describe how the incident might have happened and how he would respond behaviorally.

The results complemented those of the first study; aggressive subjects attributed a hostile intention to the peer 50% more often than did nonaggressive subjects. As in the first study, hostile attributions tended to lead to aggressive retaliation while benign attributions were less likely to do so. In short, the major contribution of these experiments was the finding that it is only when peer's intentions are ambiguous that aggressive and nonaggressive boys responded differently -- it was only in this situation that aggressive boys are more likely than others to aggress against peers. This is a good example of a person by situation interaction. Whereas IMT suggests that the characteristics an individual brings with them into an interaction are not important, this line of research shows that in at least some instances such characteristics do matter. This is important because a similar person by situation interaction is predicted in the present study.

In addition to replicating the above findings, Dodge

and Tomlin (1987) took this line of research a step further by exploring why aggressive children make more hostile attributions than their nonaggressive counterparts. In one of two studies reported, these authors systematically weighted cues by a three to one ratio in either a hostile or benign direction. They also varied the location of the distractor cues to examine whether or not aggressive and nonaggressive children used primacy (i.e., the first cues presented) versus recency cues (i.e., the last cues presented) differently.

Several interesting results are worth noting. First, aggressive children are more likely than others to use self-schemas (v. presented cues) when making decisions. Second, children using self-schemas are much less accurate in their interpretations concerning a peer's intention; a finding that should be interpreted cautiously since it was only marginally significant ($p < .08$). Third, even when aggressive children do use cues to make interpretations, they were more likely than others to focus on recency (i.e., the last cues given) rather than either primacy (i.e., the first cues given) or embedded cues (i.e., cues placed between the first and last cues given). The last, and perhaps most interesting finding of this study, was that aggressive children were less accurate than nonaggressive children in interpreting another's intention regardless of their use of relevant cues or self-schemas.

All of these findings should be viewed with caution for

two reasons. First, the manipulation of intention occurs in a non-interpersonal setting. That is, the two subjects are not interacting nor is the "attack" directly related to an individual's self-concept. This is important because although IMT is concerned with the effects of the perceived intention of an attack, it typically concerns attacks where the antagonist verbally or physically aggresses against the victim themselves. In much of the preceding work, these behaviors were not incorporated into the design. Second, the measurement of aggression is somewhat problematic since the aggressor and the aggressee never actually interact with each other.

In spite of these limitations, this line of research still provides important information. For instance, these researchers do manipulate and deal with perceived intention. They also deal with aggressive responses to prior behavior. Even though these responses are limited, this is an artifact of the design, and not of Dodge's views on aggression. There is also a considerable advantage to Dodge's work; it deals with children. This is a population that has remained unexplored in studies of aggression guided by an impression management perspective, yet it further suggests that IMT is as applicable with children as it is with adults.

Though these findings reveal that aggressive and nonaggressive children differ substantially in how they interpret (and with what degree of accuracy) a peer's intentions, they do not fully explain why. Trait theories

of aggression provide one possible way to understand why these attributional biases exist. It is to this discussion that I now turn.

Argumentativeness and Verbal Aggressiveness

A large body of literature concerning argumentativeness and verbal aggressiveness has developed over the past decade. Research on these traits has been conducted in the areas of intercultural, organizational, and interpersonal communication. More specific contexts such as family, educational, and political communication have also been explored, as have communication functions which cut across contexts such as persuasion. This section begins with a review of the theoretical framework from which these concepts evolved. Next, since argumentativeness and verbal aggressiveness are traits, a brief overview of the person-situation debate is provided. This is followed by an individual discussion of each of these traits as well as their relationship to each other, interpersonal violence, and adolescents. This section concludes with a review of some recent studies guided by the interactionist approach.

Before discussing argumentativeness and verbal aggressiveness individually, it is worth taking a few moments to discuss the theoretical framework from which these concepts evolved. In his discussion on aggressiveness, Infante (1987, 1995) distinguishes between constructive and destructive aggression in interpersonal

relationships. In its constructive form, aggressiveness "facilitates interpersonal communication satisfaction and generally enhances a dyadic relationship by understanding, empathy, and intimacy" (Infante, 1987, p. 163). Alternatively, aggressiveness is viewed as destructive "if it produces dissatisfaction, if at least one person in a dyad feels less favorable about himself or herself, and if the quality of the relationship is reduced" (Infante, 1987, p. 164).

Working from Costa and McCrae's (1980) trait model of personality, Infante (1987, 1995) and Infante and Wigley (1986) provide a context within which argumentativeness and verbal aggressiveness can best be understood. According to this model, personality is structured around three major dimensions: neuroticism, extroversion, and openness. Assertiveness, defined as "a person's general tendency to be interpersonally dominant, ascendant, and forceful" (Infante, 1987, p. 165), is one of the six facets of extroversion. Argumentativeness is consider a subset of assertiveness, "in that all arguing is assertive, but not all assertiveness involves arguing" (Infante, 1987, p. 164).

Hostility, defined as a "generalized conceptualization of the affect of anger" (Infante, 1987, p. 176), is one of the six facets of neuroticism. Individuals high in this trait tend to be irritable, quick to take offense, and hot-tempered. Verbal aggression is viewed as a subset of hostility.

Infante (1987) cites research from as far back as five decades ago supporting the premise that "although personality is generally stable, it is possible to enhance portions of the structure through training" (p. 165). This is important since if traits are found to be related to aggressive behavior in adolescents, the next step would be to develop interventions in this process. This premise supports the usefulness of such an endeavor. Since argumentativeness and verbal aggressiveness are traits, the discussion now turns to the person-situation debate.

The Person-Situation Debate

According to Daly (1987), a trait is "any distinguishable, relatively enduring way in which one individual differs from others" (p. 13). A critical issue in personality theory concerns whether or not traits exist. Indeed, what has become known as the person-situation debate has a long history. The question that this debate seeks to resolve is whether traits, situations, or some combination of these two factors best explain behavior. It is beyond the scope of the present piece to attempt to answer to this question. However, since traits are investigated, a brief discussion of each perspective seems appropriate.

Situationist Position. Also known as the "antitrait camp," the situationist's posits that there is little stability in personality, and that behavior is determined almost exclusively by situational variables. Its leading

proponents have been Mischel and his colleagues (Mischel, 1969, 1973, 1977; Mischel & Peake, 1982, 1983). The belief that there is little stability in personality rests on three major sources of evidence. First, when behavior in one situation is correlated with behavior in another situation, the correlations are very low (e.g., usually below .30). This, in conjunction with the fact that there is a large amount of evidence supporting the notion that behavior varies greatly as a function of situational variables, represents the strongest support in favor of this perspective. Champions of this argument note that although the concept of traits is not unreasonable, it is not supported by the facts.

In defense of this argument, Epstein (1979, 1980, 1983) notes that many investigations, particularly laboratory studies, often examine behavior in response to single stimuli on single occasions. He goes on to note that a single item of behavior, like a single item on a test, has a high component of error of measurement and unlikely to establish strong relationships with personality measures. In short, behavior may vary greatly from situation to situation, but there can still be "an underlying consistent thread in behavior averaged over situations" (Epstein, 1979, p. 1102).

A second argument against the existence of traits is that when analysis of variance designs are employed in personality research, "the variance attributed to individual

differences is usually much smaller than the variance attributed to situations and to the interaction of individuals and situations" (Epstein, 1979, p. 1099). Daly (1987) and Epstein (1979) note that though the amount of variance explained may often be small, there is no reason to throw this additional understanding away.

The third argument concerns what attribution theorists term fundamental attribution error. Simply put, the fundamental attribution error concerns the tendency to overestimate the influence of personal characteristics and to underestimate the influence of situational factors when explaining another's behavior. As such, when people rate others, they tend to attribute more stability to individuals across situations than is objectively warranted. Subscribers to this view argue that this "can explain how there can be a widespread belief in the stability of personality when, in fact, there is little stability" (Epstein, 1979, p. 1099). Epstein (1979) contends that there is a fair amount of stability in behavior apart from such bias.

In short, this perspective believes that personality is overwhelmed by the situation, so that behavior across various situations is not consistent and hence not predicted well by personality traits (Bem & Allen, 1974; Mischel, 1969, 1973). As Infante (1987) notes, "this position, in essence, denies the concept of personality and replaces it with a situational account of behavior" (p. 161). Some

research has supported the situationist position (for a synthesis, see Bem and Allen, 1974). As Epstein notes, "a trait is a generalized tendency for a person to behave in a certain manner over a sufficient sample of events and does not imply that he or she will exhibit trait-relevant behavior in all situations or even on all occasions in the same situation" (p. 1102). Daly (1987) cites a fair amount of evidence which suggests that situational characteristics alone are not much better at predicting outcomes than are traits.

Trait Position. Trait theorists, on the other hand, study consistent behavioral tendencies in individuals over a sample of situations. The leading proponent of this perspective is Epstein (1979, 1980, 1983). Subscribers to this view advance that if different procedures had been followed in the investigations of stability in personality, higher stability coefficients would have been found. Although these theorists admit that the majority of studies do not demonstrate stability in behavior, they note that there have been a few studies that do. Epstein (1979) suggests two possible reasons for such differences. First, if enough studies are conducted, a few are likely to produce significant results by chance alone. Second, the studies that produced positive findings were better conceived and conducted than the many that failed. Epstein (1979) goes on to note that studies observing stability in behavior examined relatively extensive samples of behavior. Thus,

concludes Epstein, "a possibility that must be considered is that the critical factor separating the studies that succeeded in establishing stability from those that failed to do so is the steps taken to reduce error of measurement by obtaining adequate samples of behavior in the former studies" (p. 1104). In his own defense, Mischel (1977) argues that most cases of consistency occur with judgmental or self-perception data, not with actual behavior.

Interactionist Position. Bem and Allen (1974) are the leading proponents of this perspective. According to the interactionist position, behavior is viewed as a joint function of the person and the situation. This position is viewed as a compromise between the trait position and the situationist position since it acknowledges the existence of behavioral stability, but only within situational constraints. In other words, "the interactionist wishes to study the behavior of people with certain attributes in situations with certain attributes" (Epstein, 1979, p. 1104).

As already noted, a number of researchers observed that the interaction of individuals and situations accounted for more variance than either source of variance by itself. Epstein (1979) expresses this view by noting that "since behavior never takes place in a vacuum but always occurs in a situational context, it is meaningless to talk about characteristics of an individual's behavior without specifying the situation in which the behavior occurs" (p.

1102). However, Epstein (1979) goes on to argue that interactionists have been no more successful than others in breaking the .30 personality barrier. Thus, concludes Epstein, "interactionism does not replace the need to reduce error of measurement by sampling, but simply determines what it is that must be sampled, namely people with certain attributes in situations with certain attributes" (p. 1104).

Infante and his colleagues (Infante & Rancer, 1982, 1993; Infante & Wigley, 1986; Infante, Trebing, Shepherd, & Seeds, 1984; Infante et al., 1989; Infante et al., 1990; Onyekwere, Rubin, & Infante, 1991; Sabourin et al., 1993) clearly subscribe to the interactionist position. This is clearly seen in Infante's (1987) admission that "our approach is decidedly, but not exclusively, from a trait perspective, as situational influences are both acknowledged and included in theoretical statements" (p. 162). Infante and Rancer (1993) note further that "understanding the situational factors which interact with communication traits to produce behavior which is unique to the particular circumstances is important in order to develop the current theory's ability to predict communication behavior" (p. 416). Infante and Rancer (1982, 1993) also acknowledge the advancement of an interactionist model. Thus, they note, factors in the situation can result in highly argumentative individuals not arguing while persons who normally seldom argue, might argue vigorously. Similarly, Infante et al. (1989) discuss a general model of violence in intimate

relationships which includes societal, personal, and situational factors. Infante et al. (1990) and Sabourin et al. (1993) also adopt this model. Each of these components and studies, along with specific examples of other research guided by this perspective, will be provided as the discussion now turns to the traits of argumentativeness and verbal aggressiveness.

Argumentativeness

Infante and Rancer (1982) define argumentativeness as a "generally stable trait which predisposes the individual in communication situations to advocate positions on controversial issues and to attack verbally the positions which other people take on these issues" (p. 72), or more succinctly as "the tendency to advocate and refute positions on controversial issues" (p. 74). Argumentativeness is conceptualized in terms of an approach-avoidance conflict. Individuals high in argumentativeness would view arguing as an exciting intellectual challenge. Such individuals would be strongly inclined to approach arguments, and have little desire to avoid arguments. Conversely, those low in argumentativeness would experience unpleasant feelings before, during and after an argument. As such, these individuals would have no desire to approach arguments, and would have a strong inclination to avoid arguments.

According to this view, a person's "general trait to be argumentative (ARG_{gt}) is seen as an interaction of the

tendency to approach arguments (ARG_{ap}) and the tendency to avoid arguments (ARG_{av})" (Infante & Rancer, 1982, p. 73). This interaction is demonstrated by the model:

$$ARG_{gt} = ARG_{ap} - ARG_{av}$$

Within this conceptualization, high argumentatives would score high on the ARG_{ap} items and low on the ARG_{av} items. The opposite is true for low argumentatives.

This potential situational variance in argumentativeness behavior suggests a state component. This component "represents the person's perceptions of a particular argumentative situation which influences the person's argumentative behavior in that situation, and modify what would be predicted from the trait alone" (Infante & Rancer, 1982, p. 73). For instance, even in their earliest conceptualization of trait argumentativeness, Infante and Rancer (1982) identify four situational determinants of argumentative behavior: perceived probability of success, perceived probability of failure, perceived importance of success, and perceived importance of failure.

Several investigations into the relationship between argumentativeness and other interpersonal behaviors such as interspousal violence (Infante et al., 1989; Sabourin et al., 1993), and parental behavior (Bayer & Cegala, 1992) have already been conducted. Similarly, it has been shown that this construct is commonplace in classroom (Infante, 1981, 1982), organizational (Infante & Gorden, 1985, 1987,

1989, 1991), and cross-cultural settings (Suzuki & Rancer, 1994). Amongst other things, the literature indicates that high argumentatives receive several benefits from their enjoyment and anticipation of argumentative interactions, such as better self-concepts and better perspective-taking skills (Rancer, Kosberg, & Baukus, 1992).

Verbal Aggressiveness

Verbal aggressiveness, on the other hand, "denotes attacking the self-concept of another person instead of, or in addition to, the person's position on a topic of communication" (Infante & Wigley, 1986, p. 61). Several types of verbally aggressive messages have been identified. Specifically, character attacks, competence attacks, physical appearance attacks, background attacks, maledictions, teasing, ridicule, threats, profanity, and nonverbal emblems, blame, personality attacks, commands, global rejection, disconfirmation, negative comparison, sexual harassment, and attacking the target's significant others represent a nearly exhaustive list of such messages (Infante, 1987, 1995; Infante & Wigley, 1986; Infante et al., 1989; Infante, Riddle, Horvath, & Tumlin, 1992; Infante et al, 1990).

It has been argued that verbally aggressive persons tend to define opposition from others as an assault, which leads them to respond by attacking the self-concept of their foe to defend themselves. In addition to self-concept

damage, verbally aggressive attacks might lead to hurt feelings, anger, irritation, embarrassment, discouragement, frustration, anxiety, relationship deterioration, relationship termination, and even physical aggression (Bayer & Cegala, 1984; Infante, 1987, 1995; Infante et al., 1992; Infante, Wall, Leap, & Danielson, 1984; Infante & Wigley, 1986). Since the primary purpose of verbally aggressive messages is the delivery of psychological pain, it is commonly viewed as a destructive form of communication (Infante et al., 1984; Infante & Wigley, 1986; Infante, 1987, 1995; Infante et al., 1989; Infante et al., 1990; Infante et al., 1992). In short, the locus of attack distinguishes these two forms of aggressive communication. In the case of verbal aggression, a person's self-concept is the locus of attack; whereas for argument the individual's position on an issue is the locus of attack.

In adults, verbal aggressiveness has been found to be related to interspousal violence (Infante et al., 1989; Infante et al., 1990; Sabourin et al., 1993), difficulties in parent/child relationships (Bayer & Cegala, 1990), and difficulties in superior-subordinate relationships (Infante & Gorden, 1985, 1987, 1989, 1991). Research also indicates that when a person high in verbal aggressiveness is confronted by an unfriendly person, they will be even more verbally aggressive than normal (Lim, 1990).

The Relationship Between Argumentativeness and Verbal Aggressiveness

Conceptually argumentativeness and verbal aggressiveness are believed to represent independent dimensions of an individual's personality. Empirically, both Infante and Rancer (1982) and Infante and Wigley (1986) obtained nonsignificant correlations between these two constructs. However, Infante et al. (1984) acknowledge that this may not always be the case. They reasoned that "although the two personality traits may be unrelated, verbal aggression may in certain circumstances be related to argumentativeness" (p. 69). For example, Infante et al. (1989) report correlations of .24 ($p < .05$) and .20 ($p < .01$) between self-reported argumentativeness and verbal aggressiveness of wives in violent and nonviolent marriages respectively. This relationship might not always hold true even for this subpopulation, however. Sabourin et al. (1993) did not find significant correlations between self-reported argumentativeness and verbal aggressiveness of husbands ($r = .18$) or wives ($r = .09$). Whether this contradicts the results of the first study is not clear since the correlation between argumentativeness and verbal aggressiveness reported in the latter study did not take into consideration whether or not these individuals were in violent or nonviolent marriages.

Overall, however, a fair conclusion seems to be that although these two traits are not correlated in the general

population, they may be correlated in certain subpopulations. In addition to the many specific hypotheses that will be advanced in this study, this premise was used to generate the first research question:

RQ_1: What is the relationship between argumentativeness and verbal aggressiveness in adolescent populations?

Argumentative Skills Deficiency

Infante and Wigley (1986) note that verbal aggression sometimes escalates into physical violence. Indeed, these authors go on to cite a fair amount of evidence supporting the notion that "verbal aggression is a major cause of violence...[since] violent persons often do not have the verbal skills for dealing with normal frustrations and feel violence is their only alternative" (p. 62). Infante and his colleagues (Infante & Wigley, 1986; Infante et al., 1989; Infante et al., 1990; Sabourin et al., 1993) argue that an argumentative skill deficiency model can be used to explain the relationship between argumentativeness, verbal aggressiveness and interpersonal violence.

An argumentative skill deficiency model of interpersonal violence is "based on the premise that verbal aggression is used when more constructive skills for dealing with conflict, such as argumentativeness, are lacking" (Sabourin et al., 1993, p. 247). According to this model, "verbal aggression functions as a catalyst to physical aggression when the target of verbal aggression has a latent

hostile disposition because of undissipated anger" (Infante et al., 1989, p. 363). Such anger results when one or more of the following three factors are present. First there are societal factors, which include such things as sexual inequality, culturally sanctioned violence, social class, or poverty. Next are personal characteristics such as low self-esteem, poor communication skills, hostile personality, or learned helplessness. Finally, there are situational factors such as stress or alcohol abuse. In other words, these three factors predispose the individual to respond to aggressive cues. Nonetheless, "the predisposition usually remains latent, in the form of unexpressed anger, until aroused by an aggressive cue, the most common of which may be a verbally aggressive message" (Infante et al., 1989, p. 165-166).

Infante et al. (1990) go on to argue that "a latent hostile disposition, combined with an argumentative skill deficiency, makes verbal aggression particularly instigative of violence since little else is available for defense of self" (p. 363). That is, when individuals do not have verbal skills necessary to deal with conflict in a constructive manner, they resort to verbal aggression, which heightens the probability of further aggression. As Infante et al (1989) put it, "a speculation, therefore, according to the deficiency model, would be that spouses in a family troubled by violence are low in trait argumentativeness. This condition may mean the dyad is more prone to verbal

aggression, which according to the model is catalytic to violence" (p. 169). Further, "hostile language serves as a 'trigger' for the release of impulsive aggressive responses" (Infante et al., 1989, p. 164). In other words, verbal aggression is a necessary but not a sufficient condition for interspousal violence.

In short, Infante et al. (1989) suggest that an argumentative skill deficiency model predicts that violence is most likely when both individuals are unskilled argumentatively because the probability of verbal aggression is greater, though this condition is dangerous physically only when at least one individual has a latent hostile disposition. Violence would be less likely if only one individual has an argumentative skill deficiency, because the more skillful individual should be less inclined to reciprocate verbal aggression. This should be the case even if the less skilled individual has a latent hostile disposition. Further, the model predicts that violence should be even less likely when both individuals are skillful argumentatively and not verbally aggressive, even though one or more individuals might have a hostile disposition. Finally, violence should be least likely in interactions in which both individuals are skillful arguers, low in verbal aggressiveness, and do not have latent hostile dispositions.

The relationship between argumentativeness and verbal aggressiveness to physical aggression has been demonstrated

in several studies. Infante et al. (1989) hypothesized that husbands and wives in violent marriages would be lower in argumentativeness and higher in verbal aggressiveness than husbands and wives in nonviolent marriages. To test this hypothesis, samples of abused wives, abusive husbands, wives in nonviolent marriages, and husbands in nonviolent marriages were asked to rate themselves and their spouse in terms of argumentativeness and verbal aggressiveness (no couples were in the sample). The counter-intuitive hypothesis received significant and substantial support; husbands and wives in violent marriages were significantly lower in self-reported argumentativeness and significantly higher in self-reported verbal aggressiveness than husbands and wives in nonviolent marriages. Similarly, husbands and wives in violent marriages reported that their spouses were significantly lower in argumentativeness and significantly higher in verbal aggressiveness than husbands and wives in nonviolent marriages. In short, it seems that although "people involved in nonviolent marriages have a greater tendency to attack their spouses' positions on issues, those in violent relationships are more likely to direct their attacks to their spouses' self concept" (Infante et al., 1989, p. 174).

In a second study, Infante et al. (1990) had abused and nonabused wives give a detailed account of their most recent disagreement with their husbands. Nonabused wives were simply asked to recall and describe their most recent

argument with their husbands. The abused wives were asked to recall and describe their most recent argument with their husbands which resulted in physical aggression. Next, each of these women was asked to report the number of times they and their husbands had used each of ten types of verbally aggressive messages. This was done to test the hypothesis that: "There will be more verbal aggression perceived in a marital dispute which is violent as compared to a nonviolent dispute" (Infante et al., 1990, p. 364). As hypothesized, wives in nonviolent disputes engaged in significantly fewer verbally aggressive acts ($\underline{M}$ = 3.51) then wives in violent disputes ($\underline{M}$ = 18.75). Similarly, husbands in nonviolent disputes were reported as using fewer verbally aggressive acts ($\underline{M}$ = 4.52) than their violent counterparts ($\underline{M}$ = 34.48).

A second hypothesis predicted that perceived verbally aggressive behavior of husbands and wives in a dispute will be positively related. This hypothesis also received support. Specifically, a correlation of $\underline{r}$ = .77 ($\underline{p}$ < .001) was obtained between wives' and husbands' verbally aggressive acts, supporting the predicted reciprocal relationship between verbally aggressive behavior of husbands and wives. This is consistent with Infante et al. (1989) earlier suggestion that a norm of reciprocity appears to operate when communicating aggressively; "it may be that persons who are not skilled at arguing tend to provoke others to use verbal aggression, thus heightening the level of negative arousal in the situation" (p. 167). More

succinctly, as Infante et al. (1990) conclude, "a norm of reciprocity operates for verbal aggression, i.e., verbal aggression begets the same" (p. 364). This finding is highly consistent with those of Felson and Steadman (1982), who also found reciprocity to play a role in the escalation from verbal to physical aggression.

Infante et al. (1990) also sought to determine which types of verbally aggressive messages distinguish violent from nonviolent marital disputes. They found that abused wives are distinguished mainly by their reported use of character attacks, and somewhat by swearing and the use of competence attacks. Abusive husbands are distinguished mainly by their use of character attacks, curses, and threats.

A clear limitation of the first study is that no couples were used. A limitation of the second study is that the findings are based only on wives' perceptions. Amongst other things, Sabourin et al. (1993) attempted to replicate the Infante et al. (1990) study using couple rather than individual data in an attempt to compensate for the limitations of unilateral reporting. As in the Infante et al. (1990) study, the number of verbally aggressive messages reported in violent marital disputes was greater than that reported in nonviolent marital disputes. The types of verbally aggressive messages found to distinguish abusive from nonabusive husbands were also similar to those found by Infante et al. (1990), as were the types of messages

distinguishing abused from nonabused wives.

Argumentativeness and Verbal Aggressiveness in Adolescents

The primary instruments for measuring these constructs are the Argumentativeness Scale (Infante & Rancer, 1982) and the Verbal Aggressiveness Scale (Infante & Wigley, 1986). However, since these scales were developed and used exclusively for measuring the argumentativeness and verbal aggressiveness of adults, the language level of these instruments limits their use with adolescent populations. As a result, a subsidiary goal of this study was the development of instruments meant to assess argumentativeness and verbal aggressiveness in adolescent populations.

Before continuing, one must ask, Does it makes sense to study these traits in adolescence? The answer is unequivocally, yes. Obviously, disagreements are a pervasive part of a child's world. Research on children's conflict indicates that children often resort to name calling (Brennis & Lein, 1977; Sheldon, 1990), physical fighting (Gottman, 1991), or withdrawal (Parker & Asher, 1987) in such situations. Undeniably, young children are already beginning to acquire an understanding of the structure of argument. For example, Brennis & Lein (1977) found that by the time children enter the third- and fourth-grades, they have already learned several functions of arguing such as negating, challenging ideas, and responding appropriately.

Children's communicative competence increases as children expand their vocabulary and their skill at manipulating language. A constructivist viewpoint of the development of social influence skills is based on the conceptualization of children developing along a continuum. Skills of social influence come with the ability to think more abstractly and to perceive others as possessing stable psychological traits (Delia & Clark, 1977; Delia, Kline, & Burleson, 1979; Hale & Delia, 1976). One competency that children need to develop prior to engaging in successful argument is role taking. Role taking refers to an individual's ability to take the perspective of another person and to anticipate their views. This ability to take the perspective of another when constructing messages is an important milestone in the development of young children's communicative abilities. Research on the development of role taking indicates children acquire this capability as they enter their middle-school years. For instance, Delia and Clark (1977) found that twelve-year-olds and cognitively complex ten-year-olds were the only children in a group of six-, eight-, ten- and twelve-year-olds to exhibited listener adapted communication; a requisite to being argumentative. Delia et al. (1979) reached a similar conclusion, noting that most children have acquired the cognitive skills necessary to present listener adapted messages by age twelve.

In his discussion on "the code of the streets,"

Anderson (1994) further highlights the role verbally aggressive messages play in adolescent interactions. At the heart of the code is the issue of respect, which Anderson (1994) defines as "being treated 'right,' or granted the deference one deserves" (p. 82). Anderson (1994) discussion on being "dissed" (disrespected) is analogous to the notion of verbal aggression. For instance, he notes that dissing may manifest itself either nonverbally (e.g., maintaining eye contact for too long) or verbally (e.g., slights, cursing, and other abusive talk). As Infante and Wigley (1986) note, since certain nonverbal behaviors are functionally equivalent to words, it is not unreasonable to expect verbal aggression to be expressed nonverbally. Similarly, "slights" and "other abusive talk" are more global terms for character attacks, competency attacks, and other verbally aggressive messages discussed by Infante and Wigley (1986).

It is clear then, that children have the skills necessary to form argumentative and verbally aggressive messages by this early age. Infante and Rancer (1982) note that argument is a "ubiquitous dimension of human communication" (p. 72). As such, it is important to be able to identify and understand the development of this predisposition in children. To date, however, little is known about the development of these abilities in children or adolescents. Since several other measures of communication predispositions have already been developed

for children, such as cognitive complexity (see Burleson & Waltman, 1988) and communication apprehension (see McCroskey, Andersen, Richmond, & Wheeless, 1981), it seemed appropriate to attempt such an endeavor for argumentativeness and verbal aggressiveness as well.

An Interactionist Approach

Recent studies on argumentativeness have taken a different twist. Such studies have focused less on argumentativeness as a trait, explicitly taking more of an interactionist approach. As noted, this approach assumes that traits interact with factors in the situation to produce behavior. Of course, this idea is not new. Recall that Infante and Rancer (1982) acknowledge that argumentativeness includes a state as well as trait components, which when viewed in tandem, allow for the best prediction in a particular situation. As Infante and Rancer (1993) note, "understanding the situational factors which interact with communication traits to produce behavior which is unique to the particular circumstances is important in order to develop [the] current theory's ability to predict communication behavior" (pp. 1-2). The following studies provide excellent examples of research falling under this genre.

Infante et al. (1984) conducted a study where they confronted subjects who were either high, moderate, or low in argumentativeness with a hypothetical argumentative

situation where the obstinacy or adaptability of their opponent varied. Next they presented subjects with a variety of potential responses to the situation, including a set of verbally aggressive messages. Subjects indicated the likelihood that they would use a particular message in the situation outlined. With the adaptable opponent, persons who were high, moderate, or low in argumentativeness were about equal in their preference for verbal aggression. With the obstinate opponent, however, moderate and low argumentatives selected significantly more verbally aggressive messages. Thus, it seems that high argumentatives are not as easily provoked to prefer the use of verbal aggression. In short, "this study revealed that verbal aggression was unrelated to argumentativeness when the opponent was adaptable, but related when the opponent was obstinate" (Infante et al., 1984, p. 75).

Onyekwere et al. (1991) investigated whether trait argumentativeness and ego-involvement in the topic of an argument affect perceptions of interpersonal communicators. They found that predispositional (argumentativeness) and situational (ego-involvement) determinants of communication competence were relevant in interpersonal arguments. In short, it was found that certain factors can reduce the motivation of high argumentatives and increase the motivation of low argumentatives. Infante and Rancer (1993) interpret this finding as suggesting that situational factors can interact with the trait predisposition to

influence argumentative behavior.

Infante and Rancer (1993) extend further the line of research on the situational factors which influence argumentative behavior by exploring how issues or topics of argument relate to argumentativeness. Results indicated that although high argumentatives argue more about some issues (specifically, social, political, personal behavior, others' behavior, and moral-ethical issues), low and moderate argumentatives engage in a similar frequency of arguing for the remaining issues (specifically, family, sports, entertainment, educational, work, and religious issues). Other researchers have found similar results regarding ego-involvement in religious issues (Stewart & Roach, 1993).

Although these ground-breaking studies are the beginning of a fruitful line of research, two problems still exist. First, these studies deal with argumentativeness, not with verbal aggressiveness or some combination of these two variables. Second, although these studies have begun to mesh the situational and trait perspectives, they have failed to do so in the domain in which they have shown so much promise -- interpersonal violence. One goal of the current research, then, will be to take steps to address these deficiencies.

Hypotheses

As noted, IMT suggests that situational factors such as perception of intent and the presence and values of third parties are the primary determinants of whether or not one will respond to an attack in an aggressive manner. An argumentative skills deficiency model, on the other hand, views traits such as argumentativeness and verbal aggressiveness as the primary determinants of whether or not individuals will become violent. Put somewhat differently, according to IMT, if an individual perceives an attack as intentional, they are more likely to become violent regardless of how argumentative or verbally aggressive they are. Conversely, if an attack is perceived as unintentional they are less likely to become violent regardless of how argumentative or verbally aggressive they are. Though the argumentative deficiency model views situational variables as having a differential impact on argumentative behavior, traits rather than the situation are believed to be the impetus to physical aggression. For instance, this approach suggests that even if an individual has a latent hostile disposition, they are less likely to demonstrate physical aggression unless high in verbal aggressiveness and low in argumentativeness.

At first glance, these theories may seem incongruous. A closer look, though, reveals that the two perspectives are not entirely incompatible. The most fundamental similarity concerns Infante and Wigley's (1986) definition of verbal

aggression as messages that attack the self-concept of the receiver (e.g., character attacks, competence attacks, threats, etc). It is these very types of attacks, when perceived as intentional, that place an individual into a negative situational identity. According to IMT, this should make an individual more likely to retaliate. Recall that Leary and Kowalski (1990) identified the self concept as one of the primary determinants of the impressions people try to project.

The work of Dodge and his colleagues provides a bridge between the impression management and the argumentative deficiency explanations of aggressive behavior. This is because, to a greater or lesser extent, it takes into account factors both internal and external to the individual. This is most clearly shown by the finding that while most children do not differ in their interpretations of situations where intent is clear, there are large differences in children's interpretations of ambiguous situations. What is most important here is the reason given for this difference -- social information processing skills. Put simply, when intent is clear children go thorough similar processes when processing situational cues. It is only when intent is ambiguous that they go through different processes. What this body of literature does not do, however, is provide an ample explanation as to why these differences exist.

One answer to this question is provided by Felson and

his colleagues. IMT views situational characteristics, such as perceived intentional attack, as the primary catalyst of aggression. A related answer is provided by Infante and his colleagues. This view agrees with the notion that character attacks lead to interpersonal aggression, but also views the personality variables of argumentativeness and verbal aggressiveness as playing a significant role in how likely such attacks are to occur. Herein lies the possible reason for the differences noted by Dodge and his colleagues. Perhaps it is individuals who possess certain combinations of these traits who interpret ambiguous situational stimuli as intentional while those who possess other combinations of these traits interpret ambiguous situational stimuli as unintentional. This rationale leads to the following hypothesis:

H_1: The joint effects of verbal aggressiveness and argumentativeness on perceptions of intent will occur only when the intention associated with an act is ambiguous.

In other words, a three-way interaction is predicted between situation, argumentativeness, and verbal aggression and perception of intent. Specifically, it is expected that the effects of subjects' levels of verbal aggressiveness and argumentativeness will only occur under the ambiguous condition. It is only under this condition that those high in verbal aggressiveness and low in argumentativeness are expected to perceive the ambiguous situation as intentional.

Any other combinations of these two traits should lead individuals to see the ambiguous situation as unintentional. Thus the first component of this hypothesis states that:

H_{1A}: Under the condition of ambiguous intent, subjects who are high in verbal aggressiveness and low in argumentativeness will perceive significantly more intention than will subjects with other combinations of these traits.

The first hypothesis also reflects an expectation that individuals in the intentional condition will demonstrate greater perception of intent regardless of their verbal aggressiveness or argumentativeness scores. The second sub-hypothesis captures this expectation:

H_{1B}: Under the clearly intentional condition there will be no effects for verbal aggressiveness or argumentativeness on perception of intent.

It is also expected that individuals in the unintentional condition will perceive significantly less intent regardless of their verbal aggressiveness or argumentativeness scores. The third sub-hypothesis captures this expectation:

H_{1C}: Under the clearly unintentional condition there will be no effects for verbal aggressiveness or argumentativeness on perception of intent.

In short, the main hypothesis, and by extension the three sub-hypotheses, represent a three way interaction between the effect of situation (clearly unintentional,

ambiguous, or clearly intentional) by argumentativeness (high or low) by verbal aggressiveness (high or low) on perception of intent.

Since the work of both Felson and Dodge demonstrate that perception of intent is directly related to how aggressively one is likely to behave, it follows that these variables should have the same impact on propensity towards violence that they do on perception of intent. Thus, the following hypothesis is also advanced:

H_2: The joint effects of verbal aggressiveness and argumentativeness on propensity towards violence will occur only when the intention associated with an act is ambiguous.

As before, a three-way interaction between situation, argumentativeness, and verbal aggression and propensity towards violence is predicted. It is only in the ambiguous condition that those high in verbal aggressiveness and low argumentativeness are expected to respond with a greater propensity towards violence. Subjects with other combinations of these two traits are expected to respond without aggression in the ambiguous condition.

As in the case of perception of intent, the following three sub-hypotheses more accurately reflect the component parts of this hypothesis:

H_{2A}: Under the condition of ambiguous intent, subjects who are high in verbal aggressiveness and low in argumentativeness will demonstrate a greater propensity

towards violence than will subjects with other combinations of these traits.

Since it is expected that all individuals in the intentional condition will respond with a greater propensity towards violence regardless of their verbal aggressiveness or argumentativeness scores, the following sub-hypothesis is advanced:

H_{2B}: Under the clearly intentional condition there will be no effects for verbal aggressiveness or argumentativeness on propensity towards violence.

Finally, since it is expected that individuals in the unintentional condition will respond with a lesser propensity towards violence regardless of their verbal aggressiveness or argumentativeness scores, the following sub-hypothesis is advanced:

H_{2C}: Under the clearly unintentional condition there will be no effects for verbal aggressiveness or argumentativeness on propensity towards violence.

Lastly, if one or both of the traits in question are related to propensity towards violence, a simple question naturally arises: Is it because traits affect perception of intent? More succinctly, the following research question is suggested:

RQ_2 Does perception of intent mediate the relationship between one of more of these traits and propensity towards violence?

In short, it is believed that both Infante and his

colleagues and Dodge and Felson and their colleagues are correct, but that each are providing only part of the picture. By combining these two approaches it is believed that one will get a better understanding as to the situations where certain combination of argumentativeness and verbal aggressiveness are most likely to play a role in perception of intent and propensity towards violence. Chapter Two discusses the methods used to test these hypotheses.

CHAPTER II

METHOD

Subjects

In order to pretest all of the instruments and to test the hypotheses, it was necessary to incorporate several samples into this study. Specifically, a first sample was used to conduct focus groups. These sessions were necessary in order to assess the understandability of all instruments and procedures. A second sample was used to pretest the hypothetical situations which served to manipulate intent in this study. A third sample was used to derive the Propensity Towards Violence Continuum used to assess the dependent variable of the same name. It was only after all the instruments had been derived and pretested that the final sample was tapped. The sample that served as the primary subjects in this investigation was used to assess the reliability and validity of the Argumentativeness and Verbal Aggressiveness Scales, as well as to test the hypotheses and answer the research questions. The specific characteristics of each of these samples are presented below.

Focus Groups

In order to pretest the understandability of all procedures and instrumentation, two focus groups were conducted. These focus groups each consisted of five seventh-graders who attended a large inner-city junior high school. Consent for these individuals had been obtained as part of an unrelated second study. The age range for these subjects was twelve- to thirteen-years-old ($\underline{M}$ = 12.76, $\underline{SD}$ = .44). European and African Americans were equally represented with each representing fifty percent of the sample.

Hypothetical Situations

In order to pretest whether or not each of the hypothetical situations were being accurately interpreted (i.e., as unintentional, ambiguous, or intentional) a second sample consisting of twenty-two seventh-grade boys was obtained from the same large inner-city junior high school. Consent for these individuals had also been obtained as part of an unrelated second study. The subjects in this sample ranged in age from twelve- to thirteen-years old ($\underline{M}$ = 12.44; $\underline{SD}$ = .76). Racially, this sample was 54.55% European American (n = 12), 31.82% African American (n = 7), and 13.64% Hispanic American (n = 3).

Propensity Towards Violence Scale

A third sample was used to develop and pretest the scale used to measure propensity for violence. Consent for these individuals had been obtained as part of an unrelated third study. This sample of 64 eighth-graders was obtained from a different large inner-city junior high school, and consisted of 39 boys (60.9%) and 25 girls (37.5%) ranging in age from thirteen- to fifteen-years old (M = 13.89; SD = .67). Racially, this sample was a bit more diverse, with European Americans making up 40.6% of the sample (n = 26), African Americans 18.8% (n = 12), Hispanic Americans 17.2% (n = 11), Native Americans 14.1% (n = 9), and Asian Americans 4.7% (n = 3).

Primary Subjects

The primary subjects of this investigation (i.e., those used to assess the reliability and validity of the Argumentativeness and Verbal Aggressiveness Scales, and those used to test the hypotheses) were 79 eighth-grade boys enrolled in the same large inner-city junior high school as the seventh-graders used in the focus groups and the seventh-graders used to pretest the hypothetical situations.

The primary means for soliciting subjects consisted of going to the cafeteria during the student's regularly scheduled lunch hour on four separate occasions in order to enlist volunteers. Although there is no guarantee that all individuals received personal invitations to participate,

several efforts were made in order to maximize the likelihood of this happening. First, several announcements were made over the public address system during each of the lunch periods in which the researcher was present. This was done in order to inform the students of the reason for the researcher's presence and to inform them that the researcher was very interested in talking to them. There is a great deal of variance in individuals, especially childrens', motivation to talk with individuals and/or to volunteer for projects such as this. As such, every effort was made to solicit responses from each individual. This procedure yielded 102 volunteers (approximately 45% of the school's male eighth-graders), all of whom were invited to take part in this study.

Written parental permission was sought, and after extensive written and phone follow up efforts, permission was obtained for 79 of these individuals (77.45%). The age of these subjects ranged from twelve- to fifteen-years old (M = 13.62; SD = .77). The majority of these boys were European American (59.5%; n = 47), with the remaining proportion consisting of African American (26.6%; n = 21), Hispanic American (3.8%; n = 3), or Naive American (8.9%; n = 7) children.

Procedure

Focus Groups

It was first necessary to modify the language of the original Argumentativeness and Verbal Aggressiveness Scales. Thus, the twenty items on each of the original instruments were rewritten at a level believed to be appropriate for children of this age. For example, the phrase "controversial issue", which appears throughout the original argumentativeness instrument, proved to be unnecessarily complex and was removed.

Once it was believed that the vocabulary was brought down to an appropriate level, it became necessary to assess whether or not the concepts under investigation made sense to the population in question. Towards this end, two focus groups were conducted. The first step in these sessions was to have the children fill out the modified instruments and to make note of any questions that arose. Surprisingly, the students filled out these instruments without a single question. In order to insure that students had no difficulty interpreting the scales, the items from both of the scales were then discussed individually. Again, subjects had no difficulty providing a personal example for each statement, and it became clear that they understood what they were reading.

Several of the children did note that their answers would depend on whom they were arguing with; a factor

previously unconsidered by research using adult samples. As such a phrase similar to "when arguing with a friend" was added to the directions of both instruments in order to maximize the likelihood that everyone was in a similar frame of mind when answering the questions. This phrase was chosen due to the interests of the present researchers, and could just as easily have read "when arguing with my brother/sister" or "when arguing with my parents," depending on the interests of other investigations.

Similar steps were taken for the hypothetical situations. Two questions were addressed during the focus groups. First, focus group participants were asked whether or not the situations themselves seemed realistic. That is, were they representative of the situations in which eight-graders typically find themselves. Participants unanimously agreed that all three hypothetical situations were realistic. Many of them went so far as to note that either they had been in a similar situation or that they knew someone who had. Second, focus group participants were asked why each situation had occurred. As hoped, there was unanimous agreement on the clearly intentional and clearly unintentional conditions. Similarly, there was less consensus on the ambiguous situation, with four of the participants interpreting the behavior as hostile and the remaining six interpreting the behavior as benign. Participants were then told the goal of each of the hypothetical situations. They were then asked whether or

not they could think of any ways to more affectively reach these goals; none were given.

Similar steps were taken for the Propensity Towards Violence Continuum. Two questions were addressed during the focus groups. First, the plausibility of each of the behaviors in this continuum were assessed. That is, were they representative of the responses eight-graders would typically employ if they found themselves in situations similar to those in the hypothetical situations? Participants unanimously agreed that all of the listed responses were realistic. As before, many of them went so far as to note that either they had responded in similar ways in such situations or that they knew someone who had. Second, focus group participants were asked if there were any additional responses eighth-graders might generate. At this point three additional categories were suggested and subsequently added to the Propensity Towards Violence Continuum. This lead to a total of nineteen behaviors on this continuum.

Hypothetical Situations

In order to make sure that the hypothetical situations were being interpreted as intended, they were read to 22 subjects. These subjects were then asked to fill out a questionnaire where they were asked "Which of the following statements do you agree with the most?" using the following two scales: (1) This person clearly meant to do this; This

person probably meant to do this, but I can't tell for sure; I can't tell whether or not this person meant to do this; This person probably didn't mean to do this, but I can't tell for sure; This person clearly didn't mean to do this; and (2) This person obviously didn't do this on purpose; This person probably didn't do this on purpose, but I can't tell for sure; I can't tell whether or not this person did this on purpose; This person probably did this on purpose, but I can't tell for sure; This person obviously did this on purpose. Each pair of items was filled out three times, once immediately after hearing each of the hypothetical situations.

Propensity Towards Violence Continuum

Sixty-four subjects (39 boys and 25 girls) were read the hypothetical situations used in this investigation. They were then provided with a randomly generated list of each of the nineteen behaviors included on the Propensity Towards Violence Continuum. This list, they were told, contained the various things another group of children said they would do if they found themselves in situations similar to the ones they just heard. Subjects were then asked how aggressive or unaggressive they viewed each behavior using the following four-point scale: 1 = Very unaggressive; 2 = Unaggressive; 3 = Aggressive; 4 = Very aggressive. The directions to this questionnaire emphasized that the researcher was interested in how aggressive or unaggressive

each behavior was in general. Towards this end, subjects were asked to consider all three situations rather than focusing on just one or two.

Primary Subjects

Data collection for these subjects consisted of a twofold process. In the first phase, the modified Argumentativeness and Verbal Aggressiveness Scales were administered to all 79 subjects during an assembly held in the cafeteria of the junior high school during a regularly scheduled class. During phase two, which commenced approximately two weeks after phase one, the 79 subjects were individually taken out of a regularly scheduled class and brought to a room to be interviewed by one of the experimenter's four undergraduate research assistants, who were blind to the subject's status.

During these interviews, which lasted approximately 25 minutes each, all three hypothetical situations (see Appendix C) were read to each child in a randomly selected orders. For example, the ambiguous situation read: "Imagine eating lunch at school when a peer spills a carton of milk all over your back." Then, a few more pieces of information were provided about each situation. An example of a hostile piece of information was "Paul laughed at you when he spilled the milk on you." An example of a benign information was "It seemed to you that Paul wasn't looking at where he was going when it happened." In the ambiguous

condition, one hostile and two benign pieces of information are given. This was necessary to minimize the intentional bias viewed by other authors (e.g., Wilson, 1990). In the clearly intentional and clearly unintentional conditions two hostile or two benign cues were provided respectively.

In order to determine whether or not subjects viewed the actions of an antagonist as having occurred purposefully, subjects were asked "Why did this occur?" The subject's response to this question was scored on the spot by the interviewer to ensure that enough information was obtained from the child in order to give an appropriate score. If the child suggested in any way that the other person did what he did in order to be mean or that the other person did it on purpose, the response was coded as intentional. Anything else was coded as unintentional. Even if the interviewer was sure from the child's response what the attribution was, he/she was told to ask the child directly, "Was this done on purpose or by mistake?" In these instances the interviewer was instructed to be sure to offer both options to the child; it was not appropriate to ask simply, "Was this done on purpose?" This two-tiered procedure was followed to minimize any chance of measurement error.

Propensity towards violence, the second dependent variable in this, was measured via an open-ended item. Immediately after hearing the hypothetical situations, and after identifying whether it was done intentionally or on

purpose, subjects were asked an open-ended question concerning what their most likely response would be in this situation (i.e., "What would you do in this situation?"). In the cases where the interviewer was not sure which category a response falls in due to lack of information (i.e., "I'd be mad"), they were instructed to prompt the child until they could score the response. "What do you mean by that?", or in the above case, "What would you do?" were the general prompts used to get more information. Later, these responses were coded by two additional research assistants who did not take part in the interviewing process. In the few cases where the child's response contained a combination of the options, coders were instructed to score the response that was most aggressive.

CHAPTER III

RESULTS

Instrumentation

The Adolescent Argumentativeness Scale

In order to insure that the language of the modified Argumentativeness Scale was appropriate for eight-graders, the readability level was assessed using the Fry Readability Index (for more on the Fry Readability Index see Estes & Vaughan, 1978). The language of the Adolescent Argumentativeness Scale proved appropriate for children in as low as the sixth-grade. This instrument was then administered to the primary subjects in this investigation.

Next, the data from the 79 subjects were submitted to confirmatory factor analysis to determine whether this instrument contained one dimension, as presumed initially. Items which did not satisfy the internal consistency or parallelism criteria or which had a negative impact on scale reliability were omitted from subsequent analyses. The results clearly indicated the presence of one factor, with 12 of the items (i.e., items 1, 3, 4, 7, 8, 9, 10, 12, 13, 15, 17, and 19 from the original instrument) having their primary loading on this factor ($\underline{x}^2$ = 41.79, $\underline{df}$ = 66,

$p > .05$). The internal consistency of the Adolescent Argumentativeness Scale was assessed by calculating Cronbach's Alpha, which reached .82 for this scale. The final version of the modified scale is presented in Table 1 (see Appendix A for the version containing all 20 items).

The Adolescent Verbal Aggressiveness Scale

The readability level for the modified version of the Verbal Aggressiveness Scale was also assessed using the Fry Readability Index. The language of the Adolescent Verbal Aggressiveness Scale proved appropriate for children in as low as the seventh-grade. This instrument was then administered to the primary subjects in this investigation.

The data for this scale were also submitted to confirmatory factor analysis to determine whether the instrument was unidimensional, as presumed initially. As before, items which did not satisfy the internal consistency or parallelism criteria or which had a negative impact on scale reliability were omitted from subsequent analyses. The results clearly indicated the presence of one factor, with twelve of the items (i.e., items 2, 5, 6, 7, 9, 10, 11, 12, 14, 15, 18, and 19 from the original instrument) having their primary loading on this factor ($\chi^2 = 44.08$, $df = 66$, $p > .05$). The internal consistency of the Adolescent Verbal Aggressiveness Scale was assessed by calculating Cronbach's alpha, which reached .80 for this scale. The final version of the modified scale is presented in Table 2 (see Appendix

Table 1

The Adolescent Argumentativeness Scale

This survey contains statements about arguing. There are no right or wrong answers, everyone will answer these questions differently to show who they are and how they feel. If you don't understand a question please let me know. Indicate how often each statement is true for you personally when you argue with your friends. Use the following scale:

1 = Almost never true
2 = Rarely true
3 = Sometimes true
4 = Often true
5 = Almost always true

_____ 1. While in an argument, I worry that the person I am arguing with will think poorly of me. (1)
_____ 2. I feel better when I avoid an argument. (3)
_____ 3. I have a great time when I argue. (4)
_____ 4. I feel good when I am winning an argument. (7)
_____ 5. When I finish arguing with someone, I feel nervous and upset. (8)
_____ 6. I enjoy a good argument. (9)
_____ 7. I get a bad feeling when I am about to get into an argument. (10)
_____ 8. I am happy when I keep an argument from happening. (12)
_____ 9. I do not like to miss the chance to argue. (13)
_____ 10. Arguments are a fun challenge. (15)
_____ 11. I feel refreshed and satisfied after an argument. (17)
_____ 12. I try to avoid getting into arguments. (19)

Scoring instructions: Sum the scores on the 12 items after reverse scoring for items 1, 2, 5, 7, 8, and 12.

Numbers in parentheses reflect the original Infante & Rancer (1982) item number from which the current item was derived.

Table 2

The Adolescent Verbal Aggressiveness Scale

This survey is concerned with how we try to get people to do what we want. Indicate how often each statement is true for you personally when you try to change someone else's mind. Remember, there are no right or wrong answers, everyone will answer these questions differently to show who they are and how they feel. If you don't understand a question please let me know. Use the following scale:

1 = Almost never true
2 = Rarely true
3 = Sometimes true
4 = Often true
5 = Almost always true

_____ 1. When people are very stubborn, I use insults to soften their stubbornness. (2)
_____ 2. When others do things I think are stupid, I try to be very gentle with them. (5)
_____ 3. When I want my way and someone won't listen, I will call them names and let them know I think they are stupid. (6)
_____ 4. When people behave badly, I insult them in order to get them to behave better. (7)
_____ 5. When people will not budge on an important issue, I get angry and say really nasty things to them. (9)
_____ 6. When people criticize my faults, I do not let it bother me and do not try to get back at them. (10)
_____ 7. When people insult me, I like to really tell them off. (11)
_____ 8. When I dislike a person greatly, I try not to show it in what I say or how I say it. (12)
_____ 9. When I attack people's ideas, I try not to make them feel bad about themselves. (14)
_____ 10. When I try to change someone's mind, I try really hard not to hurt their feelings. (15)
_____ 11. When nothing seems to work when I try to change someone's mind, I yell in order to get them to do what I want. (18)
_____ 12. When I can't argue successfully, I try to make the other person unsure of themselves so they change their mind. (19)

Scoring instructions: Sum the scores on the 12 items after reverse scoring for items 2, 6, 8, 9, 10

Numbers in parentheses reflect the original Infante & Wigley (1986) item number from which the current item was derived.

B for the version containing all 20 items).

I should be noted that together, the Adolescent Argumentative and Verbal Aggressiveness Scales also met the parallelism criteria (X^2 = 134.93, df = 144, p > .05). The first research question raised the possibility that although these two traits are not correlated in adult populations, they may be in adolescent populations. As it turns out, a significant and substantial correlation between these two traits exists (r = .48; p < .001).

Hypothetical Situations

The correlations between the two items used to pretest the intentionality of the three hypothetical situations were .50 (p < .05), .67 (p < .01), and .89 (p < .001) for the unintentional, ambiguous, and intentional conditions respectively. As such the responses to each of these items were added together (after reverse coding the first item) in order to get a better overall measure. Ideally, the clearly unintentional situation would have the lowest mean, falling somewhere near the "This person clearly didn't mean to do this" response. Conversely, the clearly intentional situation should have the highest mean, falling somewhere near the "This person clearly meant to do this" option. In the ambiguous condition, it is expected that the mean will fall somewhere around the "I can't tell whether or not this person meant to do this" category, or between the means of the clearly intentional and clearly unintentional

conditions. Further, these means should be statistically different from one another; with the clearly unintentional mean being significantly lower than the ambiguous and clearly intentional means, and the ambiguous mean being significantly lower than the clearly intentional mean.

The means for the unintentional, ambiguous, and intentional conditions were 2.14 (SD = .89), 3.52 (SD = 1.07), and 4.52 (SD = .96) respectively. T-tests revealed that these pretest means were significantly different from each other. Specifically, the unintentional mean was significantly lower than the both the ambiguous mean (t = -4.04, df = 17, $p < .001$) and the intentional mean (t = -8.36, df = 17, $p < .001$). Further, the ambiguous score was significantly lower than the intentional score (t = -2.76, df = 18, $p < .01$). In tandem, these results are consistent with the expectations noted above. The frequency with which the 79 primary subjects interpreted each of the hypothetical situations as unintentional or intentional are presented in Table 3.

The Propensity Towards Violence Continuum

The individual rankings for the 64 subjects used to pretest this continuum were aggregated. The Propensity Towards Violence Continuum was created by using these means to rank-order the nineteen behaviors from least to most aggressive. Table 4 contains the result of these operations.

Table 3

Perceptions of Intent: Frequencies Within and Across Conditions for Primary Subjects

Condition	Unintentional	Intentional	Mean	SD
(1)	67	12	1.15	.36
(2)	53	26	1.32	.47
(3)	2	77	1.98	.15
Total	122	115		

(1) Clearly unintentional condition
(2) Ambiguous condition
(3) Clearly intentional condition investigated.

Since primary subjects in this study consisted solely of boys and because the sample used to derive the Propensity Towards Violence Continuum consisted of both boys and girls, gender differences were investigated. The mean scores for boys did not differ from those of girls at the $p < .05$ level on any of the nineteen behaviors on this continuum. However, the "Swear at the person" category did approach significance ($t = 1.99$, $df = 61$, $p = .051$). Because there were nearly twenty comparisons made, and because one would expect just under one of these to be significant by chance alone, and because this behaviors location on the continuum would not have been affected even if the girls scores were removed, it was decided to combine the responses of both boys and girls on this behavior in spite of this marginal difference.

Primary subject responses to the open-ended measure of

Table 4

Propensity Towards Violence Continuum

Mean	SD	Behavior
1.39[a]	.70	Apologize to the person.
1.42[a]	.69	Leave or walk away from the person.
1.43[a]	.69	Do nothing.
1.57[b]	.75	Comfort the person (e.g., tell them that it is o.k.).
1.67[b]	.69	Ask questions to try and determine what happened.
1.69[b,c]	.74	Fix what happened myself.
1.91[c,d]	.71	Ask or tell the person to help me fix what happened.
2.16[d,e]	.89	Ask or tell the person to apologize to me.
2.16[d,e]	.91	Tell on the person.
2.22[e]	.85	Tell the person to leave or get away from me.
2.66[f]	.90	Call the person name(s).
2.72[f]	.75	Yell at the person.
2.89[f,g]	.59	Tell the person off.
2.89[g]	.65	Threaten the person (with words).
2.94[g]	.79	Swear at the person.
3.20[h]	.72	Do what they did to me back to them.
3.53[i]	.76	Use a weapon to scare the person.
3.56[i,j]	.69	Fight the person (Ex: hit or push them).
3.70[j]	.66	Use a weapon to hurt the person.

Note, behaviors with common superscripts are not significantly different from one another at the .05 level.

propensity towards violence in each of the three hypothetical situations were coded by two undergraduate research assistants who were not involved in the earlier interviewing process. As previously noted, if an answer contained more than one response, coders were instructed to code the highest category. Of the 237 responses, 217 (or 92%) were coded with perfect agreement. The remaining 20 disagreements were resolved through discussion. This procedure revealed that about half of the disagreements occurred when a subject provided two or more responses and one of the coders failed to code the higher response.

The frequency with which each of the nineteen behaviors were used by the 79 primary subjects are presented in Table 5. The first three columns in this table present the frequency with which of the nineteen behaviors on the Propensity Towards Violence Continuum were used in each condition. The far right hand column in this table presents the total frequency with which the nineteen behaviors on this continuum were used across conditions. A glance at this last column reveals the realistic and comprehensive nature of this continuum. This is because the open-ended items used to measure propensity towards violence elicited responses that fell into all but two of the nineteen categories (i.e., "Apologize to the person" and "Use a weapon to scare the person"). A glance at this table further reveals that the "Fight the person" option was selected more frequently than any other response ($\underline{N}$ = 45).

Table 5

Propensity Towards Violence: Frequencies Within and Across Conditions for Primary Subjects

	Condition			
Behavior	(1)	(2)	(3)	Total
Apologize	0	0	0	0
Leave or walk away	1	0	3	4
Do nothing	8	6	3	17
Comfort the person	3	0	0	3
Ask questions	10	7	9	26
Fix what happened myself	15	13	5	33
Ask or tell the person to help me fix what happened	27	7	1	35
Ask or tell the person to apologize to me	1	0	0	1
Tell on the person	1	10	6	17
Tell the person to leave or get away from me	0	1	0	1
Call the person name(s)	1	1	0	2
Yell at the person	1	6	1	8
Tell the person off	2	1	0	3
Threaten with words	1	0	0	1
Swear at the person	0	0	1	1
Do what they did to me back to them	1	13	17	31
Use a weapon to scare	0	0	0	0
Fight the person	4	11	30	45
Use a weapon to hurt	0	0	1	1
Missing data.	3	3	2	8

(1) Clearly unintentional condition
(2) Ambiguous condition
(3) Clearly intentional condition

The "Ask or tell the person to help me fix what happened" (N = 35), "Fix what happened myself" (N = 33), and "Do what they did to me back to them" (N = 31) were also used quite frequently. Conversely, the "Ask or tell the person to apologize to me," "Tell the person to leave or get away from me," "Threaten with words," and "Swear at the person" were used relatively rarely as the most aggressive response, being elicited only one time apiece. It should be noted that one reason for the observed frequencies is that when multiple responses existed, only the most aggressive response was coded.

Next, t-tests were performed between the means for each pair of behaviors in order to determine which were significantly different from each other. In addition to rank ordering the nineteen behaviors based on their means, Table 4 also reveals that several of the means were not statistically different form each other. Fortunately, a glimpse at the means also reveals that although all of the categories were not perceived as statistically different from one another, several natural breaks did occur. Thus, these nineteen specific categories were collapsed into four general categories. For instance, since the first three categories revolved around the avoidance of the issue, responses falling into one of these categories were collapsed into a single category labeled "Avoidance," and recoded as a "1." Since categories four through ten all dealt with the use of more normative communication, these

Table 6

Propensity Towards Violence: Frequencies Within and Across Conditions for Collapsed Categories for Primary Subjects

	Condition			
Behavior	(1)	(2)	(3)	Total
Avoidance	9	6	6	18
Normative Communication	57	37	21	115
Verbal Aggression	5	9	2	16
Physical Aggression	5	24	48	77
Missing	3	3	2	8

(1) Clearly unintentional condition
(2) Ambiguous condition
(3) Clearly intentional condition

seven categories were collapsed into a single category labeled "Normative communication," and all responses falling within this range were recoded as a "2." Categories eleven through fifteen clearly contained verbally aggressive responses. Therefore, these five behaviors were collapsed into a single category labeled "Verbal Aggression," and all responses falling within this range were recoded as a "3." Finally, categories sixteen through nineteen all contained a physically aggressive element. As such, these three behaviors were collapsed into a single category labeled "Physical Aggression," and all responses falling within this range were recoded as a "4." Table 6 presents the frequency with which each of these four collapsed categories were used.

Hypotheses

Perception of Intent

Subjects' attributions about the peer's intent were given a score of 1 if unintentional and a score of 2 if intentional. They were then analyzed by a 2 (argumentativeness: high or low) by 2 (verbal aggressiveness: high or low) by 3 (intention: unintentional, ambiguous, or intentional) repeated measures analysis of variance (ANOVA), in which the last factor was a within-subjects variable.

The mean responses for each cell are provided in Table 7. Hypotheses 1 did not receive support; the predicted three-way interaction was not significant (F = .11; df = 2, 150; p > .05). There was no two-way interaction between situation and argumentativeness (F = .59; df = 2, 150; p > .05), nor was there a main effect for argumentativeness (F = .00; df = 1, 75; p > .05). There was, however, a significant two-way interaction between situation and verbal aggressiveness (F = 4.46; df = 2, 150; p < .01, eta^2 = .03). It should also be noted that there was a main effect for situation (F = 111.56; df = 2, 150; p < .000; eta^2 = .58), which suggests that this manipulation was successful.

Though the predicted three-way interaction did not seem to exist, one-way ANOVAs were run within in each condition in order to test the three sub-hypotheses that dealt with perception of intent (i.e., H_{1A}, H_{1B}, and H_{1C}). This

Table 7

Perceptions of Intent: Means and Standard Deviations for Primary Subjects

		Condition		
		(1)	(2)	(3)
High VA	High ARG	1.22 .42	1.44 .51	1.96 .19
	Low ARG	1.25 .45	1.59 .52	2.00 .00
Low VA	High ARG	1.18 .39	1.18 .41	2.00 .00
	Low ARG	1.03 .19	1.17 .38	1.97 1.16

(1) Clearly unintentional condition
(2) Ambiguous condition
(3) Clearly intentional condition

represents an alternative method for assessing the accuracy of the main hypotheses. A priori magic cell contrasts were used to test the hypotheses of interest. Specifically, the magic cell group was composed of individuals high in verbal aggressiveness and low in argumentativeness. The first of these sub-hypotheses did not receive support; subjects who were high in verbal aggressiveness and low in argumentativeness did not perceive significantly more intent than subjects with other combinations of these traits in the ambiguous condition (F = 1.39; df = 3, 75; p > .05. This finding provides further evidence that the data are not consistent with the first hypothesis. Finally, subjects who were high in verbal aggressiveness and low in argumentativeness did not perceive significantly more intent than subjects with other combinations of these traits in the clearly unintentional condition (F = 1.73; df = 3, 75; p > .05) or the clearly intentional condition (F = .27; df = 3, 75; p > .05).

It is important to note that though analysis of variance test tells you whether or not there are differences between groups, it fails to tell you which groups are different from one another. To gain a more complete understanding of the observed two-way interaction between situation and verbal aggressiveness, several follow-up tests were conducted.

The data were consistent with the verbal aggressiveness predictions in the three sub-hypotheses. Regarding the

ambiguous condition (H_{1A}), a t-test revealed that individuals high in verbal aggressiveness perceived significantly more intent than did individuals who were low in verbal aggressiveness. T-tests also revealed that individuals high and low in verbal aggressiveness do not differ in their perceptions of intent in either the clearly unintentional (H_{1B}) and clearly intentional (H_{1C}) conditions. Table 8 provides the means and standard deviations for perception of intent in each of the high and low verbal aggression groups across all three conditions. The relevant t values can be found along the bottom row of this table.

Although this information provides us with an idea of what is occurring within conditions, it does not tell us what is going on across conditions. To assess this, one-way repeated measures ANOVA were run on the data in each group. The first revealed that those who scored high on the verbal aggressiveness measure perceived significantly more intent in the ambiguous condition than in the clearly unintentional condition. Further, such individuals perceived significantly more intent in the clearly intentional condition than in the other two condition.

This same pattern did not hold for those who scored low in verbal aggressiveness. Here there were no perception of intent differences between the clearly unintentional and ambiguous conditions. These subjects did, however, perceive significantly more intent in the intentional condition than in the ambiguous or unintentional conditions. Again, the

means and standard deviations for this variable are presented in Table 8. The relevant F values can be found in the far right hand column of this table.

Propensity Towards Violence

A subject was assigned a propensity towards score of 1 if they avoided interaction, 2 if they used more normative communication, 3 if their response was verbally aggressive, and 4 if the response was physically aggressive. These scores were then analyzed by a 2 (argumentativeness: high or low) by 2 (verbal aggressiveness: high or low) by 3 (intention: unintentional, ambiguous, or intentional) repeated measure ANOVA, in which the last factor was a within-subjects variable.

The mean level propensity towards violence scores for each cell in this design are provided in Table 9. Hypotheses 2 did not receive support; the predicted three way interaction was not significant ($F = .32$; $df = 2, 134$; $p > .05$). There was no two-way interaction between situation and argumentativeness ($F = .22$; $df = 2, 134$; $p > .05$), nor was there a main effect for argumentativeness ($F = .02$; $df = 1, 67$; $p > .05$). Finally, although there was no interaction between situation and verbal aggressiveness ($F = 1.09$; $df = 2, 134$; $p > .05$), there was a significant main effect for verbal aggressiveness ($F = 6.88$; $df = 1, 67$; $p < .01$; $eta^2 = .09$). There was also a significant main effect for situation ($F = 24.91$; $df = 2, 134$; $p < .000$; $eta^2 = .27$).

Table 8

Perceptions of Intent: Means and Standard Deviations for Primary Subjects

	Condition (1)	Condition (2)	Condition (3)	F
High VA	1.23 .43	1.49 .51	1.97 .16	38.90 (df = 2, 78; p < .000; eta^2 = .51)
Low VA	1.08 .27	1.17 .39	1.98 .16	146.00 (df = 2, 78; p < .000; eta^2 = .79)
T	-1.95 (df = 77; p > .05)	-3.92 (df = 77; p < .003)	.02 (df = 77; p > .05)	

(1) Clearly unintentional condition
(2) Ambiguous condition
(3) Clearly intentional condition

Though the predicted three-way interaction did not seem to exist, one-way ANOVAs were run within each condition in order to test the three sub-hypotheses that dealt with propensity towards violence (i.e., H_{2A}, H_{2B}, and H_{2C}). Again, this represents an alternative test of the main hypothesis. As before, a priori magic cell contrasts were conducted to test the hypotheses of interest. Also as before, the magic cell group was composed of individuals high in verbal aggressiveness and low in argumentativeness. The first of these sub-hypotheses did not receive support; in the ambiguous condition, subjects who were high in verbal aggressiveness and low in argumentativeness did not respond with a significantly greater propensity towards violence than subjects with other combinations of these traits (F = 2.35; df = 3, 72; $p > .05$). This finding provides further evidence that the data are not consistent with the second hypothesis. Finally, subjects who were high in verbal aggressiveness and low in argumentativeness did not respond with a greater propensity towards violence than subjects with other combinations of these traits in the clearly unintentional condition (F = 1.44; df = 3, 72; $p > .05$) or the clearly intentional condition (F = 2.84; df = 3, 73; $p > .05$).

To gain a more complete understanding of the observed verbal aggressiveness and situation main effects, several follow up tests were conducted. Regarding the verbal aggressiveness main effect, a t-test revealed that in the

Table 9

Propensity Towards Violence: Means and Standard Deviations for Primary Subjects

		Condition (1)	Condition (2)	Condition (3)
High VA	High ARG	2.12 .77	2.81 1.10	3.54 .99
	Low ARG	2.33 .89	3.16 .84	3.50 .91
Low VA	High ARG	2.22 .67	2.56 1.01	3.00 1.00
	Low ARG	1.88 .45	2.38 .97	2.83 1.17

(1) Clearly unintentional condition
(2) Ambiguous condition
(3) Clearly intentional condition

ambiguous condition (H_{2A}), individuals high in verbal aggressiveness respond with a greater propensity towards violence than do individuals who are low in verbal aggressiveness (t = -2.21; df = 74; p < .03). Although not anticipated (H_{3C}), this difference also existed in the clearly intentional condition (t = -2.94; df = 75; p < .004). A third t-test revealed that in the unintentional condition (H_{2B}), individuals high and low in verbal aggressiveness do not differ in their propensity towards violence (t = -1.35; df = 74; p > .05). In short, a clear trend existed within conditions. Specifically, those high in verbal aggressiveness responded with a greater propensity towards violence than individuals low in verbal aggressiveness, though this difference did not reach significance in the clearly unintentional condition.

To gain a more complete understanding of the situation main effect, a repeated measures ANOVA was conducted using the entire sample. To begin with, the mean propensity towards violence scores for the entire sample were 2.08 (SD = .69), 2.69 (SD = 1.02), and 3.22 (SD = 1.07) for the unintentional, ambiguous, and intentional conditions respectively. The repeated measures ANOVA revealed that these means were significantly different from each other (F = 34.30; df = 2, 140; p < .000; eta^2 = .33). Specifically, the propensity towards violence scores in the ambiguous and clearly intentional conditions were significantly greater than in the clearly unintentional condition. Further, the

propensity towards violence scores in the clearly intentional condition were significantly greater than in the ambiguous condition.

The Relationship Between Perception of Intent and Propensity Towards Violence

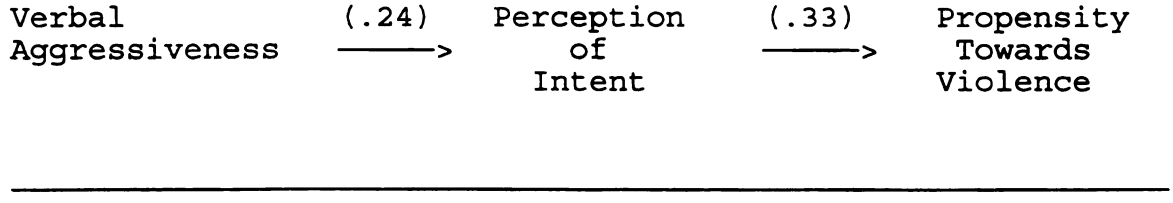
Since at least one of the traits in this study had an effect on propensity towards violence, it becomes necessary to address the second research question. Specifically, does perception of intent mediate the verbal aggressiveness and propensity towards violence relationship. Before answering this question it was necessary to make sure that there was no interaction between verbal aggressiveness and perception of intent, since a simple causal chain (see Figures 1 through 3) presumes that there is not. As such, regression analyses were run in each of the three conditions. In each analysis propensity towards violence was regressed onto verbal aggressiveness and perception of intent at step one. The interaction between these two variables was represented by the product of verbal aggression multiplied by perception of intent, and was entered at step two. The results indicated no interaction effects in the clearly unintentional (r^2 Change = .00; F Change = .00; $p > .05$), ambiguous (r^2 Change = .00; F Change = .01; $p > .05$), or clearly intentional (r^2 Change = .01; F Change = .64; $p > .05$) conditions. This means that the effect of perception of intent on propensity towards violence was not moderated

by verbal aggressiveness.

Path analyses (Hunter & Hamilton, 1986) were run on the data in each condition in order to test the following simple causal chain: Perception of intent mediates the verbal aggressiveness and propensity towards violence relationship. This measurement model is represented by the structural diagram in Figures 1 through 3. Also contained in these figures are the path coefficients for this model in each condition. These figures reveal that in both the clearly unintentional and ambiguous conditions, the data fit this model. In the clearly intentional condition the data did not fit this model. It is believed that this is due to the lack of variance in the perception of intent measure; only two of the 79 subjects viewed this situation as unintentional. Overall, these results are taken to support the mediating role perception of intent plays between verbal aggressiveness and propensity towards violence.

Figure 1

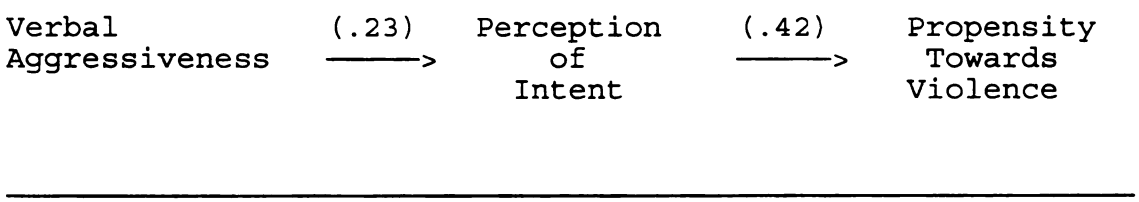
Path Coefficients for the Clearly Unintentional Condition



Predicted $r_{VA,PTV}$ = .08; Observed $r_{VA,PTV}$ = .22 (p < .05); X^2 = .76; df = 1; p > .05; Residual = .14

Figure 2

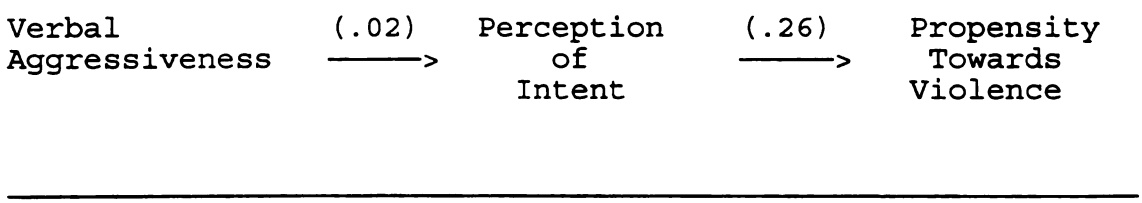
Path Coefficients for the Ambiguous Condition



Predicted $r_{VA,PTV}$ = .10; Observed $r_{VA,PTV}$ (p < .05); X^2 = 1.52; df = 1; p > .05; Residual = .13

Figure 3

Path Coefficients for the Clearly Intentional Condition



Predicted $r_{VA,PTV}$ = .01; Observed $r_{VA,PTV}$ = .35 (p < .01); X^2 = 9.12; df = 1; p < .05; Residual = .34

CHAPTER IV

DISCUSSION

This investigation assessed the affect of one situational variable (i. e., intention) and two personality variables (i. e., argumentativeness and verbal aggressiveness) on perception of intent and propensity towards violence in adolescent boys. Argumentativeness is the tendency to advocate and refute positions on controversial issues, whereas verbal aggressiveness is attacking the self-concept of another person instead of, or in addition to, the person's position. Intention concerns the reasons behind a transgression; were they benign, ambiguous, or hostile?

The literature concerning each of these variables was used to derive several predictions regarding perception of intent and propensity towards violence. Seventy-nine eight-grade boys filled out the Adolescent Argumentativeness and Verbal Aggressiveness Scales. They also responded to three hypothetical situations where the intent behind a transgression was manipulated. These responses were coded for perception of intent and propensity towards violence.

Results suggested that impression management theory, social information processing, and the argumentative skill

deficiency model all provide some insight into the process of interpersonal aggression in adolescents. This discussion will begin by addressing the Adolescent Argumentativeness Scale and the Adolescent Verbal Aggressiveness Scale. Next, a review of the findings regarding perception of intent and propensity towards violence will be presented. During this presentation, the implications of these findings on impression management theory, social information processing, and the argumentative skills deficiency views of interpersonal aggression will be addressed. Finally, the practical application of these findings will be given some consideration.

The Adolescent Argumentativeness and Verbal Aggressiveness Scales

Overall, the results of this study strongly indicate that the concepts and measurement of argumentativeness and verbal aggressiveness are generalizable to adolescent populations. However, the answer to the research question is somewhat surprising. Recall that argumentativeness and verbal aggressiveness were found to be strongly and positively correlated in this study (r = .48; p < .001). This finding is consistent with those of Roberto and Finucane (1995), who reported a correlation of .48 (p < .001) between these traits in other adolescent populations. In the adult general population the correlation between these two traits is typically zero, though in specific adult

subpopulations argumentativeness and verbal aggressiveness are related. For instance, in violent marriages argumentativeness and verbal aggressiveness have been found to be positively correlated (Infante et al., 1989).

Although the reasons for this relationships are unclear, it seems that at some point most people learn to differentiate argumentativeness from verbal aggressiveness. Several questions naturally arise from this observation; two of the more obvious being (1) Why are these variables so highly correlated in adolescent populations? and (2) When do these transformations occur?

Two reasons for this correlation come readily to mind. First, with only a few exceptions, the small number of studies that report correlations between argumentativeness and verbal aggressiveness used college students as their subjects (e.g., Infante & Wigley, 1986). One exception is worth noting, however. Infante et al. (1989) studied (1) women who were at a shelter for battered wives, (2) males undergoing therapy for wife-abuse, (3) women in the waiting room of a medical clinic or gynecologist's office, and (4) employees in a factory or married college students. With the exception of the latter part of this last group (i.e., married college students), the educational level of the subjects used in this investigation is unknown. It is not unreasonable to assume that at least a portion of these individuals never attended college. Thus, perhaps the significant correlation between argumentativeness and verbal

aggressiveness by Infante et al. (1989) is due, at least in part, to education level. In other words, in public schools for adolescents, one assumes that almost the entire range of intellectual abilities would be represented. Yet the adult samples used to develop the original scales (and in many of the studies since) were much more restricted in intellectual abilities. It seems quite possible that those with higher intelligence can understand that it is possible to disagree with someone without attacking that individual much more easily than can someone who is less intelligent.

Second, demographic factors, such as age, race, or socioeconomic status, might play a part in this process. The subjects in this study were fairly diverse; perhaps these or other factors lead to the observed correlation. Unfortunately, researchers regularly fail to adequately describe the subjects. Researchers also regularly fail to report correlations between these argumentativeness and verbal aggressiveness. These unexcusable practices make it impossible to confirm or deny the effects of any of these variables on the relationship between these two variables. These, and similar possibilities point to a need for further investigation in this area.

It seems appropriate at this point to address the removal of the eight argumentativeness and eight verbal aggressiveness items. The removal of these items is not seen as a threat since it is not uncommon for researchers to discard items from one or both of these scales even when

they are administered to adult populations. For example, Boster and Levine (1988) discarded four verbal aggressiveness items and seven argumentativeness items. Similarly, Boster, Levine, and Kazoleas (1993) deleted nine verbal aggressiveness items and seven argumentativeness items. Lastly, Suzuki and Rancer (1994) found it necessary to remove five verbal aggressiveness items and four argumentativeness items when testing the cross-cultural consistency of these instruments. Nor is it uncommon for researchers to assess argumentativeness and verbal aggressiveness by using only five (e. g., Infante & Gorden, 1985, 1987) or ten (e. g., Infante & Gorden, 1989, 1991; Sabourin et al., 1993) of the twenty items from each of the scales. This is often done to reduce the demand characteristics of the data collection process. Thus, since it is often necessary to remove several items from these two scales when administering them to adults, the very population for whom these scales have been developed, it is not surprising to find it necessary to do so when they are adapted to a new population.

Although the Adolescent Argumentativeness Scale and the Adolescent Verbal Aggressiveness Scale can be successfully administered to children in as low as the sixth-grade, they are not useful for studying children much younger than ten- or eleven-years-old. Since there is no doubt that younger children have disagreements, a method of assessing these traits in such children would be extremely valuable. The

position advanced here is that such a measure would have to take a form other than a self-report. The reasons for this belief are twofold. First, there is the issue of readability level. When modifying the original instruments, the main goal was to keep the spirit of each item intact. Lowering the readability level any further might destroy the essence of the original items. Second, other researchers have found that children do not develop role taking ability until around the age of ten- or eleven-years-old (e. g., Delia & Clark, 1977; Delia et al., 1979). This ability is key to an individuals being able to "argue" in the sense that Infante and Rancer (1982) use this term. This argument is further supported by anecdotal evidence gathered during interviews of teachers and principals prior to the decision to target the age group studied in this report.

This is not to suggest that the measurement of argumentativeness and verbal aggressiveness in children younger than ten cannot be done, but it will probably require some other technique. Two methods come readily to mind for assessing these traits in younger children. The first would be to administer the instruments orally. However, this method might prove somewhat problematic since it only alleviates the readability problem and fails to address the notion of true understanding.

Observer ratings represent a second, and more promising alternative. Here an adult who is knows the child well (e.g., parent, teacher, etc.) would rate the child's

behavior. This technique is commonly used by educators and clinicians when working with children. For instance, the Portage Guide to Early Education (Bluma, Shearer, Frohman, & Hilliard, 176), the Vineland Adaptive Behavior Scales (Sparrow, Balla, & Cicchetti, 1985), and the Adolescent Antisocial Behavior Check List (Ostrov, Marohn, Offer, Curtiss, & Feczko, 1980) all employ this technique.

The promise of such a process is amplified by the fact that researchers have already used this "other-report" technique when assessing argumentativeness and verbal aggressiveness in adults. Specifically, Infante et al. (1989) and Sabourin et al. (1993) had each participant use these scales to rate themselves and their spouse. Infante and Gorden (1985) had subjects rate themselves and their supervisor. Further, in there book, Communication Research Measures, Rubin, Palmgreen, and Sypher (1994) identify several other communication measures that use observer ratings in instructional, interpersonal, mass, and organizational communication research. Daly (1987) notes that observer ratings and self-reports of many behaviors are positively related. For instance, correlations between observer ratings and self-reports of argumentativeness are regularly above .50 (Infante & Rancer, 1982; Sabourin et al., 1993). Correlations between observer ratings and self-reports of verbal aggressiveness are commonly well above .40 (Sabourin et al., 1993).

The possibility of using observer ratings with younger

children demonstrates that there is room for even further growth in this area. Indeed, instruments measuring the argumentativeness and verbal aggressiveness of elementary school children would be extremely valuable. However, since adolescence marks the beginning of a number of physiological, psychological, and social changes in a young person's life, an instrument meant to tap argumentativeness and verbal aggressiveness just prior to this metamorphosis seemed an excellent place to begin.

In short, the development of the Adolescent Argumentativeness and the Verbal Aggressiveness Scales strengthens the current theory in at least three ways. First, a new frontier has been opened to researchers interested in studying the development of communication in children. Since the number and type of individuals who may be studied have been increased, so too have the phenomenon covered by the theory. For example, scholars interested in argumentativeness and verbal aggressiveness have a useful tool for studying the acquisition and development of these traits across one's life span or across generations.

Second, good theories generate new hypotheses. The increase in range leads to an increase in the number of hypotheses that can be investigated. For instance, the relationship between argumentativeness, verbal aggressiveness and spousal abuse is well known (Infante et al., 1989; Infante et al., 1990; Sabourin et al., 1993). This investigation assessed the generalizability of such

findings to youth violence.

Third, in addition to generating new knowledge, this theory should increasingly be able to help organize much of the knowledge that already exists. This seems particularly likely since the study of children's communication is still in its infancy. In short, the range, heuristic provocativeness, and organizing power of the theory have been increased substantially.

Perception of Intent

The hypothesized three-way interaction between argumentativeness, verbal aggressiveness, and situation on perception of intent did not exist. This was due largely to the fact that none of the argumentativeness predictions were realized. Subsequent analysis revealed that the data were, in fact, consistent with much of the general reasoning used to derive this hypothesis. Specifically, there was a two-way interaction between verbal aggressiveness and situation. It is noteworthy that this interaction manifested itself in precisely the manner specified, with verbal aggression playing a role in the perception of intent process only in the ambiguous condition.

This finding is consistent with the findings of Dodge and his colleagues (e.g., Dodge, 1980; Dodge & Coie, 1987; Dodge & Crick, 1990; Dodge & Tomlin, 1987). These authors found that when intent is ambiguous, as opposed to when it

is not, physically aggressive children make more hostile attributions than nonaggressive children. The present research shows that this effect holds true for verbally aggressive children as well.

Although this pattern has received substantial support, little is known regarding the reason for the observed differences. Trait verbal aggressiveness provides at least a partial explanation as to why some individuals interpret an ambiguous transgression as intentional while others interpret it as unintentional. One possible reason for the observed verbal aggressiveness differences in ambiguous situations is that individuals high in this trait often intentionally harm others. After all, the primary effect of verbal aggression is the delivery of psychological pain. Besides leading to bodily harm or property damage, many physically aggressive acts also result in psychological harm. As such, it seems that unless it is very clear that another's action was unintentional, individuals high in verbal aggressiveness expect the reasons behind the behavior to be as intentional as their own behavior often is. Many times, however, acts interpreted as intentional may have occurred unintentionally. In sum, the additional understanding this study provides into social information processing and IMT is that perception of intent is only one link in the physical aggressiveness chain; traits also play a role in whether or not intention is perceived.

Regarding the argumentative skills deficiency model, it

appears that situational and personality variables play a role in whether or not a dispute will turn violent. That is, there is a relationship between verbal aggressiveness and propensity towards violence, but it is moderated by perception of intent which is often derived from situational cues. This is consistent with the interactionist view of personality which posits that traits interact with situations to create behavior. Interestingly, argumentativeness did not play a role in the perception of intent process. However, since the argumentative deficiency model concerns aggressive behavior rather than perception of intent, in isolation this fact does not invalidate the model.

Propensity Towards Violence

The hypothesized three-way interaction between argumentativeness, verbal aggressiveness, and situation on propensity towards violence did not exist. As before, this was due largely to the fact that none of the argumentativeness predictions were fulfilled. Subsequent analysis revealed that the data were somewhat consistent with much of the general reasoning used to derive this hypothesis. Specifically, although there proved not to be any interaction effects on an individual's propensity towards violence, there were significant main effect for both situation and verbal aggressiveness on propensity towards violence.

The situation main effect is consistent with the findings of social information process theorists (e.g., Dodge, 1980; Dodge & Coie, 1987; Dodge & Crick, 1990; Dodge & Tomlin, 1987). According to prior research in these areas, once an attack is perceived as intentional, it is more likely to lead to an aggressive counterattack, regardless of the accuracy of that perception. For instance, since there were no perception of intent differences between individuals high and low in verbal aggressiveness in the unintentional condition, it is not surprising that no propensity towards violence differences are observed in this condition. Similarly, in the ambiguous condition, it is not surprising that individuals high in verbal aggressiveness responded with a greater propensity towards violence than individuals low in this trait, since the former group perceived significantly more intent. However, since verbal aggression did not affect perception of intent in the intentional condition, it is somewhat surprising that individuals high in verbal aggressiveness demonstrated a greater propensity towards violence in this condition.

Further, the situation main effect is consistent with Felson's (1978) proposition that the best predictor of retaliatory behavior is perceived intentional attack. As a whole, (1) subjects perceived the least intent and responded with the least propensity towards violence in the unintentional condition; (2) subjects perceived greater

intent and responded with a greater propensity towards violence in the ambiguous condition; and (3) subjects perceived the most intent and demonstrated the greatest propensity towards violence in the intentional condition. Path analyses also revealed that perception of intent leads to propensity towards violence in clearly unintentional and the ambiguous conditions. It is believed that this pattern did not hold true in the clearly intentional condition simply because there was virtually no perception of intent variance in this condition.

Contrary to IMT's supposition that characteristics of participants play no role in an interaction's outcome, (Felson, 1978), dispositional characteristics were found to play a role in propensity towards violence. This is clearly shown by the trends that existed within conditions. Recall that high verbal aggressiveness lead to greater propensity towards violence in all three conditions, though in the clearly unintentional condition this difference was not significant. This is further demonstrated by the revelations of the path analyses; although propensity towards violence is predicted by perception of intent, perception of intent is predicted by verbal aggressiveness.

Regarding the argumentative skills deficiency model, it appears that the high argumentativeness and low verbal aggressiveness combination that has been found to be associated with interpersonal violence in adults does not hold true for adolescents. Specifically, argumentativeness

does not appear to matter, while verbal aggressiveness does. Again, the finding that increased verbal aggression leads to increased propensity towards violence within conditions can be cited. Additionally, this study suggests that at least one situational variable (i.e., perceived intentional attack) plays a role in whether or not one's propensity towards violence will be realized. The fact that perception of intent mediates the verbal aggressiveness and propensity towards violence relationship is consistent with the interactionist perspective adopted by subscribers to this model (Infante & Rancer, 1982, 1993; Infante & Wigley, 1986; Infante et al., 1984; Infante et al., 1989; Infante et al., 1990; Onyekwere et al., 1991; Sabourin et al., 1993).

Practical Application

Since the situational variable and one of the dispositional variables under investigation proved to be related to perception of intent and propensity towards violence, several possible interventions are suggested. To begin with, since situational characteristics play a large role in perception of intent and propensity towards violence processes (recall that situational characteristics accounted for a large amount of the variance for both of these variables in this study), one key intervention entails diminishing the mediating role perception of intent plays in this process. For instance, it might prove beneficial to teach individuals (especially those high in verbal

aggressiveness) a number of uncertainty reduction techniques. Answers to a few simple questions (e.g., "Was this done on purpose or by mistake?") might, in many instances, be enough to reduce one's propensity towards violence when a transgression occurs. This is especially likely to prove beneficial when the reasons behind the transgression are ambiguous. In short, simple perception checks might reduce the frequency with which wrong or biased interpretations occur. Of course, this investigation looks into the role of just one situational variable. Future research needs to look at the relationship between other situational variables (e.g., presence and values of third parties), as well as the interactions between such variables and verbal aggressiveness, argumentativeness, and other personality traits.

Another set of interventions are suggested by the role verbal aggressiveness plays in the perception of intent and propensity towards violence processes. Since there was such a strong positive correlation (r = .48) between verbal aggressiveness and argumentativeness, merely taking steps to reduce this relationship might alleviate some of this problem. For instance, research into interspousal violence from an argumentative deficiency model has found that only a portion of those high in verbal aggressiveness are at risk; namely, those who are also low in argumentativeness. Perhaps making the model fit will reduce the effects of verbal aggressiveness on violence. Again, the data in this

study do not either confirm or deny this possibility. Therefore, further research is needed in this area.

If this possibility does pan out, three procedures would likely be involved: (1) helping adolescents differentiate between argumentativeness and verbal aggressiveness; (2) increasing argumentativeness; and (3) decreasing verbal aggression. It is believed that the first of these processes should be a natural byproduct of the latter two. That is, efforts to increase argumentative and decrease verbal aggressiveness should lead to a better understanding and increased awareness of the difference between the two communication dispositions. This reasoning is consistent with the fact that by the time they reach adulthood, most individuals have learned to differentiate the two traits. This is true in spite of the fact that many adults are still not capable of generating good arguments and commonly resort to verbal aggressiveness. As such, this discussion is limited to the evidence regarding the possibility of increasing argumentativeness and decreasing verbal aggressiveness.

The first thing that will be considered is the evidence that exists regarding the ability to manipulate one's level and understanding of argumentativeness. Although this trait has been studied extensively in adults, this author came across only one study that provided evidence regarding such a possibility. Infante (1985) reasoned that "to be argumentative one must have available a considerable number

of arguments for the topic of communication and be motivated to use the arguments" (p. 37). He attempted to enhance argumentativeness by providing "cued arguments" (i.e., he told subjects about some of the objections they might run in to, and provided them with arguments meant to defuse these objections). In the cued condition, as opposed to the noncued condition, subjects low in argumentativeness demonstrated a significantly greater willingness to argue. Interestingly, this willingness to argue lead to a number of additional benefits, such as being perceived as more credible, expert, and dynamic.

This research suggests one simple way to teach adolescents how to argue constructively. Specifically, it might prove helpful to provide them with some arguments related to the objections or disagreements they typically run into. Of course, other methods of increasing argumentativeness might also work. These include increasing a person's perception of the importance of success in particular situations or increasing the individual's perception of the probability of success. Conversely, decreasing these perceptions might also be effective. Unfortunately, no research regarding these alternatives exists.

The above piece makes it clear that trait argumentativeness can be manipulated. It is not a large leap, then, to assume that verbal aggressiveness can also be manipulated. This author is not aware of any piece that

attempted to manipulate verbal aggressiveness. However, Infante (1995) explicitly addresses this possibility in a conceptual piece where he notes the importance of teaching students to understand and control verbal aggression. Although this discussion focuses largely on college students and college classrooms, much of it seems appropriate for the high school and junior high school classroom as well. Indeed, Infante (1995) notes that the communication classroom is merely a convenient place to begin, and stresses that "programs can be adapted and expanded to other areas of society" (p. 51).

Infante (1995) organizes his discussion around three goals: (1) to enhance students' understanding of verbal aggression, (2) to help students develop strategies for controlling verbal aggression, and (3) to provide activities to stimulate internalization of knowledge and strategies. A brief review of these goals is provided below. Particular attention is paid to those goals and strategies that seem most appropriate for young people.

To enhance students' understanding of verbal aggression, four suggestions are made. The first of these is to provide a model of verbal aggression. It is suggested that the student be provided with an outline of Costa and McCrae's (1980) model of personality, with particular attention being paid to those aspects that deal with argumentativeness and verbal aggressiveness. Though this first suggestion might prove too theoretical for younger

students, it may be worthwhile to simply distinguish between constructive and destructive aggression. Second, the nature of verbal aggression should be discussed. Here, both the types of verbally aggressive messages (e. g., character attacks, competency attacks, etc.) and their effect (e. g., psychological pain) should be discussed. Increasing awareness of such messages seems very appropriate for younger children. Third, this should be followed by an exchange which focuses on the reasons for verbal aggression. Again, many of these reasons may prove too theoretical for adolescents (e. g., social learning, psychopathology, etc.), but several are more pragmatic and are understood easily enough (e. g., trying to appear tough, being in a bad mood, being angry, etc.). The reciprocal nature of verbal aggression should be discussed during this third stage. Fourth, students should be made aware of the effects of verbal aggression. It should be stressed that the two basic effects of verbal aggression, self-concept damage and aggression escalation, can lead to many other side effects (e. g., hurt feelings, embarrassment, relationship termination, etc.). Each of these four steps can be used to a greater or lesser extent with adolescents to stimulate understanding of verbal aggression.

Once understood, the next goal is to help students develop strategies for controlling verbal aggression. This step seems particularly appropriate for adolescents since only a marginal understanding of verbal aggression is needed

to recognize the importance of controlling this behavior. Two strategies are addressed. The first of these deals with preventing verbal aggression from occurring. Amongst other things, Infante (1995) notes that communication skills training has shown promise. For instance, negotiation skills training, empathy instruction, communication and problem-solving, assertiveness training, and argumentative skill enhancement have all proven effective at reducing interpersonal aggressiveness in adults. The last suggestion, argumentative skill enhancement, seems particularly promising since adolescents do not seem to discriminate between attacking another's position and attacking their self-concept (i. e., they seem to have difficulty differentiating argument and verbal aggression).

Since it would be next to impossible to prevent verbal aggression from occurring altogether, the second strategy deals with preventing verbal aggression from escalating. Of the three suggestions made, the one that seems most promising for adolescents is training them to control anger once it occurs. Many recommendations are made regarding this alternative, but these will not be presented here.

The third goal involves providing activities to stimulate internalization of knowledge and strategies once they are learned. Both individual and group activities are suggested to facilitate comprehension or practice strategies of control. The activity that seem most appropriate for adolescents include having students keep a diary of verbally

aggressive messages experienced. At a minimum this will provide students with an idea of how pervasive such destructive communication is in their lives. A number of role-playing and group discussion techniques also seem appropriate, but they are too lengthy to present here.

In tandem, the ability to increase argumentativeness and decrease verbal aggressiveness represent the best defence against the effects of these traits on interpersonal violence. The results of this study stress the immediate importance of focusing on verbal aggressiveness. But due to the unforeseen relationship between this trait to argumentativeness, focusing on the latter may prove beneficial as well.

Conclusion

Youth violence is a pervasive problem facing today's youth. Impression management theory, social information processing, and an argumentative skills deficiency are three literatures which provide some insights into possible causes of physical aggression. These literatures were used to derive two main hypotheses regarding the effects of one situational variable (i. e., intention) and two personality variables (i. e., argumentativeness and verbal aggressiveness) on perception of intent and propensity towards violence in adolescent boys. This line of research represents a giant leap for inquiries into interpersonal violence. This is because virtually all other studies in

this area focus on either situational or dispositional characteristics; few focus on the joint effects of these variables.

Although the main hypotheses did not receive support, a great deal has been learned. First, there is a verbal aggressiveness by situation interaction effect on the perception of intent process. Second, both verbal aggressiveness and situation are involved in propensity towards violence, though these two variables do not appear to interact. Finally, perception of intent was found to mediate the relationship between verbal aggressiveness and propensity towards violence. In short, by combining these three theoretical approaches to interpersonal violence, we gain a greater understanding of this phenomenon than if we deal with them separately, as has been done in the past.

In addition to these theoretical implications, several practical insights are suggested. For instance, since both the situation variable and one of the personality variables played a role in the perception of intent and propensity towards violence processes, several possible intervention strategies are suggested. Indeed, the greatest potential of this research is its pragmatic value. It is vital that future research implement and evaluate the effectiveness of such interventions. Such potential suggests that this line of research represents merely one small step towards the reduction of youth violence.

APPENDICES

APPENDIX A

The Adolescent Argumentative Scale

This survey contains statements about arguing. There are no right or wrong answers, everyone will answer these questions differently to show who they are and how they feel. If you don't understand a question please let me know. Indicate how often each statement is true for you personally when you argue with your friends. Use the following scale:

1 = Almost never true
2 = Rarely true
3 = Sometimes true
4 = Often true
5 = Almost always true

_____ 1. While in an argument, I worry that the person I am arguing with will think poorly of me.
_____ 2. Arguing makes me smarter.
_____ 3. I feel better when I avoid an argument.
_____ 4. I have a great time when I argue.
_____ 5. Once I finish an argument I promise myself that I will not get into another argument.
_____ 6. Arguing with a person leads to more problems instead of less problems.
_____ 7. I feel good when I am winning an argument.
_____ 8. When I finish arguing with someone, I feel nervous and upset.
_____ 9. I enjoy a good argument.
_____ 10. I get a bad feeling when I am about to get into an argument.
_____ 11. I enjoy defending what I think about an issue.
_____ 12. I am happy when I keep an argument from happening.
_____ 13. I do not like to miss the chance to argue.
_____ 14. I dislike being with people who disagree with me.
_____ 15. Arguments are a fun challenge.
_____ 16. I can not think of good points during an argument.
_____ 17. I feel refreshed and satisfied after an argument.
_____ 18. I have the ability to do well in arguments.
_____ 19. I try to avoid getting into arguments.
_____ 20. I get excited when I know conversation I am in will turn into an argument.

Scoring instructions: Sum the scores on the 20 items after reverse scoring for items 1, 3, 5, 6, 8, 9, 10, 12, 13, 15, an 19.

APPENDIX B

The Adolescent Verbal Aggressiveness Scale

This survey is concerned with how we try to get people to do what we want. Indicate how often each statement is true for you personally when you try to change someone else's mind. Remember, there are no right or wrong answers, everyone will answer these questions differently to show who they are and how they feel. If you don't understand a question please let me know. Use the following scale:

1 = Almost never true
2 = Rarely true
3 = Sometimes true
4 = Often true
5 = Almost always true

_____ 1. I am very careful to attack a person's ideas instead of the person who has the idea.
_____ 2. When people are very stubborn, I use insults to soften their stubbornness.
_____ 3. I try very hard not to hurt other people's feelings when I attempt to change their minds.
_____ 4. When people refuse to do a task I know is important, without good reason, I tell them they are unreasonable.
_____ 5. When others do things I think are stupid, I try to be very gentle with them.
_____ 6. When I want my way and someone won't listen, I will call them names and let them know I think they are stupid.
_____ 7. When people behave badly, I insult them in order to get them to behave better.
_____ 8. I try to make people feel good about themselves even when their ideas are stupid.
_____ 9. When people will not budge on an important issue, I get angry and say really nasty things to them.
_____ 10. When people criticize my faults, I do not let it bother me and do not try to get back at them.
_____ 11. When people insult me, I like to really tell them off.
_____ 12. When I dislike a person greatly, I try not to show it in what I say or how I say it.
_____ 13. I like making fun of people who do things which are very stupid in order to make them smarter.
_____ 14. When I attack people's ideas, I try not to make them feel bad about themselves.
_____ 15. When I try to change someone's mind, I try really hard not to hurt their feelings.

APPENDIX B (Continued)

_____ 16. When people do things which are mean, I make them feel bad about themselves in order to help correct their behavior.

_____ 17. I will not argue with someone who tries to hurt someone else's feelings in an argument.

_____ 18. When nothing seems to work when I try to change someone's mind, I yell in order to get them to do what I want.

_____ 19. When I can't argue successfully, I try to make the other person unsure of themselves so they change their mind.

_____ 20. When someone I am arguing with begins insulting others, I try very hard to change the subject.

Scoring instructions: Sum the scores on the 20 items after reverse scoring for items 1, 3, 5, 8, 10, 12, 14, 15, 17, and 20.

Appendix C

Hypothetical Situations and Interview Guide

I am going to read you three situations that might happen to someone your age. I want you to listen carefully to the stories and pretend that they happen to you. After I have finished reading each story, I will ask you a few questions. If you have any questions now or during any part of the interview just let me know.

Situation 1. Pretend that you are walking down the hallway in school carrying your books in your arm. You are one of the only people in the hall because your last teacher needed to speak to you and he gave you a pass since he knew you would be late for your next class. Suddenly, a kid named John bumps you from behind. You stumble and fall and your books rip and go flying across the floor. The other day John told you that you were one of his best friends, and right after he bumped you John looked very sorry.

1) Why do you think this happened?

_____

_____

2) So do you think this was done (1) by mistake or (2) on purpose?

3) What would you do after John bumped you?

_____

_____

APPENDIX C (Continued)

Situation 2. Imagine you are the eating lunch at school when Paul spills some milk on your back. Because you were the first person to sit down for lunch, no one else saw what happened. It seemed to you that Paul wasn't looking where he was going before this happened and Paul looked surprised after this happened, but Paul laughed after he spilled the milk on your back.

4) Why do you think this happened?

_____

_____

5) So do you think this was done (1) by mistake or (2) on purpose?

6) What would you do after Paul spilled the milk on you?

_____

_____

Situation 3. Pretend you are walking alone to school and you are wearing your brand new sneakers. You really like your new sneakers and this is the first day you have worn them. Suddenly, you are bumped from behind by a kid named George. You stumble into a mud puddle and your new sneakers get very muddy. Yesterday, George said he was going to get you, and right before he bumped you George had a mean look on his face.

7) Why do you think this happened?

_____

_____

8) Do you think this was done (1) by mistake or (2) on purpose?

9) What would you do after George bumped you?

_____

_____

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