BELIEFS ABOUT THE CONTROLLABILITY OF SOCIAL CHARACTERISTICS AND CHILDREN’S RESPONSES TO OUTSIDERS’ INTERFERENCE IN FRIENDSHIP

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by

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ABSTRACT

Although some jealous children respond to interference in friendships by outsiders with problem solving and talking with their friend, others engage in withdraw from the relationship or retaliate against friends or others. Beliefs about the nature of social characteristics are proposed as an explanation for behavioral heterogeneity in response to jealous provocation. Based on learned helplessness theory and research on children’s implicit personality theories, children who subscribed strongly to the belief that social characteristics are fixed and that social outcomes are uncontrollable (high entity beliefs), were expected to more strongly endorse asocial and antisocial responses and less strongly endorse prosocial responses to outsider interference than children who did not have strong entity beliefs depending on their internal versus external attributions of blame. Two hundred eighty six boys and girls in the sixth, seventh, and eighth grades (primarily Caucasian) participated in an experimental test of this hypothesis. Although the hypothesized interactions between beliefs and locus of blame were not supported, results indicated that children who believe social characteristics are changeable did also believe they had more control over the situation in the internal condition than children who believe social characteristics are immutable. Further, pessimistic children were more likely to tend to endorse asocial and antisocial behavior and less likely to endorse prosocial behavior than optimistic children.
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"True friendship is like sound health; the value of it is seldom known until it be lost."

- Charles Caleb Colton (1780-1832)
Chapter 1

Beliefs about the Controllability of Social Characteristics and Children’s Responses to Outsiders’ Interference in Friendship

Although most research on jealousy has been conducted with adults in romantic contexts, Parker and colleagues (Lavallee & Parker, under review; Parker, Low, Walker, & Gamm, 2005; Parker & Ramich, under review; Roth & Parker, 2001) recently began a program of research dedicated to understanding the causes and consequences of children and adolescents’ jealousy over their friends’ other friends and extradyadic social activities. In particular, Parker and colleagues demonstrated reliable individual differences among children in their vulnerability to friendship jealousy, defined as an aversive emotional and cognitive reaction to a perceived threat to one’s relationship with another by an outsider (Clanton, 1981; Roth & Parker, 1999). They also found links between the disposition to jealousy and several theoretically predicted personal attributes of children, including low self-esteem, (Parker et al., 2005; Ebrahimi, Parker, Lavallee, & Sefke-Krenke, in prep), rumination surrounding friendship difficulties, insecure attachment (Parker, Low, Walker, & Gamm, 2005) inflexible beliefs about friendship needs, and vulnerability to depression and loneliness (Lavallee & Parker, under review).

In adults, feelings of jealousy are often accompanied by behavioral responses, which can vary widely across individuals. Some individuals respond to jealous feelings with relationship-enhancing behaviors, including talking to partners about their feelings or restoring their partner’s interest through compensatory acts such as increasing their physical attractiveness or attempting to increase the rewards and decrease the costs of
being in the relationship (Guerrero & Afifi, 1999). Others, as many popular accounts of jealousy attest, respond negatively and even violently to jealousy. Negative responses to jealousy can be quite varied and may include surveillance of the partner or rival, attempting to prevent contacts between the partner and the rival, leaving the relationship altogether or aggressing in relational or passive ways against the partner (Buunk, 1997; Pfeiffer & Wong, 1989). Ironically, though motivated by concern over losing the relationship, negative responses to jealousy are more likely to drive a wedge between partners rather than draw the partners closer. Jealous individuals who respond negatively may undermine the very relationships they were motivated to preserve. Therefore, understanding the factors that prompt problematic behavior in response to jealous threats is an important requirement for understanding the role of jealousy in the course and success of relationships.

Consistent with the general paucity of information on jealousy in children, responses to jealousy in children and adolescents are even less well understood than responses in adults. Limited existing evidence suggests that, like adults, children and adolescents show considerable heterogeneity in responses. Lavallee and Parker (under review), for example, report positive correlations between feelings of jealousy and several negative behaviors, including friend surveillance, rifling through a friend’s belongings in search of evidence, interrupting a friend who is talking to someone else, and to engaging in certain forms of aggression, such as trying to get other children to exclude a certain individual from the group. Notably, these correlations were small to moderate, and other research actually points to increases in self-reported positive behaviors as well. For example, Roth and Parker (1999) found that adolescents’ jealousy
was related to increased constructive activity such as voicing one’s feelings, and making attempts to include everyone in subsequent activities. The heterogeneity in children’s behavioral responses to jealousy probably accounts for Parker et al.’s (2005) observation that only a very low correlation exists between children’s self-reports of their vulnerability to jealousy over friends and their reputations for friendship jealousy with peers.

In sum, though recent research on children’s jealousy over their friends shows promise, the mechanisms of adaptive versus problematic responding are poorly understood. The tenuous link between children’s vulnerability to feeling jealous and the development of a reputation for jealousy suggests a multiplicity of responses. Existing research supports the conclusion of behavioral variation, including both prosocial responses as well as disturbing and potentially harmful responses. Yet, current research provides little basis for understanding when children will display adaptive rather than maladaptive responses and why some children appear to favor one alternative over the other. A better understanding of children’s responses to jealousy is essential to understanding the impact of jealousy on children’s friendships and broader social adjustment. Moreover, increased understanding of when children respond adaptively versus maladaptively to jealousy, and which children do so habitually, can inform interventions designed to improve the stability or quality of children’s friendship participation or reduce overall levels of aggression and other forms of hostility in peer groups.

The broad goal of the present study is to address this gap by illuminating a set of cognitive conditions under which individuals are predicted to use adaptive versus
maladaptive responses to perceptions of friendship threat due to interlopers. Specifically, I hypothesize that young adolescents’ responses to feelings of jealousy are shaped in important ways by their deeper assumptions about the malleability of their own and others’ social characteristics and by their sense of personal control over social outcomes. In particular, I propose that individuals who view social traits and behavioral dispositions as potentially controllable are more likely to see relationship problems as amenable to change through effort. As a result, they are likely to respond to outsider interference in relationships by attempting to repair or maintain their valued friendships. In contrast, individuals who assume that social traits are relatively fixed, and who see little room for control and personal responsibility, are assumed to be more likely to view relationship difficulties, including the interference of outsiders, in fatalistic ways. As a result, these children are predicted to be more likely to respond to outside threats by exhibiting behavior reflecting of their feelings of helplessness or by retaliating against their partner, depending on whom they blame (self or other). Because these hypotheses are drawn from research on learned helplessness theory and from the work on children’s implicit theories about personal attributes, I will provide a selective review of these literatures next.

Perceptions of control

Martin Seligman (1975; 1991; Overmier & Seligman, 1967) was one of the first authors to illuminate the effects of control beliefs on helpless versus mastery oriented behavior in his human-analogue studies of electric shock. Dogs forced to endure shocks while strapped in a harness initially tried to escape, but quickly learned that their fate was
uncontrollable and eventually gave up trying to avoid the shocks. Notably, even when the harness was removed, the helpless-acting dogs continued to endure the now completely avoidable shocks. In contrast, dogs that were initially given more control, easily avoided later shocks by jumping over a low barrier. Seligman proposed that the uncontrollable events in the experimental condition fostered an expectation for low control in new situations. Animals in this study appeared to develop broader theories about environmental controllability that generalized beyond their specific experiences, and led to “learned helpless” behavior. Subsequent work by Hiroto (1974) helped extend this work to humans. In this study, adults were less likely to work to reduce the amount of annoying, but controllable noise they experienced, when they initially experienced no control over the noise.

Although control experience is important in the development of helplessness, not all individuals give up in novel situations after experiencing uncontrollable situations (Seligman, 1991). For example, although also initially experiencing experimentally induced uncontrollable noise, some individuals did search for solutions when placed in new situations with loud noise. Other individuals, even when initially given full control, never bothered looking for solutions to end the experimental noise or nuisance (Hiroto, 1974).

Individuals’ causal explanations (Weiner et al., 1971) for negative events appear to play an important role in determining helpless or mastery oriented behavior after negative or uncontrolled events (Abramson et al., 1978; Seligman, 1991). That is, a general tendency to explain events in an optimistic or pessimistic style relates to the degree that individuals generalize from specific instances of uncontrolled events to
broader theories about the nature of the self and one’s environment, in turn predicting
general active versus helpless behavior (Seligman, 1991). Specifically, research on social,
emotional, and academic adjustment demonstrates the predictive importance of several
dimensions of causal attributions for negative events, including locus of control (whether
the cause is internal or external), stability (whether the cause is stable over time or
transient), globality (whether the cause affects only a small area of life, or spans many
areas), and controllability (whether the cause is subject to change or is fixed; Abramson,
Seligman, & Teasdale, 1978; Bradbury & Fincham, 1990; Weiner & Graham, 1984).
According to the reformulated helplessness theory, (Abramson, et al., 1978), attributing
negative events to stable, internal and global sources leads to greater adjustment
difficulty, whereas attributing negative events to unstable, external, and specific causes
leads to greater emotional and behavioral adjustment. Attributions of controllability are
assumed orthogonal to attributions of stability, internality, and globality. However,
Abramson, et al., (1978) acknowledge that internal and unstable causes are also often
more controllable than external or stable causes. Moreover, some individuals are more
likely to see negative events as indicative of broader problems outside the realm of
personal control. Thus, according to Abramson, et al. (1978), after experiencing negative,
uncontrolled events, certain individuals are more likely to generalize to later situations,
viewing them as uncontrollable and themselves as helpless. Importantly, outcomes are
viewed as controllable when they are viewed as contingent on one’s responses and
uncontrollable when viewed as independent of one’s responses. Individuals who view
events as uncontrollable do not expect their behavior to have an impact on future
outcomes, and thus give up more easily when faced with challenges, demonstrating a
helpless orientation to behavior. For example, in one classic study of insurance sales agents, Seligman and Schulman (1986) found that employees who endorsed a broad pessimistic, fatalistic explanatory style for negative events were more likely to give up attempts to sell insurance, subsequently sold less insurance, and eventually were more likely to quit their jobs than people who viewed negative events as transient and specific. These findings were consistent with those of Hiroto (1974), who also found that people who explained negative events as being broad, permanent and thus uncontrollable were less likely to take action to avoid or correct the aversive loud noise. Not surprisingly, other research demonstrates links between explanatory style and mental health. For example, pessimists are likely to feel depressed and suffer health problems (Lachman & Weaver, 1998; Presson & Benassi, 1996; Rodin, 1986). Likewise, research on children and early adolescents also demonstrates a link between controllability beliefs and depression, both concurrently and over time (Nolen-Hoeksema, Girgus, & Seligman, 1986; Seligman et al., 1984).

In sum, the work of Seligman and others demonstrates that perceptions of control, whether stemming from actual experience or from a broad explanatory style for negative events, have profound effects on behavior. People who perceive themselves as having control are more likely to take positive action to correct troublesome situations. However, people who believe they have little control are more likely to give up, or stand by passively while troublesome, avoidable events occur. Further, people’s causal explanations for negative events have an impact on their mental health, such that people who view negative events as more permanent, and therefore less controllable, suffer increased depression. As responding to jealousy typically means taking reparative action
versus standing by helplessly, or retaliating against the partner with seemingly little hope for restoration, beliefs about control appear a likely source of influence. Children who believe they have control over social outcomes are expected to display more hopeful, mastery-oriented behavior with their friends than children who have little sense of control.

The effects of implicit theories on perceptions of control

In addition to stemming from experience and a style of explaining specific negative events, recent research suggests that control beliefs may also be based in broader naïve theories about the nature of personal attributes of the self or others. In particular, Carol Dweck, argues that beliefs about the fundamental properties of personal characteristics affect specific attributions and subsequent behavior, especially in the achievement domain. Like Seligman, Dweck assumes that beliefs about failure controllability have profound effects on achievement-related behavior. However, Dweck argues that individuals’ reasoning about controllability in specific situations is itself influenced by broader implicit assumptions concerning the malleability of personal qualities and traits. For example, according to Dweck, students who view intelligence as a fixed (entity theorists) rather than malleable (incremental theorists) trait are prone to attribute specific failures to a lack of ability (which one has no control over) rather than a lack of effort (which one can control). Individual differences in these implicit theories are linked to specific attributions and motivational orientations (performance-focused for entity theorists versus learning-focused for incremental theorists) in both elementary
school age children (Cain & Dweck, 1995; Heyman & Dweck, 1998) and college undergraduates (Hong, Chiu, Dweck, Lin, & Wan, 1999). In one study, for example, entity theorists were less likely than incremental theorists to use remedial strategies to improve their skills when they performed poorly (Hong, Chiu, Dweck, Lin, & Wan, 1999). In this study, college students read a fictitious research article supporting either the entity or incremental theory, and subsequently differed in their willingness to engage in a tutorial after experiencing unsatisfactory intelligence test performance. Consistent with predictions, individuals influenced by the entity article were less likely than those influenced by incremental article to engage in the tutorial, opting for an unrelated task instead (Hong et al., 1999). Perhaps because of their increased effort, individuals who believe they have control over their achievement improve over entity theorists in self-efficacy and performance over time (Pomerantz & Saxon, 2001).

These findings are supported by studies of teacher effects on student performance. For example, Anderman and colleagues (Anderman et al., 2001; Anderman & Young, 1994; Urdan, Midgley, & Anderman, 1998) report that teachers who emphasize performance and point out ability differences between students, rather than emphasizing mastery, individual learning, and effort, foster a sense of helplessness in students, and devaluation of academic achievement. Similarly, elementary school children who are praised for their ability rather than for their effort are more likely to focus on performance rather than learning and mastery. Despite their performance orientation, they actually perform worse on experimental tasks than children praised for effort (Mueller & Dweck, 1998). Presumably, such teacher practices foster entity theories about the nature of intelligence and personal achievement.
In sum, compelling evidence suggests that broad belief systems affect individuals’ responses to challenges. To date, however, less evidence exists as to whether control beliefs also operate in other domains, including surrounding social setbacks. Do control beliefs also have a powerful effect on children’s willingness to engage in active attempts to improve their relationships and themselves as partners? Do individuals who believe social characteristics (their own or others’) are fixed give up more easily or engage in non-productive behaviors such as retaliation when faced with relational setbacks? Importantly, can implicit theories about control in relationships aid in explaining the heterogenic strategies children employ to deal with difficult friendship issues, such as jealousy surrounding friendship interference? Next I review the research to date on control beliefs surrounding social setbacks.

*Perceptions of control and social behavior*

One question that has surfaced regarding the work on control beliefs concerns their generalizability to non-academic domains. The relevance of perceptions of control to social behavior is suggested by early, seminal work by Weiner and Graham (1984), who highlighted the link between attributions of control and potentially socially motivating emotions such as anger, guilt, and pride. For example, Weiner and Graham (1984) found that attributing failure to internal, uncontrollable causes (such as lack of ability) is related to feelings of incompetence. Attributing failure to internal, controllable causes (such as lack of effort) is related to feelings of guilt. In contrast, attributing failure to external, controllable causes (such as the actions of others) is associated with feelings
of anger. Finally, external, uncontrollable attributions are associated with surprise
(Weiner, Russell, & Lerman, 1978, 1979, in Weiner & Graham, 1984). Although the
context for Weiner and Graham’s (1984) work was achievement-related failure, emotions
may vary similarly with variations in individuals’ attributions for social failures, resulting
in corresponding variations in behavioral responses. For example, to the extent that
individuals attribute social failure to internal, uncontrollable causes, they should also feel
socially incompetent and as a result be more likely to withdraw from interactions.
Likewise, when internal and controllable attributions result in feelings of guilt,
individuals may be motivated toward reparative actions, such as overtures and
communication. Attributing failure to external, controllable causes such as the deliberate
actions of others may result in anger and may motivate aggression or retaliation. In
contrast, seeing others as changeable may motivate reparative, communicative behaviors.
Feelings of surprise, on the other hand, may require no action at all to resolve.

Taking a larger step forward, Dweck and Leggett (1988), in a review of their
theory, proposed that children who believe social skills and personality are fixed traits
may be discouraged from making further attempts at social interaction after experiencing
social setbacks. Dweck and Leggett (1988) proposed that these children might withdraw
from social situations or employ face-saving defensive strategies to cope with perceived
rejection. In contrast, children who believe social and personality characteristics are
changeable, and who perceive themselves as having control over their social outcomes,
may be more likely to engage their effort to improve their social skills and to take action
to repair relationships when socially hindered. Rather than giving up or saving face, these
children may attempt to further understand their friend, and make themselves understood
by talking about their feelings with their friend. They may also proactively engage in
problem solving. For example, they may make attempts to get to know the third party and
to try including everyone in future activities.

Research supporting these propositions is rare, but existing research on the effects
of explanatory style or implicit theories about control on social withdrawal and social
behavior provides a beginning basis for understanding the role of control beliefs in
responses to social setbacks. Although Peterson, Maier, and Seligman (1993)
acknowledge that social passivity may not always be inappropriate, social withdrawal,
inaction, and retaliatory action generally are maladaptive and apparently may be due to
children’s beliefs about control. For example, Graham and Juvonen (1998) demonstrated
that children who attributed their victimization by peers to their stable personality or
character traits (characterological self blame) were less likely to change their behavior,
and more likely to be chronically victimized. On the other hand, children who attributed
their victimized to their behavior (behavioral self blame) took action to change negative
or annoying behaviors and as a result were less likely to be chronically victimized and
better adjusted. According to Graham and Juvonen (2001), viewing social failure as due
to uncontrollable aspects of one’s character (as opposed to one’s behavior) leads to
internalizing problems on the part of the victim. These internalizing problems, in turn,
lead to greater withdrawal over time, further alienation from peers, and a reduction
opportunities and motivation for further social skill development. Thus, conditions for
ideal social functioning seem to be present when individuals see themselves as
modifiable and do not blame uncontrollable personal characteristics for relational
difficulties.
Goetz and Dweck (1980) also support Dweck and Leggett’s (1988) proposition that implicit theories about personality characteristics have an effect on social behavior. In a study of children’s responses to peer rejection, Goetz and Dweck (1980) asked fifth and sixth grade children to write a letter of application to participate in a pen pal club. Children who generally tended to blame their rejection by peers on static social incompetence were less likely to write effective follow-up letters when they were told they were rejected by the pen pal club initially. These children tended to withdraw, make defensive comments, or perseverate on the ineffective strategies they had already tried. In contrast, children who attributed this same failure to external causes made more positive prosocial overtures in their follow-up letters. In a similar study, Erdley, Cain, Loomis, Dumas-Hines, and Dweck (1997) found that late elementary and early middle school students who were given a performance goal (i.e., to demonstrate their fixed ability) were less likely than children given a learning goal (i.e., to develop their flexible ability) to try new strategies in writing effective follow-up letters after their initial rejection from the pen-pal club. Importantly, children who possessed entity theories of personality (i.e., viewed personality as fixed) were more likely to endorse performance goals (i.e., validating likeability, avoiding negative appraisals) over mastery goals (i.e., to develop relationships or skills). They were also more likely to attribute their rejection to their own inability to make friends. Further, implicit personality theories were related to behavior. Entity theorists wrote shorter follow-up letters, and expressed fewer positive feelings in their letters, than incremental theorists, regardless of goal condition.

Lepore, Kiely, Bempechat, and London (1989) demonstrated links between implicit theories, control beliefs, and social behavior similar to those shown by Goetz and
Dweck (1980). Whereas Goetz and Dweck (1980) assessed children’s tendency to blame their own rejection experiences on their inherent lack of ability, Lepore et al. (1989) assessed implicit theories about the nature of social attributes more directly. That is, Lepore et al. (1989) asked fifth and sixth graders about their theories of social attributes as malleable and whether they consider relationship outcomes as the result of personal control and responsibility. Like Goetz and Dweck (1980), Lepore et al. (1989) found that children who believed social characteristics are malleable and who had a sense of control over social outcomes were more likely to engage in positive strategies following initial peer rejection from the pen pal club than children who believed that social characteristics are fixed and who had a low sense of control. Belief in the malleability of social attributes was strongly negatively correlated with helplessness (i.e., passivity on the pen pal follow-up task) and perceived control over social outcomes was moderately negatively correlated with helplessness. These beliefs accounted for approximately 50% and 20% of the variance in helplessness, respectively. Even this promising study, however, examined only one behavior (writing an effective follow-up letter), in response to a single social problem, rather than a more complex range of possible responses (such as withdrawal, dismissal, rumination, aggression, communication, problem solving, etc.) to perceived social setbacks.

The research thus far points to the behavioral implications of viewing personal characteristics as immutable via the effects of such beliefs on views of the changeability of the self. However, beliefs about the mutability of personal characteristics may also have an effect on responses to social setbacks via their implications about one’s ability to change others’ characteristics (Dweck & Leggett, 1988). According to Dweck and
Leggett (1988), people who view others’ characteristics as fixed are more likely to make judgments and engage in monitoring, whereas those who view the world and people as changeable are more likely to seek understanding and act to develop the world around them. Erdley and Dweck (1993) found support for this hypothesis. In their study, children who held an entity view of others were more likely to persist in their stereotypes about others, even when presented with counter-evidence, and were less empathetic and more likely to recommend punishment for negative behaviors than children who held a view of others as changeable. Although Dweck (1996) acknowledges the argument that entity theorists might be more empathetic because they believe others cannot be blamed for their actions, three separate research studies actually show support for the more punitive nature of entity theorists (Dweck, 1996). For example, Sorich and Dweck (1994; in Dweck, 1996) found that entity theorists more often recommended punishment whereas incremental theorists more strongly recommended remediation for transgressions such as cheating on a test or dating someone else’s girlfriend. College students who possess entity theories also are more likely to endorse retaliating against an unfair professor or punishing children who do not or cannot do what is asked of them. Incremental theorists, on the other hand, recommended making an attempt to understand, assist, or inform transgressors (Chiu & Dweck, 1994; in Dweck, 1996). Finally, in an especially pertinent study, Loeb and Dweck (1994; in Dweck, 1996) found that entity theorists were more likely than incremental theorists to endorse retaliation (such as aggression) in response to hypothetical circumstances of personal victimization (e.g., their partner leaves the relationship without explaining why). Incremental theorists were more likely to say they would attempt to understand the other person and would try to forgive, talk to, or educate
them than to endorse punishment. Whether the effects of beliefs on responses to hypothetical situations actually translate into real world behavior is still unknown. However, research by Earn and Sobol (1990) suggests that the effects on real behavior exist. In one study, Earn and Sobol (1990) found that popular children were more likely than children in other sociometric groups to attribute hypothetical social failures and successes to controllable causes. In a similar study, popular children were less likely than controversial, neglected, or rejected children to use “luck” as an explanation for social events (Sobol & Earn, 1985), suggesting that their beliefs affect their behavior, which in turn affects their likeability by peers.

In sum, children who believe that social attributes are malleable are more likely to take positive, reparative action when faced with social setbacks than are children who believe social and personality attributes are fixed. Individuals who perceive little personal control over social outcomes are more likely to give up and display helpless behavior when they perceive rejection by peers. Further, children who perceive the attributes of others as malleable are more likely to make attempts to understand their motives and to remediate them when others transgress. Those who perceive others’ attributes as fixed, however, are more likely to endorse punitive actions when others’ commit transgressions against them. Therefore, both controllability beliefs and internal versus external attributions appear critical in determining social action. The present research suggests the utility of examining both control beliefs, and their interaction with internal attributions, in determining responses to friendship jealousy.
The present study

The present study extends existing knowledge of children and adolescents’ behavioral responses to jealousy by examining how beliefs about the nature of social characteristics influence individuals’ attributions and their selections of adaptive versus problematic behavior in response to outside interference in their friendships. As such, this study is designed to further our understanding of why heterogeneity exists in individuals’ responses to jealousy over friends.

Based on Lepore et al. (1989), children who view their own and others’ social characteristics as changeable are hypothesized to engage in more reparative, prosocial overtures, such as talking to their friend, making attempts to include everyone, or trying other forms of problem solving. Because they make incremental assumptions about social traits, these children are expected to believe that social characteristics can be understood, developed, and improved. That is, they are expected to believe that they can understand and have an effect on their relationships through effort and therefore are expected to view the jealousy situation as temporary and specific and to perceive that they can do something to change the situation in the future. Therefore, they are expected to make attempts at communicating with their friend about their feelings, to try to include everyone in future interactions, or to restore the relationship by increasing their attractiveness to their friend.

On the other hand, just as Dweck (1980) and Lepore et al. (1989) found that children who held an entity theory of their own personality and social characteristics were more likely to give up in the face of social setbacks, children in the present study
who believe their social characteristics are fixed are predicted to be more likely to give up or to use asocial strategies to deal with being left out by a friend. Entity beliefs are especially likely to influence asocial or socially avoidant behavior when participants make an internal attribution and therefore perceive that the interference is the result of their own inadequacies, mistakes, failures, and so on. In this circumstance, these children are expected to believe that the problem is stable and global and, as a result, assume that they have little control over the outcome of the jealousy-invoking situation. Therefore, behaviorally, they are expected to exit the relationship, deny the situation, or ruminate. Because they do not believe that they have control in their relationships, entity theorists are expected to see little reason to attempt to repair the relationship. Instead, based on Dweck’s (1996) findings that an entity theory of others’ personal or moral qualities contributes to favoring punishment and retribution for transgressors, children in the present study who view others’ social characteristics as fixed and perceive the root of the problem to rest with the friend (i.e., make an external attribution) are expected to be more likely to engage in anti-social behavior such as aggressing or retaliating against their friend than those who view social characteristics as malleable. This is because entity theorists who blame their partner or the third party are likely to conclude that it is futile to attempt to change their partner’s mind. Like entity theorists who make internal attributions, these children are expected to see the situation as stable and global. However, because they also believe they have been slighted (i.e., they make an external attribution), these entity theorists can be expected to be motivated to save face or to punish the partner. Just as Dweck and Leggett (1988) propose that control-relevant attributions (i.e., globality and stability) in specific situations follow from theories about
the nature of personal characteristics, children who view social characteristics as
generally fixed are expected to attribute being left out by a friend in specific hypothetical
stories to global and stable causes. They are also expected to have low expectations for
control and change in each specific situation. Further, as Dweck (Dweck, 1996; Dweck &
Leggett, 1988) asserts that entity theories are domain specific and that only domain-
relevant beliefs will be significant predictors of behavior, entity and incremental beliefs
about the nature of social characteristics are expected to predict behavior with friends
even when controlling for the effects of more general pessimistic explanatory style.
Chapter 2

Method

Participants and procedure

Two hundred eighty-six students from a rural middle school in PA participated (33 girls, 46 boys in the 6th grade, 53 girls, 55 boys in the 7th grade, 55 girls, 43 boys in the 8th grade). The school’s total enrollment was 643. Five hundred ninety-one students chose to participate but 305 of those were randomly selected (by classroom) to participate in a separate study in the lab. Students were 95.8% Caucasian-American, .3% Asian, 1% other, and 2.9% unknown. Families of potential participants received letters detailing the study and soliciting parental consent and research staff visited classrooms to describe the study to the students. As an incentive for returning consent forms (regardless of the decision to participate), students in classrooms with greater than a 90% return rate were entered into a raffle for a $20 gift certificate to a local store.

Assessments were obtained for the entire sample during group testing in their classrooms on two occasions. Each session was approximately 45 minutes in length. In these sessions, a trained research assistant read instructions aloud to students while they silently read the questions to themselves. Individual questions were read aloud to students with reading difficulty. All research participants received token gifts of appreciation.
Measures

*Entity views of social characteristics.* Children’s beliefs that their own and others’ social characteristics are fixed rather than malleable were assessed using six items adapted from Dweck and colleagues (Appendix A; Erdley et al., 1997; Hong, Chiu, Dweck, Lin, & Wan, 1999). For each item, participants were asked to indicate their agreement using a 5-point Likert scale that ranged from 1 (strongly disagree) to 5 (strongly agree). Three items referred to the participants’ own social characteristics (e.g., Whether you are loyal and trustworthy as a friend is something that is deeply ingrained into your personality. It can’t really be changed.), and the remaining three items referred to others’ social characteristics (e.g., Whether someone is loyal and trustworthy as a friend is deeply ingrained into their personality. It can’t really be changed.). Items were adapted from the original scales by altering the context from the academic to social domain. Dweck and colleagues reported good internal consistency and stability for scales in the academic domain. In addition, past research in the academic domain indicates that these scales show convergent validity with two-dimensional measures of entity and incremental beliefs (Levy & Dweck, 1997, cited in Hong et al., 1995) and discriminant validity from measures social desirability, cognitive ability, and self-esteem (Hong, et al., 1995).

In the present study, the three items under each referent category were averaged. The internal consistency of the three self-referent items was .67 and the consistency of the three other-referent items was .71. Although self and other entity views were significantly positively correlated, $r = .59$, $p < .001$, they were not combined for the
analyses due to their conceptual differences and the possibility that entity views may affect behavior differently depending on whether they are relevant to the self or other.

*General pessimistic explanatory style.* The Children’s Explanatory Style Questionnaire (Appendix B; Kaslow, Tanenbaum, & Seligman, 1978) was used to assess children’s general tendency to explain negative events in an optimistic versus pessimistic way. For each item, children are presented with a hypothetical negative event and asked to select one of two alternative explanations for why the event occurred. Response options vary systematically along one of three explanatory dimensions: internal versus external (8 items), stable versus unstable (8 items) and global versus situation specific (8 items). Because I theorize that internal attributions do not necessarily lead to negative or helpless behavior in the present study, scores for the stable and global items only were averaged to create a composite pessimism scale ($\alpha = .61$).

*Vulnerability to jealousy.* Children’s characteristic vulnerability to jealousy was assessed using a subset of ten items from the 27-item Friendship Jealousy Questionnaire (Appendix C; Parker, et al., 2005). The filler items were dropped and the remaining items were chosen at random. Items present children with short vignettes depicting hypothetical social situations featuring themselves, their closest best friend, and a third party peer. In these vignettes, the best friend and third party appear to be getting along well or engaging in social activities without the participant and participants are asked to indicate how jealous they would feel under such circumstances. Children responded to each vignette using a scale of 0 (not at all true of me) to 4 (very true of me). Responses were averaged across items, and were highly internally consistent, alpha = .91.
Social Self-Worth. The 14-item Social Self-Worth scale from the Self-Perception Profile for Adolescents (Appendix D; Harter, 1988) was used to assess children’s satisfaction with social aspects of themselves (Harter, Waters, & Whitesell, 1998). Items included “I am kind of hard to like (reverse scored),” “I am popular with other people my age,” and “I really like my looks.” Children indicated how much they agreed with each statement using a scale of 1 (not at all like me) to 4 (really like me). Responses were averaged across items. This measure demonstrated adequate internal consistency, $\alpha = .84$.

Attributions and behavioral responses to outsider interference

Stimulus vignettes. Children read four hypothetical stories involving the participant, his or her best friend, and a third party interloper. During the course of each story, the participant looks forward to engaging in an attractive activity with his or her best friend but later learns that the best friend attends with someone else. These stories capture a range of realistic events including some that represent one-time events or missed opportunities and others that portray recurring events that may be correctable in the future. Pilot studies and previous research (i.e., Roth, 2002) indicate that these vignettes provoke strong feelings of jealousy in most adolescents and young college students. Internal versus external attributions were manipulated, such that in two stories, the participant was told that the situation is his or her fault. In two other stories, the participant was told that the friend’s behavior is not the participant’s fault. Apart from suggesting that the participant did or did not contribute to the friend’s decision to participate in an activity with someone else, no other details were provided concerning why the friend behaved in this way. That is, although participants were told in some cases that the friend’s behavior was angry reaction to something they did, they were not told
what specifically triggered this reaction by the friend to avoid altering participant’s responses by their conclusions concerning whether the triggering event was within or beyond their control. The order of the internal versus external attribution manipulation was counterbalanced across vignettes. A version of the story involving a female participant with internal control is as follows:

Imagine that you and your best friend have gone on a weekend skiing trip with her family every winter for the last five years. Last year, you and your best friend had a lot of fun and you can't wait to go again this year. The week before the trip, you are out shopping at a sporting goods store for ski equipment for the trip. At the store you spot another girl, Maxine, trying on a ski jacket and goggles. Maxine and your best friend know each other from their soccer team. You go over to her and say, "Hey Maxine! Shopping for ski equipment?" She says that she needs to get some new ski gear because your best friend invited her to go skiing with her and her family next week. You suddenly remember something that happened earlier, and now you realize this is your fault!

The other three stories describe similar disappointments. In two stories, the participant discovers that he or she cannot sit with the best friend either at lunch or on the bus because someone else is or will be sitting in the only seat. In the last vignette, the participant experiences disappointment in a one-time event situation. The participant makes plans to go to an end-of-school party with the best friend and later learns that the friend is planning on going with someone else. All four vignettes (for females and external attributions) are presented in Appendix E with the questions that followed each vignette.
Manipulation Check. Following each vignette, participants were queried to insure that they recognized the manipulation in the assignment of blame from the self (internal) to the best friend (external). Specifically, after each story participants were to indicate whether, according to the story, the responsibility for the negative event had been their fault.

Stable and global attributions. Following each story, children’s inclination to attribute the events to stable and global causes was assessed via two forced choice questions. To assess their readiness to assume stability in the friend’s behavior, participants were first asked to indicate whether they assumed that the best friend’s negative behavior was or was not likely to be repeated in the future in the same situation by choosing one of two responses to a question relevant to the vignette such as “How often do you think your friend would want to sit with Christina instead of you?” Sample choices include “A. All the time from now on” and “B. Just this time.” Participants who indicated that they would expect similar behavior in the future were said to have an attribution of stability. Kappa was .49 across the internal vignettes and .36 across the external vignettes. To assess the globality of participants’ attributions, participants were next asked whether they assumed that the friend would behave in a similar negative way in other, dissimilar but analogous situations (e.g., whether a friend who refused to sit with the participant in one social settings was likely to also refuse to sit with the participant in other settings). A sample item is “How many other activities would you think your friend wants to do with Christina instead of you? A. Probably most of them. B. Probably just this one.” Participants who anticipated negative treatment by the friend in other situations based on their experience in the stimulus situation were said to have adopted an
attribution of globality. Kappa for globablity items was .49 across the internal vignettes and .42 across the external vignettes.

*Hostile attributions.* After each of the four vignettes in two conditions, children’s attributions of hostile intent to the friend were assessed with two forced-choice items adapted from Crick (1995). Thus, children received a total of four items in each condition. Children were first asked to select one choice that best explains the likely reason for the event. For example, following the ski trip story, female participants were asked “Why is your best friend going skiing with Maxine.” Participants then selected the most likely reason. For example, “She wants to hurt me” (hostile) or “She forgot we had made plans” (neutral). The score for each item ranged from 0 (non hostile attribution) to 1 (hostile attribution). The hostile attributions items were averaged within and across vignettes in each condition. The alpha is .85 for the four items following the internal vignettes, and .73 for the four items following the external vignettes.

*Controllability.* Finally, after each jealousy-invoking vignette children rated their perceptions of control over the course of their friendship using two items based on Lepore et al.’s (1989) assessment of perceptions of control over social outcomes. These items include “There is something I can do to keep these kinds of problems from happening” and “There is nothing I can do to keep these kinds of problems from happening.” Responses were indicated on a scale ranging from 1 (disagree a lot) to 5 (agree a lot) and items were averaged within and across vignettes in each condition. The alpha is .77 for these items across the internal vignettes, and .74 across the external vignettes.
Behavioral responses. After reading each vignette, participants indicated on a Likert scale ranging from 1 (not likely) to 5 (very likely) the likelihood that they would engage in each of nine varying responses using items adapted from prior research (i.e., Crick & Grotpeter, 1995; Lavallee & Parker, under review; Roth, 2002).

Response options were chosen to reflect three broad domains (asocial, antisocial, prosocial). Asocial responses were responses that involved backing off from the relationship or making attempts to avoid the situation and included withdrawal (i.e., “Stop making an effort to do things with my friend.”), dismiss (i.e., “Just ignore the whole thing and say nothing.”) and ruminate (i.e. “Think about all of the reasons why it might have happened and think about every detail of what happened.”). Antisocial responses were responses that were hostile or punitive and included relational aggression (i.e., “Spread rumors my friend so that no one would like her anymore.”), direct aggression (i.e., “Push, shove, or yell at my friend.”), and passive aggression (i.e., “Try to make my friend feel bad the next time I see her.”). Finally, prosocial responses were responses that involved attempts to approach the problem and repair the friendship in a positive way and included constructive verbal communication (i.e., “Talk to my friend and see if we can work it out so it does not happen again.”), including all (i.e., “Think about an activity that I, my friend, and Maxine can do together.”), and attempts to restore the relationship through compensation and making oneself attractive to the partner (i.e., “Do something for my friend to show her how important she is to me.”).

For each category of response (i.e., asocial, antisocial, and prosocial), responses to three items following each of the two vignettes were initially averaged to yield an overall score. However, inspection of internal consistencies and inter-item correlations
within and across scales suggested the need to re-conceptualize the placement of the 
rumination item. Specifically, this item was poorly related to the remaining two asocial 
items and strongly, positively correlated with all three prosocial items. Apparently, then, 
rather than an expression of giving up, ruminating may represent a form of prosocial 
response reflecting focusing on the relationship and the reasons surrounding relationship 
difficulty. Accordingly, this item was included in the prosocial rather than asocial scale. 
Internal consistencies for the final scales for each of the two conditions were all adequate: 
for asocial: 64 (internal) and .61 (external); for antisocial, .89 (internal) and .88 
(external), and for prosocial, was .89 for both the internal and external conditions.
Chapter 3

Results

Preliminary analyses

Bivariate correlations and means. Table 1 presents the means, standard deviations, and bivariate correlations among the measures of entity beliefs, jealousy, self worth, and general pessimism for each sex. As shown, self and other entity beliefs were significantly positively related to general pessimism among girls but not among boys. In contrast, neither self- or other-relevant entity beliefs were significantly related to grade, characteristic jealousy, or social self-worth for either boys or girls.

Further, Table 1 presents the results of t-tests comparing males and females on each variable. Females reported higher jealousy than males, t(1, 277) = 6.91, p < .001, d = .83, and males reported higher direct aggression than females, t(1, 277) = 3.67, p < .001, d = .55. Males and females did not differ on the other variables.

Manipulation check. Frequencies were calculated to determine the percent of participants who correctly identified the source of blame in the external versus internal conditions. Ninety percent of participants recognized that the situation was not their fault in the external condition, and 57% of participants recognized that the situation was their fault in the internal condition.
Two sets of four parallel 2 (sex) X 2 (high versus low entity beliefs; median split) X 2 (internal versus external condition) repeated measures ANCOVAs were conducted to examine the influence of entity beliefs and condition on attributions following the vignettes. In the first set of four ANCOVAs, children’s self-referent entity beliefs were examined in relation to stable, global, hostile, and controllability attributions, respectively. In the second set, children’s other-referent entity beliefs were used in place of self-referent beliefs. In these analyses, general pessimism was included as a covariate to control for the general tendency to think fatalistically about negative events. Condition served as a within subject variable in these analyses and sex and entity beliefs served as between subjects factors.

Table 1: Correlations and means for self-report measures

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Grade</th>
<th>Entity self</th>
<th>Entity other</th>
<th>Jealousy</th>
<th>Self worth</th>
<th>Pessimism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade</td>
<td>-0.05</td>
<td>-0.03</td>
<td>0.05</td>
<td>-0.31**</td>
<td>0.18*</td>
<td></td>
</tr>
<tr>
<td>Entity self</td>
<td>0.12</td>
<td>0.48**</td>
<td>-0.07</td>
<td>0.09</td>
<td>0.26**</td>
<td></td>
</tr>
<tr>
<td>Entity other</td>
<td>0.03</td>
<td>-0.15</td>
<td>-0.04</td>
<td>-0.07</td>
<td>-0.19*</td>
<td>-0.02</td>
</tr>
<tr>
<td>Jealousy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self worth</td>
<td>-0.08</td>
<td>-0.04</td>
<td>0.01</td>
<td>-0.22*</td>
<td>-0.35**</td>
<td></td>
</tr>
<tr>
<td>Pessimism</td>
<td>0.09</td>
<td>0.06</td>
<td>0.10</td>
<td>-0.07</td>
<td>-0.20*</td>
<td></td>
</tr>
</tbody>
</table>

Means (SD)

<table>
<thead>
<tr>
<th>Females</th>
<th>7.16</th>
<th>2.72</th>
<th>2.91</th>
<th>1.57</th>
<th>2.91</th>
<th>1.28</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>(.78)</td>
<td>(1.09)</td>
<td>(1.01)</td>
<td>(.86)</td>
<td>(.53)</td>
<td>(.16)</td>
</tr>
<tr>
<td>Males</td>
<td>6.97</td>
<td>2.82</td>
<td>2.91</td>
<td>0.91</td>
<td>2.99</td>
<td>1.30</td>
</tr>
<tr>
<td></td>
<td>(.79)</td>
<td>(1.95)</td>
<td>(.87)</td>
<td>(.73)</td>
<td>(.52)</td>
<td>(.16)</td>
</tr>
</tbody>
</table>

Note. * = p < .05, ** = p < .01. Girls are above the diagonal, boys below. N = 137-141.

Entity beliefs and attributions

Two sets of four parallel 2 (sex) X 2 (high versus low entity beliefs; median split) X 2 (internal versus external condition) repeated measures ANCOVAs were conducted to...
Results of the self referent entity beliefs ANCOVA on stability attributions indicated a significant covariate effect, $F(1, 268) = 23.74, p<.001$, partial $\eta^2 = .08$, a significant main effect of condition, $F(1, 268) = 6.48, p<.05$, partial $\eta^2 = .02$, and a two-way condition X pessimism covariate interaction, $F(1, 268) = 5.05, p<.05$, partial $\eta^2 = .02$. Follow-up examination indicated that children’s stability scores were higher in response to stories that depicted external ($M = 1.84$) versus internal ($M = 1.78$) attributions of responsibility. The effect of self-referent entity beliefs on stability attributions was non-significant. For the other-referent entity beliefs ANCOVA, results indicated a main effect of condition, $F(1, 268) = 5.22, p<.05$, partial $\eta^2 = .02$, a significant covariate effect, $F(1, 268) = 26.00, p<.001$, partial $\eta^2 = .09$, and a two-way condition X pessimism interaction, $F(1, 268) = 3.94, p<.05$, partial $\eta^2 = .01$. An examination of the means revealed that participants were more likely to think of the negative event as stable when given an external ($M = 1.84$) than an internal ($M = 1.78$) attribution. The effect of other entity beliefs on stable attributions was non-significant. To follow up the pessimism effect post hoc, pessimism was dichotomized using a median split, and a 2 (sex) X 2 (high/low pessimism) X 2 (internal/external condition) ANOVA was conducted. This analysis revealed a significant main effect of pessimism, $F(1, 270) = 8.81, p<.001$, partial $\eta^2 = .03$, a main effect of condition, $F(1, 270) = 6.01, p<.05$, partial $\eta^2 = .02$, and a sex X pessimism interaction, $F(1, 270) = 4.80, p<.05$, partial $\eta^2 = .02$. Interestingly, an examination of the means indicated that high scores on the pessimism scale were associated with lower scores on the stability items (high pessimism $M = 1.76$, low pessimism $M = 1.85$). Further, this significant difference appears to only be present in males (high pessimism $M = 1.72$, low pessimism $M = 1.88$).
For global attributions, the self-entity beliefs ANCOVA indicated no significant effects of sex, high verses low entity beliefs, or condition. However, results indicated a main effect of the pessimism covariate, $F(1, 268) = 19.22, p < .001$, partial $\eta^2 = .07$. In the other entity beliefs ANCOVA, results again indicated a significant main effect of pessimism, $F(1, 268) = 21.43, p < .001$, partial $\eta^2 = .07$. To follow up the pessimism effect post hoc, a 2 (sex) X 2 (high/low pessimism) X 2 (internal/external condition) ANOVA was conducted. This analysis revealed significant main effects of condition, $F(1, 270) = 7.27, p < .001$, partial $\eta^2 = .03$, and pessimism, $F(1, 270) = 6.36, p < .05$, partial $\eta^2 = .02$. The means indicate greater global attributions in the external ($M = 1.78$) than in the internal ($M = 1.72$) condition, and greater global attributions for low pessimism ($M = 1.80$) than high pessimism ($M = 1.70$).

For hostile attributions, the self entity beliefs ANCOVA indicated a significant main effect of condition, $F(1, 268) = 14.17, p < .001$, partial $\eta^2 = .05$. The means indicated that participants were more likely to view their friend’s actions as hostile in the internal ($M = .49, SD = .41$) compared to the external ($M = .15, SD = .26$) blame condition. The effect of self-entity beliefs on hostile attributions was non-significant. Results also indicated a significant two-way interaction between condition and pessimism, $F(1, 268) = 4.82, p < .05$, partial $\eta^2 = .02$. In the other entity beliefs ANCOVA, results replicated the significant main effect of condition, $F(1, 268) = 15.77, p < .001$, partial $\eta^2 = .06$. The means indicated that participants were more likely to view their friend’s actions as hostile in the internal blame condition ($M = .49, SD = .41$), than in the external condition ($M = .15, SD = .26$). The effect of other entity beliefs on hostile attributions was non-significant. Results also replicated the significant two-way interaction between condition
and pessimism, $F(1, 268) = 5.71, \ p<.05$, partial $\eta^2 = .02$. To follow up the condition X pessimism effect post hoc, a 2 (sex) X 2 (high/low pessimism) X 2 (internal/external condition) ANOVA was conducted. This analysis replicated the significant condition main effect, $F(1, 270) = 166.02, \ p<.001$, partial $\eta^2 = .38$, and the condition X pessimism interaction, $F(1, 270) = 5.44, \ p<.05$, partial $\eta^2 = .02$. Means revealed that high pessimists ($M = .18$) were more likely than low pessimists ($M = .12$) to make hostile attributions in the external condition. In contrast, in the internal blame condition, low pessimists ($M = .52$) were more likely to make hostile attributions than high pessimists ($M = .46$).

For controllability beliefs, in the self entity beliefs ANCOVA, results indicated a main effect of sex, $F(1, 268) = 26.68, \ p<.001$, partial $\eta^2 = .09$. Means indicated that females ($M = 3.64, SE = .07$) were more likely than males ($M = 3.16, SE = .07$) to report thinking they can do something about the events in the vignette. Results also indicated a main effect of the covariate, $F(1, 268) = 17.21, \ p<.001$, partial $\eta^2 = .06$. Further a significant two-way condition X self entity beliefs interaction emerged, $F(1, 268) = 5.97, \ p<.05$, partial $\eta^2 = .02$. This interaction is displayed in Figure 1, which also includes the 95% confidence interval surrounding each mean and used in post hoc comparisons. As shown, individuals with high versus low entity beliefs toward their own social characteristics did not differ significantly in their attributions of controllability when vignettes depicted negative friendship events as someone else’s responsibility (external condition). Not surprisingly, perceptions of controllability were relatively low for both groups in these circumstances. However, when the negative events depicted in the vignette were portrayed as the responsibility of the participants, individuals with low entity beliefs perceived significantly greater control in the internal as opposed to external
conditions and significantly greater controllability than individuals with high entity beliefs in this circumstance. By contrast, the shift from external to internal attributions of responsibility did not significantly affect the perceptions of controllability of high entity theorists, who perceived their control in this circumstances as similar to that within the external attribution condition.

The other-referent entity beliefs ANCOVA on controllability beliefs replicated the main effects of sex, $F(1, 268) = 26.12, p<.001$, partial $\eta^2 = .09$, and the pessimism covariate, $F(1, 268) = 17.10, p<.001$, partial $\eta^2 = .06$. Means indicated that females ($M = 3.64, SE = .07$) were more likely than males ($M = 3.16, SE = .07$) to report thinking they can do something about the events in the vignette.

![Figure 1: Condition by self-relevant entity beliefs interaction on control attributions](image-url)
Entity beliefs and behavior

The influence of social entity beliefs and the interactions with condition and jealousy on behavior was examined separately for beliefs about the self and others. Each analysis used a 2 (sex) X 2 (high versus low entity; median split) X 2 (internal versus external condition) X 2 (high versus low jealousy; median split) x 3 (behavioral response category) five-way ANCOVA, controlling for the effects of general pessimistic explanatory style. In this analysis, sex, entity beliefs, and characteristic jealousy are between subject factors. Internal versus external attribution condition and behavioral response (asocial, antisocial, and prosocial) are repeated factors.

Self-relevant entity beliefs. The first ANCOVA using self-relevant entity beliefs revealed main effects for entity beliefs, $F(1, 259) = 8.17, p<.01$, partial $\eta^2 = .03$, characteristic jealousy, $F(1, 259) = 4.23, p<.05$, partial $\eta^2 = .02$, and behavior, $F(2, 258) = 37.43, p<.05$, partial $\eta^2 = .23$. Main effects for sex, condition and the covariate were not significant. An examination of the means indicated that children holding high entity beliefs had stronger behavioral reactions of any type ($M = 2.38, SE = .03$) than children holding more flexible views of their personal and social characteristics ($M = 2.25, SE = .03$). Also, children reporting high levels of characteristic jealousy had stronger behavioral responses ($M = 2.36, SE = .03$) than children who reported low levels of characteristic jealousy ($M = 2.27, SE = .03$).

In examining the behavior effect (Figure 2), post hoc follow-up comparisons with a Bonferroni correction ($p<.05$) and examinations of the means and confidence intervals
indicated that children’s prosocial responses were higher than their asocial and aggressive responses. Further, their asocial responses were higher than their aggressive responses.

Results also indicated three 2-way interactions, including sex by behavior, $F(2, 258) = 16.83, p<.001$, partial $\eta^2 = .12$, condition by behavior, $F(2, 258) = 6.46, p<.01$, partial $\eta^2 = .05$, and behavior by pessimism covariate, $F(2, 258) = 16.25, p<.001$, partial $\eta^2 = .11$. Three-way interactions included sex by behavior by jealousy, $F(2, 258) = 3.73, p<.05$, partial $\eta^2 = .03$, and condition by behavior by pessimism covariate, $F(2, 258) = 5.75, p<.01$, partial $\eta^2 = .04$. The hypothesized 3-way condition by behavior by self-relevant entity beliefs interaction was not significant, nor was this interaction nested within a significant 4- or 5-way interaction, and it remained non-significant when the covariate was removed.

As the sex by behavior interaction was nested within the three-way sex by behavior by jealousy interaction, only the results from the three-way interaction are

![Figure 2: Behavior main effect](image-url)
plotted. As Figure 3 illustrates, low-jealousy males had stronger asocial responses than females (high- or low-jealousy). Low-jealousy females had weaker antisocial responses than males. However, the strength of high-jealousy females’ antisocial responses was not significantly different from males. Finally, low-jealous females had stronger prosocial responding than all males, while low-jealous males had the weakest prosocial responses, and were significantly lower than all females.

Figure 3: Sex by behavior by jealousy three-way interaction

Figure 4 illustrates the condition by behavior 2-way interaction. Although the effect was significant, an examination of the means and confidence intervals indicates no significant differences between the internal and external condition on any of the three behavior types.
The condition by behavior by pessimism 3-way interaction was further explored in an additional analysis to determine whether global pessimism was producing the effects hypothesized for self-relevant entity beliefs. Pessimism was dichotomized via median split and used as a factor in a 2 (sex) X 2 (high versus low pessimism) X 2 (internal versus external condition) X 2 (high versus low jealousy) X 3 (behavior) ANOVA. In this analysis, the condition by behavior by pessimism 3-way interaction was significant only at the trend level, $F(2, 260) = 2.41, p < .10$, partial $\eta^2 = .02$. However, the two-way behavior by pessimism interaction was significant, $F(2, 260) = 2.26, p < .05$, partial $\eta^2 = .02$. It also remained significant when controlling for grade, which correlated with pessimism for boys. The results of the 2-way behavior by pessimism interaction are presented in Figure 5. The confidence intervals overlap for children in the high and low pessimism groups for each behavior. However, the data do show a tendency for pessimistic children to have stronger asocial and antisocial behavior responses than low-
pessimistic children. Low pessimistic children have stronger prosocial responses than pessimistic children.

Other-relevant entity beliefs. The planned ANCOVA was rerun substituting entity beliefs about others’ social characteristics in place of entity beliefs about one’s own characteristics. This analysis replicated the main effect for behavior, $F(2, 258) = 38.18$, $p<.001$, partial $\eta^2 = .23$, and entity beliefs, $F(2, 258) = 4.50$, $p<.05$, partial $\eta^2 = .02$. This analysis also yielded a main effect of the pessimism covariate, $F(1, 259) = 4.80$, $p<.05$, partial $\eta^2 = .02$. Main effects for sex, jealousy and condition were not significant. As with self-relevant entity beliefs, means indicated that children holding high entity beliefs had stronger responses to the behaviors in this study ($M = 2.36, SE = .03$) than children holding more flexible views of others’ personal and social characteristics ($M = 2.26, SE = .03$).
The present analysis also replicated the three two-way interactions between sex and behavior category, $F(2, 258) = 15.53, p<.001$, partial $\eta^2 = .11$, condition by behavior category, $F(2, 258) = 7.94, p<.01$, partial $\eta^2 = .06$, and behavior by pessimism covariate, $F(2, 258) = 16.76, p<.001$, partial $\eta^2 = .12$. The direction of these effects was the same as in the self-relevant entity analyses.

Although the behavior by jealousy by sex three-way interaction was not replicated, the condition by behavior by pessimism covariate interaction was replicated, $F(2, 258) = 5.75, p<.01$, partial $\eta^2 = .05$. As in the analysis with self-relevant entity beliefs, the hypothesized 3-way condition by behavior by other entity beliefs interaction was not significant, nor was this interaction nested within a significant 4-way or 5-way interaction, and remained non-significant when the covariate was removed.

**Supplemental analyses**

Several supplemental analyses were undertaken to explore possible post hoc interpretations for the failure to obtain a significant condition by entity beliefs by behavior 3-way interaction as hypothesized.

**Entity beliefs composite.** First, self-relevant and other-relevant entity beliefs items were composited to yield a single 6-item entity beliefs scale. Although the alpha for this scale (.79) was higher than for either of the two 3-item scales, using the composite scale in the 5-way ANCOVA on behavior did not yield any additional significant effects.

**Accurate condition perception.** Second, the possibility that poor manipulation effectiveness attenuated effects on attributions and behavior was explored by repeating
the ANCOVAs including only participants who correctly answered the manipulation check after each vignette (N = 145). The ANCOVAs on stable, global, hostile, and controllability attributions did not reveal any new significant effects.

The 5-way ANCOVA on behavior with self-relevant entity beliefs replicated the main effect for behavior, $F(2, 135) = 10.92$, $p<.001$, partial $\eta^2 = .14$. Main effects for sex, entity beliefs, jealousy, condition and the covariate were not significant. Results also produced three 2-way interactions, including sex by behavior, $F(2, 135) = 8.35$, $p<.001$, partial $\eta^2 = .11$, condition by behavior, $F(2, 135) = 3.35$, $p<.05$, partial $\eta^2 = .05$, and behavior by pessimism covariate, $F(2, 135) = 4.46$, $p<.001$, partial $\eta^2 = .06$. Three-way interactions included condition by behavior by jealousy, $F(2, 135) = 3.84$, $p<.05$, partial $\eta^2 = .05$, and condition by behavior by self-relevant social entity beliefs, $F(2, 135) = 4.25$, $p<.05$, partial $\eta^2 = .06$. No significant 4- or 5-way interactions emerged. Only the hypothesized 3-way interaction was further examined.

Figure 6 illustrates the significant self-relevant entity by condition by behavior 3-way interaction. The confidence intervals overlap for children in the high and low entity group and in each condition for each behavior. However, the data do show a tendency for low entity children in the external condition to more strongly endorse asocial behavior than children in the external condition and holding high entity beliefs. Further, the low entity children seemed to give slightly stronger endorsements to prosocial behaviors when in the internal condition than in the external condition.
Additionally, the planned ANCOVA on behavior was re-run substituting entity beliefs about others’ social characteristics in place of entity beliefs about one’s own characteristics. As with the self-relevant ANCOVA, this analysis replicated the main effect for behavior, $F(2, 135) = 10.89, p<.001$, partial $\eta^2 = .14$. Main effects for sex, jealousy, entity beliefs, condition, and the covariate were not significant. The present analysis also replicated the three two-way interactions between sex and behavior category, $F(2, 135) = 10.62, p<.001$, partial $\eta^2 = .14$, condition by behavior category, $F(2, 135) = 3.92, p<.05$, partial $\eta^2 = .06$, and behavior by pessimism covariate, $F(2, 135) = 4.39, p<.05$ partial $\eta^2 = .06$. The direction of these effects was the same as that obtained in the self-relevant entity analyses.

Figure 6: Three-way self-relevant entity by condition by behavior interaction
Three-way interactions included the condition by behavior by jealousy interaction, $F(2, 135) = 3.11, p<.05$, partial $\eta^2 = .04$. Two other significant 3-way interactions were also significant, including the condition by behavior by covariate interaction, $F(2, 135) = 3.22, p<.05$, partial $\eta^2 = .05$, and entity by jealousy by sex, $F(1, 136) = 4.30, p<.05$, partial $\eta^2 = .03$. The condition by behavior by entity beliefs interaction was not replicated for other-relevant beliefs.

Correlational analyses. The possibility that the arbitrary median split on entity beliefs reduced the measure’s effectiveness as a predictor was examined in a post hoc correlational analysis. Bivariate correlations between entity beliefs and the three behavior types indicated significant or nearly-significant positive correlations between entity beliefs and asocial behavior for both self-relevant ($r = .18$, $p<.01$ in both the internal and external conditions) and other-relevant ($r = .16$, $p<.05$ for the internal condition, $r = .11$, $p<.10$ for the external condition). Bivariate correlations between entity beliefs and antisocial and prosocial behavior were not significant.

Correlations between pessimism and behavior were also examined. Bivariate correlations between pessimism and asocial behavior are positive and moderate ($r = .31$ for internal, $.20$ for external, $p<.01$). Similarly, the correlations between pessimism and antisocial behavior are also positive ($r = .33$ for internal, $.27$ for external, $p<.01$) Pessimism is negatively correlated with prosocial behavior ($r = -.29$ for internal, -.21 for external, $p<.01$).
Chapter 4
Discussion

All children must cope with the interference of others in their friendships at some point. Children’s feelings of jealousy and other negative emotional reactions surrounding perceived threats vary greatly. Extreme feelings of distress over a friend’s other friends is linked to both interpersonal and intrapersonal outcomes. For example, children who report being vulnerable to friendship jealousy also report more conflict with friends, and express greater feelings of loneliness and depression (Lavallee & Parker, under review). Like the variability in jealousy, children’s behavioral responses to friendship interference are also varied. Whether or not children engage in negative, stereotypical jealous behavior, such as relational or passive aggression, is not fully explained by variation in characteristic jealousy. Rather, children may engage in a host of responses ranging from reparation of the relationship to withdrawal. The present study posited that certain cognitions about social characteristics and beliefs about the controllability of the social environment would better explain behavioral responses to friendship interference than jealous emotions alone. Specifically, children who view their own and others’ social characteristics as changeable were hypothesized to engage in more reparative, prosocial overtures, such as talking to their friend, making attempts to include everyone, or trying other forms of problem solving. They were expected to believe that they can understand and have an effect on their relationships through effort and therefore to view the jealousy situation as temporary and specific and to perceive that they can do something to change
the situation in the future. In contrast, children who believe their social characteristics are fixed were predicted to give up or to use asocial strategies to deal with being left out by a friend, especially when participants perceive that the interference is their own fault (i.e., have an internal attribution). Finally, children who view others’ social characteristics as fixed and perceive the root of the problem to rest with the friend (i.e., make an external attribution) were expected to engage in more anti-social behavior such as aggressing or retaliating against their friend than those who view social characteristics as malleable. All entity theorists were expected to believe that the problem is stable and global and, as a result, assume that they have little control over the outcome of the jealousy-invoking situation. Because entity theorists in the external condition also believe they have been slighted (i.e., they make an external attribution), they were expected to be motivated to save face or to punish the partner.

Results indicated that views of relationships characteristics and control did enter into the picture, although not as strongly as predicted. Although entity beliefs were significantly positively related to general pessimism for girls, some of the predicted relationships involving entity beliefs were unsupported. Interestingly, some of the relationships predicted for entity beliefs were found for more general pessimism.

First self-referent and other-referent entity beliefs were examined in relation to stable, global, hostile, and controllability attributions, respectively. Children with high entity beliefs were expected to believe jealousy-provoking events were more stable, more global, and less controllable than children with more flexible views of social characteristics. Results on stability attributions did not reveal the expected entity beliefs effect. Rather, children’s stability scores were higher in response to stories that depicted
external rather than internal events. Further, and unexpectedly, a closer examination of
the general effect of pessimism revealed that higher stability scores were associated with
lower pessimism scores (for males only). Though a specific effect of pessimism was not
hypothesized, the direction of this effect is counter to the hypothesis for entity beliefs.
Further, the scores on the pessimism scale were comprised of scales measuring the
general tendency to attribute negative events to stable and global causes, complicating
interpretation.

Again, for global attributions, results indicated no support for the hypothesized
entity beliefs effect, but did reveal a main effect of the pessimism covariate. As with
stability attributions, children scoring lower on the pessimism scale made greater global
attributions, counter to expectations. Essentially, the finding that pessimism is not related
in predictable ways to stability and globality items following the vignettes points mainly
to the lack of interpretability of this effect. Such an uninterpretable effect may be the
product of chance (notably, the effect sizes were quite small) and the sub-optimal
reliability of each of these measures.

The examination of hostile attributions revealed that participants were more likely
to view their friend’s actions as hostile when they were given an internal attribution. An
interaction between pessimism and the internal condition qualified this main effect. When
it was further explored in a separate analysis, low pessimists were more likely than high
pessimists to make hostile attributions in the internal condition, but were less likely than
high pessimists to make hostile attributions in the external condition. The increased
hostile attributions made in the internal blame condition by low pessimists may stem
from children’s assumption that if they are at fault, the friend must be trying to get back
at them. For example, children appear more likely to agree with the item response choice “she wants to hurt me” after hearing that they are to blame, than they are to agree with “she forgot we had plans.” When they child is given an external attribution (i.e., “you know this can’t be your fault”) they have little reason to believe their friend would be acting maliciously. The tendency for low pessimists to make even fewer hostile attributions in the external condition makes sense. More optimistic children are even less likely than more pessimistic children to assume their friend is hostile when they know they are not to blame. However, the tendency for low pessimists to make more hostile attributions in the internal condition again runs counter to expectations.

The analysis of controllability beliefs revealed that females were more likely than males to report thinking they can do something about friendship interference. The pessimism covariate again emerged as a significant predictor. However, because an expected effect of entity beliefs emerged, the covariate effect was not reported. For self-relevant entity beliefs (but not for other-relevant entity beliefs) in the internal condition, perceptions of control were higher for children with low entity beliefs than for children with a more fixed view of social characteristics. All children seemed to agree that they had less control in the external situations than in the internal situations. Though the effect size is small, these findings are consistent with expectations. Only self-relevant entity beliefs should be at work here, as they are most relevant to the internal blame condition. Though not assessed, other-relevant beliefs may have played a role in perceptions of the friend’s control over the situation, especially in the external condition.

Turning now to the prediction of behavior, both entity beliefs (both self- and other-relevant) and characteristic jealousy (in the self-relevant entity beliefs ANOVA
only) predicted general endorsement of behavior. Characteristically jealous children were more likely than less jealous children to offer behavior responses. These children may be motivated to endorse responding by their more intense emotions. Less distressed children may not consider the responses necessary because they do not see the interference situation as problematic. Interestingly, high endorsement of entity beliefs was also related to greater behavioral responding, in general. These children were actually expected to be less likely to respond behaviorally in general, as action would seem futile in light of their static views of personality and lower levels of perceived control. One reason they seemed more active may be because there was such a high ratio of counterproductive (antisocial and asocial) behaviors relative to prosocial behaviors. This interpretation is weakened, however, by that fact that, if this interpretation were correct, one would expect to see a significant entity by behavior interaction. This 2-way interaction did not emerge.

Overall, the largest effect was the main effect of behavior category. Children endorsed prosocial responses more strongly than asocial responses and asocial responses more strongly than antisocial ones. Some of this effect may be attributable to social desirability. Children may know which behaviors adults deem appropriate, and endorse them accordingly. Because this study did not include observations or teacher ratings of behavior, it is not possible to know whether these effects are as large in reality as they are in the self-report data. However, we do generally know that the number of children who are aggressive or withdrawn is commonly smaller than the number of socially well-adjusted children.

A sex by behavior interaction qualified the general behavior effect, which was further qualified by a sex by jealousy by behavior interaction (present only in the
ANOVA using self-relevant entity beliefs). Low-jealousy males are more likely than females (high- or low-jealousy) to endorse asocial behaviors. Their greater willingness to withdraw from the relationship or to endorse dismissal is interesting. Perhaps because they do not see the interference as problematic, these males simply dismiss the problem altogether and do not think about it. If they do see it as a problem, their low levels of emotional distress may make it easier for them to simply stop making an effort to do things with their friend. Interestingly, low-jealousy females were less likely than males to endorse antisocial behavior, yet, the experience of jealousy seemed to motivate high-jealous females to engage in higher levels of antisocial behavior, rivaling the males’ levels. High-jealous females were just as likely as males to endorse such behavior, seemingly motivated toward aggression by their increased distress. Finally, low-jealous females were significantly more likely to endorse prosocial behavior than were all males, while low-jealous males were the least likely to endorse prosocial behaviors, and were significantly lower than all females. Interestingly, among low-jealousy children only, girls’ positive actions seem potentiated and their negative actions impeded when compared to other low-distress males.

The hypothesized impact of entity beliefs and condition on which behaviors children endorsed received little support. Children were expected to endorse more asocial (rather than prosocial or antisocial) behaviors in the internal condition, especially if they also highly endorsed entity beliefs. These children were expected to be more likely to give up on the relationship out of a combination of guilt and feeling little sense of control over their own or other children’s social characteristics. Acting out of a combination of retaliatory feelings and little sense of control, children were expected to indicate stronger
endorsement of antisocial than prosocial or asocial responses in the external blame condition, especially if they held high entity beliefs. None of these hypotheses were supported. Although the condition by behavior interaction was significant, no significant mean differences were present. Further, neither the entity by behavior, nor the central entity by condition by behavior interaction was significant for either the self- or the other-relevant entity beliefs in the main analyses.

When the analyses were re-run on only children who responded correctly to the experimental condition manipulation, the 3-way entity by condition by behavior interaction did reach significance for self-relevant entity beliefs. Although the confidence intervals overlapped for children in the high versus low entity group and in each condition for each behavior, the data did show two trends. First, in the external condition, there was a tendency for low entity children to endorse asocial behavior more strongly than children holding high entity beliefs. This was exactly counter to our hypothesis. Instead, we anticipated that high entity children in the internal condition would be the group that most strongly endorsed asocial behavior. Second, low entity children gave slightly stronger endorsements to prosocial behaviors when in the internal versus external condition. Low and high entity children did not appear to differ from each other in prosocial behavior. Again, this was inconsistent with our hypothesis. Low entity children were expected to endorse prosocial behavior more strongly than high entity children, regardless of condition.

There are a number of potential reasons for the failure to find the expected effects. First, the reliability of the entity measures was not optimal. Although past research demonstrates good reliability with the three-item measures of entity beliefs in other
domains, our parallel measure was only marginally adequate. Effects may have emerged if a more reliable measure was available, and vigorous measurement development is recommended for future research. However, ANOVA results were not affected even when the two scales were combined to increase the reliability of the scales.

A second possibility is that the self-reported behaviors were not as accurate or objective as observations or teacher-ratings of behavior might have been. The thesis that entity beliefs do not impact the type of behavior children display cannot be discarded without corroboration from multiple sources of data. Children may exaggerate their tendency to engage in prosocial behavior when self-reporting. What children say they will do is not always what they actually do.

A third possibility is that the arbitrary cut-off and reduced variance induced by the median split on entity beliefs reduced the measure’s effectiveness as a predictor. Although dichotomizing the variable for the ANOVA was a necessary step, several problems exist with the median split method of data parsing. Children who fall in the middle of the range may actually have scores that are closer to children in the other group than to children at the extreme end of their own group. Children in the middle may attenuate any predictive effects. Indeed, bivariate correlations between entity beliefs and the three behavior types indicate significant or trend-level positive correlations between entity beliefs and asocial behavior for both self- and other-relevant beliefs. This suggests that children do tend to withdraw from relationships more when they endorse higher entity beliefs; that is, when they believe social traits are non-malleable. This is consistent with past research by Carol Dweck and colleagues, who demonstrate that children who hold entity beliefs make less of an effort to reapply to a pen-pal club when initially
rejected than children who hold more flexible views (Erdley, et al., 1997; Goetz & Dweck, 1980; Lepore et al., 1989). Bivariate correlations between entity beliefs and antisocial and prosocial behavior were not significant. Notably, the correlations between general pessimism and all three behavior types were stronger than those for entity beliefs.

A fourth possibility is that the social entity beliefs construct was too specific to produce robust effects. Bivariate correlations between pessimism and asocial behavior are positive and while moderate, they were stronger than the correlations between entity beliefs and asocial behavior. Similarly, the correlations between pessimism and antisocial behavior are also positive suggesting, as one would expect, that pessimism is related to increased non-productive behaviors such as withdrawal and retaliation. In support of these findings, pessimism is also negatively correlated with prosocial behavior. This lends further support to the proposition that increased pessimism (in the form of viewing negative events as static and all encompassing rather than changeable and specific) impedes children’s attempts to make amends with their friends after disappointing friendship letdowns. In even further support, the more global pessimism construct did impact children’s choice of behavior in the ANOVAs, revealed by the condition by behavior by pessimism interaction. Notably, this is the same 3-way interaction hypothesized for entity beliefs, with pessimism substituted in. In the follow-up ANOVA, the three-way interaction was only significant at the trend level (perhaps due to the loss of variance in dichotomizing the continuous pessimism variable), but the two-way behavior by pessimism interaction was significant. Consistent with the bivariate correlations, and the predictions for social entity beliefs, highly pessimistic children showed a tendency to endorse asocial and antisocial behavior more than low-pessimistic
children. Low pessimistic children show a tendency to endorse more prosocial behavior than pessimistic children. Interestingly, in this study, specific beliefs appeared less important than global explanatory style. Perhaps the specific beliefs are idiosyncratic and general explanatory style captures more of participants’ day-to-day worldview, providing a more reliable measure of children’s thinking in specific friendship interference situations.

Relatedly, it is important to note that beliefs and behavior were assessed in a single social context in this study, namely, in the context of jealous provocations. Past work (e.g., Parker et al., 2005) attests to the provocative nature of this social context and supports its inclusion as the focal context for this study. However, this research also indicates that third party interference in friendship is not upsetting to all children. Whereas some children react strongly and negatively to these situations, others are more sanguine. Our predictions were predicated on the assumption that entity beliefs drive behavioral reactions and attributions when children are motivated by upset and surprise. To the extent that some children in our sample may not have been surprised or upset by the outsider’s interference in their friendship, links among beliefs, attributions, and behavior may have been attenuated. It would be helpful in the future to explore additional provocative situations or to tailor stimulus contexts to the particular vulnerabilities of each subject.

Finally, in the present study children were asked to express their belief in the controllability of their own and others’ characteristics in general, not whether they believed that they could change their partner specifically. Children’s own feelings of efficacy toward a partner need not coincide with their appraisal of how entrenched the
partner’s social characteristics are in general or for others. Findings may have been weakened if some children who expressed general beliefs in the controllability of their own or their partner’s characteristics nonetheless felt helpless to change themselves or their partner in the context of the specific relationship we asked them to concentrate upon. Likewise, some children who generally held a pessimistic view of their ability to change others might nonetheless have felt optimistic about their ability to control the specific partner we asked them about. Indeed, they might have been attracted to that partner precisely because that individual is one of the few individuals with whom their feel efficacious. As such they behavior of these children would not conform to expectations unless we assessed their controllability beliefs and behavior in a specific and common relationship context. Relatedly, it is possible that children’s responses to relationship disappointments such as jealousy vary less as a function of their belief in the controllability of people’s personal characteristics than in their views of relationships as fated versus malleable. Regardless of their belief in the ability of people to change themselves, children may vary in their belief in whether good relationships result from good fortunate and fate versus hard work and effort. Even children who recognize that people can behave flexibly, may grow pessimistic if they otherwise also believe that some relationships are “not meant to be.”

In conclusion, this study demonstrated that the subjective experience of jealousy does not provide a complete explanation of behavioral responding to friendship interference. Believing that social characteristics was static versus malleable was proposed as an alternate explanation for children’s variability in responding to jealousy-provoking experiences. While such beliefs did have an impact on children’s perceptions
of control, they had only a minimum effect on their endorsement of various behavioral strategies. That is, post hoc correlations demonstrated slightly elevated asocial responding in children which higher entity beliefs, yet results from the planned ANOVA’s did not produce significant effects. The effects may have been attenuated by poor reliability, the self-report assessment method, the specificity of the construct, or the level of analysis. The construct of general pessimism, originally intended as a covariate, actually provided many of the effects on behavior hypothesized for social entity beliefs, contributing to increased asocial and antisocial responding and decreased prosocial responding.

These findings provide suggestions for future research. First, the social entity beliefs measure should be refined. Increased reliability and a data analysis strategy that utilizes the full variance present in the measure will increase the conclusiveness of future research. Second, researchers should expand measurement of behavioral responses to include more behaviors and multiple methods. The present study only examined three categories of responses: asocial, antisocial, and prosocial. These response categories all focus on behaviors that impact the friendship, yet they are not all inclusive of friendship-impacting behaviors. For example, some children may veer toward an extreme of “prosocial” behavior, and become overly dependent on their friend. That is, in their attempts to repair the relationship, they may actually become too “prosocial” and cling to their friend. Such children may alienate their friends with their dependence, surveillance, or neediness. Thus, the category of dependent behavior should be pursued. Because dependence may actually be an extreme form of prosocial behavior, it may stem from an overly determined outlook. In addition to making an effort with friends, social skills also
require that children know when to let go of a non-mutual relationship. Further, the self-report method only provides limited knowledge of children’s actual behavior and should be supplemented with direct observations, parent- or teacher-reports, and peer nominations. Next, general pessimism versus optimism appears a fruitful direction for upcoming study. Though reliability for the pessimism measure was also sub-optimal, general pessimism provided stronger effects than the more specific social entity beliefs measure. More optimistic children appear to hold out hope that negative situations can be changed and endorse more positive, prosocial behaviors than children who are more fatalistic in their thinking. As positive psychology gains ground, we can begin to think of ways not only to reduce pessimistic thinking, but also to replace fatalistic thought with optimistic striving and the development of children’s social strengths (Seligman, 1991). Finally, the level of analysis should be expanded from beliefs about individual characteristics and events, to the stability and controllability of the relationship itself.
Bibliography


Appendix A

Entity Beliefs Items

Entity Beliefs about Social Characteristics - Self

1. Being a good friend either just comes naturally to you or it doesn’t.
2. You are either a good friend, or you are not, and that is something that can’t be changed very much.
3. Whether you are loyal and trustworthy as a friend is something that is deeply ingrained into your personality. It can’t really be changed.

Entity Beliefs about Social Characteristics - Other

4. Being a good friend either just comes naturally to other people or it doesn’t.
5. Other people are either a good friends, or they are not, and that is something that can’t be changed very much.
6. Whether someone is loyal and trustworthy as a friend is deeply ingrained into their personality. It can’t really be changed.
Appendix B

Children’s Attributional Style Questionnaire

DIRECTIONS: You will be reading several statements about things that happen. Circle the one answer for each statement that best describes WHY you think these things would happen to you.

1. Your pet gets run over by a car.
   A. I don’t take good care of my pets.
   B. Drivers are not cautious enough.

2. Some kids that you know say that they do not like you.
   A. Once in a while people are mean to me.
   B. Once in a while I am mean to other people.

3. A good friend tells you that he hates you.
   A. My friend was in a bad mood that day.
   B. I wasn’t nice to my friend that day.

4. You tell a joke and no one laughs.
   A. I do not tell jokes well.
   B. The joke is so well known that it is no longer funny.

5. Your teacher gives a lesson and you do not understand it.
   A. I didn’t pay attention to anything that day.
   B. I didn’t pay attention when my teacher was talking.

6. You fail a test.
   A. My teacher makes hard tests.
   B. The past few weeks my teacher has made hard tests.

7. You gain a lot of weight and start to look fat.
   A. The food that I have to eat is fattening.
   A. I like fattening foods.

8. A person steals money from you.
   A. That person is dishonest.
   B. People are dishonest.
9. You almost drown when swimming in a river.
   A. I am not a very cautious person.
   B. Some days I am not a cautious person.

10. A grown-up yells at you.
    A. That person yelled at the first person he saw.
    B. That person yelled at a lot of people he saw that day.

11. You do a project with a group of kids and it turns out badly.
    A. I don’t work well with the people in the group.
    B. I never work well with a group.

12. You try to sell candy, but no one will buy any.
    A. Lately, a lot of children are selling things, so people don’t want to buy anything else from children.
    B. People don’t like to buy things from children.

13. You get a bad grade in school.
    A. I am stupid.
    B. Teachers are unfair graders.

14. You walk into a door and you get a bloody nose.
    A. I wasn’t looking where I was going.
    B. I have been careless lately.

15. You miss the ball and your team loses the game.
    A. I didn’t try hard while playing ball that day.
    B. I usually do not try hard when I am playing ball.

16. You twist your ankle in gym class.
    A. The past few weeks, the sports we played in gym class were dangerous.
    B. The past few weeks I have been clumsy in gym class.

17. You take a train which arrives so late that you miss a movie.
    A. The past few days there have been problems with the train being on time.
    B. The trains are almost never on time.

18. A team that you are on loses a game.
    A. The team members don’t play well together.
    B. That day, the team members didn’t play well together.

19. Your teacher asks you a question and you give the wrong answer.
    A. I get nervous when I have to answer questions.
    B. That day I got nervous when I had to answer questions.

20. You get on the wrong bus and you get lost.
A. That day I wasn’t paying attention to what was going on.
B. I usually don’t pay attention to what’s going on.

21. An older kid slaps you in the face.
A. I teased his younger brother.
B. His younger brother told him I had teased him

22. You try to convince a kid to go to the movies with you, but he won’t go.
A. That day he did not feel like doing anything.
B. That day he did not feel like going to the movies.

23. Your parents get a divorce.
A. It is hard for people to get along well when they are married.
B. It is hard for my parents to get along when they are married.

24. You have been trying to get into a club and you don’t get in.
A. I don’t get along well with other people.
B. I can’t get along well with the people in that club.
Appendix C

Friendship Jealousy Questionnaire – Female Items

On this questionnaire, imagine that each of these situations happened to you and your SAME-SEX best friend. Think about how jealous or upset you would feel if the situation really occurred.

1. You call your best friend several times to see if she wants to go see a new movie, but when you finally get through, she says that another girl that you both know already asked her to go see it and she agreed to go with her.
2. You and your best friend are in the same class, in which the instructor asks the class to pair up with a study partner for the year. Before you have a chance to talk with her, your best friend agrees to be study partners with another girl that you both know.
3. You walk into the library and see your best friend and another girl that you both know talking, joking, and making plans to get together later when their classes are over.
4. You find out that your best friend went to the opening of a new music store with another girl that you both know, when you and your best friend had talked about going together as soon as it opened.
5. You find out that your best friend got into a big fight with her parents, and she called another girl that you both know for advice and did not talk to you about it.
6. Your best friend is assigned to work on a project with another girl that you both know and they start hanging out together a lot.
7. Your best friend has some important news. You find out that she tells another girl that you both know before she tells you.
8. You give your best friend a gift for her birthday, but she hardly notices because she is so excited and surprised about a gift she got from another girl that you both know.
9. You call your best friend to see what’s up and if she has made plans for the evening and she says that she can’t talk right now because another girl that you both know is over.
10. Your best friend and another girl that you know go on a weekend camping and hiking trip together.
Appendix D

Self-Esteem Items

How well does each statement describe you?

1.) I find it hard to make friends
2.) I am NOT happy with the way I look
3.) I am able to make really close friends
4.) I have a lot of friends
5.) I wish my body was different
6.) I am kind of hard to like
7.) I wish my physical appearance was different
8.) I have a close friend I can share a secret with
9.) I am popular with other people my age
10.) I think that I am good looking
11.) I find if hard to make friends that I can really trust
12.) I feel I am socially accepted
13.) I really like my looks
14.) I DO NOT have a friend who is close enough to share really personal thoughts with
Appendix E

Jealousy Vignettes with Attribution and Behavior Items

Female External Blame Condition

Why Kids Do Things

DIRECTIONS: You will be reading several stories about different girls. Pretend these girls are in your class and that the things they do in each story are happening to you.

We are interested in what you would do if situations like this really kept happening. We have already talked to some people your age who have given us suggestions of things that people may do. Some of these may be things that you definitely would do, some might be things you might do, and some are probably things you definitely would not do. Read each one carefully and mark how likely you would be to do that, if this story really happened to you. Remember, all of these are things that some people have already told us they would do. You need to consider whether you, too, would do this. You might find many things that you would do, or you might find an average amount, or even very few.

Answer “No way” If you are sure that this is something you would never do.
Answer “Doubtful” If you probably wouldn’t do it.
Answer “Maybe” If you would consider and maybe even do it.
Answer “Probably” If you are pretty sure that you would consider and actually do it. This might be something you’ve done in the past in this kind of situation and still think you might do.
Answer “Definitely” If you are certain that you would do it. This could be something you know that you always do in this kind of situation. It doesn’t have to be something you wish you would do or even think is a good idea. It just has to be something you are really sure that you would do.

SAMPLE SCALE:

<table>
<thead>
<tr>
<th>No way</th>
<th>Doubtful</th>
<th>Maybe</th>
<th>Probably</th>
<th>Definitely</th>
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<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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</table>

[Diagram of scale with different levels filled in]
Lunch Story

Imagine that you always sit next to your best friend at the lunch table. Today you get to the lunch room late and look around for your best friend. You see her and start walking over to the table, but before you get there, your best friend shouts to Christina, another girl from your class who is standing nearby. Your friend says “Hey Christina, over here, I saved this seat for you,” pointing to the last seat at the table. Christina sits down next to your friend, and you have to sit at the next table over. You know you haven’t done anything wrong, so you know it can’t be your fault!

For questions 1-5, please pick one answer for each.

1. According to the end of the story, was this your fault?
   a. Yes
      b. No

2. How often do you think your friend would want to sit with Christina instead of you?
   a. All the time from now on.
      b. Just this one time.

3. How many other activities would you think your friend wants to do with Christina instead of you?
   a. Probably most of them.
      b. Probably just this one.

4. Why did your friend save the seat for Christina?
   a. Christina asked her to.
      b. She didn’t want to sit with me.
      c. She had to talk to her about something for class.
      d. To make me sit by myself.

5. In this story do you think that your friend was:
   a. Trying to be mean
      b. Not trying to be mean
6. How likely are you to feel upset if the things in this story really happened to you?

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7. Stop making an effort to do things with my friend.

No way  Doubtful  Maybe  Probably  Definitely
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8. Talk to my friend and see if we can work it out so it does not happen again.

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9. Try to make my friend feel bad the next time I see her.

No way  Doubtful  Maybe  Probably  Definitely
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10. Think about all of the reasons why it might have happened and think about every detail of what happened.

No way  Doubtful  Maybe  Probably  Definitely
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11. Think about an activity that I, my friend, and Christina can do together.

No way  Doubtful  Maybe  Probably  Definitely
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Ski Trip Story

Imagine that you and your best friend have gone on a weekend skiing trip with her family every winter for the last five years. Last year, you and your best friend had a lot of fun and you can't wait to go again this year. The week before the trip, you are out shopping at a sporting goods store for ski equipment for the trip. At the store you spot another girl, Maxine, trying on a ski jacket and goggles. Maxine and your best friend know each other from their soccer team. You go over to her and say, "Hey Maxine! Shopping for ski equipment?" She says that she needs to get some new ski gear because your best friend invited her to go skiing with her and her family next week. You know you haven’t done anything wrong, so you know it can’t be your fault!

For questions 1-5, please pick one answer for each.

1. According to the end of the story, was this your fault?
   a. Yes
   b. No

2. How often do you think your friend would want to ski with Maxine instead of you?
   a. All the time from now on
   b. Just this one time.

3. How many other activities would you think your friend wants to do with Maxine instead of you?
   a. Probably most of them.
   b. Probably just this one.

4. Why is your friend going skiing with Maxine?
   a. My friend didn’t think I wanted to go.
   b. My friend thought Maxine would like to go.
   c. My friend wanted to hurt my feelings.
   d. My friend wants to get back at me for something.

5. In this story do you think that your friend was:
   a. Trying to be mean
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6. How likely are you to feel upset if the things in this story really happened to you?

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Movie Story

Imagine that you and your best friend had been talking all week about seeing a movie this coming Friday night. You had been planning to see this movie together since you first saw the preview for it. Friday, before math class you are talking to the girl that sits next you, Pat, about the movie. She says, “Oh yeah, I can’t wait to see that one” and then goes on to say that she and your best friend are going together that night. You know you haven’t done anything wrong, so you know it can’t be your fault!

For questions 1-5, please pick one answer for each.

1. According to the end of the story, was this your fault?
   a. Yes
   b. No

2. How often do you think your friend would want to see movies with Pat instead of you?
   a. All the time from now on.
   b. Just this one time.

3. How many other activities would you think your friend wants to do with Pat instead of you?
   a. Probably most of them.
   b. Probably just this one.

4. Why is your friend going to the movie with Pat?
   a. My friend didn’t think I wanted to go.
   b. My friend thought Pat would like to go.
   c. My friend wanted to hurt my feelings.
   d. My friend wants to get back at me for something.

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Bus Story

Imagine that your class is going on a field trip and will be using a bus for the two-hour drive. You and your best friend make plans to sit together on the bus ride so that you can look at magazines and listen to music together. On the day of the field trip, you end up getting on the bus a little after your best friend. When you go to sit with your best friend you see that she’s already sitting with Clarisse, another girl in your class. They are laughing and looking at a magazine together. You end up sitting by yourself for the entire trip. You know you haven’t done anything wrong, so you know it can’t be your fault!

For questions 1-5, please pick one answer for each.

1. According to the end of the story, was this your fault?
   a. Yes
   b. No

2. How often do you think your friend would want to sit with Clarisse instead of you?
   a. All the time from now on.
   b. Just this one time.

3. How many other activities would you think your friend wants to do with Clarisse instead of you?
   a. Probably most of them.
   b. Probably just this one.

4. Why did your best friend sit with Clarisse on the bus?
   a. The bus seats were assigned.
   b. My friend forgot that I wanted to sit with her.
   c. My friend wanted to hurt my feelings.
   d. My friend wants to get back at me for something.

5. In this story do you think that your friend was:
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5. Push, shove, or yell at my friend.

<table>
<thead>
<tr>
<th>No way</th>
<th>Doubtful</th>
<th>Maybe</th>
<th>Probably</th>
<th>Definitely</th>
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6. Spread rumors about my friend, so that no one would like her anymore.

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7. Stop making an effort to do things with my friend.

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8. Talk to my friend and see if we can work it out so it does not happen again.

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9. Try to make my friend feel bad the next time I see her.

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10. Think about all of the reasons why it might have happened and think about every detail of what happened.

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11. Think about an activity that I, my friend, and Clarisse can do together.

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VITA
Kristen Lee Lavallee

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Publications


Selected Conference Presentations:


