

CAN AGGRESSIVE CHILDREN BE TAUGHT TO UNDERSTAND
INTENTIONS OF OTHERS

A THESIS SUBMITTED TO
THE GRADUATE SCHOOL OF SOCIAL SCIENCES
OF
THE MIDDLE EAST TECHNICAL UNIVERSITY

BY

FUNDA KUTLU

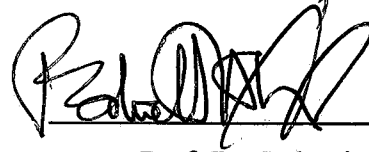
IN PARTIAL FULLFILLMENT OF THE REQUIREMENTS FOR THE
DEGREE OF
MASTER OF SCIENCE
IN THE DEPARTMENT OF PSYCHOLOGY

73013

SEPTEMBER 1998

T.C. YÜKSEKÖĞRETİM KURULU
DOKÜMANTASYON MERKEZİ

Approval of the Graduate School of Social Sciences



Prof. Dr. Bahattin Akşit

Director

I certify that this thesis satisfies all the requirements as a thesis for the degree of Master Of Science.



Prof. Dr. Nuray Karancı

Head of Department

This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Science.



Assist. Prof. Sibel Kazak Berument

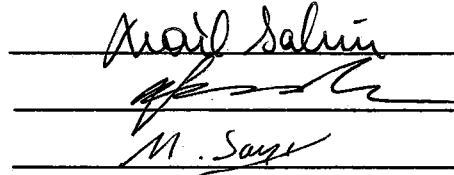
Supervisor

Examining Committee Members

Prof. Dr. Nail Şahin

Assist. Prof. Sibel Kazak Berument

Assoc. Prof. Melike Sayıl



ABSTRACT

CAN AGGRESSIVE CHILDREN BE TAUGHT TO UNDERSTAND INTENTIONS OF OTHERS

Kutlu, Funda

M.Sc., Department of Psychology

Supervisor: Assist. Prof. Sibel Kazak Berument

September, 1998, 116 Pages.

The present study examined the hostile attributional bias in aggressive children toward the peers' intent in social interactions. It was investigated both in second graders (7-year-olds) and preschoolers (5-year-olds). The intervention program was administered to reduce hostile intent attribution.

The sample of 197 second grader and 120 preschooler was scrutinized. Aggressive and nonaggressive children were selected for both age groups. Finally twenty-two second graders and twenty preschoolers were selected as the participants for the study. These children were given 12 stories which were manipulated according to the intent of the hypothetical peer in the event (as positive, negative and ambiguous), the outcome of the peer's behavior for the character in the story (as positive and negative) and the direction of the outcome (whether to the subjects or to a hypothetical peer). The results of ANOVA with repeated measure was showed that aggressive second graders responded more aggressively than nonaggressive second graders. Aggressive children's answers reflected more aggressive contents. The difference was not found for aggressive and nonaggressive preschoolers. Only second graders were given the intervention

program. Due to time limitation and lack of significant difference between the status groups, preschoolers were not given the intervention program. The intervention program indicated improvement in aggressive second graders toward prosocial responding. An interpretation of the results and the shortcomings of the findings were discussed. Some future directions was also suggested.

Key Words: Aggressive Children, Hostile Intent Attribution, Intervention Program



ÖZ

SALDIRGAN ÇOCUKLARA BAŞKALARININ NİYETİ ANLAMA ÖĞRETİLEBİLİR Mİ ?

Kutlu, Funda

Yüksek Lisans Tezi, Psikoloji Bölümü

Tez Yöneticisi: Yrd. Doç. Sibel Kazak Berument

Eylül, 1998, 116 sayfa

Bu çalışmada, saldırgan çocukların sosyal ilişkilerinde karşılarındaki yaşta düşmanca niyet atfetmesi araştırılmıştır. Düşmanca niyet atfetme 7 ve 5 yaş grubundaki çocuklar üzerinde incelenmiştir. Uygulanan eğitim programı ile saldırgan çocuklardaki düşmanca niyet atfetme eğiliminin azaltılması hedeflenmiştir.

Çalışma 1'de görülen bazı sınırlılıklar nedeni ile değişiklikler yapılarak Çalışma 2 yapılmıştır. Araştırmada 2. sınıfa devam eden 197 ve anaokuluna giden 120 çocuk taranmıştır. Her yaş grubunda saldırgan davranış gösteren ve göstermeyen çocuklar seçilmiştir. Bu tarama sonucunda yirmiiki 7 yaş grubundan ve yirmi 5 yaş grubundan çocuk sonuç olarak seçilmiştir. Seçilen çocuklara, davranışı yapan yaşıtın niyeti (olumlu, olumsuz ve belirsiz), yapılan davranışın sonucu (olumlu ve olumsuz) ve kime yapıldığı (öğrencinin kendine yada bir yaşta) açısından değiştirilmiş olan 12 hikaye okunmuş ve çocukların hikayede anlatılan olaya nasıl karşılık verecekleri sorulmuştur. Saldırgan 7 yaş grubu çocukları verdikleri saldırgan cevaplarla saldırgan olmayan yaşıt grubundan ayrılmıştır. Ayrıca saldırgan 7 yaş grubu, saldırgan 5 yaş grubundan daha saldırganca cevaplar vermişlerdir. Fakat 5 yaş grubunda iki grup arasında böyle bir farklılık

bulunmamıştır. 7 yaş grubuna eğitim proramı uygulanmıştır. Fakat bu program 5 yaş grubunda saldırgan davranış gösteren grup ile saldırgan davranış göstermeyen grup arasında cevaplandırmada bir fark bulunamaması ve zamanın yeterli olmaması nedenleri ile 5 yaş grubuna uygulanamamıştır. Uygulanan program düşmanca niyet atfetme eğilimini azaltmakta başarılı olmuştur. Bulgular değerlendirilmiş ve gelecek çalışmalar için öneriler verilmiştir.

Anahtar kelimeler. Saldırgan Çocuklar, Düşmanca Niyet Atfetme Eğilimi, Eğitim Programı.



To My Family



ACKNOWLEDGMENTS

Especially I express sincere appreciation to Assist. Prof. Sibel Kazak Berument for her patience, guidance and faith in me during my difficult moments. Thanks go to the other department members for their support and comments, especially to Assist. Prof. Belgin Ayvaşık for her suggestions in the statistical analyses. I also wish to extend my thanks to my dear friends Zahide Karakitapoğlu, Burcu Eroğlu, Cağay Dürü and Doğan Kökdemir for their incredible support and suggestions. To my beloved friends, Ece Türköz, Ebru Keklikoğlu, Funda İnal, Başak Kerimoğlu, Meltem Anafarta and Atiye-Tugan Müftüler, I offer sincere thanks for their endless support and faith in me.

I wish to express my love to my dear mother Vecihe Kutlu and my dear father Mehmet Kutlu, enabled me to develop in my own way. Special thanks go to my brother-in-law Hasan Şekercioğlu and my sister Şefika Şekercioğlu for their continuous support in my education. And my brother Adnan Kutlu and my sister-in-law Meryem Kutlu, thank for their understanding of my difficulties. Of course, many thanks to my beloved niece Gamze Şekercioğlu and nephews Okan Şekercioğlu, Alp Kutlu and Berkay Kutlu for being in my life.

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CHAPTER 1

INTRODUCTION

1.1 General

The study of aggression has been one of the most controversial, but at the same time, the most attractive issue in the literature. The origins of aggression has been investigated from many different perspectives, and it was concluded that there isn't only one specific cause. Since aggression seems to have multiple causes, it cannot be defined precisely.

Recent studies consider mainly the social cognitive perspective in the understanding of aggression (e.g. Nasby, Hayden, & DePaulo, 1980 ; Dodge, 1980; Dodge & Frame, 1982 ; Berkowitz, 1990 ; Graham & Hudley, 1994 ; Waldman, 1996). The common issue in these studies is that aggressive children have a kind of attributional bias toward the intent of peer with whom he/she interacts.

1.2 Purpose and Scope of the Present Thesis

The primary aim of the present study is to investigate the attributional bias toward other's intention in aggressive children. A number of studies showed that when the situation is ambiguous aggressive children attribute hostile intent to the peer whose behavior resulted in negatively (Dodge, 1980 ; Dodge & Newman, 1981 ; Dodge & Frame, 1982 ; Perry, Perry, & Ramussen, 1986 ; Graham &

Hudley, 1994 ; Erdley & Asher, 1996). The hostile intent attribution in aggressive children have been investigated from different points by relying on social information processing model in the reviewed studies.

Aggressive children attribute hostile intent to the peer and retaliate aggressively, and, this aggressive behavior confirm the expectancy of the peer. As a result, the peer reacts aggressively to the aggressive child. This reaction validates the hostile intent attribution of aggressive child. A vicious circle occurs at the end of this process.

The available intervention programs have been directed to the individual child or to the family. In the present study, primarily, the intervention programs which addressed the hostile intent attribution is considered, (Lochman, 1992 ; Hudley & Graham, 1993). The goal of these intervention programs was to reduce the hostile intent attribution in aggressive children toward their peer's behaviors. By reducing hostile intent attribution, the social aggressive interactions between aggressive children and the significant others can be broken down.

The hostile intent attribution in aggressive children have been supported for children in their middle childhood, but not for younger children (kindergartners) (Dodge & Newman, 1981 ; Dodge, & Frame, 1982 ; Graham & Hudley, 1994). Some studies (Shultz, Wells, & Sarda, 1980 ; Keasey, 1997), however, indicated that 3 years old children can also display "intent attribution" in social interactions. These findings may be the evidence for the view that the hostile attributional bias in aggressive children is not related to developmental progress but is a cognitive deficiency specific to aggressive children.

The present study examines, the hostile intent attribution in aggressive children within Turkish population. Additionally, an intervention program is given to reduce the hostile intent attribution. Both preschoolers and second graders are included as participant. Although the literature on preschoolers was not supported in the sense of hostile intent attribution, it is assumed that the early intervening will prevent the development of aggressive social interactions in aggressive children.

The introductory chapters of this thesis consist of literature about definition, development and theoretical perspectives of aggression. Additionally development

of intention is also discussed. Then the main points of the thesis, intent attribution in aggression and intervention techniques about aggressive behaviors are presented.



CHAPTER 2

DEFINITION OF AGGRESSION

Aggression have been studied more than five decades by researchers, empirically and theoretically. As a result of these studies, it has been recognized that aggression has multiple causes, such as biological or environmental (Parke & Slaby, 1983). It is because of that, it has been defined in a variety of ways in scientific discourse. However also in everyday speaking, aggression has many different meanings. Although it is used as a single concept, it relates to various behaviors. For example, aggressiveness can include either the meaning of assertiveness or the meaning of violence.

Science requires precise definition. However, because different meaning of aggression exist in the literature, defining it as a unitary concept may be problematic. As Geen (1990) stated, aggressive behaviors may appear to be different from each other, but they possess some commonalities. Thus, these commonalities can be primary standpoints for general definition.

The most usual viewpoint of aggressiveness, stressed by all investigators, is that it is a behavior which causes harm or injury to another part (Durkin, 1995). Dollard, Doob, Miller, Mowrer and Sears, in 1939 (cited in Miller, 1941), and Buss, in 1961, used a definition which were common in the sense of including the injury of the another organism. Dollard et. al. (1939, cited in Miller, 1941) focused on the definition from the viewpoint of antecedent conditions, in which injury is the goal response, but Buss (1961) paid more attention to the injury as an outcome. As a result of this, another component has been taken into consideration which is the intention of aggressor. To distinguish intentionality in the harmful behavior allows

the researchers to differentiate the acts in a useful way. If intention is eliminated from the definition, it would be necessary to describe the actions of, for example, surgeons who amputate a limb of his patient to prevent further spreading of cancer. In addition to this, if the notion of intention to harm is excluded, accidental harms would not be classified as different from aggression. Also any attempt to injure, resulted in failure, would be described with different concept rather than aggression (Baron, 1978).

In spite of explained necessities of intention in the definition of aggression, the concept rises several serious difficulties. The first and the most important problem about the term is that intention is hidden event and not directly observed. The researcher must infer the presence or absence of intention, in any behavior resulted in harm in the other organism, by investigating social conditions.

There is one other aspect in the definition of aggression that was named as “value judgement” by Tedeschi (1983), and as “social judgement approach” by Parke and Slaby (1983). According to them, the behavior is culturally determined as aggressive or not. For example, intent to harm is not considered as aggressive if the action is justifiable or excusable. This point of view states that an harming act may be labelled as aggressive in one situation, but the same act may not be considered as aggressive in another situation.

Some other researchers (Hartup, 1974 ; Archer & Browne, 1989 ; Berkowitz, 1993) insisted on the other component, which is “emotional state”, as a producer of aggression. The emotional aspect, actually, make the distinction between “affective (hostile)” and “instrumental” types of aggression. In the former, an emotion, for instance anger, is an intervening condition which instigate aggressive behavior. On the other hand when the aggressive state is not accompanied by emotional aspects, but the intent to harm is still present, it is called “instrumental aggression”. The major aim in the instrumental aggression is to pursue some other purposes, such as to reach desired object, establishing social or coercive power over others, or self-defense. More recently, Crick and Dodge (1996) used the term “reactive aggression” for affective form, and, “proactive aggression” for instrumental form. In addition to the previous view points for

difference, they considered that reactive and proactive aggressions differ in acquisition, maintenance and in reactive response.

Another type of aggression recently defined in the literature is “relational aggression”. When the person intends to damage relational issues, such as excluding a child from one’s play group, and, spreading rumours about the child to be rejected by peers, this form of aggression is called “relational aggression” and many studies (eg. Crick, 1995; Crick, Bigbee & Howes, 1996; Crick, Casas & Mosher, 1997) have demonstrated that girls tend to use it. On the other hand, “overt aggression” is a name of the form which is used to describe boy’s aggressive style. It is explained as physical and verbal aggressive acts, such as hitting, name calling and verbal threats.

Similarly, aggressive actions can also be classified in other dual forms. The acts can be differentiated in terms of physical nature (e.g. kicking, pushing, hitting) or verbal statements (e.g. name calling, threatening). The former leads to more physical harm and called “physical aggression”. The latter leads to more psychological harm and called “verbal aggression” (Rivers & Smith, 1994).

The second dual form includes direct or indirect aggression. Direct aggression refers to face to face confrontation. It means that harm is directed to the object of aggression. On the other hand, indirect aggression occurs via a third party. The harm in this type, directed to the object which is not the object of aggression, but has relationship with the object. By injuring third party, the object of aggression is also harmed (Berkowitz, 1993).

As this review indicates, the definition of aggression is complex. This complexity is the result of researcher’s theoretical and methodological approaches.

In the present study, the fundamental definition of aggression in the literature which is “intent to harm the other” is the base point, furthermore, the description of aggressive actions contain physical (e.g. kicking, hitting) and verbal (e.g. name calling, swearing) aggression styles which is recently called overt aggression.

CHAPTER 3

DEVELOPMENT OF AGGRESSION

The crucial aspect, in order to study aggressive behaviors from the developmental point of view, is to predict relative problems, such as criminality, in later life course. The second step after predicting is to prevent outgrowing of these behaviors in the risk groups. Previous investigations tried to draw a picture of early style of aggressive behaviors, and included infants and preschoolers as subjects. Then, the later studies have focused on life-span stability of aggressive behaviors.

Early studies have examined aggression from infancy to preschoolers, in order to show developmental trend and also the elicitor of aggression. The early years, physical discomfort and need for attention are the elicitors of infant outbursts, but around third year social meaning and angry reactions are elicited by conflicts with peers. During 18 to 65 months, disagreement over possession are common for younger children (Parke & Slaby, 1983).

Hartup (1974) have distinguished hostile aggression (i.e. person-oriented aggression) and instrumental aggression. He designed an observational study and enrolled the subjects in two age groups, which were 4 to 6 years of age and 6 to 7 years of age. According to the research, the older children showed more aggressive retaliation toward the hostile aggression, but there was not any significant age difference for instrumental aggression. It was assumed that older children's reaction toward the hostile type is the indicator of the ability to infer and to attend the attacker's intention (Parke & Slaby, 1983).

There have been many investigations which have showed impressive evidence for the stability of aggressive behaviors over life course. The first and

influential study was published by Olweus, in 1979 (cited in Berkowitz, 1993), who examined sixteen different samples with subjects ranging from 2 to 18 years. As repeated measure, they were reassessed at interval of six months to twenty one years. The procedures included behavioral assessment, direct observation, teacher assessment, and reports from peers. The researchers computed the relationship between initial and follow-up scores. It was seen that there was moderately high relationship between initial and follow-up scores, however the size of the stability decreases as interval increases (average correlation was .7 if the interval between initial and follow-up was one year or less). The author concluded that aggressive children had maintained their aggressive behaviors even though they changed the situation or they were encountered the pressure to adjust the social rules.

Huesmann, Eron, Lefkowitz and Walder (1984) had conducted a research project and presented evidence of 22 years longitudinal study. The purpose of the study was to point out the learning conditions for the aggression. The projects had begun in 1960. The researchers had interviews with 875 children at the age 8 years old and with their fathers and mothers of some subjects at the initial phase. Also the information about the subjects were provided by interviewing the peers. Ten years later, in 1970, 427 of the initial subjects were reinterviewed, the age was around 19 years old. The result indicated that the children who were more aggressive in school in 1960 were still more aggressive in a variety of situations. In 1980, the researchers again interviewed 295 of the original subjects and reached the other 114 of the subjects by mail or telephone. In addition to this the researchers obtained data about 223 of the initial subjects by referring to the governmental criminal service. The modal age of the subjects was 30 years old and the wife and the children of some subjects were also interviewed. The most impressive result of the study was that there was a high correlation between peer-nominated aggressive behavior and adult criminality. On the other hand, it was seemed that the stability was permanent across situations, measures and informants as well as time. The other study, by Spivack, Marcus and Swift (1986) confirmed the previous study in their investigation. The research was conducted in 1968 and 659 children entering kindergarten were selected. The classroom teachers were informed about the

purpose of the research and they were told to identify high-risk behaviors. According to their list about high-risk behavior, all children were assessed by teachers. The following years, most of the original subjects were observed and the interviews were done with the principals at that time. In 1975, the experimenters also contacted with the police department about the subjects police-contact episodes. In 1982, the data of 380 were collected and integrated by the researchers. The authors reported as a result that early high-risk behavior is probably the manifestation of other problems in even earlier or later in the child's life.

In contrast to the study of Huesmann et al. (1984), Tangey, Hill-Barlow, Wagner, Marshall and Gramzon (1996) studied how people characteristically experience and manage anger from childhood to adulthood and found different results. They used the Anger Response Inventory (ARIs) for children, adolescents and adults, which assess four levels of anger arousal, intentions, cognitive and behavioral responses and long-term consequences. The ARIs' result showed that people with age and experience are more likely to manage anger in a constructive manner. All types of aggressive, acting outs, direct, indirect and displaced, are indicated clear decrease with age. However, the authors have aimed to find out the effectiveness of the ARIs in examining anger related processes at four levels, and long-term consequences. As a result of that, the sample was not scrutinized on the basis of aggressive past history of subjects. For this reason, this result, that is a decrease in aggressiveness with age, may not be generalized to individuals who have aggressive past history.

Moffitt and his colleagues (1993; Moffitt, Caspi, Dickson, Silva & Stanton, 1996) investigated the controversial issue in the literature. They pointed that according to the literature there is a peak in adolescence in the antisocial behaviors. However, there is disagreement about that whether this peak is because of the change in prevalence or a change in incidence. Some studies (e.g. Loeber & Dishion, 1983 ; Stattin & Mangusson, 1996) indicated consistent evidence for the former. The adolescent peak reflects a temporary increase in the number of people involved in the antisocial behavior. At this point, Moffitt (1993) has criticised the previous studies on age and crime relying on official data. On the bases of these

data sources, the early-onset of antisocial behavior is defined as mid-adolescence. On the other hand, some studies (Huesmann, Eron, Lefkowitz & Walder, 1984 ; Kellam, Rebok, Ialongo & Mayor, 1994 ; Moffitt, 1993 ; Moffitt, Caspi, Dickson, Silva & Stanton, 1996) pointed out that the on-set of aggressive behaviors extending from early ages and proceeding through childhood and adolescence and adulthood. Caspi and Moffitt (1995) distinguished two type of on-set in antisocial behaviors. According to this distinction, a small group of persons engaged in antisocial behavior at very early stage of life, which is labeled as “Life-Course-Persistent” antisocial behavior. In the second type, a larger group of individuals exhibit antisocial behaviors at their adolescence period and fill out the age-crime curve, called as “Adolescence-Limited” antisocial behaviors. The importance of this distinction bases on the result implications that early childhood aggressive behaviors are more positively correlated with the stability of the behaviors across life-span. The characteristics of these people are that a) some of them have a kind of neuropsychological problems, b) they are difficult to manage at childhood c) because of neuropsychological problems, initial parent-child bond cannot be healthy d) social relationship is worst, such as absence of loyal friendship, unstable marital bonds, and irresponsible behavior toward offsprings e) low academic achievement. On the other hand, discontinuity of aggressive behaviors is the hallmark of Adolescence-Limited antisocial behaviors. It is time specific, which means that the on-set occurs near puberty and limited to teen-years. It is considered as adaptive response to the maturation gap between biological and social development. Life-Course-Persistent antisocial individual also differs from the Adolescence-Limited antisocial individual in this respect that the former becomes the teacher of the later due to their past experiences at the teen-age period.

The developmental viewpoint is crucial for the aggressive literature because it may account for effects in occurrence and maintenance of aggressive behaviors. The other implication of these studies seen in the development of intervention programmes (e.g. Kellam, Rebok, Ialongo & Mayer, 1996).

CHAPTER 4

GENDER ISSUE IN AGGRESSION

The previous studies (Dodge, 1980 ; Dodge & Newman, 1981 ; Dodge & Frame, 1982 ; Dodge & Somberg ; 1987) demonstrated that boys, as a group, are more aggressive than girls. This difference seems to persist through the life-span. However, Crick and Grotper (1995) questioned whether the interaction between girls lacks aggressive components. They considered that the past researchers assessed the forms of aggression which are salient for boys than for girls.

Crick and Grotper (1995) proposed that when the children intend to hurt or harm others, they do it in a way that is valued by their respective gender group. It means that boys do mostly try to harm each other through physical and verbal aggression (e.g. hitting, kicking or pushing others, or threatening to beat up others). Because these types of behaviors are more important and effective among boys. On the other hand, girls' interaction style relies more on relational issues, for example establishing more close and intimate connections with others. The authors hypothesized that the form of aggressive behaviors of girls would be consistent with their social concerns and they tend to harm others through damaging another child's friendship relations (e.g. by spreading rumors about the child so that peers will reject her). These findings provided strong evidence that girls, as a group, were more relationally aggressive than boys. Additionally, the results also supported the view that boys were significantly more overtly aggressive. Crick and Grotper (1995) also found that relational aggression is significantly related to social

maladjustment (e.g. self-report of poor peer acceptance) which was not clear for overt aggression.

Tomada and Schneider (1997) replicated the study of Crick and Grotpeter (1995) in Italy, but they couldn't reveal the same pattern. According to the prior study (Crick & Grotpeter, 1995), the boys displayed much more overt aggression than girls. However, on the contrary to the expectations, girls did not display much more relational aggression than boys. The proportion of girls for relational aggression was small than the proportion of boys. Tomada and Schneider (1997) explained this result as the difference between cultures. Italian boys do also have close relationship with their parent by which they acquire relational aggression by observational learning.

In the sense of hostile attributional bias, Crick (1995) designed a study to examine this issue. The author presumed that relationally aggressive children exhibit hostile attributional bias similar to the previously demonstrated for overt aggression, but for conflicts of a relational nature. The results supported the hypothesis. The attributional bias was salient in social events where the children interpreted ambiguous relationship as mean, and intentionally motivated acts.

Crick, Casas and Mosher (1997) was interested in whether the relational aggression is even seen as different form from overt aggression in younger children. The findings provided evidence that relational aggressive behaviors are displayed at relatively young ages, and can be distinguished by preschoolers from overtly aggressive behaviors. Gender difference was also detected at this young age in aggression that preschool girls were more relationally and less overtly aggressive than preschool boys.

In sum, boys are not more aggressive than girls but both sexes have different form of aggressive behavior. The previous studies, which are the focus of the present thesis (e.g. Dodge, 1980 ; Dodge & Newman, 1981 ; Dodge & Frame, 1982), have described aggressiveness in the form of overt aggression. For this reason, in the selection of aggressive children, boys have been mostly labeled as aggressive by their peers and their teachers. Consistently, in the present thesis,

overt aggressive descriptions was used, as a result of this, boys are selected as aggressive and included as participants.



CHAPTER 5

THEORETICAL PERSPECTIVES IN AGGRESSION

5.1 Introduction

There have been controversial arguments about the origins of aggression. In fact, as Geen (1990) stated in his book, the arguments are the repetition of the old issue of nature versus nurture. Human beings possess some dispositions which they share with other animals, on the other hand, humans learn, undoubtedly, much of aggressive behaviors.

There is a trend from more nature-based perspectives to more nurture-based perspectives in the literature. Some of the perspective share the very similar issues. For this reason, the perspectives are presented under four main topics in this part, as biological, drive-based, social learning and social cognitive perspectives.

5.2 Biological Perspectives

Many different perspectives are considered under the topic of biology, because aggression has been taken into account as naturally determined. In the present study, the perspectives are presented as two basic approaches, instinctual motives and genetic-physiological component.

5.2.1 Biological Perspectives Related to Instinctual Motives

The psychoanalytic approach was best-known and the oldest view concerning the nature of aggression. According to Freud, aggression stems mainly from the operation of a death instinct (Baron, 1978). He claimed that the life instinct acts against to death instincts and turn energy to outward or against people in order to preserve the organism (Hall & Lindzey, 1985). Aggressive behaviors, proposed by Freud, are hostile impulses which are not released safely and which reach to dangerous levels.

Konrad Lorenz, famous ethologist, was the other scientist who regarded the origin of aggression as biological. He argued that aggression is an instinctual system, and, it's energy is generated within the organism independently of external stimuli. At this point, Lorenz repeated Freud's words by explaining aggressive energy as " which builds upon the organism and must periodically be discharged or released by an appropriate releasing stimulus" (Parke & Slaby, 1983, p.551). Lorenz's interpretation of aggression consisted of three primary species-preserving functions. The first one is an ecological function in which fighting in defense of territory serves to balance the distribution of living organisms, animals or humans, over available supporting environment. The second primary factor is the result in the selection of the best and strongest animals for reproduction. The final factor, related to the second one, is that protection of young by the best defender serves to assure the preservation of the species. Ethologists, especially Lorenz, have been criticized because of overgeneralizing their observation of lower animals to humans.

In terms of their approach to aggression, both the theories of Freud and Lorenz showed extensive reliance on instinctual factors of aggression. Especially Lorenz have been criticised for underestimating the role of culture, social regulation and education (Durkin, 1995). Freud and Lorenz have been criticized by the researchers from different theoretical perspectives. Both Freud and Lorenz proposed that aggression can be transformed into more appropriate acts, even though it cannot be escapable.

Sociobiologists have integrated studies, done before and after Lorenz's theoretical studies. According to this view, aggression is a fundamental and adaptive behavior (Barash, 1982 cited in Durkin, 1995). It is functional when crucial resources are limited, when experiencing pain and discomfort, and, where social systems are disrupted. This perspective emphasizes the importance of ecology in which the organism interacts with the surrounding situations, but it also touches on instinctive drives.

5.2.2 Biological Perspectives Related to Genetic and Physiological Components

In recent years, studies have proposed other links between biology and aggression. The factors which are related to genetic, biochemical issues and some other biologically-based but socially effected factors, such as muscularity, physical appearance and temperament have been studied as the origins of aggression.

As biochemical system, hormones have been reported to influence aggressive behaviors. Hormones are considered to serve two functions in the development of social behavior. The first is to organize bodily activities and the second is to energize or activate function (Parke & Slaby, 1983). Because some hormones have critical period of time to function, many investigations have focused on the manipulation of hormone before activating. Although the link between hormones, such as androgen and testosterone, and aggression have been shown, as Tiger (1980) stressed in his analysis of literature, the mediating factors have to be taken into consideration. For example, neonatally androgen-injected animals grown up larger.

Hereditary factor is the other investigated issue. Recently, there have been a consensus about genetic influences on aggression (Geen, 1990). Twin and adoption studies were run to scrutinize genetic components in the origin of aggression. The study of Miles and Carey (1997), which is cross-sectional meta-analysis, it was reported that genetic and environmental components may change over time, in terms of effectiveness. They found that, in youth, genes and environment equally promote similarity among relatives. On the other hand, in adulthood the effect of

heritability increases. Although this result confirmed the literature, Miles and Carey (1997) suggested that this was because adults prefer the environment which is most compatible with their genotype.

Some other biologically based factors, such as muscularity, physical appearance and also temperament may play a role in aggression. The effects of these factors are not unitary, but interrelated with each other and with social expectations. For example, desirable characteristics are attributed by both children and adults more often to attractive than to unattractive ones (Parke & Slaby, 1983). As an influence on aggressive behaviors, temperament differences have been considered as a function of age. For example, in early childhood, it is a difficult-child syndrome. As a teenager, they are seeking for arousal, because of physiological changes, named as sensation-seeking adolescents. In adulthood, it is a personality disorder, called psychopath (Dishion, French & Patterson, 1995).

5.3 “Drive Model” Perspective

The explanation of aggression with “drive model” is the most controversial and long-lasting approach in the literature. It was assumed that internal drives instigated by external stimuli, motivate individuals. This model is the beginning of the consideration of external effects on the instigation of aggression.

Dollard, Doob, Miller, Sears and Mowrer (1939, cited in Miller, 1941), called as also the Yale group, attempted to account for all of human aggression with a few basic ideas, which has guided researchers for decades. Dollard et al. (1939) claimed that:

“the occurrence of aggression always presupposes the existence of frustration and always leads to some form of aggression.”

(p.30, cited in Miller, 1941).

After publishing the monograph, most of the investigators, studying the causes and consequences of aggression, were oriented toward issues raised by this monograph. The exciting and, at the same time, the most criticised point has been that it proposed a few basic propositions for explaining all human aggression. On

the other hand, because the writers defined clearly their understanding of the concepts, such as “frustration” and “aggression”, the study have been the most impressive and most referred in the aggression literature.

As it was considered in the definition section, many psychological concepts are too susceptible to different meanings. One of them is frustration. It is sometimes referred to an external instigating condition sometimes to the organism’s reaction to this event. Dollard and his colleagues were consistent in their definition that frustration is “an interference with the occurrence of an instigated goal-response at its proper time in the behavior sequence” (p.7 Dollard et al. 1939, cited in Berkowitz, 1989). It is important to focus on the point that the Yale group insisted on frustration as an obstacle blocking the attainment of an expected gratification. More specifically, the omission of reward or deprivation are not frustration. Frustration is occurred when the greater the satisfaction is anticipated on attaining their objective, but it is blocked to reach the goal. Aggression, on the other hand, is also stated by the writers, as a sequence of behavior in which the goal-response is the injury of directed person. Although this definition seems to presume that only overt behaviors were aggression, Dollard et al. (1939, cited in Miller, 1941) acknowledged that because of some other reasons, for instance punishment, every thwarting can not be resulted in overt aggression. Many investigators criticised the Yale group’s assumption in the definition of aggression, because it restricted aggressive behaviors into only affective form. However, aggression may be selected because of it’s instrumental components. For example, to demonstrate his or her status.

Two years of the publication, one of the group member Miller (1941), revised the hypothesis. He clarified that a number of different types of responses may be produced by frustration, in which one is an instigating an aggression. The investigators indicated that frustration is not a unitary variable and the consequence is not always aggression. The researchers have begun to consider the possibility that frustration may serve primarily to elevate some other factors. For example, Berkowitz (1969, cited in Berkowitz, 1989) reformulated “frustration-aggression” hypothesis as if frustration generates increased arousal, in the presence of

aggression cues, it leads to aggression. Berkowitz and LePage (1967) used the presence of weapons as an aggressive cues in the situation. The results showed that physical punishment, which was electric shock, were administered more if there were weapons.

The other investigator, Zillman (1971, cited in Geen, 1990) investigated the effect of physiological arousal on aggression. The subjects were shown a film. Some of the subjects had been provoked by experimenter confederate before watching film. The film was either violent, erotic or neutral in content. The result of the study revealed that erotic film elicited more arousal and the subject who had been provoked previously were more aggressive. Zillman (1971, cited in Geen, 1990) concluded that arousal produced by film was misattributed to the provocation because arousal perceived as anger. However, on the contrary to this study, Feshbach (1961), who designed an experiment similar to the study of Zillman, claimed that vicarious aggressive activity has drive reducing effect on previously aroused individuals, which named as cathartic effect.

More recently, the features in the studies, have been oriented to the issue that frustration does not always lead to aggression, as seen in the investigation of Feshbach (1961). The studies have focused on the issues, which are potentially frustrating experiences, but it is unlikely that they would have similar aggressive-eliciting effects. For instance, competition, individual failures, personal insults are all resulted in frustration, but the reaction cannot be aggression. Many researchers distinguished the kind of frustrations which produce aggression (e.g. Pastore, 1952, cited in Berkowitz, 1989). The frustrations which are illegimate and which are personally directed result in aggression. Miller, (1948, cited in Berkowitz, 1962), considered learning mechanisms in explaining unexpected aggression or absence of aggression. According to him, the person who is aroused by frustration would direct his or her strong aggressive responses to frustrating object. But he added that, if the person could not aggress to initial aggressor because of some inhibition from the environment, he or she may generalize his aggression to other stimuli. The inhibition, as mentioned, can be punishment or can be a result of some kind of social status. As an example for the latter, if the frustrating object is the boss,

because of the social status that person cannot elicit aggressive reaction. But he can displace his aggressiveness to his wife, despite the fact that she is not related to the frustrating object. The importance of this term is that it reduces motivation to aggress. Displacement was the term, used previously in psychoanalytic theory, and, it is a functional term in the frustration-aggression approach, because Miller (1941), in his revised form, mentioned that although frustration does not always lead to aggressive acts, continued blocking of the goal will most probably result in aggression. Then if there is any inhibition, aggression will be displaced in other ways.

As it was seen that more recently, the components of the Yale group's approach have been explained by either learning or cognitive aspects by most of the investigators. For this reason some of features were taken into account under social learning perspective although they may be related to the studies about frustration-aggression hypothesis.

5.4 Social Learning Perspective

Bandura (1983) argued that prior considerations, instinctual and drive perspectives, are limited in terms of the determinants and the purposes of aggressive behavior. He stated that a complete theory of aggression must consist of how aggressive behaviors are acquired, what provokes people to behave aggressively and what maintains such actions after they have seen initiated.

According to social learning approach biological determinants are limited to instigate aggressive behaviors. Bandura insisted on that humans are less constrained by genetic or biological factors. By depending on the research, done by Delgado (1967, cited in Bandura, 1983), he claimed that although aggressive acts constitute of neurophysiological mechanisms, social learning factors are the determinants of the responses that are likely to be activated by the same neural structure. For example Zillman (1983) has proposed three-factor theory in which he stated the linkage between the sympathetic arousal associated with emotions and learning mechanisms. Berkowitz (1993), pointed out the crucial effects of external cues

which have association with aggression for the attackers. The external cues which have been investigated in studies are, objects or events having aggressive meanings (e.g. weapons, movies), negative affect (e.g. anger, disgust, pain), excitement arousal, objects associated with gratifications for aggression and prior aggressive occurrences.

Bandura (1983) have discussed the traditional assumption that learning can occur only by performing responses and experiencing their consequences. Although he accepted the effect of learning by direct experience, which contains reinforcement and punishment components, he insisted on observational learning, in which reinforcement is accompanied as a crucial component in the social learning of aggression. Observational learning has vital and developmental influences on the acquisition of behavior, and it includes four interrelated sub-processes. Firstly attentional process explores and perceives the modeled behavior. As a second process, memory representation encodes the images and words into symbolic representations. The symbolic representations are integrated by motor production processes into the new response patterns. The acquisition of potentially destructive and potentially functional behaviors are differently processed by incentive and motivational processes. Individuals practice what they have learned and they regulate the performance of observationally learned responses in terms of functionality. Bandura (1983) considered mainly three sources as model in the acquisition of aggressive behaviors. These are familial influences, the subculture in which people reside and finally the mass media.

As stated, social learning theory is not only interested in the acquisition of aggressive behaviors, but also the activated mechanisms and maintaining mechanisms. In terms of instigating factors, Bandura (1983) collected the motivators of aggression under two main classes, as biologically and cognitively based factors. Biologically based motivators includes externally and internally happened aversive stimulations. Because individuals have learned to response to aversive experience with aggressive behaviors, frustration, anger arousal or pain provoke to behave aggressively. In terms of cognitively based factors, Bandura considered that individuals, through cognitive representation of future outcomes,

can generate current motivators for aggressive behaviors. It was Berkowitz (1990) who did more precisely mention the linkage between emotion arousal and cognitive instigators.

The final feature of social learning formulation is to exert the condition that sustain aggressive responses. Many factors have been listed as maintaining aggressiveness. Bandura (1983) considered the aggressive attacks toward others because of tangible rewards as sustaining aggression. For example, if a child can receive the desirable toy in the hands of peer by aggressing successfully, he or she will show the same behavior at the next time. Because of social approval or social reward, aggression may also be maintained. The other maintaining factors, suggested by Bandura, are self-reinforcement and eliminating aversive treatments (Baron, 1978).

Most of the research, in social learning theory, have been administered in laboratory condition. For this reason, the criticisms were directed to that the findings cannot be generalized to the real-life. The external validity of the studies are in doubt (Geen, 1990). For example, Durkin (1995) argued that observational learning from media does not demonstrate the principal route into real-life aggression in real situations.

The drive model, in the aggression literature, had been the beginning of consideration the influence of external stimulation. The social learning theory slid the perspective from biologically based view to the approach in which aggressiveness is deliberated as acquired behaviors. Many investigation, referred under the topic “drive model” and “social learning” perspectives, have touched on cognitive factors in one or other way. Recently, the studies have located in the social cognitive perspective to account for aggression.

5.5 Social Cognitive Perspective

The social cognitive model had begun to be mentioned in the earlier studies. For example, Dollard et al. (1939, cited in Miller, 1941) assumed that frustration

occurs if the person is expected higher satisfaction when attaining the object, but he was blocked. Berkowitz (1989) claimed that although Dollard et al. (1939, cited in Berkowitz, 1989) did not use cognitive language, the definition of this concept involves the cognitive components.

In the other studies, cognitive aspects had been more precisely spelled out. Schachter, who studied emotion, especially anger, and proposed two-factor theory with Singer (1962, cited in Geen, 1990), stated more specifically that, in the situation where the person experiences a state of physiological arousal but there is no immediate explanation, the state will be understood by mental states that are available. Despite the criticisms, they mentioned the importance of cognition in the interpretation and the labelling of the increased arousal.

Zillman (1983) has taken Schachter's theory into account, but he pointed out the transformation of excitation between two arousing events and scrutinized this effect on aggression. Zillman (1972, cited in Zillman, 1983) designed an experiment in which some of the male subjects were provoked and some of them were not by the experimenter confederate before performing either highly strenuous physical exercise or sedentary task. Then they were provided to contact with the provocateur. The result showed that the subject who had been provoked previously and performed strenuous exercise were more aggressive than the subjects who were provoked but performed less physical demands. He demonstrated that, excitation in the first (irrelevant) source of arousal is transferred to the second (emotional) event and labelled as anger. The arousal can be the result of either emotion-laden source or any activity, such as physical exercise. Although the following investigations have not verified the studies of Zillman, he considered the role of attribution (as misattribution of arousal to provocation) which is a cognitive aspect.

Ferguson and Rule (1983) tried to specify the cognitive processes that contribute to anger and aggression and they proposed an attributional perspective. Their perspective focuses on to specify the processes that determine the perceptions of causal responsibility and the perceptions of how actors should behave in the harmful situation. According to them, the first thing that should be done by the harmed person, is to judge that whether the harm is intentional or not. The intent is further

classified as either malevolent or nonmalevolent. If the act is appraised as unintentional, the perceiver must decide that whether the consequence could be foresaw or not. Hence there were four types of causal responsibility, which are:

1-accidental , which means that although there was a harmful outcome, the actor could not have been aware of, and therefore could not have avoided.

2-foreseeable, which means that the harmdoer could have been aware of the consequences or although the harmful consequence is not the aim of the actor, he is aware of harming consequences of the behavior.

3-nonmalevolently intentional, is that the harmful consequence is produced, foresaw, and wanted by the actor in order to achieve further nonharmful end.

4-malevolently intentional, is that the harm is, as the previous one, produced, foresaw and wanted but for an end for itself or for to succeed further harmful end.

Ferguson and Rule (1983) categorized the attribution of intention, done by perceiver, in two general lines. The one is related to the nature of situation and the other is related to the character of the harmdoer. In terms of the situational aspects, in order to judge the act is unintentional the situation must contain one of these: whether any reason, other than imposing harm, could be imagined, whether the harmdoing is the only possible act or whether the result of the act is mainly harmful or beneficial for the actor. On the other hand, if the actor seems to be happy (for instance smiling) or overcomes the obstacles in the environment to do harm, the act is called intentional. The second appraisal, done by the perceiver, is to search for the characteristics of the harmdoer. If he has done a lot of harm in the past, if he has the member of any group related to the harmdoing or the stereotypes related to the harmdoing, such as race, sex and physical attractiveness.

As an other component, foreseeability was scrutinized by Ferguson and Rule (1983). In order to name the behavior as aggressive by the observer, they pointed out that although the harm was unintended, but can be foreseen, the failure to prevent it cause to assign moral culpability to the actor. It can be either negligence, which means due to laziness or thoughtlessness to seek for alternatives

on the part of actor, the harm occurs. If the harm happens when the actor doesn't attempt to prevent the unintentional harming because of some selfish purpose, is called ruthless foreseeability. The locus of causality is also important to judge foreseeability. If it is internally caused, it will judge more foreseeable than externally caused. As an instance, in an automobile accident if the driver was not looking to the road is internal cause, but if the accident was because of the failure of the steering machines, it is an external cause (Brickman, Ryan, & Wortman, 1975 cited in Ferguson & Rule, 1983).

Finally, Ferguson and Rule (1983) considered also the norms of the culture in which individuals live in evaluating harmful behaviors. If the expectancy of the actor is negative outcome, it is viewed as more responsible, more blameworthy and more able to foresee. Morally legitimate harmful acts is not processed as aggressive. For instance, when the man hit the other to return his wallet back, the act is seen as legitimate.

The review of Ferguson and Rule (1983) clarified and suggested some points. They mentioned the effect of time, either before or after insult, for encoding of attribution relevant information. The writers also mentioned that the process of information may or may not differ depending on being recipient or observer. Furthermore, the availability of attributionally relevant information before and after the provocation may have an influence on the perceiver's interpretations. Finally, they concerned about the possibility of scripts in the memory of person, who aggressed and felt angry despite the absence of attributional information. But the situational factors are related to the aggression in the person's memories, and they rise the aggressive reactions automatically.

Berkowitz (1990) have proposed a theoretical model, called "a cognitive-neoassociationistic model", to integrate conceptions focusing on relatively automatic and non-thoughtful processes with theories emphasizing higher order cognitive concepts, such as attribution and appraisal. Berkowitz's model has tried to explain two issues. The first one is that although some emotions, like sadness, grief and depression are certainly different from the anger, sad and grieving, but depressed person show anger and even aggression. Secondly, because of the past

experience with anger and the possibility of the presence of some other emotions, the arousal state can not always be consciously operated in higher order cognitive processing, which means that aggressive reaction is displayed automatically. He assumed that associative networks link specific types of feelings with particular thoughts and memories and also with certain kind of expressive-motor and physiological reactions. The activation of any one of the components in the network tends to activate the other parts. The feature of the model is that the negative affect generated by the aversive occurrence, which can be a toothache, foul smell or sadness, automatically give rise to at least two kinds of reactions at the same time. The first reaction is bodily changes, feelings, ideas and memories associated with escape from the unpleasant stimulation. The second one is bodily reactions, feelings, thoughts and memories associated with aggression. Learning, genetic, and situational factors determines the strength of these two reactions.

The other investigator who have brought major contributions to the social-cognitive perspective is Kenneth Dodge. He suggested “social information processing model” to examine the social adjustment and maladjustment of children.

The advancement in artificial intelligence introduced the information processing model. Initially studies related to language acquisition by children, have used this model in developmental psychology.

In recent years social information processing approach have been used to understand the social adjustment of children. Dodge and his colleagues (e.g. Dodge, 1980 ; Dodge & Newman, 1981, Dodge & Frame, 1982; Dodge & Somberg, 1987) have spelled out the significant advances of the model in understanding children’s aggressive behaviors. Dodge presented the model in 1986 (cited in Crick & Dodge, 1994), but he and Crick revised the model in 1994. According to the revised formulation of the model, children come to a social situation with a set of biologically limited capabilities and a database. This database is in the heart of the model and includes memory store, social schema and social knowledge. The model stated six cyclical steps in processing. The first step is “encoding of external and internal cues”. At the second step, children interpret those cues. When interpreting, children uses social schemata, which have occurred

as a result of past experiences and social cues. If the immediate social cues are not referred and the schemata is only taken into account, some kind of misinterpretation can happen. Children also attribute a cause to the event in order to make judgements about the links between actions and reactions. Intent attribution is the other process in interpretation, which has been proposed as the possible reason of individual differences in children's social adjustment. Especially, in the aggression literature, hostile attribution for peer's intent has been focused on. This point is the main aspect of the present thesis and it is examined as detail in the intention and aggression section. Other interpretative processes are self-evaluation, evaluation of goal attainment, evaluation of past performance and evaluations of others. The third step is clarification of goals. Goals for social situations may include internal (e.g. feeling happy or avoiding embarrassment) or external (e.g. being first in line at the water fountain) states or outcomes. In the fourth step, children access from memory possible responses to the situation or if the situation is new they construct a new response to immediate cues. As a fifth step children decide a response which is the most positively evaluated after investigation of the previously accessed or constructed responses. The expected outcome and self-efficacy play crucial role in the decision of the response. At the final step, the chosen response is behaviorally enacted.

The major difference of the revised formulation is that the model, as mentioned, has cyclical structure rather than sequential. It means that processing is simultaneous, for instance individual can engage in interpretation processes, while they are encoding, rather than after encoding. So children are always encoding, interpreting and accessing responses. Furthermore, the processing of single stimulation follows time related sequence. Finally, the revised model proposed that the relation between processing at one step and processing at another step is nonlinear. It is exemplified by Crick and Dodge (1994) as that when a child accesses aggressive reaction to provocation, it might occur not because of a single function of hostile intent attribution by the child, but by a multivariate, contingent and aggregation of many factors. This component in the formulation describes associative networks in processing.

The major determinants in the aggression literature has been presented under main four topics with the consideration of the progress in time. The present study is based on the social information processing approach and considers the effect of intent attribution in the development of aggressive behaviors.



CHAPTER 6

DEVELOPMENT OF INTENTION UNDERSTANDING

People try to account of other's intentions in order to make sense of events in the social environment. Distinguishing actions as intentional and unintentional, determines the subsequent behavior of person in social interaction. But intention cannot be directly observed. Individuals infers other's intention from available cues in the situation.

Intention is described by Poulin-Dubois and Shultz (1988) as a mental state that guides and controls behavior. The development of intention is a controversial issue in the literature. Some investigators have considered that children begin to take into account intention around the age of 8 (in middle childhood), on the other hand some other research results indicated that children as early as 3 years old can concern intention.

Early psychological studies have investigated intention development in the sense of children's moral development. Piaget (1932, cited in Durkin, 1995) described moral development through three stages. During middle childhood, according to him, approximately 5 to 10 years, the child begins to discriminate right from wrong, however he or she does it by depending on the external sources. Helwing, Hildebrant and Turiel (1995) were interested in children's understanding of psychological harm regarding the development of moral judgement. They reported partially consistent results with Piaget's view that young children (6 years old) were less likely to take intention into account. Furthermore, the authors also pointed that it was not mean that young children are unable to understand and

apply intentionality in their judgement but they give, in some context, attention to expected features. This explanation was supported by Imamoglu (1975) that 5-year-olds were seemed to be aware of intentionality, however, this understanding was likely to be easily influenced by the people in their environment and also by their egocentric wishes.

The literature have also included some research indicating intention understanding at very early ages. For instance, Shultz, Wells and Sarda (1980) showed that children as young as 3 years old can distinguish intended actions from mistaken ones. The authors mentioned that the children regard intentions as causes of behavior, because, in this research, these children used "because" in order to indicate their reasoning. In other study, Keasey (1997), investigated children's consideration of intentionality in hypothetical situation including themselves and others. Consistent with the Shultz et al., Keasey concluded that young children (between 3 to 4 year-olds) can succeed distinguishing intentional faults from involuntary one, when the child, himself, experience the event. In addition to distinguishing intentional action, Rotenberg (1980) indicated that kindergarteners, second and fourth graders attributed greater meanness to the person who intentionally caused harm. The importance of the finding of the study is that it did not rely on language production of children.

Leekam (1991) worked on two verbal forms of teasing and deception which are lies and jokes to make sense what is the relation between children's understanding of other people's intention and understanding of falsehood in regarding development. Leekam pointed out that children can use mental states, at least by the age of 4. It was impressive that 4-year-olds can also discriminate the difference between two kinds of intent actions, which were intended by the speaker, but they were different.

In sum, although there is some arguments about the age in accounting of intention, most of them have agreed that around the age 5, children begin to consider the role of intention in deciding the nature of behavior in social interactions.

CHAPTER 7

INTENTION AND AGGRESSION

After the publication of Dollard et al.'s (1939, cited in Parke & Slaby, 1983) monograph, the investigators have been focused on the clear definition of the concepts, frustration and aggression, and many criticisms directed to this point. Because the later studies have pointed out that frustration does not have an effect on aggressive outcomes, there are other issues in the instigation, development and maintenance of aggressive behaviors. A number of studies (e.g. Eron, 1987; Huesmann, 1988; Berkowitz, 1990 ; Guerra & Slaby, 1990 ; Perry, Perry & Rasmussen, 1986 ; Dodge, 1980 ; Dodge & Newman, 1981 ; Dodge & Frame, 1982 ; Dodge, Murphy & Buchsbaum, 1984 ; Dodge & Somberg, 1987 ; Waldman,1996) have addressed the social cognitive approach in the sense of understanding these issues, such as intent attribution, or anger arousal.

For instance, Bandura (1983), mentioned the crucial role of cognitive components, such as attributional and memory processes in the acquisition and acting of aggressive behaviors, although he has not spelled out with cognitive terms. The study of Zillman (1972, cited in Zillman 1983) is the other one in which the role of emotional state was explained by cognitive process that is misattribution of arousal.

The studies of children's social adjustment focused on children's understanding of others' intention in social relations. Some of these studies related to aggression (e.g. Shantz & Voydanoff, 1973 ; Rule, Nesdale & McAra, 1974) have reported that if children thought that the negative outcome was intentional, it is appropriate to retaliate aggressively, because the negative behavior of the person

was labeled as aggressive. Then the researchers began to evaluate the role of perceived intent of the other in the instigation of aggressive behaviors. In their review article, Ferguson and Rule (1983) stated the importance of perceived intent in naming the behavior aggressive, as that the harmed person, firstly, must decide whether the behavior intentional or not. The person's future reaction is the result of this decision. As Ferguson and Rule (1983) mentioned, understanding of others' intention has investigated in the sense of two points. The first one is to decide the behavior aggressive or not, then, as the second, to decide how to react.

As a consequence, the researchers have examined how children's inferences about others in social situation are related to subsequent aggressive behaviors. Nasby, Hayden and DePaulo (1980) investigated the effect of attributional bias in interpreting the social stimuli. They selected institutionalised teenage boys, who were divided as more aggressive and less aggressive. According to the authors, more aggressive boys have an attributional bias in appraising the social cues or they exhibit an actual ability to detect true instance of hostility. The result showed that more aggressive boys exhibited attributional bias and inferred hostility in the situation where the cues are benign. The consistent findings was also pointed out by Dodge (1980). He also examined the attributional bias in the aggressive children, in which the frustrating behavior was depicted in either hostile, accidental or ambiguous in terms of intent of the provocateur. In this article, Dodge investigated normal school children who were selected either aggressive or nonaggressive by peer nomination and teacher assessment. The results revealed that aggressive and nonaggressive children were not different in understanding the intent of the peer provocateur in hostile situation. However, aggressive children attributed more hostility in ambiguous situations toward the peer than nonaggressive children. The aggressive children reacted as if the peer instigator had malevolently intended the act.

The study of Dodge and Newman (1981) replicated the results of previous two studies. In addition, the authors in this research, attempted to explore the reason of biased attribution of aggressive children. They firstly hypothesized that, if aggressive child makes a premature or quick judgement, a biased attribution will be

the result, and their second hypothesis was because of selective recall of hostile cues, aggressive children attribute hostile intent to the other. Participants were selected from kindergarten, 3 and 5 grades. The results supported the hypotheses that because of their quick response and selective recall, aggressive children show attributional bias.

However, on the contrary to the findings of Dodge and Newman (1981), Dodge and Frame (1982) found out that both aggressive and nonaggressive children recalled approximately the same amount of hostile cues. Furthermore, this investigation indicated that aggressive children make more intrusions into the recall (false positive error). The same deficit was also found in younger children, but they made also false negative errors. For this reason, the authors concluded that it was not because of developmental lag but there is an “inhibition deficit” among aggressive children. Dodge and Frame (1982) constructed three separate studies, in this article. The purposes of the studies were as follows:

1) to find out ;

- a) whether aggressive boys have general tendency to attribute intentional behavior to the peer or there is a biased by them toward hostile attribution.
- b) whether there is difference when the peer’s behavior directed toward the subjects or a second hypothetical peer.
- c) whether the status of the peer instigator, as aggressive or nonaggressive, has crucial role in the attribution of intent .

2) to examine;

- a) the selective recall of cues
- b) valenced attribution of the subjects for the peer’s future behavior toward himself or toward another peer,

3) to examine;

- a) when the boys are not previously acquainted, whether the frequency with which a child initiates aggression toward his peer and the frequency with which he is the object of peers’ unprovoked aggression are correlated.
- b) whether the aggressive children, according to their peer nomination, are more or less likely the object of aggression than the nonaggressive ones.

c) when the children are becoming acquainted, whether the frequency of being the object of aggression for aggressive children change over time.

The subjects were again selected from three age groups, as kindergarten, 3 and 5 graders. The results of the study 1 affirmed the previous researches. It was found that aggressive boys attributed more hostility, but especially when the condition is ambiguous and the behavior of the peer is directed toward him. The important point of the findings is that aggressive children attributed hostile intent to the peer, who caused negative outcome, especially when he is the target of the behavior. On the other hand, when the negative outcome was directed to a second child, there was not significant difference between aggressive and nonaggressive children. Another finding is that if the instigator peer was presented as aggressive, the future behavior of this child was expected as aggressive by both aggressive and nonaggressive children. The study 3 exhibited that aggressive children displayed high rates of aggressive behaviors, but they were also the targets of high rates of aggression by peers.

As a consequence, this study presented more clearly that aggressive children have hostile attribution toward the peers' intent when he is the target of the negative behavior. The authors claimed that aggressive children has specific bias that peers are hostile toward them. Actually, this thought of aggressive children was confirmed by the other result that there was a tendency by peers to attribute aggressive intentions to aggressive boys more frequently. The authors proposed that aggressive children have memories about being target of hostile aggression by peers, for this reason, in ambiguous provocation situation they attribute hostile intention to peer. This attribution leads them to retaliate aggressively. Then, because of this, the peers experience aggressive interactions with these children, as a result, they begin to expect aggressive acts from the aggressive children. A vicious circle occurs at the end of this process.

As a result of these findings Dodge (1986, cited in Crick and Dodge, 1994) constructed the social information processing model in examining aggression. This model and the studies of Dodge and his colleagues have directed the researchers to investigate the other structures which are responsible for hostile attribution and

aggressive acting-outs. In the revised formulation of social information processing model, Crick and Dodge (1994) pointed out the latent structures which consist of memories of past social encounters, organized into schema or heuristics. Such schema and heuristics often make information processing more efficient, however, they can also cause processing errors that lead to hostile attribution and then aggressive behavior.

Graham and Hudley (1994) considered the issue under the topic of the “priming effect” in accessibility to constructs in the memory of aggressive children. It means that as a result of deviant socialization experiences in the family and being the target of peer aggression, aggressive children become to have causal constructs about hostile intent. The negative behaviors of other’s are becoming prime for attributing hostile intent. The findings demonstrated that the aggressive children’s attributional bias is the result of negative behaviors done by the peer, which is the priming effect for constructs about attributing hostile intent in ambiguous situation.

On the other hand, the effects of schema and heuristics in response decision has been demonstrated by a number of studies (Perry, Perry & Rasmussen, 1986 ; Erdley & Asher, 1996 ; Huesmann & Guerra ,1997). The studies have taken into account the perception of self-efficacy, and, beliefs about outcome expectations of aggressive behavior. General tendency has been drawn by the study findings that aggressive children who are confident in behaving aggressive, and, who have strong beliefs about positive outcomes, such as eliminating aversive stimuli and preventing future hostile behaviors of peers, display more aggressive behaviors.

Some other studies have focused on the environmental determinants in effecting attribution of aggressive children (e.g. Dodge & Somberg, 1987 ; Graham, Hudley & Williams, 1992). The findings of the studies have generally conducted under relaxed laboratory conditions which is unlike real-life circumstances. Dodge and Somberg (1987) examined the hypothesis that attributional bias and cue interpretation deficit in aggressive children would be exaggerated under conditions of social anxiety and threat. In order to create threatening condition, the subjects were informed that there is another child with whom he completed the rest of the task. There was not an another child, but the

subject was listened the recorded conversation of him as if he is in the other room. This hypothetical child exhibited hostile attitude toward the experimenter also toward the subjects in recording. Then the subjects performed the rest of the vignettes. The participants were asked the boy's intent in the vignette, either hostile, prosocial or accidental, and, how he would behaviorally respond to the event if it was directed to him. The findings confirmed the hypothesis. It was seen that under the threatening condition aggressive boys performed more poorly in cue interpretation and they were more likely to attribute hostile intent to the peer in ambiguous situations.

Graham, Hudley and Williams (1992) regarded the link between attributional bias and emotional determinants in peer aggression. Consistent with Dodge and Somberg's study (1987), they examined the perception of intent, anger and hostile behavior and the interrelation effects on aggressive behaviors. The subjects in the study were African-American adolescents. The findings of study indicated the mediational role of emotions between thinking and action. The analysis revealed that aggressive children attributed more hostile intent to the peer provocateur and reported more anger. These children were also more likely to endorse aggressive behavior.

All of the studies, reviewed in the present study, have considered reactive-aggression as research object. Reactive aggression which has theoretical roots in the frustration-aggression hypothesis, is an angry, defensive response to provocation. However, there is also proactive style of aggression which is instrumental usage of aggression and depended on learning mechanisms. Crick and Dodge (1996), questioned reactive- and proactive- aggressive children in terms of processing of social information in distinct ways. They hypothesized that hostile attributional bias is the characteristics of reactive-aggressive children and positive evaluation of aggressive behaviors is the characteristics of proactive-aggressive children. These hypotheses were supported by the results. The hostile intent attribution among reactive-aggressive children was significantly more frequent than nonaggressive and proactive-aggressive children as a result of this, the probability of retaliating aggressively increases.

The hostile intent attribution in aggressive children have been scrutinized from different, but interactive points by depending on social information processing model. The attributional bias in aggressive children was supported by these studies as primary focus. The present study aimed to replicate attributional distinctions between aggressive and nonaggressive children with Turkish population. Although the previous studies of Dodge and his colleagues have not supported the attributional bias for younger children, the present study included kindergarteners in order to find out whether the same trajectory can be observed. The findings have important implications for intervention programs with aggressive children. This approach to aggression is more promising for treatment, because it defines clearly the problem, depending on the sequential processing of information.



CHAPTER 8

INTERVENTION TECHNIQUES FOR AGGRESSIVE BEHAVIORS

8.1 Introduction

The literature contains many terms to denote antisocial behavior, for example externalizing behaviors, conduct disorder and delinquency. The present study considered aggressive behaviors, including kinds of behaviors such as kicking, hitting and name calling. These behaviors are seen both in clinically referred children, but also seen in varying degrees in most children over the course of normal development. The presence of aggressive behaviors is important as a social problem, because, as research results indicated, they are stable over life time, and they are transmitted across generations. In short, aggressive behaviors are the most costly behaviors for the individual and the society. As result of this many intervention programs have been developed, however, due to the heterogeneity of behaviors, especially the long term effect of the programs is questioned.

The available programs are directed either to an individual child including individual or group therapies, behavioral-cognitive therapies or pharmacotherapy; or directed to the family, such as parent management training. There is also a community based program which uses and integrates the techniques of the previous programs into the community center (Kazdin, 1987). The important implication of community-based program is that social stigmatization is eliminated. Also aggressive individuals interact with nonaggressive individuals, in which the situation is more relevant to the real-life situation. There are also some specific techniques,

the individual effects of them stressed by the investigators, for example contingency management. But these techniques are mostly used in other programs. For this reason, in the present study, they are taken into account under two main programs. Finally the investigations which are relied on social information processing were discussed in regarding the intervention of the present study.

8.2 Parent Management Training (PMT)

Parent management training underlie the consideration that antisocial-behaviors are developed and maintained in the home by maladaptive parent-child interactions. The major goal of PMT is to alter interchanges between parent and child in a positive way. In this training package, parent are educated in basic social-learning principles, such as using appropriate commands or applying consistent punishment for problem behavior.

Patterson, in 1982 (cited in Dishion, French & Patterson, 1995) identified the peculiar reinforcement arrangement between a parent and the child, named as "coercive model". In this model, when the parent presents aversive stimulus, such as scolding, the child is likely to respond with an aversive stimulus, such as arguing. The aversive interchange continues with escalating intensity until the parent withdraws the aversive stimulus. The other family members may also be included in these interchanges. The child learns to eliminate the aversive stimulus by creating another aversive stimulus, like aggressing. The intervention programs, based on the model have emphasized the appropriate utilization of contingencies, such as reinforcement and punishment. This is called contingency management training. This program may be applied at home, at school or at the institutional setting, for this reason it is used almost in all intervention programs.

Parent management training (PMT) is enlarged to the other members of the family, and named as functional family training program (FFT) (Kazdin, 1987). The research results pointed out that not only the target child but the siblings receive beneficial outcomes from the programs. In addition to this, any maternal psychopathology seems to decrease. In spite of this advantages, the PMT and FFT

programs have limitations. For example, because of marital discord, parent pathology or lack of responding from family, the effectiveness of the programs is controversial.

8.3 Cognitive Behavioral and Problem Solving Skills Training

This program takes into account child's cognitive processes, for instance perceptions, self-statement, attributions, that are presumed to underlie maladaptive behaviors. As it was reviewed in the previous part, the importance of cognitive processes have a crucial role in children's aggressive behaviors. This training programs have addressed the cognitive deficiencies which have been elicited by the investigations. In order to eliminate the deficient behavior and substitute with appropriate behavior, the programs consist of the strategies. The sequences of the strategies include; a) recognize the problem situation, b) use self statements to reduce impulsive responses, c) generate multiple solutions to the problem, d) evaluate possible consequences of actions, (Ammerman & Hersen, 1995, pp.209). The techniques, used in the programs, contain modeling, self-instruction, desensitization, communication training and perspective-taking (role-taking) (Urbain & Kendall, 1980).

The studies of Kazdin (1987) and his colleagues (Kazdin, Esveltd-Dawson, French & Unis , 1987 ; Kazdin, Siegel & Bass, 1992) have made fundamental contributions to the aggression intervention research, in regarding the effectiveness of cognitive-based programs. However, Kazdin and his colleagues selected their participants from minority group or from the institutions. These children have severe antisocial behaviors. In spite of this, the findings of their study was promising even for these children. They found that children who had been received problem solving skill training, showed improvements in reduction of problem behavior at home and at school and also increasing in prosocial behaviors. This effects were seen also at 1 year follow up. The comparison group was the nondirected relational therapy group who received only individual therapy. Kazdin et al. (1992) evaluated the effects of problem solving skill training, parent

management training and the combination of both. The assumption was that the combined program would lead to more pervasive, durable and marked improvements in child functioning and changes in parent functioning. The findings supported the assumption, combined program resulted in more marked changes in children's aggressive behaviors and parental functioning. The influence of the program was present at 1 year follow up. Although general results have exhibited the effectiveness of the interventions, long-term duration (for example 5 years) could not be found.

The other investigator Lochman (1992) considered the mediating role of anger arousal between cognition and behaviors and examined anger coping intervention based on cognitive behavioral training, in regarding long-term influence (3 years follow-up). The content of anger coping intervention included both contingency management training techniques within peer group and problem solving skill technique, such as identifying problem, becoming aware of their anger arousal, generating a variety of solutions and thinking about the consequences of the solutions. The analysis showed that three year after the end of the intervention the high risk boys displayed lower levels of substance use than the control group. The most crucial result is that the subjects, in the intervention group, had higher level of self-esteem and avoided illogical solutions for resolution of problem.

In spite of these encouraging results, the extent to which the programs produced cognitive and also behavioral changes in the aggressive individuals has been relatively small.

8.4 The Interventions Regarding the Social Information Processing

Model In Aggression

As more consistent with the present study's aim, Lochman (1992) and Hudley and Graham (1993) constructed research in the light of Dodge and his colleagues' studies. The major aim of the investigations was to reduce aggressive

behaviors and to substitute these behaviors with prosocial ones. To succeed the goal, investigators have attempted to increase the aggressive boys' skills in ; a) detecting accurately the behavior in ambiguous situation b) attending to relevant and nonhostile cues c) generating variety of responses and considering consequences in terms of their effectiveness in providing goal-directed, legal and nonviolent outcomes.

Hudley and Graham (1993) focused on to decrease aggressive boys' tendency to attribute hostile intent to peers in ambiguous situation. Black teenagers from low socioeconomic status participated in the investigation. There were three treatment groups; the attributional intervention, an attention training group and no treatment control group. The attributional intervention contained three major components, which are to detect accurately intention, to increase the likelihood of making nonhostile attribution when ambiguity is present, and, to elaborate appropriate behavioral responses to ambiguously caused negative outcomes. The intervention lasted 6 weeks. The analysis displayed the effectiveness of the intervention. Aggressive children in the intervention group, compared to their counterparts in the other two groups, showed marked reduction in both a bias to attribute hostile intent and a preference for aggressive behaviors in ambiguous situation. However the real-life follow up, office referrals due to inappropriate behavior, indicated that at the behavioral level the problem was still present.

Lochman (1992) included cognitive mediating group, attention control and no-treatment control group. In addition to increasing problem solving skills in the aggressive adolescents, he also assessed the beliefs supporting aggression in these adolescents. The interventions were administered approximately 12 weeks. The findings supported the study of Hudley and Graham (1993). Also the beliefs of aggressive children supporting the aggression were reduced by the intervention.

Similar intervention program was developed in the present study but the subjects were second graders. The goal of the intervention, as similar with the Hudley and Graham's (1993) study was a) to teach aggressive boy's not to infer hostile intent to peer when they encounter a behavior of peer resulted in negatively in ambiguous situation, b) to increase the consideration of possible nonhostile

reasons to a peer's noxious behavior, c) to teach producing alternative solutions to the problem other than aggressive retaliation.



CHAPTER 9

STUDY 1

9.1 Introduction

The hostile intent attribution bias in aggressive children have been shown by several studies (Nasby, Hayden & DePaulo, 1980 ; Dodge, 1980; Dodge & Newman, 1981 ; Dodge & Frame,1982 ; Dodge & Somberg, 1987 ; Graham, Hudley & William, 1992 ; Graham & Hudley, 1994; Waldman, 1996). All of the studies have the consensus that aggressive children attribute hostile intent to the peer's ambiguous behavior. Because of hostile intent attribution aggressive children can not inhibit aggressive retaliation in social interactions. As a consequence, peers also develop expectancy of aggressive reactions from aggressive children and they also respond aggressively. This exchange between aggressive children and their peers (vicious circle) feeds the maintenance of aggressive behaviors in aggressive children's social life. Another finding in the aggression literature is that aggressive children strongly differ in the hostile intent attribution than nonaggressive children when the ambiguous behavior is directed to the self rather than to a peer (Dodge and Frame, 1982). Furthermore, the hostile intent attribution was not found in younger children (Dodge & Newman, 1981 ; Dodge and Frame, 1982). Based on the findings about hostile intent attribution, Lochman (1992) and Hudley and Graham (1993) have conducted an intervention to teach aggressive boys to accurately detect intention-cues in the ambiguous situation, and, to decrease their attribution of hostile intent. They found that children who were given attribution

intervention showed improvements in their behaviors which was also noticed by their teachers.

The present study aimed to examine the biased attribution of hostile intent in aggressive children, within a Turkish sample. Dodge and Frame (1982) created hypothetical situations either resulted negatively or ambiguously. In other words, they didn't manipulate intention and the result of the stories separately. Different from the study of Dodge and Frame (1982), in the present study, the manipulation was done both for outcome, as positive and negative, and for intent, as positive, negative and ambiguous. Consistent with the literature, hostile attribution bias was investigated for both self and peer-directed behaviors. As previously mentioned, although attributional bias could not be supported for younger children, in the present study preschoolers were included as participants in order to investigate attributional bias developmentally. In addition to these, in this thesis an intervention was designed to reduce the hostile intent attribution in aggressive children. Thus it was aimed to broke down the vicious circle. Furthermore, because some studies have indicated intention understanding at very early ages (e.g. Shultz, Wells & Sarda, 1980 ; Keasey, 1997), it was considered that intervention program may be beneficial for the children's understanding of others' intent, who are selected as aggressive by their preschool peer group. Thus, with the intervention program, the possible development of attributional bias toward peer's intent can be prevented in aggressive children at the preschool age.

In sum, the hypotheses are as follows;

- 1- In ambiguous condition, when the outcome is negative, aggressive children will respond more aggressively than nonaggressive children.
- 2- When the negative outcome is directed to the subject rather than to a third peer, aggressive subjects will attribute more hostile intent and choose to retaliate aggressively than nonaggressive subjects.
- 3- Older aggressive children will show clear hostile attributional bias than younger aggressive children
- 4- The intervention program will reduce the hostile intent attribution in aggressive children and they will respond more prosocially.

9.2 Method

9.2.1 Participants

The participants were selected from an elementary school located in Ankara, their socioeconomic status was high. The peer nomination and teacher assessment forms which were adapted from the studies in the literature, were used to classify aggressive and nonaggressive status groups. Three second grade classes, out of six were selected on the basis of agreement of the class teachers. Peer nomination and teacher assessment of student's behavior forms were administered to these classes where there were a total of 85 students. Each child was asked to name classmates who best fit descriptions in the peer nomination form (see Appendix A.1). Teachers were also requested to assess the behavior of each student in their class, by indicating on a 5-point scale in terms of favorability of each students aggressive behaviors (see Appendix A.2).

A boy was assigned to aggressive group if he was scored highest for aggression in peer nomination and lowest for prosocial behavior, and, if he was scored above the median of his teacher ratings in aggressiveness and below the median of prosocial behaviors. On the other hand, nonaggressive groups were selected if a boy was scored highest in prosocial behaviors and lowest in aggressive behaviors by peers, and, above the median in prosocial behaviors and below the median in aggressive behaviors in teacher assessment. According to these criteria, 10 aggressive and 10 nonaggressive children were chosen. The mean age of the subjects was $MA=7.05$ years ($SD=8.21$ months).

9.2.2 Materials

There were 12 stories which varied according to the character's intent (negative, positive, ambiguous), outcome of character's behavior (negative, positive, ambiguous) and whether the behavior directed to the subject himself or to

the hypothetical peer (see Appendix A.3). Responses to the event in the story was the dependent measure of the research. As in the Dodge (1980) study, the hostile attribution bias to peers' intention was considered as directly mediating the behavioral responses. Thus, behavioral differences in responding (for instance) retaliating aggressively to the event in the story was accounted for the difference in attribution for the peers' intent.

9.2.3 Procedure

Each child was first interviewed individually for peer nomination. After the selection of aggressive and nonaggressive groups, the stories were read to the subjects individually, in a random order. Six of the stories were read in one session and the last half were read one week later.

Before reading the story, the subject was informed that he will hear a story about a hypothetical event in which sometimes the event is between him and a peer (he is a hypothetical peer) or between two hypothetical peers. After reading the story, the child was requested to repeat the story to make sure that he understood it. Then he was asked to decide how he or hypothetical second child will react as a result of the event in the story. The responses of the subjects were written verbatim by the experimenter.

Responses to each story was scored as 1, if it is aggressive verbal or physical), 2 if it involves complaint to an adult, 3 if it is "nothing" or neither "aggressive" nor "prosocial", 4 if it includes request for clarifying, and 5 if it is prosocial. The responses of the subjects were also scored by a second rater who was trained on scoring. The two raters' agreement was calculated by coefficient kappa which was .68.

9.3 Results

The scores were subjected to a 2 (status; aggressive vs. nonaggressive) x 3 (intent; positive, negative, ambiguous) x 2 (outcome; negative, positive) x 2 (direction of outcome; the self vs. a peer) analysis of variance (ANOVA) with the last three factors being a repeated measure.

The analysis revealed a significant main effect of status $F(1,18)= 4.85$, $p<.05$. Aggressive boys ($M=3.192$, $Sd=1.030$) responded relatively more aggressively than nonaggressive boys ($M=3.692$, $Sd=.815$).

The main effect of intent was also significant, $F(2,36)= 29.94$, $p<.001$. A post hoc analysis, using Tukey HSD test, showed that positive ($q=10.4$, $df=36$, $p<.05$) and ambiguous ($q=8.10$, $df=36$, $p<.05$) intent were significantly different from negative intent (see Table 9.1 for means and standard deviations). Positive and ambiguous intent depicted in the stories, elicited more prosocial responses than negative intent.

Table 9.1
Means and Standard Deviations For Intent Main Effect

	Mean	SD
Intent Positive (IP)	3.9	.92
Intent Negative (IN)	2.78	.79
Intent Ambiguous (IA)	3.65	1.06

The final significant main effect was found for outcome, $F(1,18)= 11.32$, $p<.005$. Positive outcome ($M=3.983$, $Sd=.923$) was reacted as socially affirmative, but the negative outcome ($M=2.9$, $Sd=1.024$) was reacted aggressively.

Also a significant interaction for intent x outcome, $F(2,36)= 43.71$, $p<.001$ direction x outcome, $F(1,18)= 16.61$, $p<.004$ and direction x intent x outcome, $F(2,36)= 21.37$, $p<.001$ were observed in the analysis.

The result of post hoc analysis of intent x outcome interaction (see Table 9.2 for means and standard deviations) revealed that when the outcome was

positive, children responded more prosocially in the positive ($q=80,95$, $df=36$, $p<.05$) and ambiguous intent ($q=69$, $df=36$, $p<.05$) than in negative intent. Children also responded more prosocially to positive intent than from ambiguous intent ($q=11,95$, $df=36$, $p<.05$). On the other hand when the outcome was negative, children responded more aggressively to negative ($q=16.3$, $df=36$, $p<.05$) and to ambiguous intent ($q=9,78$, $df=36$, $p<.05$) than positive intent and response to ambiguous intent was more prosocial than negative intent ($q=6,5$, $df=36$, $p<.05$). Additionally, the difference between positive outcome and negative outcome was significant for positive intent ($q=64$, $df=36$, $p<.05$) and ambiguous intent ($q=62$, $df=36$, $p<.05$), but not for negative intent. When the ambiguous intent was resulted in negatively, the subjects responded more aggressively

Table 9.2

Means and Standard Deviations For Intent x Outcome Interaction

	Outcome Positive	Outcome Negative
	Mean (Sd)	Mean (Sd)
Intent Positive	4.7 (.58)	3.1 (1.27)
Intent Negative	2.84 (.87)	2.73 (.71)
Intent Ambiguous	4.43 (1.02)	2.88 (1.07)

A post hoc analysis (Tukey HSD) for significant interaction of direction x outcome (see Table 9.3 for means and standard deviations) showed that when the negative outcome was directed to the self, it was reacted more aggressively than when it was directed to peer ($q=10.3$, $df=36$, $p<.05$). However when the outcome was positive, childrens' responses did not differ whether the behaviour was directed to themselves or to a peer.

Table 9.3

Means and Standard Deviation For Direction x Outcome Interaction

	Outcome Positive	Outcome Negative
	Mean (SD)	Mean (SD)
Directed to Subject	3.98 (.63)	2.77 (.89)
Directed to Peer	3.98 (1.01)	3.03 (1.14)

Finally, three way significant interaction of peer x intent x outcome was tested by Tukey post hoc analyses (see Table 9.4 for means and standard deviations). The results revealed that when the intention was ambiguous and the behaviour resulted negatively, children responded more aggressively if it was directed to the self rather than to a peer and, when the outcome was positive children reacted less prosocially if the behaviour was directed to the self ($q=5,8$, $df=36$, $p<.05$) rather than to a peer. On the other hand, negatively intended and positively resulted behavior was reacted more aggressively when it was directed to the self ($q=5,8$, $df=36$, $p<.05$), but negatively intended and negatively resulted behaviour elicited more aggressive response if it was directed to peer ($q=8,1$, $df=36$, $p<.05$). Finally, when the outcome and the intent was positive, the self-directed behaviors was reacted more prosocially than peer-directed ($q=11,62$, $df=36$, $p<.05$) behaviours. However, negatively resulted behaviors with positive intent responded more prosocially when directed to a peer ($q=10,46$, $df=36$, $p<.05$) than to self.

Table 9.4

Mean and Standard Deviation For Direction x Intent x Outcome Interaction

		intent positive	intent negative	intent ambiguous
		Mean (Sd)	Mean (Sd)	Mean (Sd)
to subject	positive outcome	4.95 (.16)	2.7 (.76)	4.3 (.98)
	negative outcome	3.1 (1.25)	2.9 (.32)	2.75 (1.1)
to peer	positive outcome	4.45 (1.0)	2.95 (.97)	4.56 (1.07)
	negative outcome	3.55 (1.29)	2.55 (1.11)	3 (1.09)

9.4 Discussion

Firstly, the present study examined whether the aggressive children attribute hostile intent to the peer's behavior when the intent is ambiguous and the outcome of the behavior is negative for the character. Although, the data supported the hostile intent attribution to ambiguity, it was not specific to the aggressiveness. Consistent with the literature (Dodge & Frame, 1982 ; Dodge, Murphy & Buchsbaum, 1984), the results showed that negatively intended behaviors were detected accurately by children and the subjects reacted aggressively, even if it was resulted in positively for the child.

Secondly, it was expected that when the negative outcome was directed to the subjects rather than to a peer, aggressive children would attribute more hostile intent and chose to retaliate aggressively than nonaggressive children. Although children generally showed tendency to react aggressively when the negative

outcome was directed to the self in ambiguous intent, this was not specific to the aggressive status.

However, the data revealed significant difference between aggressive children and nonaggressive children. It was found that aggressive children displayed tendency to react more aggressively than nonaggressive ones.

The data was initially collected from 7-year-olds children. Because preliminary analysis was not confirmed the expected status effect, the data collection for 5-year-olds and the intervention program were not pursued further. As a result, by making some modifications and improvements in the method of the study 1, the study 2 was designed.



CHAPTER 10

STUDY 2

10.1 Introduction

The participants in study 1, were recruited from high SES school. The policy of the school they were attending, was to show socially appropriate behaviors as desirable. Thus, it was possible that the children responded more socially desirable way in open-ended questions. For this reason, the stories were redesigned as close-ended in study 2. Additionally, in the present study the participants were drawn from middle SES strata and the number of the children screened was increased in order to make the selection of the most aggressive and the most nonaggressive children more reliable.

The length and content of some of the stories were modified. Some of the items in peer nomination and teacher assessment forms were also altered according to the study of Coie and Dodge (1988) which is widely used in many studies, in the literature. The hypotheses were again the same as in the study 1:

1-Ambiguously intended behaviors which are negatively resulted for the character in the story will be evaluated as hostile by aggressive children, and they will select the aggressive choices.

2-Aggressive children will attribute more hostile intent to the peer's behavior when it is directed to self and they will choose to retaliate aggressively.

3-A clear hostile attributional bias will be shown by older aggressive children than younger aggressive children.

4-The hostile intent attribution in aggressive children will be reduced by the intervention.

10.2 Method

10.2.1 Participants

The subjects were drawn from 5 second grade classes in three different public elementary schools and from 5 classes at one preschool, at the fourth elementary school. The present study required a presence of a quiet room in the schools. Because the elementary school buildings had a problems related to the availability of a free room and the school administrators were concerned about appropriateness of the class schedules, only 5 second grade classes out of 12 could be scrutinized. However, all of the preschool classes were examined. Overall 197 second grade (104 of them boys) and 120 preschool (65 of them boys) children were administered peer sociometric and teacher assessment scales, which had been adapted from the study of Coie and Dodge (1988). In peer sociometric nomination condition each child was brought in a private room, and were asked to name classmates who best fit each of descriptions in the form (see Appendix B.1). Teachers were also requested to assess the behavior of each student in their class, by indicating on 5 point-scale (see Appendix B.2). These two forms are parallel forms in terms of descriptions.

The sum of aggressive, liking and prosocial items were standardized within each class for both peer nomination and teacher assessment scales. Boys were identified as aggressive if the aggressive score is twice higher than prosocial score and liking score is less than the class mean, in both scales. In the selection of non-aggressive boys, the opposite criteria was taken into account. Boys who scored twice as high in prosocial items than aggressive items and liking score was more than the mean was included into the research as non-aggressive.

The final sample of 45 consisted of 24 second-graders (MA= 7.7 years, SD= 3 months) and 21 preschoolers (MA= 5.9 years, SD= 4 months). There were 11 aggressive, 13 non-aggressive children from second-graders, and, 11 aggressive, 10 non-aggressive children from preschoolers. One of the selected children from second graders had been involved in the first session of story reading, however, because of an accident, he could not continue to the school. This child has been excluded from the sample.

10.2.2 Materials

The preparation of the stories:

There are 12 short stories both in the pre-test and post-test. The stories in the pre-test were created similar to the studies of Dodge Newman (1981), Dodge and Frame (1982), Dodge and Somberg (1987). Each story was included one type of intention type (positive, negative, ambiguous), one type of outcome type (positive and negative) and to whom the event done (to himself or to a peer). The 12 stories were rated by graduate students whether the intended styles of intention and outcome for each of the stories could be specified. Eight graduate students in the pre-test and 15 graduate students in the post-test have rated the contents of the stories to identify whether each story can consist of aimed structure in terms of intention and outcome types. According to the ratings, some of the stories were modified and again rated by these persons.

The preparation of response choices

After open-ended results of study 1, the responses of the participants were grouped as beginning from physical aggression to prosocial behavior in 5-point scales. The order of the choices was randomized for each story. The choices were scored as the following:

physical (overt) aggression 1 point
complaint to an adult 2 points
do nothing 3 points
asking for reason 4 points
prosocial behavior 5 points

10.2.3 Procedure

During aggressive versus non-aggressive selection period, pre-test and post-test sessions, each subject was brought to a private room in their school. Because the physical condition of the schools are not sufficient to use the room for hours, sometimes there would be another person from the school personal in the rooms.

Pre-test:

After the selection of the children who had been defined as either aggressive or non-aggressive, each child was informed that he was going to be read a short story about himself or about two peers. Then the child was asked which of the behavior in the choices, he or the peer, in the event, might select to do as a reply to the circumstances in the stories. There were total of 12 stories (see Appendix B.3 for the stories for 7-year-olds and see Appendix B.5 for 5-year-olds). Second graders were administered 10 of them at the first session and two of them at the second session. Due to their age, preschoolers were introduced 6 of the stories firstly, and the other 6 secondly, in two sessions. The order of the stories were randomized for each child.

Intervention :

The intervention program was lasted for 4 weeks with approximately 40 minutes each session. As a result of preliminary analysis, only in the second graders, aggressive and non-aggressive children responded differently. For this reason, the

intervention were given to the 7-year-olds. Because the participants were selected from three different schools, the number of children in each group was not equal. In one of the schools, there were 6 children in the aggressive and 8 children in the non-aggressive group. The second school contained 2 aggressive and 2 non-aggressive children. And in the final school, aggressive and non-aggressive groups consisted of 3 children.

The primary goal of the intervention was to train aggressive boys not to infer hostile peer intent when they encounter a behavior of peer resulted in negatively, in ambiguous situation. In the first session, the aggressive boys discussed their personal experiences and how they had responded in the situation. In the second session, the boys were asked to think about what would be the result of their aggressive reaction. The boys were read hypothetical events, in which there was an ambiguously caused negative situation. Then they were wanted to draw a picture to display how the situation can be resolved positively before if flare up into violence. In the last two sessions, the drawings which were pictured hypothetical, negatively resulted stories were shown to the children and they were requested to focus on possible causes of peer's uncertain behavior. The boys were asked to search for possible cause. Finally, they were taught to negotiate, not to aggress toward the peer's behavior.

Post-test:

Two weeks after the conclusion of intervention, each of the children was read the stories, (see Appendix B. 4) again, which are similar to the ones in the pre-test,

10.3 Results

Because preliminary analysis did not show significant difference for 5-year-olds in terms of status (aggressive vs. nonaggressive), and due to limited time the intervention could not be administered to this group. For this reason, two sets of

analyses of variance were conducted. The first set was conducted to analyze the age difference and the second was conducted to test the effect of intervention program in 7-year-olds.

At the end of the selection of aggressive and nonaggressive children, 11 aggressive and 13 nonaggressive from 7-year-olds, and, 11 aggressive and 10 nonaggressive children from 5-year-olds were drawn. However, because of difficulty in post hoc analyses with non-equal subject number, the subjects in each cell were made equal, by dropping subjects randomly.

10.3.1 Results of age level difference

The data were assessed by 2 (status) x 2 (age groups) x 3 (intent) x 2 (outcome) x 2 (direction of outcome) analysis of variance, in which status (aggressive vs. non-aggressive), and age level (7-year-olds vs. 5-year-olds) were between subjects factors and intent (positive, negative and ambiguous), outcome (positive and negative), and direction of outcome (self-directed vs. peer-directed) were within-subject factors.

Significant main effects were revealed for status, $F(1,36)= 7.71, p<.05.$, intent, $F(2,72)= 6.85, p<.005$ and outcome, $F(1,36)= 6.56, p<.05$. No significant main effects of age and direction of outcome were found. The main effect of status indicated that aggressive boys ($M=3.533, Sd=1.181$) have tendency to respond aggressively than nonaggressive boys ($M=4.083, Sd=1.078$). Post hoc analysis (Tukey HSD test) for the main effect of intent revealed that positive intent ($q=4.73, df=72, p<.05$) and ambiguous intent ($q=4.39, df=72, p<.05$) were significantly different than negative intent, but the difference between positive and ambiguous intent was not significant (see Table 10.1 for means and standard deviations). The subjects gave more prosocial responses to positive and ambiguous intent than negative intent.

Table 10.1

Means and Standard Deviations For Intent Main Effect

	Mean	Sd
Intent Positive	3.96	.96
Intent Negative	3.53	2.23
Intent Ambiguous	3.93	1.20

On the other hand, the main effect of outcome revealed that positive outcome ($M=3.987$, $Sd=1.162$) was responded relatively higher than negative outcome ($M=3.629$, $Sd=1.254$). It means that as expected, negatively resulted stories were evaluated hostile than positively resulted ones.

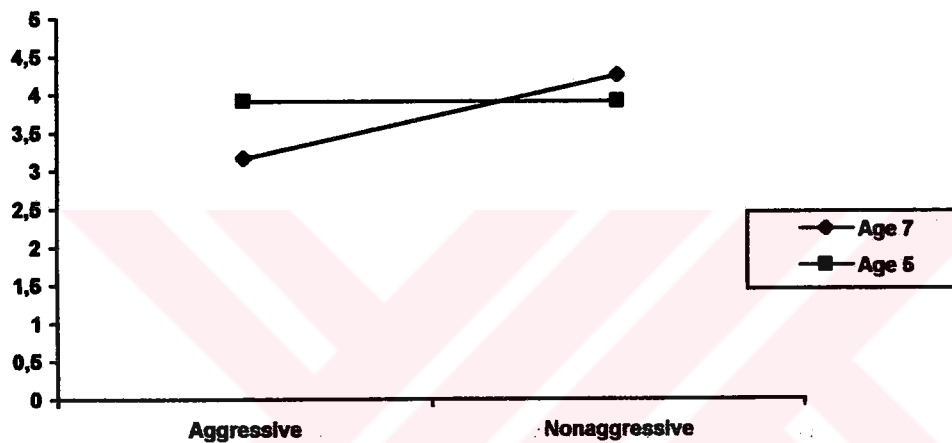
There were also significant interactions. A significant interaction between status x age group, $F(1, 36)= 7.48$, $p<.05$ was found (see Table 10.2 for means and standard deviations and Figure 10.1). Post hoc analysis showed that aggressive second graders (7-year-olds) were significantly different ($q=5.51$, $df=36$, $p<.05$) from nonaggressive second graders. Additionally, aggressive second graders were significantly different ($q=3.78$, $df=36$, $p<.05$) from aggressive and nonaggressive preschoolers (5-year-olds). A significant difference between aggressive and nonaggressive preschoolers, and, nonaggressive second graders and nonaggressive preschoolers was not found. Older aggressive children responded in hostile style than older nonaggressive boys and also than the younger boys in each status group.

Table 10.2

Means and Standard Deviations For Status X Age Interaction

	Age 7 Mean (Sd)	Age 5 Mean (Sd)
Aggressive	3.16 (.99)	3.91 (1.38)
Nonaggressive	4.25 (.67)	3.91 (1.49)

Figure 10.1 Age X Status



The other significant interaction was found between intent x outcome, $F(2,72)=9.12$, $p<.001$ (see Table 10.3 for means and standard deviations). Post hoc analysis indicated that positive outcome was responded more prosocially than negative outcome in positive intent ($q=30.55$, $df=72$, $p<.05$) and in ambiguous intent ($q=10.6$, $df=72$, $p<.05$), but difference between positive and negative outcome was not found for negative intent. On the other hand, when the outcome was positive, the subjects responded positively in positive intent than negative intent ($q=39.22$, $df=72$, $p<.05$) and ambiguous intent ($q=15.6$, $df=72$, $p<.05$), and in ambiguous intent, the responses were more prosocial than negative intent ($q=28.15$, $df=72$, $p<.05$). However when the outcome was negative, the responses in ambiguous intent were significantly higher than both positive ($q=10.77$, $df=72$, $p<.05$) and negative ($q=10.77$, $df=72$, $p<.05$) intent.

Table 10.3

Means and Standard Deviations for Intent X Outcome Interaction

	Intent positive Mean (Sd)	Intent negative Mean (Sd)	Intent Ambiguous Mean (Sd)
Outcome Positive	4.38 (.81)	3.51 (1.28)	4.08 (1.22)
Outcome Negative	3.55 (1.11)	3.55 (1.18)	3.79 (1.14)

A significant three way interaction was also found for intent x outcome x peer, $F(2,72)=7.05$, $p<.05$ (see Table 10.4 for means and standard deviations). Post hoc analysis was conducted to find out the differences. When the intent was ambiguous, negative outcome directed to self was responded more aggressively than the negative outcome directed to the peer ($q=14.02$, $df=72$, $p<.05$). On the other hand, when the outcome was positive, there was no significant difference between self-directed and peer directed ambiguously intended behaviors. However, when intent was negative and outcome was negative, self-directed behaviors were reacted more prosocially than peer-directed behaviors ($q=6.09$ $df=72$, $p<.05$). But when outcome was positive, and intent was negative peer-directed behaviors were reacted more prosocially ($q=17.68$, $df=72$, $p<.05$), than self-directed behaviors. Finally, when the intent was positive and the outcome was negative, the subjects had less prosocial if the behavior is directed to self than to a peer ($q= 4.87$, $df=72$, $p<.05$). On the other hand, the significant difference between self-directed and peer-directed behaviors with positive outcome was not found in positive intent.

Table 10.4

Means and Standard Deviations for Intent X Outcome X Peer Interaction

	Intent positive	Intent negative	Intent ambiguous
	Mean (Sd)	Mean (Sd)	Mean (Sd)
Outcome positive			
Self	4.4 (.91)	3.15 (1.25)	4.1 (1.24)
Peer	4.35 (.72)	3.88 (1.05)	4.05 (1.21)
Outcome negative			
Self	3.45 (1.11)	3.68 (1.5)	3.5 (1.09)
Peer	3.65 (1.11)	3.43 (1.21)	4.08 (1.28)

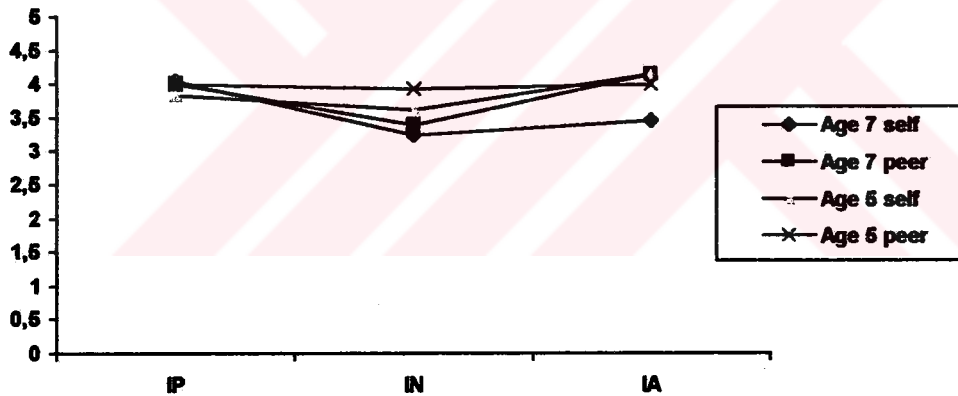
Furthermore, three way significant interaction was found for age x intent x peer, $F(2,72)=5.16$, $p<.05$ (see Table 10.5 for means and standard deviations and Figure 10.2). Post hoc analysis revealed that in ambiguous intent, second graders responded in a hostile way when it was directed to the self ($q=14$, $df=72$, $p<.05$), but they responded more prosocially when it is directed to the peer ($q=3.5$, $df=72$, $p<.05$) than preschoolers. However, second graders responded more prosocially than preschoolers when intent was positive and the direction was the self ($q=4$, $df=72$, $p<.05$). But this significant difference was not found when the direction was the peer. In negative intent, second graders showed relatively hostile tendency when direction were both to the self ($q=8.3$, $df=72$, $p<.05$) or to the peer ($q=11.2$, $df=72$, $p<.05$) than preschoolers .

Table 10.5

Means and Standard Deviations for Age X Intent X Peer Interaction

	Intent positive Mean (Sd)	Intent negative Mean (Sd)	Intent ambiguous Mean (Sd)
Age 7			
Self	4.03 (.56)	3.23 (.90)	3.45 (.90)
Peer	4.00 (.65)	3.38 (1.12)	4.15 (.85)
Age 5			
Self	3.83 (1.45)	3.60 (1.50)	4.15 (1.42)
Peer	3.98 (1.18)	3.92 (1.40)	3.98 (1.61)

Figure 10.2 Age X Intent X Peer



IP: Intent positive IN: Intent negative IA: Intent Ambiguous

10.3.2 Results of Pre-test vs. Post-test Comparisons

The responses of 22 second graders who were given intervention program were examined in 2 (status) x 2 (time) x 3 (intent) x 2 (outcome) x 2 (direction of

outcome) ANOVA with repeated measures on time (pre-test and post-test), intent (positive, negative and ambiguous), outcome (positive and negative) and direction of outcome (self-directed vs. peer-directed).

The main effects for status, $F(1,20)=30.96$, $p<.001$, intent, $F(2,40)=11.38$, $p<.001$, outcome $F(1,20)=23.32$, $p<.001$, direction of outcome, $F(1,20)=4.60$, $p<.05$, time, $F(1,20)=46.92$, $p<.001$ were all significant. The main effect of status showed that overall, aggressive children ($M=3.734$, $Sd=1.376$) displayed aggressive tendency than nonaggressive children ($M=4.488$, $Sd=.6$). Post hoc analysis of intent types were tested with Tukey HSD (see Table 10.6 for means and standard deviations). It was found that positive intent was significantly responded in a prosocial way than negative intent ($q=7.37$, $df=40$, $p<.05$), and, in the same pattern, responses in ambiguous intent was also more prosocial than negative intent ($q=4.41$, $df=40$, $p<.05$).

Table 10.6
Means and Standard Deviations For Intent Main Effect

	Mean	Sd
Intent Positive	4.32	.67
Intent Negative	3.85	.92
Intent Ambiguous	4.13	.84

The main effect outcome revealed that the subjects showed prosocial tendency in responding to positive outcome ($M=4.303$, $Sd=1.1$) than negative outcome ($M=3.920$, $Sd=.889$). On the other hand, the difference between direction of outcome indicated that peer-directed outcome ($M=4.189$, $Sd=.884$) evaluated more positively than self-directed outcome ($M=4.014$, $Sd=.738$). Finally, the main effect of time demonstrated that the subjects responded more prosocially in post-test ($M=4.477$, $Sd=1.138$) than pre-test ($M=3.746$, $Sd=.864$).

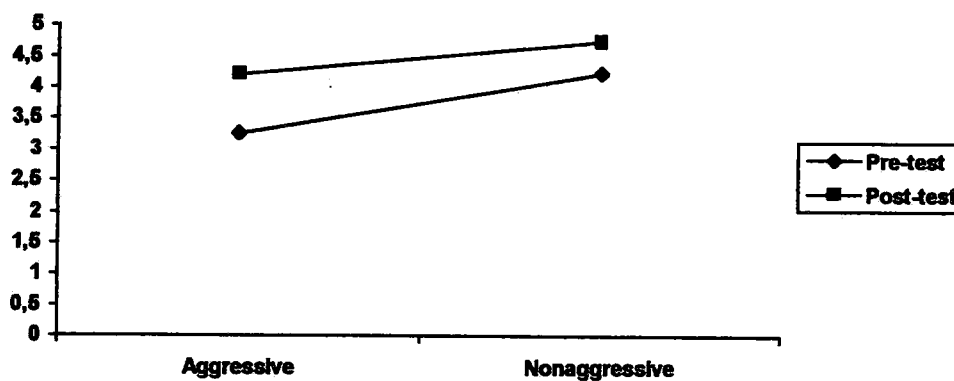
There were also interactions which reached significance. The interaction of status x time , $F(1,20)=4.39$, $p<.005$, was subjected to Tukey HSD for post hoc analysis (see Table 10.7 for means and standard deviations and Figure 10.3). It was found that aggressive children responded more prosocially after the intervention ($q=9$, $df=20$, $p<.05$), the same tendency was also seen for nonaggressive children ($q=4.79$, $df=20$, $p<.05$). Additionally, the differences between aggressive and nonaggressive children in the pre-test ($q= 35.95$, $df=20$, $p<.05$) and also in the post-test ($q=19.48$, $df=20$, $p<.05$) were significant.

Table 10.7

Means and Standard Deviations for Status X Time Interaction

	Aggressive Mean (Sd)	Nonaggressive Mean (Sd)
Pre-test	3.26 (1.02)	4.23 (.71)
Post-test	4.21(1.03)	4.74 (.49)

Figure 10.3 Status X Time



Intent x time interaction was also significant, $F(2,40)=5.38$, $p<.05$ (see Table 10.8 for means and standard deviations and Figure 10.4). Post hoc analysis

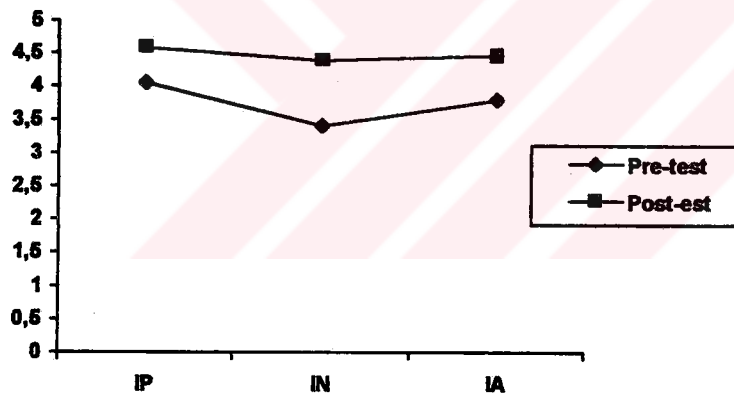
revealed that all types of intent, positive, negative and ambiguous intent were responded prosocially in the post-test (respectively, $q=24.76$, $df=40$, $p<.05$; $q=47.61$, $df=40$, $p<.05$; $q=31.90$, $df=40$, $p<.05$)

Table 10.8

Means and Standard Deviations for Intent X Time Interaction

	Intent positive Mean (Sd)	Intent negative Mean (Sd)	Intent ambiguous Mean (Sd)
Pre-test	4.06 (.61)	3.39 (1.03)	3.80 (.95)
Post-test	4.58 (.73)	4.39 (.82)	4.47 (.72)

Figure 10.4 Intent X Time



IP: Intent positive

IN: Intent negative

IA: Intent Ambiguous

A significant intent x outcome interaction. $F(2,40)=8.78$, $p<.005$, was also found (see Table 10.9 for means and standard deviations). Post hoc tests showed that when the outcome was positive, the subjects gave more prosocial responses to

positive intent than to negative intent ($q=39.45$, $df=40$, $p<.05$) and to ambiguous intent ($q=21.94$, $df=40$, $p<.05$). Also ambiguous intent was also responded more prosocially than negative intent ($q=17.51$, $df=40$, $p<.05$). On the other hand, when the outcome was negative, ambiguous intent was responded more prosocially than both positive intent ($q=3.85$, $df=40$, $p<.05$) and negative intent ($q=6.02$, $df=40$, $p<.05$). Also positive intent was reacted as more social than negative intent ($q=3.7$, $df=40$, $p<.05$) when the outcome was negative. A significant difference between positive outcome and negative outcome was found for positive intent ($q=47.06$, $df=40$, $p<.05$) and ambiguous intent ($q=42.47$, $df=40$, $p<.05$). The children reacted more social in positive and ambiguous intent when the outcome was positive. In negative intent, there was no difference between outcome types.

Table 10.9

Means and Standard Deviations for Intent X Outcome Interaction

	Intent positive Mean (Sd)	Intent negative Mean (Sd)	Intent ambiguous Mean (Sd)
Outcome Positive	4.73 (.53)	3.91 (1.91)	4.27 (.72)
Outcome Negative	3.91 (.81)	3.86 (.94)	3.99 (.92)

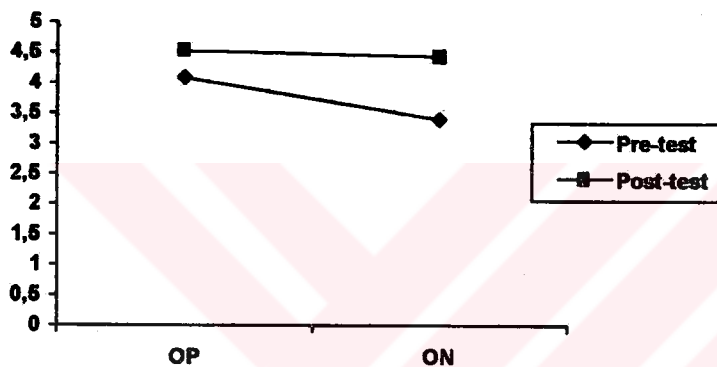
A significant outcome x time interaction, $F(1,20)=16.72$, $p<.005$ was found (see Table 10.10 for means and standard deviations and Figure 10.5). Post hoc analysis demonstrated that both positive outcome ($q= 17.88$, $df=20$, $p<.05$) and negative outcome ($q=40.88$, $df=20$, $p<.05$) were increased toward a prosocial way in post-test than in pre-test.

Table 10.10

Means and Standard Deviations for Outcome X Time Interaction

	Outcome Positive Mean (Sd)	Outcome Negative Mean (Sd)
Pre-test	4.08 (.80)	3.40 (.93)
Post-test	4.52 (.67)	4.43 (.85)

Figure 10.5 Outcome X Time



OP: Outcome positive ON: Outcome negative

A significant three way interaction was found for status x intent x outcome, $F(2,40)=3.19$, $p=.052$ (see Table 10.11 for means and standard deviations and Figure 10.6). Post hoc analysis indicated that if intent was ambiguous and outcome was positive, aggressive children showed less prosocial responses than nonaggressive children ($q=8.56$, $df=40$, $p<.05$). Similarly, when the outcome negative, aggressive children responded more aggressively than nonaggressive children in ambiguous intent ($q=9.5$, $df=40$, $p<.05$). The similar tendency was also seen in negative intent. Positive outcome was reacted aggressively by aggressive children ($q=30.73$, $df=40$, $p<.05$) than nonaggressive ones. Negative outcome was also reacted as aggressively by aggressive children than nonaggressive children ($q=26.72$, $df=40$, $p<.05$). When the intent positive, positive outcome was reacted

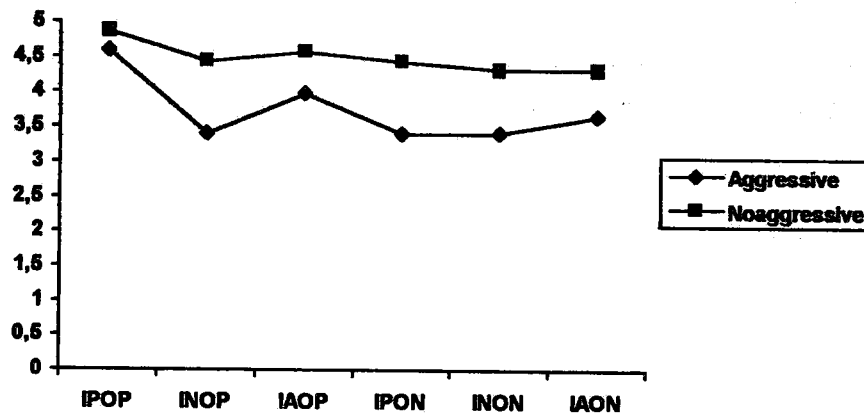
less prosocially by aggressive children than nonaggressive ones ($q=7,35$, $df=40$, $p<.05$). On the other hand, aggressive trend was seen in negative outcome in which aggressive children showed more aggressive responses than nonaggressive children ($q=30,73$, $df=40$, $p<.05$).

Table 10.11

Means and Standard Deviations for Status X Intent X Outcome Interaction

	Intent positive Mean (Sd)	Intent negative Mean (Sd)	Intent ambiguous Mean (Sd)
Aggressive			
Outcome positive	4.59 (.73)	3.39 (1.19)	3.98 (.90)
Outcome negative	3.39 (1.02)	3.41 (1.26)	3.66 (1.04)
Nonaggressive			
Outcome positive	4.86 (.33)	4.43 (.63)	4.57 (.61)
Outcome negative	4.43 (.60)	4.32 (.63)	4.32 (.80)

Figure 10.6 Status x Intent x Outcome



IPOP: Intent positive outcome positive IPON: Intent positive outcome negative
 INOP: Intent negative outcome positive INON: Intent negative outcome negative
 IAOP: Intent ambiguous outcome positive IAON: Intent ambiguous outcome negative

The other significant three way interaction was intent x outcome x peer, $F(2,40)=8.41, p<.005$ (see Table 10.12 for means and standard deviations). Post hoc analyses showed that when the intent and outcome were positive, self-directed outcome was evaluated more positively than peer-directed outcome ($q=12.95, df=40, p<.05$). However, when the intent was positive but the outcome was negative, peer-directed outcome was evaluated more positively than self-directed outcome ($q=17.98, df=40, p<.05$). In negative intent, other-directed outcome was positively responded when the outcome was both positive ($q=28.14, df=40, p<.05$) and negative ($q=6.47, df=40, p<.05$). Finally, positive outcome was responded prosocially when the intent was ambiguous and the outcome was directed to the self ($q=10.80, df=40, p<.05$). On the contrary, negative outcome was responded prosocially when it was directed to the peer in ambiguous intent ($q=180, df=40, p<.05$) than to self.

Table 10.12

Means and Standard Deviations for Intent X Outcome X Peer Interaction

	Intent positive Mean (Sd)	Intent negative Mean (Sd)	Intent ambiguous Mean (Sd)
Self-directed			
Outcome positive	4.86 (.28)	3.61 (.88)	4.39 (.72)
Outcome negative	3.73 (.78)	3.80 (1.02)	3.82 (.74)
Peer-directed			
Outcome positive	4.59 (.78)	4.20 (.94)	4.16 (.77)
Outcome negative	4.09 (.84)	3.93 (.88)	4.16 (1.10)

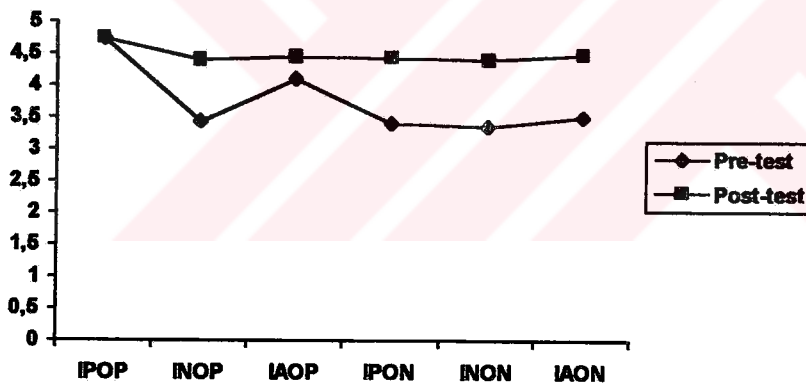
The final three way significant interaction was revealed for intent x outcome x time, $F(2,40)=4.60$, $p<.05$ (see Table 10.13 for means and standard deviations and Figure 10.6). Post hoc analysis indicated that when the intent was positive, the responses to negative outcome was more prosocial in post-test than in pre-test ($q=29.85$, $df=40$, $p<.05$). In negative intent, both positive ($q=27.28$, $df=40$, $p<.05$) and negative ($q=29.88$, $df=40$, $p<.05$) outcomes responded positively in post-test than pre-test. The same pattern was found when the intent was ambiguous, in which positive outcome ($q=10.37$, $df=40$, $p<.05$) and negative outcome ($q=27.91$, $df=40$, $p<.05$) were responded prosocially.

Table 10.13

Means and Standard Deviations for Intent X Outcome X Time Interaction

	Intent positive Mean (Sd)	Intent negative Mean (Sd)	Intent ambiguous Mean (Sd)
Pre-test			
Outcome positive	4.73 (.41)	3.43 (1.04)	4.09 (.95)
Outcome negative	3.39 (.81)	3.34 (1.03)	3.50 (.96)
Post-test			
Outcome positive	4.73 (.66)	4.39 (.78)	4.45 (.57)
Outcome negative	4.43 (1.81)	4.39 (.85)	4.48 (.88)

Figure 10.7 Intent X Outcome X Time



IPOP: Intent positive outcome positive IPON: Intent positive outcome negative
 INOP: Intent negative outcome positive INON: Intent negative outcome negative
 IAOP: Intent ambiguous outcome positive IAON: Intent ambiguous outcome negative

Finally a four way interaction status x intent x peer x time, $F(2,40)=3.14$, $p=.054$, was found (see Table 10.14 for means and standard deviation and Figure 10.7). The results of post hoc analysis indicated that when the intent was positive

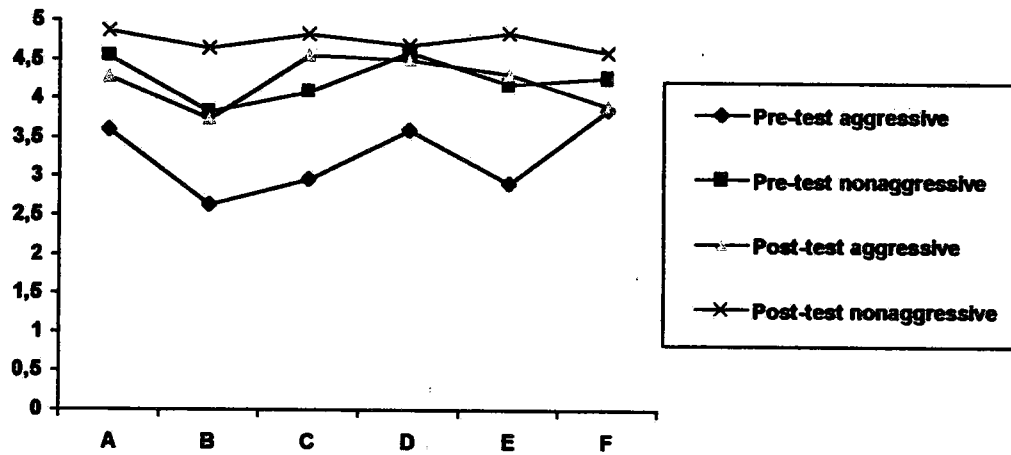
and the outcome was directed to the self, aggressive children responded prosocially in the post-test ($q=12.86$, $df=40$, $p<.05$). The same pattern was found when the outcome was directed to the peer ($q=17.15$, $df=40$, $p<.05$). Nonaggressive children displayed the same pattern, when the intent was positive, self-directed outcome was responded more prosocially in the post-test. However, peer-directed outcome did not differ significantly in nonaggressive children's responses between pre- and post-test. On the other hand, when the intent was negative and outcome was directed to the self, aggressive children responded prosocially in the post-test ($q=20.58$, $df=40$, $p<.05$); in the same way, peer-directed outcome was also responded prosocially in post-test ($q=26.58$, $df=40$, $p<.05$). Nonaggressive children, in negative intent, responded relatively more prosocial to self ($q=15.43$, $df=40$, $p<.05$) and peer-directed ($q=12.86$, $df=40$, $p<.05$) outcome in post-test. Finally, when the intent was ambiguous, aggressive children responded more prosocially to self-directed outcome ($q=30$, $df=40$, $p<.05$) in post-test, but the significant difference was not found for the peer-directed outcome. Nonaggressive children, in ambiguous intent, on the other hand, responded positively in both self-directed ($q=13.75$, $df=40$, $p<.05$) and other-directed ($q=6$, $df=40$, $p<.05$) outcome.

Table 10.14

Means and Standard Deviations for Status X Intent X Peer X Time Interaction

	Intent positive Mean (Sd)	Intent negative Mean (Sd)	Intent Ambiguous Mean (Sd)
Pre-test			
Aggressive			
Self-directed	3.59 (.75)	2.64 (.54)	2.96 (1.03)
Peer-directed	3.59 (.9)	2.91 (1.39)	3.86 (.96)
Nonaggressive			
Self-directed	4.45 (.42)	3.82 (.87)	4.09 (.75)
Peer-directed	4.59 (.4)	4.18 (.79)	4.27 (1.07)
Post-test			
Aggressive			
Self-directed	4.27 (.61)	3.73 (1.31)	4.55 (.73)
Peer-directed	4.5 (1.25)	4.32 (1.11)	3.91 (1.16)
Nonaggressive			
Self-directed	4.86 (.35)	4.64 (.51)	4.82 (.47)
Peer-directed	4.68 (.72)	4.86 (.35)	4.59 (.54)

Figure 10.8 Status X Intent X Direction X Time



A: Intent positive- self directed

D: Intent positive- peer-directed

B: Intent negative- self-directed

E: Intent negative- peer-directed

C: Intent ambiguous- self-directed

F: Intent ambiguous- peer-directed

10.4 Discussion

The first aim of the present study was to examine the hostile intent attribution bias in aggressive children toward their peers within a Turkish sample. In the present thesis as different from previous studies the results of the ambiguous behaviors was included as clearly positive or negative. We expected to see salient hostile intent attribution by aggressive children when the ambiguously intended behaviors had negative outcome. This hypothesis was supported only for 7-year-olds children. In line with literature (Dodge, 1980 ; Dodge & Newman, 1981 ; Dodge & Frame, 1982) older aggressive children had a tendency to respond aggressively than nonaggressive children when the peer's intent was depicted ambiguously and the result of the behavior was negative.

Dodge and Frame (1982) found that if the outcome was directed to the self of aggressive children, they attribute more hostile intent to the ambiguous behaviors of the peer than if it was directed to the other peer. In this thesis, this issue was mainly investigated. The expectancy was that aggressive children would attribute

hostile intent to peer's ambiguous behavior especially when it was directed to the self rather than to a second peer. The results supported the hypothesis only for 7-year-olds children. This finding similar to the results of few studies which included preschooler's as subjects (Dodge & Frame, 1982 ; Dodge, Murphy, Buchsbaum, 1984).

The third hypothesis was that older aggressive children would display more hostile intent attribution than younger ones. The difference between aggressive and nonaggressive children was clear among second graders (7-year-olds). Older aggressive children demonstrated relatively more aggressiveness in their responding than older nonaggressive children. Older children treated the self-directed behaviors as relatively hostile when the behavior was depicted ambiguously intended. On the other hand, older children also gave more aggressive responses to the behavior either self-directed or the peer-directed, when the behavior was negatively intended. This findings can be interpreted as that because of negative experiences with peers, children, as get older, become more sensitive when the action is directed to the self in the detection of intention-cues. For this reason, ambiguity was evaluated as hostile by these children. Although, the difference between aggressive and nonaggressive children was not found, the aggressive tendency of older children in responding to negative outcome may support the view that aggressive interactions and experiences are more usual among second graders. The marginally significant difference for age level ($p=.06$) was found in the interaction of the intent of the character and the outcome of the behavior. It was seen that older children handled ambiguously intended but negatively resulted behaviors as hostile and responded more aggressively.

In sum, according to the literature, age difference in understanding of others' intention was replicated by the present study. Younger children did not differ according to their social status in attributing hostility to peers' behaviors. However, the difference between older and younger children, in evaluating the behaviors of the peer depending on depicted intention and outcome was reached.

Lastly it was hypothesized that the intervention program would reduce the hostile intent attribution in aggressive children. The most important finding of the

present thesis was, the intervention program was effective. There was a significant increase in responding toward a prosocial way in post-test ($M=4.48$). Furthermore, as it was aimed, aggressive children's responses became prosocial after the intervention program. This program specifically focused on to reduce attributional bias in aggressive children. However, in the nonaggressive group the aim of the intervention was not to focus on attributional bias, but to equate time spend with the examiner. The general issues were discussed with nonaggressive children during the sessions. Nevertheless, the difference between pre-test and post-test was also significant for nonaggressive children. But the difference in aggressive group was from aggressiveness to prosocial responses whereas in nonaggressive group it was from prosocial to more prosocial. Also the effect of intervention was seen in all intent types both for negative and positive outcomes, except for positively intended and positively resulted conditions. This not a suprising finding, because children responded highly prosocially in positively intended and positively resulted situation

The other impressive effect of the intervention program was found in the point that paranoid attributional bias of aggressive children in ambiguous situation was eliminated. In other words, as consistent with the literature, before the intervention aggressive children demonstrated the hostile attributional bias of the peers' intent especially when the behavior was directed to himself, which was considered as paranoid by Dodge and Frame (1982). Moreover, after the intervention program, there was a sharp increase from aggressive to prosocial responding by the aggressive group when the ambiguously intended behavior directed to the self. The same increase was not the evident for the peer-directed behavior. The aggressive subjects were the target in the intervention program. For this reason, it can be concluded that the paranoid attributional bias of these children was reduced as a consequence of the program. Thus, the achievement of the intervention was again supported by this finding.

Additionally, another finding was encouraging in the sense of the effectiveness of the intervention. The increase in responding toward a prosocial way in aggressive children, was also seen in where the intent of the peer was clearly depicted as hostile. It was evident for both self directed and peer-directed

behaviors. It is impressive because, in the literature, it was considered that these children have a kind of inhibition problem related to their aggressive reactions, especially where the intent of the other is ambiguous. However, whether it is the inhibition problem or not, this study emphasized that these children can be taught to use alternative behaviors to aggressive ones, even if the behavior against them is clearly hostile. As mentioned in the introductory chapter, because of aggressive experience with the peers, the peers anticipate aggressive reactions from these children in all condition and they also behave aggressively to aggressive children. Because of that, the non-aggressive reactions of aggressive children in hostile condition will be more effective in breaking down this circle.

In sum, overall the intervention program was very influential in reducing aggressive behavior tendencies of aggressive children. Specifically, it can be concluded that this intervention has been effective in eliminating aggressive children's paranoid hostile attributional bias to peer's intent. On the other hand, the data of this study, consistent with the findings, showed that preschoolers (5-year-olds) did not differ in responding as aggressive and nonaggressive. This result can be because of that younger aggressive children do not experience yet a kind of social aggressive exchanges with their peers, since these children know each other for approximately six months. Most probably, many of these children entered peer interactions in this school environment. Thus, although the aggressive actions of younger aggressive children have been realized by their peer, they do not experience consistent aggressive exchanges with their peers.

The study of Dodge, Murphy and Buchsbaum (1984) demonstrated that young children can detect as accurately as older children the hostile intent. But two age groups differ in identifying prosocial and accidental intentions. Additionally, older socially-disturbed children also have difficulty in identifying prosocial and accidental intent. According to Dodge and his colleagues, these findings provide the support to the hypothesis that developmental lag in acquisition of intention-cue detection skills may be related to deviant social status in children. The younger children who are deficient in identifying prosocial intent when the outcome is negative do more likely experience difficulty in social interactions and some of them

will react aggressively. This approach indicated strong evidence that the younger children in the present study who were selected as aggressive by the peers are potentially a risk group, although there was no significant difference between younger nonaggressive and younger nonaggressive children. The intervention at this age will be most probably effective in prevention of later aggressive labeling and exchanges. Unfortunately, because of time limitation, this could not be tested in the present study.



CHAPTER 11

FUTURE DIRECTIONS AND IMPLICATIONS

This study was firstly aimed to investigate the findings in the literature that aggressive children have a kind of attributional bias to peer's intent. Secondly, according to the findings in the literature, an intervention program was used to eliminate the hostile attributional bias of aggressive children and to reduce their aggressive reactions. Thirdly two age group, as 7 years old and 5 years old, was focused in order to examine the age difference in the hostile attribution and to test the effect of the intervention program among younger ages.

The first shortcoming of the study was that the intervention program was not given to the younger children, due to time limitation. Because of that, we can not discuss the effects of the intervention for this age group. However, the results of analyses were relatively consistent with the literature for the young age group. As Dodge, Murphy and Buchsbaum (1984) reported, aggressive behaviors of some younger children may be more salient with age and because they lack of intention-cue detection skills, these aggressive behaviors leads them to be labeled as aggressive and resulted in hostile interactions with peers. The intervention program at this age group may be influential to increase and to maintain more socially appropriate behaviors. This study have to be replicated with the younger children using the intervention program.

The analyses revealed impressive results for the effectiveness of the intervention program with 7-year-olds. These findings supported the literature as indicating the hostile attributional bias in aggressive children when they were the

target of the behavior which was ambiguously intended. On the other hand, the data supported the effectiveness of the intervention program, but also the responsibility of one particular cognitive deficiency in aggressiveness.

Nevertheless, there was a question about the intervention. Although nonaggressive children were not given the same intervention like aggressive children, they showed relatively similar improvement in their responding like aggressive children. Even though, the improvement of aggressive children was clearly from aggressive retaliation to prosocial reactions, it will be more understandable for the effect of intervention when it is replicated with a new design. In the present study, the nonaggressive boys were not exposed to the same content with the intervention program. But they were informed about what they were interested in, such as vehicles and physiology of human body system. They were shown pictures about the topic, and they discussed and drawn pictures. These activities are similar with the activities in the intervention program with the aggressive children. These meetings may influence the nonaggressive children's responses where the situation required social interactions, such as discussion about the topic. These kind of interactions may lead these children to behave more socially desirable way which was reflected in responding to the stories that were also described as a kind of social interaction.

Because of this reason, a new design have to include four groups, two aggressive and two nonaggressive. One of these groups should not be exposed to weekly meetings. The other two groups, one aggressive and one nonaggressive, will be given the same intervention. This design might be more efficient to examine the effectiveness of the intervention. However this design could not be used in the present thesis, since the sample was not large enough.

Another shortcoming of the study was that the follow-up could not be carried on. For this reason, the maintenance and generalizability of the intervention can not be clearly answered at this stage. As seen in the study of Hudley and Graham (1993), in which after the intervention, the official referrals of the aggressive children was not influenced by the intervention, in the present study, an aggressive incident between two aggressive children was resulted in official referral

after the intervention. However, it was observed that aggressive children can understand what was wrong in their interactions. But because of social labeling, they have difficulty to carry out the appropriate behaviors into their real-life situations. Many studies verified that some of the aggressive children are indeed the victims of their peers' aggression (e.g. Dodge & Frame, 1982 ; Trachtenberg & Viken, 1994). It may be more effective to include some of nonaggressive classmates into the intervention group in order to break aggressive exchanges between them and to eliminate social labeling. Additionally, as reported in the Trachtenberg and Viken study (1994), both aggressive and nonaggressive children expected that their teachers will counter to the aggressive children more harshly in the conflict situation. As a result of this finding, it may be considered that teachers have also bias attributions toward aggressive children. In order to eliminate the negative effect of this factor in the efficiency of intervention, the class teachers could be included into the intervention program as a separate group and they can be informed about the problem of the aggressive children in social interactions. Thus they can maintain the content of the intervention program in-class interactions.

The intervention program in this study was very short in the sense of the number of sessions compared to the literature. In spite of that, the results of analyses showed very impressive improvements as a result of the intervention. However, because of this shortcoming, the maintenance of the intervention effects may not be long-lasting.

Some of the researches have focused on the families' effects on aggressive behaviors of children (e.g., Weiss, Dodge, Bates & Pettit, 1992 ; Schwartz, Dodge, Pettit & Bates, 1997). It was demonstrated that early experience of violence and harsh treatment by adults leads children to emotional disturbances and aggression, also peer victimization. It was claimed in these studies, that early parental harsh discipline may lead children to be deviant in the processing of social interactions. Although, it was not within the scope of the present study, many of the class teachers expressed the problem in the families and the problem between teachers and the families. For the future studies, the focus may be extended to search for the

family factors and the intervention program may be prepared, according to the findings, by including the families.

As a consequence, the present study supported the findings of the literature. Also the intervention program inspired promising results for the future studies. If the future studies, designed according to the reported modification, they would be more informative and would clarify the benefits of the program.



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APPENDIX A

A.1 PEER NOMINATION FORM IN STUDY 1

- 1- En çok sevdiğin üç arkadaşının ismini söyler misin?
- 2- En az sevdiğin üç arkadaşının ismini söyler misin?
- 3- Sınıfta en çok kimler şarkı söylemekten hoşlanıyor veya danslı oyunlara katılmaktan hoşlanıyor?
- 4- Sınıfta en çok kimler arkadaşlarıyla kavga ediyor, mesela tekme atıyor veya yumruk atıyor?
- 5- Sınıfta en çok kimler oynadığınız oyunu bozuyor, mesela kendi dediği olmayınca mızıkçılık yapıp oyununuza devam etmenizi engelliyor?
- 6- Sınıfta en çok kimler arkadaşlarına küfür ediyor, kötü isimler takıp onlarla alay ediyor?
- 7- Sınıfta en çok kimler arkadaşlarına yardım etmeyi seviyor?
- 8- Sınıfta en çok kimler kendi eşyalarını arkadaşlarıyla paylaşmaktan hoşlanıyor?

A.2 TEACHER ASSESSMENT FORM IN STUDY 1

1- Arkadaşları tarafından sevilir.

1	2	3	4	5
hiç uygun değil	uygun değil	ne uygun ne uygun değil	uygun	çok uygun

2- Arkadaşları tarafından az sevilir.

1	2	3	4	5
hiç uygun değil	uygun değil	ne uygun ne uygun değil	uygun	çok uygun

3- Sınıfta yapılan aktivitelere istekle katılır (örnek olarak şarkı söylemek, danslı oyunlarda oynamak).

1	2	3	4	5
hiç uygun değil	uygun değil	ne uygun ne uygun değil	uygun	çok uygun

4- Çok sık kavga çıkartır, arkadaşlarına fiziksel saldırılarda bulunur (örnek olarak tekme ve yumruk atar).

1	2	3	4	5
hiç uygun değil	uygun değil	ne uygun ne uygun değil	uygun	çok uygun

5-Arkadaş grubunda genellikle kendi dediğinin olmasını ister, olmayınca da grubun düzenini bozar.

1	2	3	4	5
hiç uygun değil	uygun değil	ne uygun ne uygun değil	uygun	çok uygun

6-Arkadaşlarına küfür eder, kötü sıfatlar takar ve onlarla alay eder.

1	2	3	4	5
hiç uygun değil	uygun değil	ne uygun ne uygun değil	uygun	çok uygun

7- Arkadaşlarına yardım etmeyi sever.

1	2	3	4	5
hiç uygun değil	uygun değil	ne uygun ne uygun değil	uygun	çok uygun

8-Eşyalarını arkadaşlarıyla paylaşmaktan hoşlanır.

1	2	3	4	5
hiç uygun değil	uygun değil	ne uygun ne uygun değil	uygun	çok uygun

A.3 THE STORIES IN STUDY 1 (FOR 7-YEARS-OLD)

(Open-ended)

- 1- Resim dersinde sulu boya ile resim yapıyordunuz. Arkadaşın fırçanı temizlediğin su kabını, temiz su koymak için alırken çarpıp yaptığın resmin üstüne döktü.
- 2- Ders bittiğinde eşyalarını yerleştirmeye başladın. Fakat silgini bulamadın. Sen silgini ararken, arkadaşında sana yardım etti. Sonunda arkadaşın silgini sıranızın en arkasında bulup sana verdi.
- 3- Öğretmeninizin verdiği ödevi yapmayı unuttun. Teneffüste ödevini yapmaya çalışıyordun. Arkadaşın seni gördü ve gidip öğretmene şikayet etti. Öğretmeniniz de sana kızdı.
- 4- Annenden sana yeni bir top almasını istedin fakat annen senin evdeki eski topunla oynayabileceğini söyledi ve istediğin topu almadı. Ertesi gün sen eski topunla oynarken arkadaşın gelip topunu patlattı. Annen de bunun üzerine sana yeni bir top aldı.
- 5- Ders zili çaldığında sınıfa girdin ve bir arkadaşının senin kalem kutuna birşey koyduğunu gördün. Gidip kalem kutuna baktığında kaybettiğin kaleminin kalem kutunda olduğunu farkettiler.
- 6- Teneffüste sen bazı arkadaşlarınla okulun bahçesinde konuşuyordun. Başka arkadaşların da bahçede kovalamacılık oynuyorlardı. Bu oyun oynayan arkadaşlarından biri koşarken gelip sana çarptı, sen de yere düştün.
- 7- Deniz apartmanlarının bahçesinde top oynuyormuş. Gökçe de bahçenin diğer köşesinde oturuyormuş. O sırada Deniz topunu elinden kaçırmış ve top Gökçe'nin yanına gelmiş. Gökçe topu alıp Deniz'e vermiş.
- 8- Öğrenciler sabah sıra olduktan sonra sınıflara girmeye başlamışlar. Deniz önünde yürüyen Gökçe'nin çantasının sırtından düştüğünü görünce, çantayı tutmak istemiş. Fakat çantayı tutarken Gökçe'yi yere düşürmüş.
- 9- Gökçe derste izin alıp tuvalete gitmiş. Deniz onun defterini alıp sınıfın en arka sırasının altına saklamış. Gökçe sınıfa geldiğinde defterini ararken öğretmeni

defterini bulmuş. Öğretmen Gökçenin defterine bakmış ve Gökçe'yi defterini çok düzenli tuttuğu için tebrik etmiş.

10- Deniz yeni aldığı kalem kutusunu sınıftaki arkadaşlarına gösterirken, Gökçe gelip Deniz'in elinden kalem kutusunu almaya çalışmış. Bu sırada da kalem kutusu yere düşüp kırılmış.

11- Ders zili çaldığında Gökçe sınıfa girmiş. Gökçe sınıfa girdiğinde arkadaşı Deniz, Gökçe'nin çantasına dökülen meyve suyunu temizlemeye çalışıyormuş.

12- Gökçe Deniz'in defterindeki yazıyı silerken defter yırtılmış. Öğretmenleri bir önceki derste yazdıkları yazıyı kontrol ederken Deniz'in yırtık defterini görüp Deniz'e kızmış.



APPENDIX B

B.1 PEER NOMINATION FORM IN STUDY 2

- 1- En çok sevdiğin üç arkadaşının ismini söyler misin?
- 2- En az sevdiğin üç arkadaşının ismini söyler misin?
- 3- Sınıfta kimler arkadaşlarına yardım ediyor, kendi eşyalarını arkadaşları ile paylaşıyor?
- 4- Sınıfta kimler arkadaşlarıyla kavga ediyor, mesela tekme, yumruk atıyor?
- 5- Sınıf arkadaşlarından biri üzülünce ya da incinince kimler ona yardım ediyor?
- 6- Sınıfta kimler kendi istediğinin olması için arkadaşlarını tehdit ediyor veya arkadaşlarına saldırıyor.
- 7- Sınıfta kimler arkadaşlarına zarar vermez?
- 8- Sınıfta kimler arkadaşlarına küfür ediyor ya da arkadaşları ile alay ediyor.

B.2 TEACHER ASSESSMENT FORM IN STUDY 2

1- Arkadaşları tarafından sevilir

1	2	3	4	5
hiç uygun değil	uygun değil	ne uygun ne uygun değil	uygun	çok uygun

2- Arkadaşlarına yardım eder ve arkadaşlarıyla eşyasını paylaşır.

1	2	3	4	5
hiç uygun değil	uygun değil	ne uygun ne uygun değil	uygun	çok uygun

3- Çok sık kavga eder, arkadaşlarına fiziksel saldırılarda bulunur (örnek olarak tekme ve yumruk atar).

1	2	3	4	5
hiç uygun değil	uygun değil	ne uygun ne uygun değil	uygun	çok uygun

4- Arkadaşlarının duygularını çok iyi anlar (örnek olarak arkadaşının üzülmediğini veya kırıldığını anlar).

1	2	3	4	5
hiç uygun değil	uygun değil	ne uygun ne uygun değil	uygun	çok uygun

5- Arkadaş grubunda kendi dediğinin olmasını ister. Kendi isteğini yaptırmak için arkadaşlarını tehdit eder ve zorbalık yapar.

1	2	3	4	5
hiç uygun değil	uygun değil	ne uygun ne uygun değil	uygun	çok uygun

6-Arkadaşlarına zarar vermez.

1	2	3	4	5
hiç uygun değil	uygun değil	ne uygun ne uygun değil	uygun	çok uygun

7-Arkadaşlarına küfür eder, onlarla alay eder.

1	2	3	4	5
hiç uygun değil	uygun değil	ne uygun ne uygun değil	uygun	çok uygun

B.3 THE STORIES IN STUDY 2 (PRE-TEST FOR 7-YEAR-OLDS)

(Close-ended)

1- Resim dersinde sulu boya ile resim yapıyordunuz. Arkadaşın, fırçanı temizlediğin su kabını, temiz su koymak için alırken çarpıp, yaptığın resmin üstüne döktü.

- a) Arkadaşıma suyu resmimin üstüne döktüğü için kızarım ve ona vururum.
- b) Arkadaşımı öğretmene şikayet ederim.
- c) Hiçbirşey yapmam
- d) Arkadaşıma neden suyu döktüğünü sorarım.
- e) Arkadaşıma resmi yeniden yapabileceğimi ve üzülmemesini söylerim.

2- Ders bittiğinde eşyalarını yerleştirmeye başladın. Fakat silgini bulamadın. Sen silgini ararken, arkadaşın da sana yardım etti. Sonunda arkadaşın silgini sıranızın en arkasında bulup sana verdi.

- a) Arkadaşıma yardım ettiği için teşekkür ederim.
- b) Hiçbirşey yapmam.
- c) Arkadaşıma silgimi nerede bulduğunu sorarım.
- d) Arkadaşımı silgimi aldığı için öğretmene şikayet ederim.
- e) Arkadaşıma silgimi aldığı için vururum.

3- Öğretmeninizin verdiği ödevi yapmayı unuttun. Teneffüste ödevini yapmaya çalışıyordun. Arkadaşın seni gördü ve gidip öğretmene şikayet etti. Öğretmeniniz de sana kızdı.

- a) Hiçbirşey yapmam.
- b) Beni öğretmene söylediği için arkadaşşıma kızarım ve ona vururum.
- c) Arkadaşıma beni neden öğretmene şikayet ettiğini sorarım.
- d) Arkadaşım birşey yapınca bende onu öğretmene şikayet ederim.
- e) Arkadaşıma beni öğretmene şikayet ettiği için çok üzöldüğümü söylerim ve ona “zaten ödevimi yetiştirmeye çalışıyordum” derim.

4- Bir gün topunla oynarken arkadaşın gelip topunu patlattı. Sen çok üzöldün. Annen de bunun üzerine sana yeni bir top aldı.

- a) Arkadaşıma topumu patlattığı için çok üzöldüğümü söylerim ve “eğer patlatmazsan yeni topunla birlikte oynayabiliriz” derim.
- b) Arkadaşımı anneme şikayet ederim.
- c) Hiçbirşey yapmam.
- d) Arkadaşıma topumu neden patlattığını sorarım
- e) Topumu patlatığı için arkadaşşıma kızarım ve ona vururum.

5- Ders zili çaldığında sınıfa gidin ve bir arkadaşının senin kalem kutuna birşey koyduğunu gördün. Gidip kalem kutuna baktığında kaybettiğin kaleminin kalem kutunda olduğunu farkettil.

- a) Arkadaşıma kalem kutuma ne yaptığını sorarım.
- b) Kalemimi aldığı için arkadaşımı öğretmene şikayet ederim.
- c) Arkadaşıma kalemimi bulduğı için teşekkür ederim.
- d) Arkadaşıma kalemimi aldığı için kızarım.
- e) Hiçbirşey yapmam.

6- Teneffüste kantine meyve suyu almaya gittin. Kantin çok kalabalıktı. Sen sıraya girdin. Fakat o sırada paranı düşürdün. Paranı almak için eğildiğinde birisi sana arkadan çarptı, sen de yere düştün. Dönüp baktığında arkada sınıftan bir arkadaşını gördün.

- a) Hiçbirşey yapmam.
- b) Arkadaşıma beni neden düşürdüğünü sorarım.
- c) Arkadaşıma kızarım ve düşürdüğü için ona vururum.
- d) Ayağa kalkıp herkesin sıra olmasını isterim böylece kimse incinmez derim.
- e) Arkadaşımı öğretmene şikayet ederim.

7- Öğrenciler sabah sıra olmuş ve sınıflara girmeye başlamışlar. Cem önünde yürüyen Caner'in sırtından çantasının düştüğünü görünce çantayı tutmak istemiş. Fakat çantayı tutarken Caner'i yere düşürmüştü.

- a) Caner hiçbirşey yapmaz.
- b) Caner Cem'e kendisini düşürdüğü için vurur.
- c) Caner ayağa kalkıp Cem'e önemli olmadığını söyler ve kendisine yardım etmeye çalıştığı için teşekkür eder.
- d) Caner kendisini düşürdüğü için Cem'i öğretmene şikayet eder.
- e) Caner Cem'e neden kendisini düşürdüğünü sorar.

8- Aytaç apartmanlarının bahçesinde top oynuyormuş. Sarp bahçenim diğer köşesinde oturuyormuş. O sırada Aytaç topunu elinden kaçırmış ve top Sarp'ın yanına gelmiş. Sarp topu almış ve sonra Aytaç'a vermiş.

- a) Aytaç hiçbirşey yapmaz.
- b) Aytaç topu alınca Sarp'a beraber oynamayı teklif eder.
- c) Aytaç topunu aldığı için Sarp'ı annesine şikayet eder.
- d) Aytaç Sarp'a topunu ellediği için kızar.
- e) Aytaç Sarp'a neden topunu aldığını sorar.

9- Okan derste izin alıp tuvalete gitmiş. Deniz Okan'ın defterini alıp sınıfın en arka sırasının altına saklamış. Öğretmenleri o sırada defterleri kontrol ediyormuş. Okan defterini bulamayınca çok korkmuş. Fakat birden defterini arka sırada görmüş ve hemen gidip almış.

- a) Okan Deniz'e kızar ve ona vurur.
- b) Okan hiçbirşey yapmaz.
- c) Okan Deniz'i öğretmene şikayet eder.
- d) Okan Deniz'e neden yaptığını sorar.
- e) Okan çok korktuğunu söyler ve Deniz'e "ben sana aynı şeyi yapsam sende korkardın dimi?" der.

10- Can yeni aldığı kalem kutusunu sınıftaki arkadaşlarına gösterirken, Serdar gelip Can'ın elinden kalem kutusunu zorla almaya çalışmış. Bu sırada da kalem kutusu yere düşüp kırılmış.

- a) Can Serdar'a kızar ve vurur.
- b) Can hiçbirşey yapmaz.
- c) Can Serdar'ı öğretmen şikayet eder.
- d) Can Serdar'a neden yaptığını sorar.
- e) Can üzülüğünü söyler ve "ben senin kalem kutuna aynı şeyi yapsam sen de üzülürdün dimi" der.

11- Ders zili çaldığında Cenk sınıfa girmiş. Cenk sınıfa girdiğinde arkadaşı Arda, Cenk'in çantasına dökülen meyve suyunu temizlemeye çalışıyormuş.

- a) Cenk Arda'ya çantasına ne olduğunu sorar.
- b) Cenk hiçbirşey yapmaz.
- c) Cenk çantasını temizlediği için Arda'ya teşekkür eder.
- d) Cenk Arda'yı öğretmene şikayet eder.
- e) Cenk Arda'ya kızar ve ona vurur.

12- Alper Efe'nin defterindeki yazıyı silerken defter yırtılmış. Öğretmenleri bir önceki derste yazdıkları yazıyı kontrol ederken Efe'nin yırtık defterini görüp Efe'ye kızmış.

- a) Efe Alper'e kızar ve ona vurur.
- b) Efe hiçbirşey yapmaz.
- c) Efe Alper'i öğretmene şikayet eder.
- d) Efe Alper'e neden yaptığını sorar.
- e) Efe Alper'e önemli olmadığını söyler ve yazıyı bitirebilmek için onun defterini vermesini ister.



B.4 THE STORIES IN THE STUDY 2 (POST-TEST FOR 7-YEAR-OLDS)

1-Sen ve arkadaşların bahçede topla oynuyordunuz. Bir arkadaşın topu diğer arkadaşından kaçırıp sana vermek için hızlı bir şekilde sana doğru attı. Fakat top senin kafana çarptı.

- a) Arkadaşıma topu kafama attığı için kızarım ve vururum.
- b) Arkadaşımı öğretmene şikayet ederim.
- c) Hiçbirşey yapmam.
- d) Arkadaşıma topu neden kafama attığını sorarım.
- e) Arkadaşıma kafamın acımadığını ve üzülmemesini söylerim.

2- Zil çaldı ve eve gitmek için okuldan çıktın. Fakat çok kalabalıktı ve sende bir yere takılıp düştün. Çantan açıldı ve kitapların dağıldı. Sizin sınıftan bir arkadaşın etraftaki kitapları topladı ve sana verdi.

- a) Hiçbirşey yapmam.
- b) Kitaplarımı topladığı için arkadaşşıma teşekkür ederim.
- c) Kitaplarımı dağılık verdiği için anneme şikayet ederim.
- d) Arkadaşıma kitapları aldığı için kızarım.
- e) Akadaşıma neden kitaplarımı topladığını sorarım.

3- Birkaç arkadaşınla “isim, şehir, hayvan” oynuyordunuz. Sen “m” harfinden bir hayvan ismi ararken, bir arkadaşın seninle dalga geçmek için karşına geçip sen maymunmuşsun gibi seni taklit etti. Sen bunu görünce aklına maymun geldi.

- a) Arkadaşıma benimle böyle dalga geçtiği için üzülüğümü söylerim ve “dalga geçmezsen bizimle oynayabilirsin derim.
- b) Arkadaşımı anneme şikayet ederim.
- c) Arkadaşıma neden benimle dalga geçtiğini sorarım.
- d) Hiçbirşey yapmam.
- e) Arkadaşıma benimle dalga geçtiği için kızarım ve vururum.

4-Teneffüse çıkarken bir arkadaşın sana çelme taktı sen de düşüp kafanı çarptın.

- a) Arkadaşıma bana neden çelme taktığını sorarım.
- b) Arkadaşıma canımın çok acıdığını söylerim ve “bir daha yapma çünkü daha kötü birşey olabilir” derim.
- c)Hiçbirşey yapmam.
- d)Arkadaşıma kızarım ve vururum.
- e)Arkadaşımı öğretmene şikayet ederim.

5- Sınıfa girerken beyaz kağıda yazdığım şiirini düşürdün. O sırada bir arkadaşın da şiirin üstüne bastı.

- a) Hiçbirşey yapmam.
- b) Arkadaşıma neden kağıdın üstüne bastığını sorarım.
- c) Arkadaşıma kızarım ve vururum.
- d) Arkadaşımı öğretmene şikayet ederim.
- e) Arkadaşıma kağıdına bastığı için tekrar şiiri yazmak zorunda kaldığımı ve bir daha dikkatli olmasını söylerim.

6- Sen sokakta bisiklete biniyordun. Tam yokuştan inerken bir arkadaşın kendi bisikletiyle önünde durdu. Sen de durmak zorunda kaldın. O sırada bir araba hızlıca yanından geçti ve böylece araba sana çarpmamış oldu.

- a) Arkadaşıma beni durdurduğu için teşekkür ederim.
- b) Hiçbirşey yapmam.
- c) Arkadaşıma neden beni durdurduğunu sorarım.
- d) Arkadaşımı anneme şikayet ederim.
- e) Arkadaşıma kızarım ve vururum.

7- Mehmet'lerin sınıfında hergün biri getirdiği hikayeyi okuyormuş. O gün sıra Mehmet de imiş. Fakat Mehmet hikayesini evde unutmuş. Mehmet çok üzgün olduğu için Alp kendi hikayesini, Mehmet'e vermiş.

- a) Mehmet hiçbirşey yapmaz.
- b) Mehmet öğretmenine Alp'in hikayesi olmadığını söyler.
- c) Mehmet Alp'e neden kendi hikayesini verdiğini sorar.
- d) Mehmet Alp'e "ben senin hikayeni istemiyorum" der ve kızar.
- e) Mehmet Alp'e teşekkür eder.

8- Can'la Orhan birbirlerine futbolcu kartlarını gösteriyorlarmış. Sonra Can kartlarını çantasına koyup top oynamaya gitmiş. Orhan kendinde iki tane olan fakat Can'da olmayan bir kartı süpriz olsun diye Can'ın kartlarının yanına koymak için kartları alırken, kartlar yere düşmüş ve pislenmiş.

- a) Can Orhan'a teşekkür eder ve kartları temizlemek için yardım etmesini ister.
- b) Can Orhan'a kızar ve vurur.
- c) Can Orhan'ı annesine şikayet eder.
- d) Can Orhan'a neden kartları düşürdüğünü sorar.
- e) Can hiçbirşey yapmaz.

9- Berk arkadaşları ile kovalamacılık oynuyormuş. Berk ebeden kaçarken, Semih Berk'i yakalatmak için onun önünü kesmiş. Berk ne oluyor diye kafasını çevirdiğinde bakmış ki neredeyse önündeki çukura düşecekmiş.

- a) Berk hiçbirşey yapmaz.
- b) Berk Semih'e neden yaptığını sorar.
- c) Berk Semih'i öğretmene şikayet eder.
- d) Berk Semih'e kızar ve vurur.
- e) Berk Semih'e teşekkür eder.

10- Okan çocuk parkında sallanıyormuş. Dinçer gizlice Okan'ı indirmek için gelip onu çok hızlı sallamaya başlamış. Okan salıncaktan düşüp dizini yaralamış.

- a) Okan Dinçer'e kızar ve vurur.
- b) Okan hiçbirşey yapmaz.
- c) Okan Dinçer'e neden kendisini düşürdüğünü sorar.
- d) Okan Dinçer'e canının çok yandığını söyler ve "eğer söyleseydin salıncaktan inerdim sen binerdin" der.
- e) Okan Dinçer'i annesine şikayet eder.

11- Kaya okul çantasını sevmiyormuş. Ama annesi çantası yeni diye istediği çantayı almamış.. Birgün Kaya çantasını Egemen'in yanına bırakıp diğer arkadaşlarıyla top oynamaya gitmiş. Geri döndüğünde çantasının yırtılmış olduğunu görmüş. Annesi de ona yeni bir çanta almış.

- a) Kaya Egemen'e çantasına ne olduğunu sorar.
- b) Kaya Egemen'i annesine şikayet eder.
- c) Kaya hiçbirşey yapmaz.
- d) Kaya Egemen'e çantasını yırttığı için vurur.
- e) Kaya Egemen'e "sen çantama dikkat etmişsindir yine de teşekkür ederim" der.

12-Çağrı arkadaşları ile basketbol oynarken Kaan birden sahaya dalmış ve tam Çağrı topu potaya atacağı sırada Kaan'a takılmış ve kolunu incitmiş.

- a) Çağrı hiçbirşey yapmaz.
- b) Çağrı Kaan'ı öğretmene şikayet eder.
- c) Çağrı Kaan'a kızar ve vurur.
- d) Çağrı Kaan'a neden yaptığını sorar.
- e) Çağrı Kaan'a kolunun çok acıgığını ve dikkatli olmasını söyler.

B.5 THE STORIES IN STUDY 2 (FOR 5-YEAR-OLDS)

1- Resim dersinde sulu boya ile resim yapıyordunuz. Arkadaşın, fırçanı temizlediğin su kabını, temiz su koymak için alırken çarpıp, yaptığın resmin üstüne döktü.

- a) Arkadaşıma suyu resmimin üstüne döktüğü için kızarım ve ona vururum.
- b) Arkadaşımı öğretmene şikayet ederim.
- c) Hiçbirşey yapmam
- d) Arkadaşıma neden suyu döktüğünü sorarım.
- e) Arkadaşıma resmi yeniden yapabileceğimi ve üzülmemesini söylerim.

2- Akşam eve gitmek için hazırlanırken sabah yuvaya getirdiğin oyuncakını bulamadın. Sen oyuncakını ararken bir arkadaşın da sana yardım etti. Sonra arkadaşın oyuncakını bir masanın altında buldu ve sana verdi.

- a) Arkadaşıma yardım ettiği için teşekkür ederim.
- b) Hiçbirşey yapmam.
- c) Arkadaşıma oyuncakımı nerede bulduğunu sorarım.
- d) Arkadaşım oyuncakımı aldığı için onu öğretmene söylerim.
- e) Arkadaşıma oyuncakımı aldığı için vururum.

3- Yuvada oyuncaklarla oynarken oyuncak arabamın tekerini çıkarttın. Tekerini yerine takmadığın için başka bir araba alıp onunla oynamaya başladın. Fakat arkadaşın senin tekeri kırıldığını öğretmeninize söyledi. Öğretmenin de gelip sana kızdı.

- a) Hiçbirşey yapmam.
- b) Beni öğretmene söylediği için arkadaşşıma kızarım ve vururum.
- c) Arkadaşıma neden öğretmene söylediğini sorarım.
- d) Arkadaşım birşey yapınca ben de onu öğretmene şikayet ederim.
- e) Arkadaşıma beni öğretmene şikayet ettiği için çok üzüldüğümü söylerim ve ona tekeri yerine takmaya çalıştığımı anlatırım.

4- Bir gün topunla oynarken arkadaşın gelip topunu patlattı. Sen çok üzüldün. Annen de bunun üzerine sana yeni bir top aldı.

- a) Arkadaşıma topumu patlattığı için çok üzüldüğümü söylerim ve “eğer patlatmazsan yeni topumla birlikte oynayabiliriz” derim.
- b) Arkadaşımı anneme şikayet ederim.
- c) Hiçbirşey yapmam.
- d) Arkadaşıma topumu neden patlattığını sorarım
- e) Topumu patlattığı için arkadaşşıma kızarım ve ona vururum.

5- Yuvada lego oyuncaklarla çok güzel bir gemi yaptın. Yemek yedikten sonra geri döndüğünde arkadaşlarından birinin renkli kağıtlardan yaptığı bir bayrağı senin gemine takmış olduğunu gördün. Öğretmenin ve diğer arkadaşların geminin çok daha güzel olduğunu söyledi.

- a) Arkadaşıma neden bayrağını benim gemime taktığını sorarım.
- b) Hiçbirşey yapmam.
- c) Arkadaşıma teşekkür ederim.
- d) Arkadaşıma bayrağını gemime taktığı için kızarım.
- e) Arkadaşımı öğretmene söylerim.

6- Sen ve bazı arkadaşların bahçede çimenlerin üstünde oturuyordunuz. Başka arkadaşlarında bahçede kovalamacılık oynuyorlardı. Bu oyun oynayan arkadaşlarından biri koşarken gelip eline bastı.

- a) Arkadaşımı öğretmene şikayet ederim.
- b) Arkadaşıma neden elime bastığını sorarım.
- c) Hiçbirşey yapmam.
- d) Arkadaşıma elime bastığı için vururum.
- e) Arkadaşıma elimin çok acıdığını söylerim ve biraz daha dikkatli olmasını isterim.

7- Aytaç apartmanlarının bahçesinde top oynuyormuş. Sarp bahçenin diğer köşesinde oturuyormuş. O sırada Aytaç topunu elinden kaçırmış ve top Sarp'ın yanına gelmiş. Sarp topu almış ve sonra Aytaç'a vermiş.

- a) Aytaç hiçbirşey yapmaz.
- b) Aytaç topu alınca Sarp'a beraber oynamayı teklif eder.
- c) Aytaç topunu aldığı için Sap'ı annesine şikayet eder.
- d) Aytaç Sarp'a topunu ellediği için kızar.
- e) Aytaç Sarp'a neden topunu aldığını sorar.

8- Deniz ile Gökçe çocuk parkında oynuyorlarmış. Deniz salıncağa binmiş ve kendi kendine sallanmaya çalışmış. Gökçe Deniz'in kendi kendine sallanmaya çalıştığını görünce onu sallamak için Deniz 'in salıncağını itmiş. Fakat çok hızlı ittiği için Deniz salıncaktan düşmüş.

- a) Deniz Gökçe'ye kızar ve vurur.
- b) Deniz hiçbirşey yapmaz.
- c) Deniz Gökçe'ye neden kendisini hızlı ittiğini sorar.
- d) Deniz Tekrar salıncağa biner ve Gökçe'den kendisini daha yavaş sallamasını söyler.
- e) Deniz Gökçe'yi annesine şikayet eder.

9- Alp tuvalete gittiğinde Caner onun oyuncasını alıp saklamış. Alp geri geldiğinde oyuncasını bulamamış. Bunun üzerine öğretmeni de Alp'e oynaması için çok güzel yeni bir oyuncak araba vermiş.

- a) Alp Caner'e neden oyuncasını sakladığını sorar.
- b) Alp Caner'e çok kızar.
- c) Alp hiçbirşey yapmaz.
- d) Alp Caner'i öğretmene şikayet eder.
- e) Alp Caner'e sakladığı arabayı çıkarırsa birlikte her iki araba ile oynayabileceklerini söyler.

10- Can yeni aldığı ayakkabılarını giymiş. Arkadaşları Can'ın ayakkabısını çok beğenmişler. Fakat Ali Can'ın yeni ayakkabılarını kıskanmış. Sonra Ali Can'ın yanına gelip elindeki portakal suyunu Can'ın ayakkabısına dökmüş.

- a) Can hiçbirşey yapmaz.
- b) Can Ali'ye vurur.
- c) Can Ali'yi öğretmene şikayet eder.
- d) Can Ali'ye neden portakal suyunu ayakkabısına döktüğünü sorar.
- e) Can ne kadar üzülüğünü Ali'ye söyler ve "aynı şeyi ben sana yapsam sen de üzülürdün di mi?" der.

11- Okan hırkasını sandalyesine bırakıp ellerini yıkamaya gitmiş. Geri döndüğünde Okan arkadaşı Berk'i hırkasına dökülen meyve suyunu temizlerken görmüş.

- a) Okan Berk'e hırkasına ne olduğunu sorar.
- b) Okan hiçbirşey yapmaz.
- c) Okan hırkasını temizlediği için Berk'e teşekkür eder.
- d) Okan Berk'i öğretmene şikayet eder.
- e) Okan Berk'e hırkasını pisletti diye vurur.

12- Ulaş abisinin küçük radyosunu alıp bahçeye inmiş. Fakat susadığı için, radyoyu bahçede bırakmış ve eve gidip su içmiş. Tekrar bahçeye geldiğinde arkadaşı Arda'nın elinde kırılmış olan radyoyu görmüş. Abisi de o sırada bahçeye gelmiş ve radyosunun kırılmış olduğunu görünce abisi Ulaş'a çok kızmış.

- a) Ulaş Arda'ya radyoyu kıldığı için vurur.
- b) Ulaş hiçbirşey yapmaz.
- c) Ulaş Arda'yı abisine şikayet eder.
- d) Ulaş Arda'ya radyoya ne olduğunu sorar.
- e) Ulaş radyonun kırılmış olmasına çok üzülüğünü söyler ve tamir etmek için Arda'dan yardım ister.