INTERPERSONAL ASPECTS OF ATTRIBUTION AND EMOTION

by

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ABSTRACT

Interpersonal Aspects of Attribution and Emotion

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In Weiner’s attributional perspective on emotion, recipients appraise outcomes in terms of three attributional dimensions—locus, controllability, and stability. The specific pattern of inferred attributions determines the nature of the resulting emotional experience. Weiner further claims that a sender’s own emotion may serve as a precipitating event for a receiver’s resulting attributions and emotions. Parkinson critiques the notion that there are inflexible or unique links among senders’ emotions, the attributions conveyed by senders’ emotions, and the resulting attributions or emotions aroused in recipients. Parkinson implies instead that the nature of the interpersonal relationship between senders and receivers, independent of attributional inferences, is a more important determinant of the specific emotion aroused. The main question asked in the present study was whether a sender’s anger or pity led to receiver attributions and emotions consistent with Weiner’s model across different types of sender-receiver relationships.
Using a variation on Weiner’s paradigm, 174 female and 104 male university students were presented with scenarios depicting the interaction of two people who were friends, enemies, or strangers. In each scenario, a receiver’s behavior was followed by either a reaction of anger or pity from the sender. Participants then answered four questions to check the effectiveness of manipulations, rated the sender’s attributions about the receiver’s behavior and the receiver’s own attributions, and predicted the intensity of the receiver’s own emotional response (including guilt and shame).

Because the pity manipulation was deemed ineffective, data were analyzed for the sender-anger condition only. Although Weiner’s model was somewhat supported in the friend condition, there was only a weak relation between sender and receiver attributions, as well as either of these attributions and sender anger when examined across the three relationship conditions. Importantly, relationship variables more than attributional ones affected the degree to which receivers responded with guilt and shame to the sender’s anger.

Discussion focuses on the potential epiphenomenal role of attribution in eliciting emotion and the need to examine Parkinson’s view that identity-related concerns, which vary as a function of the nature of the target relationship, are more central to arousing specific emotional responses.
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CHAPTER I

STATEMENT OF PROBLEM

Various theories have been put forth to explain why people experience emotions, including those that focus on neurophysiological, behavioral, cognitive, and social processes. Although each of these theoretic schools has established evidence to support their respective positions, the cognitive approach to emotion has been, by far, the most widely acknowledged and studied. This school has sought to explain emotions by viewing them as output from a series of cognitive processes. Chief among the cognitive approaches are those that rely on appraisals and attributions to explain emotion. In 1986, Weiner articulated an attribution theory of emotion, which states that emotions arise as a consequence of individuals making observations about events and ascribing causes to those events. Emotions are said to vary as a function of the specific pattern of attributions inferred. Guilt, for example, occurs when an individual attributes poor performance to internal, unstable, and controllable causes (Weiner, 1986), whereas shame results from internal, stable, uncontrollable attributions. Internal causes refer to factors residing within the person (e.g., ability or effort) who produced the outcome. Stable causes refer to causes that are likely to persist or recur with time (e.g., ability is a relatively permanent or stable attribute of people). Controllable causes refer to causes that can be changed or avoided (e.g., effort is controllable, whereas ability is less controllable). Simply put, a person experiences an event (e.g., failing a test), makes attributions about the cause of the event (e.g., did not study hard enough), and experiences the emotion (e.g., guilt) that corresponds to the specific attributions made. These attributions arise from a variety of
sources, including the person’s own accumulated experience with failure, the direct causal feedback that outsiders provide the person about poor performance, and more indirect emotional responses that others convey to the person when he or she has performed poorly. The role that Weiner accords to others’ emotional messages in impacting the recipient’s own attributions and feelings can be illustrated by two examples—one couched in terms of guilt and the other in terms of shame. How does a student “know” he or she should feel guilty or ashamed about failing an exam? In Weiner’s model, the student will feel guilty when the teacher expresses anger toward the student for failing, but shame when the teacher expresses pity. Anger and pity have these effects on the student because they imply, respectively, that the teacher has made an internal/unstable/controllable or an internal/stable/uncontrollable attribution about the student’s poor performance (Graham, 1984).

Although empirical research supports Weiner’s attribution-theoretic model of emotion (e.g., Andrews & Debus, 1978; Chapin & Dyck, 1976; Dweck, 1975; Gatting-Stiller, Gerling, Stiller, Voss, & Wender, 1979; Graham, 1984; Medway & Venino, 1982; Meyer, 1980; Meyer & Koelbl, 1982; Michela, Peplau, & Weeks, 1982; Passer, 1977; Passer, Kelley, & Michela, 1978; Schunk, 1981, 1982, 1983, 1984; Stern, 1983; Wilson & Linville, 1985; Wimer & Kelley, 1982; Zoeller, Mahoney, & Weiner, 1983), many have criticized both the model and the research designed to test it. The criticisms launched against attribution-theoretic views of emotion, and appraisal theories more generally, are wide and varied (cf. Parkinson, 1995, 1997). One of the more serious criticisms concerns Weiner’s assumption that there is an inflexible or unique set of
predictable relations among the emotions conveyed by outsiders, the attributions that these emotions imply, and the resulting emotion that would be aroused in the recipient. A "thought experiment" will help illustrate the problems that critics have raised regarding Weiner's attributional view of emotion. Imagine three employees of a company: Zeke, Zeke's good friend (Fred), and Zeke's worst competitor or enemy (Edgar). Imagine further that Zeke messes up on an important assignment that impacts both other employees. Both of them hear about the incident and each runs into Zeke. Fred and Edgar each "send" emotional signals of anger or annoyance to Zeke. Is the anger expressed by both Fred (the friend) and Edgar (the enemy) going to elicit a similar emotional reaction in Zeke? Weiner must predict "yes." Specifically, because anger in this model conveys an internal/controllable/unstable attribution, Zeke should feel equally guilty in both cases. But, will he? Intuitively, our answer to this question is "no." Zeke will in all likelihood feel guilt in response to his friend Fred's anger, but counter-anger or even pleasure in response to the anger expressed by his enemy, Edgar.

The thought experiment serves to illustrate certain criticisms that have been made of attribution-theoretic approaches to emotion. Critics caution that emotions are conveyed to people by people for purposes other than changing either the receiver's attributions about the self or the receiver's attendant emotional responses (e.g., Baumeister, Stillwell, & Heatherton, 1994; Lutz & White, 1986; Parkinson, 1995, 1997). Some critics have gone so far as to argue that the attributional implications of emotional messages are pure epiphenomena that miss the central functions of emotions in regulating behavior or social relationships (Barrett, 1996; Parkinson, 1995). Parkinson (1995), for example, has
asserted that getting emotional is simply a way for an individual to communicate specific messages about how he or she expects to be viewed and treated.

This study explored the question of whether Weiner’s attributional theory is sufficiently robust to explain how emotions arise or whether interpersonal factors, as posited by Parkinson, play a crucial role in the explanation of emotion. This study considered how the nature of people’s interpersonal relationships impact the attributional inferences that they make when receiving emotional signals and their own corresponding emotional reactions to these signals. Concretely, this study explored one major question: Do attributional inferences and emotional responses vary across different kinds of relationships?

The major question was examined by juxtaposing predictions from Weiner’s versus Parkinson’s models of emotion. The predictions concerned how an initial sender’s emotional expressions of anger or pity would affect the attributions subsequently made by the receiver and the receiver’s own resulting emotional responses.

1. In the case of anger, several predictions were derived from Weiner’s attribution theory of emotion: (a) an expression of anger would convey an internal/stable/controllable attribution; (b) although there might be differences in the degree to which these attributions would be implied by the sender (e.g., more or less stable), the fundamental pattern of attributions inferred by receivers would not vary as a function of the nature of the relationship; (c) the attributions inferred by the receiver would be congruent with those implied by the sender; and (d) a sender’s expression of anger would elicit the emotional response of guilt in the receiver.
2. In the case of pity, Weiner’s attribution theory led to the following predictions: (a) an expression of pity would convey an internal/stable/uncontrollable attribution; (b) although there might be differences in the degree to which these attributions would be implied by the sender (e.g., more or less stable), the fundamental pattern of attributions inferred by receivers would not vary as a function of the nature of the relationship; (c) the attributions inferred by the receiver would be congruent with those implied by the sender; and (d) a sender’s expression of pity would elicit the emotional response of shame in the receiver.

3. Weiner’s attribution theory would also predict that the associations between attributions made and emotional responses would not vary as a function of the nature of the relationship.

4. In the case of anger, Parkinson’s interpersonal theory of emotion generated the following predictions: (a) an expression of anger could convey an internal/stable/controllable attribution (congruent with Weiner); (b) there would be differences in degree to which these attributions would be implied by the sender (e.g., more or less stable) and the fundamental pattern of attributions inferred by receivers would be free to vary as a function of the nature of the relationship. Parkinson’s theory provided no prediction for the specific pattern of attributions that would emerge as a function of the nature of the relationship; and (c) a sender’s expression of anger would elicit different emotions in the receiver (e.g., guilt, happiness, embarrassment, shame, anger) as a function of the nature of the relationship.
5. In the case of pity, Parkinson's interpersonal theory of emotion suggested the following predictions: (a) an expression of pity could convey an internal/stable/uncontrollable attribution (congruent with Weiner); (b) there would be differences in degree to which these attributions would be implied by the sender (e.g., more or less stable) and the fundamental pattern of attributions inferred by receivers would be free to vary as a function of the nature of the relationship. Parkinson's theory provided no prediction for the specific pattern of attributions that would emerge as a function of the nature of the relationship; and (c) a sender's expression of pity would elicit different emotions in the receiver (e.g., shame, anger, embarrassment) as a function of the nature of the relationship.

6. Parkinson's interpersonal theory would predict that the links between attributions made and emotional responses would vary as a function of the nature of the relationship.
CHAPTER II
REVIEW OF LITERATURE

Origins of Attribution Theory

A social psychologist, Fritz Heider, first hypothesized that people seek to understand why events happen and why other people behave as they do, by attempting to identify the underlying causes of those events and behaviors. Heider termed this process "attribution" (Heider, 1958). This early work spawned several lines of research focusing on such phenomena as motivation, emotion, and personality. Those concentrating on emotions have attempted to explain how causal attributions affect individuals' experience of different emotions. These theories are collectively referred to as attribution-based theories of emotion or attribution-theoretic approaches to emotion.

Models of Emotion

Emotions are multifaceted phenomena that can be described, discussed, and understood in terms of underlying electrochemical processes (e.g., Panskepp, 1993), nonverbal or verbal expressive features (e.g., Ekman & Friesen, 1986; Izard, 1994), syndromes of behavior (e.g., Baum, 1994), and various cognitive facets, including appraisal (e.g., Lazarus, 1991). This study focuses primarily on two approaches to emotion, namely, attribution-theoretic and interpersonal views of emotion.
Attribution Model of Emotions

Having noted the origin and importance of attribution theories of emotion, the discussion turns to a more in-depth look at the principal components of these theories and efforts to establish an empirical link between attributions and emotional responses.

Attributions are one type of appraisal that can support different emotions (e.g., Lazarus, 1991). The attribution model of emotions as outlined by Weiner (1986) states that emotions depend importantly on two basic appraisals. First, the hedonic valence of the outcome to which the perceiver responds determines whether the resulting emotion will be largely positive (e.g., happy, pleased) or negative (e.g., sad, upset) in nature. A runner competing in a marathon would thus experience a positive emotion if he or she won the race, but a negative one if he or she lost. The specific positive or negative emotion experienced by our runner depends, second, on the causal attribution made for performance. Weiner conceptualizes causal attributions in terms of three primary dimensions: locus, stability, and controllability.

Locus of Control

The dimension of locus or "locus of control" was first explicitly described by Rotter (1966) and refers to the extent to which behavior is a function of internal versus external determinants. An internal cause of successful performance could be those factors related to something within the individual, such as skill level, motivation, health, or attitude. An external cause would be anything in the environment that is causally connected to the behavior (e.g., task difficulty). The connection between the
internal/external dimension of causality and emotion is illustrated by the distinction one can make between the anger one would experience if stood up by a friend, whose tardiness was the result of his “dawdling” personality (an internal cause) versus the disappointment one would experience if his behavior was the result of a flat tire (an external cause).

Stability

Stability is a second dimension of causality proposed by Weiner and colleagues (Weiner et al., 1971), that refers to the extent to which a cause (either internal or external) is relatively changeable. Stable causes are relatively unchangeable in their influence, whereas unstable ones are more changeable. For example, feeling tired because the runner’s nerves kept her up all night long (internal) or having to run in gale-force winds (external) are both unstable influences on a runner’s success in winning the marathon. The length of the marathon course is a stable, external cause whereas the length of the runner’s legs is a stable, internal cause. The link to emotion in the case of the stable/unstable dimension is demonstrated by the emotion of hope. For example, hope is experienced when success is attributed to stable causes (I’m likely to win the marathon next month because my success today was due to my level of preparation which will be at least as high next month). Conversely, discouragement is experienced when success is attributed to unstable causes (I barely won today because Sheila was ill. I don’t have much of a chance a month from now if she’s in good health). Likewise hope is experienced when failure is attributed to unstable causes (I still have a chance to win the
marathon next month because my loss today was due to the flu and I’ll be healthy next month). Conversely, discouragement is experienced when failure is attributed to stable causes (I lost today because my legs are just too short, and that’s not likely to change before next month).

Other theorists argue that stability is, in fact, comprised of more than one dimension. Michael Lewis, for example, suggests that emotions such as guilt and shame cannot be understood without attending to both the temporal nature of the causal explanation for behavior (i.e., stable or unstable across time) and whether the causal explanation relates to a total evaluation of self versus an evaluation of a specific behavior (Lewis, 1992). Lewis posits that shame results when one sees the self as responsible for one’s misdeeds whereas guilt arises when one focuses only on the specific behavior and the self is not implicated. This total evaluation of self is linked to what Beck (1979) referred to as the global or specific nature of causal attributions. Global attributions are those that are described with words like “all” and “everything.” Specific causal attributions are those that occur when people view the cause as being linked to specific situations, and not generalized to all situations. For example, Mary breaks a confidence and lets slip some very personal information shared by a friend. Mary may focus on her behavior as a specific occurrence and not reflect on her self, in which case she will feel guilt. On the other hand, Mary will feel shame when she views her behavior as somehow reflecting upon her total value as a person, a global attribution. For purposes of simplicity, Weiner (1986) subsumes the global/specific dimension within the stable/unstable dimension.
Controllability

Yet another dimension of causal explanation that has been specifically linked to the origin of emotions is the controllable/uncontrollable dimension. First suggested by Rosenbaum (1972) and later incorporated into Weiner’s attribution theory of emotion, this dimension refers to whether the cause in question is subject to volitional control. Thus, an internal, unstable cause such as fatigue can be viewed as uncontrollable whereas an internal, unstable cause such as effort is viewed as controllable. This distinction between controllable and uncontrollable causes is important in terms of their impact on emotions. A person’s hearing loss due to an illness (an uncontrollable cause) elicits pity whereas the same loss due to the person’s decision to attend loud rock concerts (a controllable cause) elicits different emotions such as disdain or even anger. Likewise sympathy and compassion are linked to uncontrollable causes (Weiner, Graham, & Chandler, 1982).

Empirical Support for Attribution Dimensions

Weiner (1986) reviewed empirical efforts to establish the existence of causal dimensions of attribution and their links to emotions. Citing research that relied on a variety of methodologies, including factor-analytic studies (Meyer, 1980; Meyer & Koelbl, 1982; Wimer & Kelley, 1982), multidimensional scaling (Michela et al., 1982; Passer, 1977; Passer et al., 1978; Stern, 1983), and categorical sorting (four independent studies reported by Stern, 1983), Weiner concluded that all studies with one possible exception (Passer et al., 1978) identified a dimension of causality reflecting an internal
versus external locus. With respect to the stability dimension, Weiner reported that all but three studies (Passer, 1977; Passer et al., 1978; Wimer & Kelley, 1982) found a "temporary-enduring or fixed-variable property of causality." And finally, Weiner concluded that all investigators save two (Michela et al., 1982; Wimer & Kelley, 1982) described a dimension referred to as "control" or "intent" (pp. 64-68).

**Empirical Support for Attribution-Emotion Links**

Empirical research has also sought to identify specific links between causal dimensions and emotions. Weiner, Russell, and Lerman (1978, 1979) had participants read short scenarios where a person experienced success or failure. Causal ascriptions for the success or failure were provided and participants were asked to rate the intensity of affect they thought would be experienced or to rate the affect they had experienced in similar situations. Responses were analyzed to compare those that identified internal causes (e.g., ability, effort, personality) with those that identified external causes (e.g., task difficulty, luck) for success. Results revealed that internal attributions for success were most commonly linked to feelings of pride, whereas external attributions were not. Likewise, Graham et al. (Graham, Doubleday, & Guarino, 1984) found that when they asked children ranging in age from 6 to 11 years to recall events wherein they had experienced pride, by age 11, 82% of participants identified experiences that were ascribed to internal causes. Likewise, in a frequently cited study by Folkes (1982), participants were asked to imagine that they had turned down a request for a date. Various reasons for rejection were provided, including reasons that were internal (e.g.,
physical attractiveness, membership in a club) and reasons that were external (e.g.,
religious restrictions, lack of time). Participants were then asked to indicate the cause
they would communicate to the requester and to rate the extent to which the reason would
“hurt the feelings” of the requester. Analyses revealed that internal causes were viewed
as significantly more likely to hurt the feelings of the requester.

Research has also been conducted to evaluate the relationship between emotions
and the stability dimension of attribution. In the studies by Weiner et al. (1978, 1979)
previously highlighted, researchers found that stable attributions appear necessary in
order for internal attributions to lead to affective reports of aimlessness, helplessness, and
hopelessness. Folkes (1982) found that reasons for rejecting a date that were stable, in
addition to internal, were most likely to be viewed as hurtful. Weiner (1986) suggested
that in this case, the stability dimension “functions as a scalar variable, magnifying the
anticipated affective response to rejection” (p. 131).

The emotion-attribution link with respect to the controllability dimension has also
been the subject of empirical research. Weiner et al. (1982) found that when college
students were asked to identify situations in which anger or pity had been experienced
and were then asked to rate the cause of the event in question, 71% of the reported
experiences of pity were rated as stable and uncontrollable. With respect to anger
experiences, 86% of the situations involved external and controllable causes. In his study
of the antecedents of anger, Averill (1983) identified a link between controllability and
anger. He reported, “Over 85% of the episodes described by angry persons involved
either an act that they considered voluntary and unjustified (59%) or else a potentially avoidable accident (e.g., due to negligence or lack of foresight)” (p. 1150).

In a more recent study, Weiner and Graham (1991) provided participants ranging in age from 5 to 95 years with a set of vignettes depicting situations in which negative outcomes (e.g., a person falls into you while you are waiting in line and you are injured; a neighbor agrees to water your plants and fails to do so) were due to causes that were manipulated to be either controllable or uncontrollable. Participants rated the outcome on degree of controllability. Participants then rated the degree of pity and anger they would anticipate experiencing. Regardless of age, analyses revealed that when the causes of the outcome were uncontrollable, participants reported feeling significantly less anger and significantly more pity. Researchers have found similar links between the controllability dimension and guilt versus shame. One study (Covington & Omelich, 1979) revealed that shame reported publicly is most likely to result from failure and a sense of low ability (i.e., an internal/stable/uncontrollable attribution). Brown and Weiner (1984) found that guilt-related affects were more likely to occur when lack of effort (i.e., an internal/ unstable/controllable attribution) was specified as the cause of failure. Shame-related affects were identified more often for situations in which lack of ability (i.e., an internal/stable/uncontrollable attribution) was identified as the cause.

The existence of empirical support for Weiner’s hypothesis regarding attribution-emotion links can be taken to mean that specific patterns of attribution are necessarily linked to specific emotional responses (e.g., an internal, stable, controllable attribution
always leads to guilt). A one-to-one correspondence between attributions and emotions, among other things, is seriously challenged by interpersonal models of emotion, however.

**Interpersonal Models of Emotion**

Accounts of emotion based primarily on the individual's own private appraisals of a situation, that would include attribution-theoretic approaches to emotion, have not been without their critics (e.g., Averill, 1992; Fischer, 1991; Gordon, 1974; Hochschild, 1983; Lutz & White, 1986; Retzinger, 1995; Sarbin, 1986; Scheff, 1990; Thoits, 1989). These authors all argue for a more interpersonal, or communicative, view of the emotion process. Having considered the attribution model of emotion, the focus now shifts to these interpersonal models of emotion that have been most recently integrated by Parkinson (e.g., 1995, 1997).

In his interpersonal model of emotion, Parkinson (1995, 1997) is critical of many long-standing views of emotion in psychology. His criticisms strike a familiar chord with sociologists' accounts of emotion (e.g., Gordon, 1974; Kemper, 1978; Sarbin, 1986; Scheff, 1988, 1990, 1997; Shotter, 1993; Thoits, 1989) as well as psychological accounts that are firmly rooted in sociology (e.g., de Rivera, 1984, 1992; de Rivera & Grinkis, 1986). Parkinson (1995) asserted that traditionally accepted psychological theories of emotion are misguided in several specific respects—all of which revolve around views that emotions are intrapsychic in nature (cf. Baumeister et al., 1994). Since the purpose of this thesis is not to test Parkinson's theory as a whole, his specific criticisms of traditional
psychological theories of emotion are not a focus of this review.\(^1\) Rather, for the present purposes, it is only important to highlight Parkinson’s major assertions about emotion and to summarize his unique perspective on the role of appraisal in emotion.

**Major Assertions by Parkinson**

Parkinson’s primary contention is that emotion is a fundamentally social or communicative process through which people express (if only in their imagination) identity claims to others and themselves. Expressions of anger, for example, can stake various identity claims. They often communicate that one’s rights have been infringed upon (“you’ve offended me”) or they are assertions of one’s rights (“respect me”). But, anger expression can also convey negative self-attitudes (e.g., “How could I be so stupid!”) or communicate one’s loss of control in a situation that merits apologies or excuses for untoward behavior (“forgive me”). In Parkinson’s view, then, emotions serve the critical function of conveying information about the social roles to which we do and do not assent. Thus, rather than viewing emotions in terms of certain well-researched dimensions in psychology (e.g., pleasantness or activation, Plutchik, 1980; Russell, 1994), Parkinson reconceptualized the quality of emotion in terms of relational variables.

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\(^1\)He specifically takes these theories to task for assuming that emotions are experienced intrapsychically; that they are experienced as passively happening to us, that they are things “felt” through bodily sensations; that emotions, because they affect us deeply, must happen in a private, well-hidden place; they are about things that matter to us somewhere deep down inside, that they are felt directly; that others may be mistaken about our emotions; that a distinction can be drawn between dissimulated emotions versus real ones, and that deeply held emotions eventually find a means of expression.
(e.g., conferring status or respect; desiring intimacy or friendship, cf. Kemper, 1978) and the constant readjustments that these relationships entail.

Parkinson (1995) stated that

emotion is something that only makes complete sense when looked at in the context of the encounter within which it arose... Thus, in order to understand the phenomenon, it is necessary to consider the nature of the relationships that surround it. (pp. 190-191)

Emotions exist as a means of communicating one’s view of oneself and how others should treat the self. Emotions are not internal processes but a means of presenting oneself in a certain way to a specific audience (real or perceived) to get them to treat us differently. Implicit in these claims are the sender’s appraisals.

Role of Appraisal

To understand Parkinson’s view of the role of appraisal in emotion, we first need to remember other psychologists’ accounts of appraisal-emotion relationships. Lazarus (1991), a major advocate of the appraisal approach, sees various dimensions of appraisal as having a direct causal impact on emotion. For example, in Lazarus’ view, we become angry because (among other appraisals) we perceive a person as blameworthy for infringing upon another’s rightful due; we become afraid because we appraise the situation as dangerous; the feeling of guilt emerges out of a self-appraisal of blameworthiness for violating standards of conduct, and so forth. Weiner’s attribution-theoretic view of emotion similarly accords direct causal status to a specific type of appraisal—namely, causal attribution. Thus, we will feel anger toward a person recently diagnosed with the HIV virus because we perceive that the person continuously
engaged in unsafe sex (an internal/stable/controllable cause); in contrast, feelings of pity for the diseased individual are prompted by perceptions that he was pricked by a contaminated needle while donating blood (an external/stable/uncontrollable cause).

In a detailed analysis of appraisal theories and their evidentiary basis, Parkinson (1997) demonstrated that empirical support for the causal status of appraisal (including attribution) in arousing different emotions is weak (at best). In addition to his criticisms of the research literature, Parkinson provided theoretically grounded reasons for doubting appraisal’s necessary causal role in inducing emotion. He asserted that “the expression of emotion in any real-life context does not necessarily follow a process of appraisal, rather it stakes a claim about how the situation should be appraised” (1995, p. 191, emphasis added). Stated differently: I do not become angry because I perceive the behavior as actually controllable. My anger stems more from a perception that the behavior should have been controlled.

The claim struck depends upon the particular role or identity that the person wishes to achieve or avoid, which is affected greatly by the nature of the relationship between the parties involved in the interaction. For example, even though I am winning in a competitive game of Scrabble, I may nonetheless adopt the emotional attitude of shame if in a weaker status relationship position vis-à-vis my opponent (e.g., my boss). Alternatively, if my position is more powerful than that of the other (e.g., I am the boss), I might express more prideful displays. Thus, in Parkinson’s view, my privately held attribution is not what generates the emotional display. The display, instead, is motivated by relational goals.
Of course, Parkinson could be understood as saying that appraisals (including attributions) are unnecessary to account for emotions. This understanding misrepresents his view, however. What Parkinson (1995, 1997) does assert about appraisal, and emotion in relation to appraisal, can best be enumerated as follows:

1. Emotions are not detachable internal experiences that separately follow from appraisals, including attributions.

2. Appraisals represent evaluations and interpretations of how a situation impacts our own or others' identity claims. Thus, different identity claims motivate emotion and its communication.

3. Neither appraisal nor emotion originates entirely within any one individual's private mental structure to only then be "revealed" by the person to the outside world. Rather, appraisals and emotions, from the outset, are negotiated evaluations that emerge, and can change, during the dynamic course of interaction between two or more (imagined) people. Thus, neither appraisal nor emotion is necessarily, or always, accepted by other people involved in the situation.

In short, in Parkinson's (1995) view, emotions exist to communicate a message about the appraisals (including attribution) that the person expects or wants others to make about the situation. Parkinson himself stated, "My argument is that these themes [appraisals and attributions] characterize what the person getting emotional is communicating to the target of the emotional action, or rather what effect the emotional display is intended to have on its specified audience" (p. 285). In other words, appraisals and attributions simply contribute to the content of the messages communicated by
emotions and are not the cause of emotions. Expression of emotion arises from a need to communicate a specific, interpersonal message.

Comparison to Attribution-Theoretic Approaches

If we integrate these various assertions and apply them to Weiner’s attribution-theoretic view of emotion, Parkinson is essentially stating that there may not be an isomorphic relationship between specific emotions and certain patterns of attribution. For example, in Parkinson’s view, anger would not uniformly communicate internal/unstable/controllable attributions, nor would pity necessarily convey internal/stable/uncontrollable attributions. Anger, pity, or any emotion could express very different patterns of attribution depending upon the identity claims at issue and, more generally, the quality of the interactants’ relationship. The thought experiment about anger and the three employees highlighted in Chapter I illustrated the very same point: The specific emotion-attribution relationships hypothesized by Weiner may not be supported in different types of relationships. They may fail to receive support because Weiner and his colleagues have never taken into account (either theoretically or empirically) how the nature of the interpersonal relationship (e.g., an affiliative or adversarial one) affects the emotions sent, the attributions “received,” the emotions “received,” and the emotions that are in turn “sent.”

Having considered Parkinson’s views on the interpersonal nature of emotion in general terms, the focus now shifts to a more specific discussion of the emotions of anger, pity, guilt, and shame. In the case of anger, attribution-theoretic models would hold that a
person becomes angry at another person as a result of concluding that a negative outcome is attributable to an internal/stable/controllable cause. From this perspective, anger is caused by the person coming to the conclusion that another is responsible (Weiner, 1995). Thus, it is essential that the person who becomes angry find someone (real or imagined) to blame. Parkinson, however, suggested that anger is not caused by the identification of someone else to blame. He argued instead that anger is the result of the individual’s need to communicate a specific message (e.g., “Respect me”). In the example of three coworkers described in Chapter I, Parkinson would contend that the anger experienced by Edgar is not a result of Edgar’s having concluded that Zeke is to blame. Rather, Edgar becomes angry at Zeke to communicate his desire to be treated differently. Edgar’s expression of anger communicates the message “Don’t treat me this way!” and carries with it an internal/stable/controllable attribution as a means of placing blame on someone else. Moreover, Parkinson would argue that in many cases of anger “we do not really believe that the other person is to blame at all; it just suits our present and immediately compelling purposes to blame them (cf. Frijda, 1993)” (p. 285).

Pity similarly fills an interpersonal function. As seen from the attribution-theoretic point of view, pity is the consequence of internal/stable/uncontrollable attributions. A person feels pity when a negative outcome (e.g., an HIV infection) is due to uncontrollable causes (e.g., a contaminated blood transfusion). Parkinson suggested that pity is a way for an individual to communicate such claims as “I’m better than you,” “I care for you,” or “I’m glad that I’m not like you” (personal communication, December 12, 1997). Implicit in these messages is the uncontrollable attribution described earlier.
As with anger, it is the need to communicate a specific message that gives rise to pity. And thus the specific identity claim being communicated determines the particular, implicit attribution pattern.

Guilt, as viewed by Parkinson, likewise serves an interpersonal function. Whereas the attribution-theoretic approaches to emotion see guilt as the consequence of attributions about one’s own behavior (i.e., internal/unstable/controllable attribution), Parkinson (1995) believes that guilt is simply a “communicative act directed to the person who has suffered harm, asking for forgiveness from them” (p. 296). Zeke, the hapless employee who is the object of Fred and Edgar’s anger, will experience guilt only to the extent he wishes to communicate an appeal for absolution. However, if Zeke does not seek forgiveness (i.e., he does not wish to communicate an identity claim of “forgive me”), he does not experience guilt, regardless of whatever attributions his coworkers may make about his behavior. Moreover, if Zeke wishes to communicate a very different identity claim such as “respect me,” he will necessarily experience anger as the strategy for communicating this identity claim.

As with anger, pity, and guilt, shame can be viewed as a mode of interpersonal communication. In contrast with the attribution-theoretic view, which holds that shame arises as a direct result of making an internal/stable/uncontrollable attribution about one’s behavior, interpersonal-theoretic approaches support the position that shame is simply a way of communicating such messages as “I am inadequate,” “I submit to you,” or “I am less than you.” George feels shame after having been rejected by multiple women as a result of his needing to communicate his sense of defeat, “I am not good enough.”
George’s attributions about his failure are characterized in his identity claim and associated expression of shame. Were George to assert the claim “Respect me! I deserve a chance,” he may experience anger as a means of communicating this message.

The essential point from the aforementioned examples of anger, pity, guilt, and shame is that an individual’s emotional response is not a function of the attributions the individual infers from others’ behaviors or makes about himself. Rather, emotions arise from the need to communicate identity claims. Parkinson (1995) believes that the precise identity claim to be communicated is a function of nature of the relationship between individuals. In addition, emotions may indeed express the attributions as predicted by Weiner (1986), but from the interpersonal vantage point, the presence of attributions serves only to reinforce the identity claim. Consider again the example of guilt. People actually feel less guilt under the very attribution conditions that Weiner (1986) has suggested would produce a tremendous amount of guilt (Ferguson, Olthof, & Stegge, 1997; McGraw, 1987). Parkinson (1997) and others (e.g., Baumeister et al., 1994) would interpret these findings to reflect the greater role of interpersonal factors in emotion as compared to intrapsychic processes. What matters is that the person feeling guilt wishes to communicate “forgive me,” and the person expressing pity desires to communicate “I’m glad I’m not like you.” These emotions may correspond to a pattern of attributions but, in Parkinson’s view, there is never one unique relation between a particular emotion (e.g., anger) and the attribution (e.g., internal/controllable/unstable) that it is meant to imply.
In summary, the interpersonal theory of emotion as articulated by Parkinson (1995, 1997) holds that emotions are not the result of appraisals or attributions; but rather, emotions arise as a means of communicating specific interpersonal messages concerning the way one wishes to be viewed or treated. The communicative property of emotions vary greatly as a function of the interpersonal relationship in which they are experienced. As such, it is the very characteristics of the interpersonal relationship that determine (a) the identity claims to be communicated, (b) the appraisals and attributions to be communicated, (c) which emotions are experienced, and (d) the intensity of the emotional experience. To end with Parkinson’s own words, “Interactants’ negotiations of relative positions in the relationship and statuses defended from outside the relationship are the basis for getting emotional” (Parkinson, 1995, p. 289).

A Case for Variability in Attributions as a Function of the Nature of the Relationship

Weiner (1995) has recently articulated a general model of social motivation within which he subsumes his attributional model of emotion. This model emphasizes that attributions occur within social contexts and that attributions dramatically impact interpersonal relationships in such areas as social responsibility, finding blame, helping behavior, making excuses, and aggression. Within this expanded model, the relationship between attributions and emotions remains the same. This broader model links causal attributions for controllability to determination of responsibility and their emotional as well as behavioral sequelae. Weiner’s social motivation model appears to be a move
toward explaining the relationship of emotions to many important interpersonal behaviors and their underlying causes. Is this then an “interpersonal” approach? After all, Weiner’s new model incorporates the position that it is the very emotional signals expressed by one person (A) in response to a behavior of another person (B) that convey attributional information to person B (Graham, 1984). Weiner (1986, 1995) asserted, for example, that the anger expressed by person A in response to B’s behavior actually conveys a particular attribution that A has made about B’s behavior (i.e., an internal/controllable/unstable attribution). This attribution is adopted by person B resulting in the attribution-correspondent emotion of guilt in person B. However, Weiner’s latest model, like his earlier one, would predict that the attributions conveyed by an anger signal between two individuals should be the same (i.e., an internal/controllable/unstable attribution) regardless of the nature of the relationship between them. Weiner’s (1995) newer model would further predict that the corresponding emotion experienced by the receiver of the emotional signal should also necessarily be the same, again regardless of the nature of this person’s relationship with the emotion sender.

In reconsidering the thought experiment presented in Chapter I, it is relatively easy to imagine that Fred’s anger (the friend) does convey an internal/unstable/controllable attribution to Zeke and that Zeke would feel horribly guilty and wish to rectify the harm done (consonant with Weiner’s predictions). Yet, it is also easy to imagine that Edgar’s anger (the adversary) conveys only a very slightly different attribution (e.g., internal/stable/controllable), but that Zeke might not experience guilt (as
Weiner would still need to predict). Instead, Zeke might experience an amalgam of emotions, including shame and anger, that are inconsistent with Weiner’s attribution-based predictions. The point of this example is that there is not necessarily a one-to-one correspondence between attribution and emotion, at least as predicted by Weiner’s model, even when one allows attributions to arise out of interactions between two or more individuals.

The correspondence, or emotion-attribution relationships predicted by Weiner, may fail to occur because Weiner does not take into account how the nature of the interpersonal relationship affects the emotions sent, the attributions “received,” the emotions received, and the emotions that are in turn sent. For example, anger may convey internal/controllable/unstable attributions only within the context of trusting or close relationships. Why would anger be expected to convey this attribution pattern only within close or trusting relationships?

To answer this question, we need to revisit Parkinson’s perspective. Parkinson (1995) emphasizes that it is the “identity claims” or “role commitments” that drive emotions and appraisals. In Parkinson’s view, an identity claim is what a person is stating about who he or she is or who he or she thinks another to be. A role commitment, in his terms, reflects the kind of relationship or status that a person desires to have with, or in the eyes of, another individual. In a trusting or close relationship, people claim an identity of being a worthy member of the dyad or they express their commitments to preserving the relationship’s integrity. In our paradigmatic example of the emotion of “anger,” people in a close/trusting relationship may therefore be invested in conveying
attributions that imply that the long-term nature of the relationship is at stake but also that the recipient can do something to avoid the relationship’s demise. It is for this reason that anger when sent in a close/trusting relationship is meant to imply an unstable attribution. It is also for this reason that the emotion of anger, as sent, may be received as implying an unstable attribution, because the lack of stability implies that the person will not always behave this way and is, therefore, not going to jeopardize the relationship.

But, in another relationship in which different commitments or identities are at stake, the attributions that are conveyed may be very different. To take an extreme example from the paradigmatic one provided above, adversarial or enemic relationships do not involve a commitment to the mutual integrity or longer-term duration of the relationship. Moreover, they involve identity claims that are very different from those involved in close/trusting relationships. In adversarial relationships, one person is essentially claiming to be more worthy, or perhaps more powerful, than the other. Anger conveyed, in this relational context, thus has the goal of verifying this identity claim (rather than preserving the relationship or affirming A’s ability to contribute positively to the relationship on a longer term basis). It is for this reason that anger in an adversarial relationship might convey an internal/stable/controllable attribution rather than the anger-related internal/unstable/controllable pattern predicted by Weiner.

Summary

It is clear that Weiner’s attributional view of emotion has matured over the years from being primarily intrapsychically focused to include dynamic, interpersonal
processes. By recognizing that emotions themselves are conveyed through interpersonal exchanges, Weiner has at least met one of the concerns expressed radically by the interpersonalists, that is, that emotions must be studied within a communicative framework involving two or more individuals (Parkinson, 1995). Nonetheless, even Weiner's most recent account of social-attribution bases for emotions fails from the interpersonalists' points of view. Weiner's newer view fails because it does not take into account how "the particular form of the pre-existing relationship between interactants, the extent of realignment required by the emotional person, the permanence of the relational adjustment intended, its restriction to specific aspects of the relationship, and so on" (Parkinson, 1995, p. 275) impact the identity claims and role commitments that are at stake in the relationship. It may be that relationships that are not close in nature or that are not based on trust involve very different identity claims or role (non)commitments. It therefore may also be the case that the very same emotions sent within the context of these relationships lead to different attributions and emotions on the part of the emotion recipient.

It is important to remember that Parkinson's approach is new and has not been subject to rigorous empirical tests. It is, nonetheless, a plausible one that, if verified, would have implications for the validity of attribution-theoretic analyses of emotion and the clinical approaches that rely on the attribution tradition. The validity of Parkinson's critiques of attributional views of emotion were put to an initial exploratory test in this thesis.
CHAPTER III

METHOD

Participants

Two-hundred seventy-eight participants (105 males and 173 females) were recruited from among students attending undergraduate courses in psychology, anthropology, physiology, and Spanish at a medium-sized university in the Rocky Mountain region of the United States. Students were offered extra-credit points in exchange for their participation. The discussion of power below explains the number of people targeted for participation.

Overview of Procedure

Participants were presented with various scenarios depicting the interaction of two people who were either friends, enemies, or strangers. Participants were told that the study involved their perceptions of everyday events. In each scenario, a receiver engaged in a behavior that was followed by one of two responses from a sender. Following the presentation of each scenario, participants were asked to (a) answer four questions that assessed their perceptions of the manipulations, (b) rate the attributions the sender made about the receiver’s behavior and the attributions the receiver inferred about his or her own behavior given the emotional response of the sender, and (c) predict the emotional response of the receiver. The order in which questions were asked about attributions and
Research Design and Operationalization of Independent Variables

A 3 x 2 x 2 (nature of the relationship x emotion sent x participant gender) factorial design was used to investigate their effects on the attributions inferred and the emotions experienced. This study manipulated two independent variables: nature of the relationship and emotion sent. Prior to being presented with a description of an interaction between two persons, participants were told that the two persons in the scenario to follow were either (a) close friends of many years, (b) enemies of many years, or (c) strangers, which is the operationalization of the nature of relationship variable. Next, participants were provided with a description of an interaction between the two persons. Finally, participants were presented with the emotional response of one of the two persons in the interaction (anger or pity). This second independent variable, the emotion sent, was provided in written form and included a description of paralinguistic features (see Appendix A). The paralinguistic features and verbal content of the responses were as follows:

**Anger condition**

In a voice of raised pitch and volume, “I am so mad at you!”

**Pity condition**

Preceded by a sigh and in a soft tone of voice, “I really feel sorry for you.”
The scenarios were pilot tested to ensure that the independent variables were perceived as intended. The following example describes the manipulation of independent variables designed to convey (a) a close relationship between the two actors and (b) the sender’s reaction of anger to the receiver.

Rita and Betty have been friends for many years. They spend several hours a week together and consider each other to be a trusted confidant. One day while working at the ceramics lab, Rita finds that she needs some materials from the supply room. In her attempt to get her supplies, Rita knocks a newly fired statue off of one of the cooling racks. The statue turns out to be the work of Betty, who has spent the past four months meticulously sculpting the statue as an anniversary gift for her husband. Rita watches as Betty approaches, finds her work completely destroyed, and learns that Rita is responsible. Rita hears Betty say...

[in a voice of raised pitch and volume, “I am so mad at you!”]

For each of the six conditions, four different scenarios were developed (to increase generalizability). The scenarios depicting anger were based, in part, on Averill’s (1983) narrative studies of events that elicit anger. The scenarios depicting pity were based on the work of Graham (1984). The scenarios read in each condition were distributed equally across male and female participants. Because male versus female participants may perceive events differently, half the participants in each condition were presented with scenarios in which both actors were of the same sex as the participant. The remaining half of the participants were presented with scenarios in which both actors were of the opposite sex as the participant.
Power Analysis

There were six primary cells in the design. In each of these cells, six males and six females were presented with four scenarios, with half of the males and half of the females receiving scenarios in which the actors were of the same sex as the participants and the other half receiving scenarios in which the actors were of the opposite sex of the participants. Given these parameters, each cell was to include 48 participants. Note that the two factors, participant gender and actor-participant gender congruence, were included to enhance generalization and were not a focus of this thesis. Thus, the power analysis focused on the two primary factors, nature of relationship and emotion sent. A power analysis (Glass & Hopkins, 1996) for these six primary cells only, with effect sizes estimated at 0.80 and cell sizes of 48, resulted in power above 0.98.

Manipulation Check

It was imperative to assess whether participants correctly discerned the quality of the two actors' relationship and the emotion signal transmitted by the sender. At the same time, it was also important not to focus participants' attention on these aspects of the scenario only. Therefore, immediately after reading each scenario, participants were given a multiple-choice test (see Appendix B), which they were informed was a measure of their perceptions about the story they had just read and the characters in it. Two of the multiple-choice questions examined participants' perception of the manipulations; the
remaining two questions were meant as distractor items. Examples of questions pertinent to the manipulation checks and those meant as distractors for the ceramics scenario are:

Where did the event take place? (distractor question)
(a) in a movie theater
(b) at a grocery store
(c) in a ceramics studio
(d) at a dinner party
(e) I don’t remember

There were two people involved in the incident that you just read.
What were their names? (distractor question)
(a) Sylvia and Candice
(b) Rita and Betty
(c) Harry and Richard
(d) Bill and Jeff
(e) Helen and Ruth
(f) Beth and Joan
(g) Sam and Craig
(h) Ralph and Bob
(i) I don’t remember

The two people involved in the incident that you just read were: (question regarding nature of the relationship)
(a) enemies
(b) siblings
(c) friends
(d) strangers
(e) I don’t remember

One of the people in the incident had an emotional response. How would you characterize this response? (question regarding the emotion)
(a) anger
(b) happiness
(c) pity
(d) fear
(e) I don’t remember

Participants’ discrete answers were examined to assess whether they generally perceived the manipulations as intended. However, in order to compare the emotions
sent with the attributions implied and the receiver’s emotional responses, participants were also asked to make ratings of the sender’s emotion and the nature of the two individuals’ relationship. Specifically, after choosing which emotional response the sender expressed, they rated “You stated that the person felt a particular way. To what degree did the person experience this emotion?” Similarly, after choosing which type of relationship existed between the two persons, participants were asked “Outside of this particular incident, how much would you say that the two people generally like each other?” Each question was rated on an appropriately anchored 7-point scale (with options for no rating if they had responded with “I don’t remember” to the relevant multiple-choice question). To avoid making these two ratings unusually salient, participants also made confidence ratings regarding the distractor items.

Dependent Variables

Three dependent variables were measured: the attributions implied by the sender about the receiver’s behavior, the attributions the receiver inferred about his or her own behavior upon receiving an emotional signal from the sender, and the anticipated emotional response of the receiver. An overview of these measures is provided below (more specifics regarding these questions are included in Appendices C and D).

Causal Attributions

After having been presented with an interaction between two people, and following the memory test as described above, participants were asked to reread the
scenario. The scenario was available at the top of each page of their questionnaire. Participants were then asked to rate the extent to which they believed the sender or receiver was making each causal attribution (see Appendix C). Ratings were made on a 7-point scale anchored by Not at All and To a Great Extent (1 = Not at All, 4 = Somewhat, 7 = To a Great Extent). For example:

Rate the degree to which you feel Betty believes Rita behaved the way she did because of something inside Rita.

1 2 3 4 5 6 7
Not at all Somewhat to a great extent

Rate the degree to which you feel Betty believes Rita behaved the way she did because of something to do with the situation.

1 2 3 4 5 6 7
Not at all Somewhat to a great extent

The order of the presentation of questions relating to causal attributions was counterbalanced.

Emotional Response

Participants were presented with a list of nine emotional responses (angry, pity, guilty, afraid, ashamed, sad, happy, embarrassed, proud) and were asked to identify the emotions that best described the anticipated emotional response of the receiver (see Appendix D). Participants were also asked to rate the magnitude of each chosen emotion on a 7-point scale ranging from Very Mildly to Extremely. For scoring purposes these scales were divided into seven intervals (1 = Very Mildly, 4 = Moderately, 7 =
Extremely). Participants also had the option of selecting zero if they felt an emotion was not experienced at all.

Think back to the story you just read and how Betty reacted. Given the way Betty reacted, indicate the degree to which you feel Rita will experience each of the following emotions. Circle the number corresponding to the degree you think Rita will experience each emotion. For example, if you think Rita was feeling very mildly angry, circle the number 1. If you think that Rita will not experience a particular emotion at all, circle “none”.

<table>
<thead>
<tr>
<th>Very Mildly</th>
<th>Moderately</th>
<th>Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>None</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Procedure

Participants were scheduled in small groups to arrive at an unoccupied classroom. Upon arrival, students were randomly assigned to one of six conditions. All participants were asked to complete a statement of Informed Consent and a demographic information sheet, copies of which are found in Appendix E. Participants then received a brief explanation of the purposes of the experiment. Participants were informed that the purpose of the study was to “explore how people perceive everyday events as well as their thoughts and emotional reactions to those events.”

Having been presented with the purpose of the study, participants next received a description of the written materials they would be asked to read and the responses they would be required to give. Participants were instructed that they were to read a brief story
and to respond to the questions that followed. Research packets were then distributed. Research packets contained a cover page, that included directions for completing all materials in the packet, a first scenario page that provided the experimental manipulation, and four to six pages that included the questions and scales comprising the dependent measures. The dependent measures for the first scenario page were followed by a second scenario page and a second set of dependent measures, a third scenario page and a third set of dependent measures, and finally, the fourth scenario page and the dependent measures for the fourth scenario. Participants were then asked to transfer the six-digit code from their demographic information sheet to each of four computer-scannable answer sheets included in the research packet. Participants were then instructed in the use of a separate computer-scannable answer sheet to record responses for the dependent measures associated with each scenario. An effort was then made to resolve any procedural questions that arose. Upon completion of the instructions and resolution of any questions participants were encouraged to begin.
CHAPTER IV

RESULTS

Organization of Results

The results of analyses are presented in two sections. The first section summarizes results regarding participants’ perceptions of the two independent variables that were manipulated. The second section presents the results of the analyses that were designed to test each of the predictions outlined in Chapter I. Each section or subsection begins with a statement of the particular question or specific prediction to be addressed. This restatement of the question or prediction is followed, first, by a brief review of the analyses that were chosen to address the question or prediction; and second, by the results of the analyses. An alpha level of .05 was used for all tests of significance. Unless otherwise noted, effects involving sex of the participant did not reach the .05 level of significance.

Checks on Effectiveness of Manipulations

The first series of analyses focused on whether participants in each of the six primary conditions perceived the nature of relationship (friend, enemy, or stranger) and the emotion sent (anger or pity) as intended.

Relationship Manipulation

Two analyses bear on the question of whether participants perceived the
relationships manipulated in the scenarios in the intended manner. The first analysis approached the question of whether participants correctly perceived the relationship manipulation by calculating how often, in each of the four scenarios, participants identified the relationship as one of friends, enemies, or strangers. Each of these three scores could range from 0 (e.g., never chose the friend option) to 4 (e.g., chose the friend option across all four scenarios). A 3 (nature of relationship) x 2 (emotion sent) x 2 (participant sex) x 3 (relationship perceived) ANOVA was conducted treating the relationship perceived variable as a repeated measures factor. As shown in Table 1, the Nature of Relationship x Participant Sex and the Nature of Relationship x Relationship Perceived interactions were significant.

Comparison of the cell means relevant to the Nature of Relationship x Relationship Perceived interaction, shown in Table 2, revealed that the highest scores for identifying the relationship as friends occurred in the friend condition, the highest scores for identifying the relationship as enemies appeared in the enemy condition, and the highest scores for identifying the relationship as strangers were found in the stranger condition. These results indicate that participants correctly perceived the relationship manipulation.

With respect to the Nature of Relationship x Participant Sex interaction, analysis of the cell means using a Student-Newman-Keuls procedure, presented in Table 3, revealed no significant differences between relationship conditions. The interaction appears to reflect a slight variation in the pattern of means between males and females. Males perceived the relationship as intended more often in the stranger condition as
Table 1

Analysis of Variance for Manipulation Check on Perceived Nature of Relationship

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Between subjects effects</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotion sent (ES)</td>
<td>1</td>
<td>0.00</td>
</tr>
<tr>
<td>Relationship (R)</td>
<td>2</td>
<td>1.56</td>
</tr>
<tr>
<td>Participant sex (PS)</td>
<td>1</td>
<td>2.10</td>
</tr>
<tr>
<td>ES x R</td>
<td>2</td>
<td>1.53</td>
</tr>
<tr>
<td>ES x PS</td>
<td>1</td>
<td>0.90</td>
</tr>
<tr>
<td>R x PS</td>
<td>2</td>
<td>3.20*</td>
</tr>
<tr>
<td>ES x R x PS</td>
<td>2</td>
<td>1.15</td>
</tr>
<tr>
<td><strong>Within + Error</strong></td>
<td>264</td>
<td>(0.02)</td>
</tr>
<tr>
<td><strong>Within subjects effects</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationship perceived (RP)</td>
<td>2</td>
<td>0.35</td>
</tr>
<tr>
<td>ES x RP</td>
<td>2</td>
<td>0.18</td>
</tr>
<tr>
<td>R x RP</td>
<td>4</td>
<td>3194.81***</td>
</tr>
<tr>
<td>PS x RP</td>
<td>2</td>
<td>0.33</td>
</tr>
<tr>
<td>ES x R x RP</td>
<td>4</td>
<td>0.77</td>
</tr>
<tr>
<td>ES x PS x RP</td>
<td>2</td>
<td>2.09</td>
</tr>
<tr>
<td>R x PS x RP</td>
<td>4</td>
<td>0.55</td>
</tr>
<tr>
<td>ES x R x PS x RP</td>
<td>4</td>
<td>0.51</td>
</tr>
<tr>
<td><strong>Within + Error</strong></td>
<td>528</td>
<td>(0.20)</td>
</tr>
</tbody>
</table>

*Note.* Values in parentheses are mean square errors.

*p < .05; ***p < .001.
Table 2

Mean Number of Correctly Identified Relationships (and Standard Deviations) for
Nature of Relationship x Relationship Perceived Interaction

<table>
<thead>
<tr>
<th>Relationship perceived</th>
<th>Relationship condition</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Friend</td>
<td>Enemy</td>
<td>Stranger</td>
<td></td>
</tr>
<tr>
<td>Friend</td>
<td>3.85 (0.51) <em>a</em></td>
<td>0.02 (0.15) <em>b</em></td>
<td>0.05 (0.27) <em>bc</em></td>
<td></td>
</tr>
<tr>
<td>Enemy</td>
<td>0.05 (0.43) <em>a</em></td>
<td>3.88 (0.42) <em>b</em></td>
<td>0.06 (0.44) <em>ac</em></td>
<td></td>
</tr>
<tr>
<td>Stranger</td>
<td>0.01 (0.10) <em>a</em></td>
<td>0.02 (0.15) <em>ab</em></td>
<td>3.84 (0.53) <em>c</em></td>
<td></td>
</tr>
</tbody>
</table>

Note. 0 = No correctly identified relationships in four scenarios; 4 = Four correctly identified relationships in four scenarios. In each row, cells sharing subscripts in common do not differ significantly.

Table 3

Mean Number of Correctly Identified Relationships (and Standard Deviations) for
Nature of Relationship x Participant Sex Interaction

<table>
<thead>
<tr>
<th>Participant sex</th>
<th>Nature of relationship</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Friend</td>
<td>Enemy</td>
<td>Stranger</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>1.28 (0.21) <em>a</em></td>
<td>1.28 (0.14) <em>a</em></td>
<td>1.33 (0.00) <em>a</em></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>1.32 (0.07) <em>a</em></td>
<td>1.32 (0.06) <em>a</em></td>
<td>1.31 (0.08) <em>a</em></td>
<td></td>
</tr>
</tbody>
</table>

Note. 0 = No correctly identified relationships in four scenarios; 4 = Four correctly identified relationships in four scenarios. In each row, cells sharing subscripts in common do not differ significantly.
compared to the friend and enemy conditions. Females perceived the relationship as intended more often in the friend and enemy conditions as compared to the stranger condition. However, the variations are so small as to be uninterpretable.

In the second analysis, a 3 x 2 (Nature of Relationship x Participant Sex) between-subjects ANOVA was conducted on participants' ratings of how much the two people in each scenario liked one another. The results of the analysis are shown in Table 4. This analysis revealed a significant main effect of nature of relationship. Mean liking ratings are displayed in Table 5. Mean ratings for liking, in both the anger and pity conditions, were highest in the friend condition, moderately low in the stranger condition,

Table 4

Analysis of Variance on Participants' Ratings of Liking

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotion sent (ES)</td>
<td>1</td>
<td>1.11</td>
</tr>
<tr>
<td>Relationship (R)</td>
<td>2</td>
<td>301.62***</td>
</tr>
<tr>
<td>Participant sex (PS)</td>
<td>1</td>
<td>0.60</td>
</tr>
<tr>
<td>ES x R</td>
<td>2</td>
<td>0.11</td>
</tr>
<tr>
<td>ES x PS</td>
<td>1</td>
<td>2.44</td>
</tr>
<tr>
<td>R x PS</td>
<td>2</td>
<td>0.07</td>
</tr>
<tr>
<td>ES x R x PS</td>
<td>2</td>
<td>0.18</td>
</tr>
<tr>
<td>Error</td>
<td>266</td>
<td>(1.59)</td>
</tr>
</tbody>
</table>

Note. Values enclosed in parentheses represent mean square errors. 
***p < .001.
Table 5

Mean Ratings (and Standard Deviations) for Liking in Six Primary Experimental Conditions

<table>
<thead>
<tr>
<th>Emotion sent</th>
<th>Friend</th>
<th>Enemy</th>
<th>Stranger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anger</td>
<td>6.04 (1.03) \text{a}</td>
<td>1.55 (0.71) \text{b}</td>
<td>2.83 (1.56) \text{c}</td>
</tr>
<tr>
<td>Pity</td>
<td>6.14 (0.87) \text{a}</td>
<td>1.69 (1.38) \text{b}</td>
<td>3.08 (1.63) \text{c}</td>
</tr>
</tbody>
</table>

Note. 1 = “Not at all;” 7 = “Very much;” In each row, cells sharing subscripts in common do not differ significantly.

and very low in the enemy condition, all of which differed significantly from one another (using the Student-Newman-Keuls procedure).

Manipulation of Emotion Sent

The first analysis approached the question of whether participants correctly perceived the emotion sent manipulation by calculating how often, in each of the four scenarios, participants identified the emotion sent as anger or pity. Each of these two scores could range from 0 (e.g., never chose the anger option) to 4 (e.g., chose the anger option across all four scenarios). A 3 (nature of relationship) x 2 (emotion sent) x 2 (participant sex) x 3 (emotion perceived) ANOVA was conducted, treating the emotion perceived variable as a repeated measures factor. As shown in Table 6, both the main effect for emotion perceived and the Emotion Sent x Emotion Perceived interaction were statistically significant. Table 7 displays the means for the interaction. A follow-up one-
Table 6

Analysis of Variance for Manipulation Check on Emotion Sent

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Between subjects effects</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotion sent (ES)</td>
<td>1</td>
<td>1.07</td>
</tr>
<tr>
<td>Relationship (R)</td>
<td>2</td>
<td>1.50</td>
</tr>
<tr>
<td>Participant sex (PS)</td>
<td>1</td>
<td>0.55</td>
</tr>
<tr>
<td>ES x R</td>
<td>2</td>
<td>0.16</td>
</tr>
<tr>
<td>ES x PS</td>
<td>1</td>
<td>0.81</td>
</tr>
<tr>
<td>R x PS</td>
<td>2</td>
<td>0.47</td>
</tr>
<tr>
<td>ES x R x PS</td>
<td>2</td>
<td>1.93</td>
</tr>
<tr>
<td>Within + Error</td>
<td>260</td>
<td>(0.07)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Within subjects effects</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotion perceived (EP)</td>
<td>1</td>
<td>406.50***</td>
</tr>
<tr>
<td>ES x EP</td>
<td>1</td>
<td>241.42***</td>
</tr>
<tr>
<td>R x EP</td>
<td>2</td>
<td>0.63</td>
</tr>
<tr>
<td>PS x EP</td>
<td>1</td>
<td>0.48</td>
</tr>
<tr>
<td>ES x R x EP</td>
<td>2</td>
<td>1.20</td>
</tr>
<tr>
<td>ES x PS x EP</td>
<td>1</td>
<td>1.52</td>
</tr>
<tr>
<td>R x PS x EP</td>
<td>2</td>
<td>2.32</td>
</tr>
<tr>
<td>ES x R x PS x EP</td>
<td>2</td>
<td>1.75</td>
</tr>
<tr>
<td>Within + Error</td>
<td>260</td>
<td>(1.44)</td>
</tr>
</tbody>
</table>

*Note.* Values enclosed in parentheses represent mean square errors.

***p < .001.
way, repeated measures ANOVA for emotion perceived in the anger condition revealed a significant effect of emotion perceived. Table 7 shows that anger was perceived as being sent more often than pity in the anger condition, affirming the effectiveness of this manipulation. However, although the difference is less striking, the one-way repeated measures ANOVA for the pity condition revealed that anger was also perceived as being sent more often than pity in the pity condition, suggesting that the pity manipulation was unsuccessful. Because the pity manipulation was unsuccessful, it was excluded from analyses addressing the main hypotheses.

In a second analysis, participants’ ratings of the intensity of the emotion sent were compared for those participants who had correctly identified the emotion signal. The cell means shown in Table 8 reveal that participants in the anger condition, who had correctly

Table 7

Mean Number of Correctly Perceived Emotion Signals (and Standard Deviations) for the Emotion Sent x Emotion Perceived Interaction

<table>
<thead>
<tr>
<th>Emotion perceived</th>
<th>Emotion sent condition</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Anger</td>
<td>Pity</td>
<td></td>
</tr>
<tr>
<td>Anger</td>
<td>3.86 (0.44)ₐ</td>
<td>2.14 (1.17)ₐ b</td>
<td></td>
</tr>
<tr>
<td>Pity</td>
<td>0.04 (0.24)ₖ</td>
<td>1.71 (1.18)ₖ d</td>
<td></td>
</tr>
</tbody>
</table>

Note. 0 = No correctly identified emotion signals in four scenarios; 4 = Four correctly identified emotion signals in four scenarios. Cells sharing subscripts in common do not differ significantly. Means in the Anger column were found to differ with $F (1,133) = 5235.01$, $p < .000$. Means in the Pity column were found to differ with $F (1,137) = 4.86$, $p < .05$. 
Table 8

Comparison of Mean Intensity Ratings (and Standard Deviations) of Anger and Pity

<table>
<thead>
<tr>
<th>Emotion sent</th>
<th>Relationship condition</th>
<th>Friend</th>
<th>Enemy</th>
<th>Stranger</th>
</tr>
</thead>
</table>
| Anger        | 6.25 (0.68)
N = 46     | 6.13 (1.00)
N = 45     | 6.01 (0.82)
N = 46     |
| Pity         | 7.00 (-)
N = 1      | 5.80 (0.74)
N = 5      | 4.40 (1.66)
N = 4      |

Note. 1 = “Not at all;” 7 = “To a great extent;” In the first row, cells sharing subscripts in common do not differ significantly.

identified anger as the emotion sent, perceived the expression of anger as equally intense in the three relationship conditions. Among those few participants who perceived the pity manipulation as intended, it appears that participants rated the expression of pity as most intense in the friend condition and least intense in the stranger condition. However, the extremely small cell sizes in this analysis render the results for the pity condition uninterpretable.

Analyses Relevant to Study Predictions

Having considered the findings with respect to the effectiveness of the experimental manipulation, this section presents the results of the analyses undertaken to address the study’s principal research questions as outlined in Chapter I. The questionable validity of the pity manipulation makes it impossible to directly test predictions relevant to this emotion condition. However, as explained in Chapter III, the
major analyses of the study's predictions were designed to be conducted separately for the anger and pity conditions. Based on the strength of the manipulation of emotion sent with respect to the anger conditions, Weiner (1986, 1995) and Parkinson's (1995) predictions regarding anger were tested and are reported here. Predictions based on the work of one theorist (e.g., Weiner), for which a corresponding prediction for the other theorist (e.g., Parkinson) was not made, are, by necessity, presented separately. When corresponding predictions are made by each theorist, these are presented together. The analyses relevant to each prediction are briefly explained and the results presented.

Attributions Conveyed by Anger

The first pair of predictions to be considered concerns the attributions conveyed by an expression of anger. Weiner's (1986) attribution theory of emotion implies that an expression of anger conveys an internal/stable/controllable attribution regardless of the nature of the relationship at issue. That is, there is no strong theoretical reason from Weiner's perspective to expect different sender attributions in the three relationship conditions, except in the case of the stability dimension, where Weiner allows stability to vary as a kind of scalar variable related to emotion intensity. The prediction based on the work of Parkinson (1995) states that there can be relationship-based differences in degree to which the three attributions (e.g., more or less controllable) would be implied by the sender, although Parkinson is vague about the exact nature of the relationship-dependent attributional differences that might be found.
A composite score was created reflecting whether participants made relatively high ratings for both internal and controllable sender attributions across the four scenarios. The attribution ratings for stability were not included in the composite score due to Weiner’s (1986) treatment of stability as a scalar variable. The composite score for participants whose mean ratings for both internal and controllable sender attributions across the four scenarios were four or less, received a value of zero. The composite score for participants whose mean ratings for both internal and controllable sender attributions across the four scenarios were five or greater, received a value of 1. This composite score was created to reflect Weiner’s idea that relatively high ratings of controllability and internality are implied by expressions of anger.

A 3 x 2 (Nature of Relationship x Participant Sex) between-subjects ANOVA was conducted on this composite score. As seen in Table 9, there was a significant main

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship (R)</td>
<td>2</td>
<td>4.58*</td>
</tr>
<tr>
<td>Subject sex (SS)</td>
<td>1</td>
<td>0.39</td>
</tr>
<tr>
<td>R x SS</td>
<td>2</td>
<td>0.28</td>
</tr>
<tr>
<td>Error</td>
<td>131</td>
<td>(0.24)</td>
</tr>
</tbody>
</table>

**Note.** Values enclosed in parentheses represent mean square errors.

*^p < .05.*
effect for nature of relationship. The proportions of participants who made relatively high ratings (i.e., greater than four) of internality and controllability, for each of the three relationship conditions, are shown in Table 10. These proportions indicate that high internal/controllable attributions were made by more participants in the enemy, as opposed to the friend or stranger, conditions. This result indicates that the nature of the relationship manipulation strongly impacted inferences regarding sender attributions when sender attributions were viewed as the composite of ratings of internal and controllable attributions.

The relationship-dependent nature of sender internality and controllability attributions is also seen by inspecting the attribution ratings on which the composite variable was calculated. Table 11 depicts the actual mean sender internality and controllability attributions on which the composite was based. It also depicts mean sender stability attribution ratings, although this rating is less pertinent to Weiner’s (1986) analysis of anger. Ratings of the sender’s internal attributions were found to

Table 10

Proportion of Participants Making High Sender Internal/Controllable Attributions (and Standard Deviations) by Relationship Condition

<table>
<thead>
<tr>
<th>Attribution dimension</th>
<th>Relationship condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal/Controllable</td>
<td>0.48 (0.51) \textsubscript{a}</td>
</tr>
</tbody>
</table>

Note. In each row, cells sharing subscripts in common do not differ significantly.
Table 11

Mean Ratings of Sender’s Internal, Stable, and Controllable Attributions (and Standard Deviations)

<table>
<thead>
<tr>
<th>Attribution dimension</th>
<th>Relationship condition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Friend</td>
</tr>
<tr>
<td>Internal</td>
<td>4.21 (1.41)\textsubscript{a}</td>
</tr>
<tr>
<td>Stable</td>
<td>3.86 (1.18)\textsubscript{a}</td>
</tr>
<tr>
<td>Controllable</td>
<td>5.84 (0.84)\textsubscript{a}</td>
</tr>
</tbody>
</table>

Note. 1 = “Not at all,” 7 = “To a great extent.” In each row, cells sharing subscripts in common do not differ significantly.

...differ, with ratings in the enemy condition being significantly greater than those in both the friend and stranger conditions. Thus, with respect to the causal locus dimension, results are inconsistent with Weiner’s model and consistent with Parkinson’s (1995) perspective. In the case of controllability, ratings did not differ significantly across the three relationship conditions, suggesting that anger implied attributions of controllability independently of the nature of the relationship. Relationship-invariant controllability attributions are consistent with Weiner’s model, but not with Parkinson’s view. And, although not of primary relevance to the question of whether the predictions based on Weiner as opposed to Parkinson were supported, it is noteworthy that ratings for stability in the three conditions were found to differ significantly, \( F(2, 134) = 16.21, p < .000, \) with the highest ratings emerging in the enemy condition and lowest in the friend condition. It thus appears that the results were mixed, with the predictions based on both Weiner and
Parkinson's work finding partial support in this analysis. Most importantly, the controllability attribution dimension, which is of greatest relevance to anger according to Weiner, was unaffected by the nature of the relationship manipulation.

Relationship Between Emotion Sent and Sender Attributions

The second pair of predictions to be tested concerns the relationship between the emotion sent (in this case, anger) and the attributions implied by the sender. Weiner's (1986) theory suggests that ratings of the extent to which the sender made internal and controllable attributions should be strongly and positively correlated with ratings of the extent to which the sender expressed anger. Although not a strong prediction, Weiner might also expect the scalar variable of stability to be positively correlated with perceived anger. Parkinson (1995), on the other hand, again contends that these links can be variable. That is, the strength of the correlations can vary greatly (from small to large) with their strength depending largely on the nature of the identity claim that the sender is trying to communicate. Although Parkinson's notion of identity claims is not the focus of this thesis, it is possible to examine (a) whether the correlations between anger ratings and attributions are statistically significant in each of the three relationship conditions (as Weiner would predict) versus (b) whether the attribution-anger links are variable depending upon the nature of the relationship at issue (as Parkinson would predict).

Pearson product-moment correlation coefficients between perceived sender anger and perceived sender attributions are presented in Table 12, for each of the three relationship conditions. In the friend and stranger conditions, the links between ratings of
Table 12

Correlations Between Mean Ratings of Anger Sent and Mean Ratings of Sender Attributions in Each Relationship Condition

<table>
<thead>
<tr>
<th>Attribution dimension</th>
<th>Friend</th>
<th>Enemy</th>
<th>Stranger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal</td>
<td>.02&lt;sub&gt;a&lt;/sub&gt;</td>
<td>.50&lt;sup&gt;***&lt;/sup&gt;&lt;sub&gt;b&lt;/sub&gt;</td>
<td>-.01&lt;sub&gt;a&lt;/sub&gt;</td>
</tr>
<tr>
<td>Stable</td>
<td>.15&lt;sub&gt;a&lt;/sub&gt;</td>
<td>.35&lt;sup&gt;*&lt;/sup&gt;</td>
<td>.22&lt;sub&gt;a&lt;/sub&gt;</td>
</tr>
<tr>
<td>Controllable</td>
<td>.23&lt;sub&gt;a&lt;/sub&gt;</td>
<td>.52&lt;sup&gt;***&lt;/sup&gt;&lt;sub&gt;a&lt;/sub&gt;</td>
<td>.17&lt;sub&gt;a&lt;/sub&gt;</td>
</tr>
</tbody>
</table>

Note. In each row, cells sharing subscripts in common do not differ significantly. Multiple comparison of correlations conducted using a Fisher Z transformation in a chi-square test of significance (Glass & Hopkins, 1996). Marascuilo procedure used for pairwise comparisons (Glass & Hopkins, 1996).<br>*<sub>p < .05, ***p < .001.</sub>

sender anger and ratings of sender attributions were low and were not statistically significant. In the enemy condition, ratings of internality, stability, and controllability were each positively and significantly related to ratings of sender anger. The internal attribution-sender anger correlation in the enemy condition differed significantly from these same correlations in the friend and stranger conditions. The correlations between sender anger and each of the stability and controllability dimensions did not differ significantly across the three relationship conditions.

The sender attribution-sender anger links are generally inconsistent with Weiner’s expectation that sender anger conveys a particular pattern of attribution to receivers. Particularly disturbing are the lack of robust relations between sender attribution and sender anger (especially for controllability) in the friend condition, because this condition
best replicates those represented in Weiner's program of research. One might argue that the low sender anger-sender controllability correlations—which are most devastating to the Weinerian analysis—simply reflect a restriction of range. This is consistent with the low SD for sender controllability attributions (cf. Table 11) and sender anger (cf. Table 8). However, other SD comparisons in these two tables, relative to the magnitude of correlations reported in Table 12, argue against this as the sole interpretation. In all, the pattern of attribution-anger relations found provides more support for Parkinson's (1995) ideas, because this pattern varied across the three relationship conditions.

**Congruence of Sender and Receiver Attributions**

The third prediction derived from the work of Weiner (1986) stated that the attributions inferred by the receiver would be congruent with those implied by the sender. In addition, this congruence should be apparent in each of the three relationship conditions. There were no corresponding predictions based on the work of Parkinson.

Correlational data shed light on this prediction. Analysis of the degree of association between sender and receiver attributions, collapsed across relationship conditions, provides a general test of Weiner's (1986) assertions. Analysis of the degree of association between sender and receiver attributions, considered separately in each relationship condition, provides a test of nature of relationship effects. Table 13 presents the Pearson product-moment correlation coefficients between the mean sender versus receiver attribution ratings made across the four scenarios, collapsed across the three relationship conditions. Two of the three correlation coefficients reached statistical
significance. Importantly, the correlation that was not statistically significant (that between sender controllability and receiver controllability) is one that Weiner would have expected to be high in magnitude. Moreover, even though the sender internality-receiver internality correlation reaches statistical significance, its magnitude ($r = .27$) is much less than Weiner's theory would predict. As a whole, then, these results obviously do not fully support Weiner's assertions.

Table 14 depicts the correlations between sender and receiver attributions for each of the three relationship conditions. Several observations can be made about the obtained pattern of sender-receiver attribution links. First, there is minimal association between sender and receiver attributions in the friend condition for the two dimensions most pertinent to Weiner's attributional analysis of anger (internality and controllability). Second, it is odd that stability was the attribution revealing the strongest sender-receiver attribution correlations, because this dimension is the least relevant to anger from Weiner's perspective. Third, the strength of the correlations did not vary significantly
Table 14

Correlation Coefficients Between Mean Sender and Receiver Attributions by Relationship Condition

<table>
<thead>
<tr>
<th>Sender’s attributions</th>
<th>Receiver’s attributions</th>
<th>Internal</th>
<th>Stable</th>
<th>Controllable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friend</td>
<td>Internal</td>
<td>.19</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Enemy</td>
<td>.06</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Stranger</td>
<td>.49*</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Friend</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enemy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stranger</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Controllable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enemy</td>
<td></td>
<td></td>
<td></td>
<td>.06*</td>
</tr>
<tr>
<td>Stranger</td>
<td></td>
<td></td>
<td></td>
<td>-.09*</td>
</tr>
</tbody>
</table>

Note. Multiple comparison of correlations conducted using a Fisher Z transformation in a chi-square test of significance (Glass & Hopkins, 1996). Marascuilo procedure used for pairwise comparisons (Glass & Hopkins, 1996). Coefficients within cells sharing subscripts in common do not differ significantly.

*p < .05, ***p < .001.

across the three relationship conditions, which on the surface could be seen as support for Weiner’s ideas. However, the general pattern of relations does not strongly support Weiner’s predictions.

Relationship Between Receiver Attributions and Receiver Emotional Response

The next pair of predictions to be considered addresses the relationship between the attributions made by the receiver and the receiver’s own emotional response. The prediction based on the work of Weiner (1986) suggests that the extent to which the
receiver made internal, stable, and controllable attributions should be strongly and positively correlated with ratings of the degree to which the receiver experienced guilt. The corresponding prediction based on Parkinson's (1995) work suggests that these links can be variable, and that these links should vary as a function of the nature of the relationship. As in the case of sender attributions, Parkinson would assert that correlations between receiver attributions and receiver emotional response can vary depending on the specific identity claims that the receiver is trying to communicate. The analyses relevant to the comparison of these two predictions include (a) a test to determine whether the correlations between receiver attributions and receiver emotional response are statistically significant in each of the three relationship conditions and (b) whether the correlations between receiver attributions and receiver emotional response vary significantly across relationship conditions.

Pearson product-moment correlation coefficients between perceived receiver attributions and seven possible emotion responses, collapsed across relationship conditions, are presented in Table 15. Analyses were conducted without respect to relationship conditions as a general test of Weiner's (1986) assertions. These results suggest that perceptions of the receiver's experience of guilt, shame, and fear are associated with the receiver making controllable attributions about his or her own behavior. In addition, the emotional responses of fear and happiness also appear linked to internal and stable attributions respectively. The significant correlation between controllable attributions and guilt is consistent with Weiner's theory. However, the significant positive association between controllable attributions and shame is
Table 15

**Correlation Coefficients Between Perceived Mean Receiver Attributions and Seven Receiver Emotional Responses**

<table>
<thead>
<tr>
<th>Attribution dimension</th>
<th>Emotion response</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Guilt</td>
</tr>
<tr>
<td>Internal</td>
<td>.08</td>
</tr>
<tr>
<td>Stable</td>
<td>-.12</td>
</tr>
<tr>
<td>Controllable</td>
<td>.29*</td>
</tr>
</tbody>
</table>

*p < .05, ***p < .001.

inconsistent with predictions based on Weiner’s theory, as Weiner would have predicted a negative shame-controllability relation. Table 16 depicts Pearson product-moment correlation coefficients between perceived receiver attributions and seven possible emotional responses, separated by relationship condition. Analyses conducted separately for each relationship condition provide a test of relationship effects. As Weiner would predict, receivers’ perceptions of the controllability of their behavior were associated with an emotional response of guilt in all relationship conditions. The lack of statistically significant differences across relationship conditions nicely supports Weiner’s hypothesis. However, investigation of the differences across relationship conditions with respect to the magnitude of associations suggests relational effects. The magnitude of the correlations between receivers’ controllable attributions and receiver guilt, in the friend and enemy conditions, were approximately twice the magnitude of the same correlation in
Table 16

Correlation Coefficients Between Perceived Mean Receiver Attributions and Perceived Receiver Emotional Responses by Relationship Condition

<table>
<thead>
<tr>
<th>Attribution dimension</th>
<th>Guilt</th>
<th>Anger</th>
<th>Shame</th>
<th>Fear</th>
<th>Emb</th>
<th>Happy</th>
<th>Pity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friend</td>
<td>.05†</td>
<td>.40*</td>
<td>.16</td>
<td>.34†</td>
<td>.06</td>
<td>.14†</td>
<td>.08†</td>
</tr>
<tr>
<td>Enemy</td>
<td>.08†</td>
<td>-.25</td>
<td>.19†</td>
<td>.13†</td>
<td>-.06</td>
<td>.23</td>
<td>.04†</td>
</tr>
<tr>
<td>Stranger</td>
<td>.28†</td>
<td>.09</td>
<td>.27</td>
<td>.44*</td>
<td>.10</td>
<td>.39*</td>
<td>.42*</td>
</tr>
<tr>
<td>Friend</td>
<td>-.19</td>
<td>.35*</td>
<td>.06†</td>
<td>.20†</td>
<td>-.21</td>
<td>.23†</td>
<td>.06†</td>
</tr>
<tr>
<td>Enemy</td>
<td>.16†</td>
<td>-.22</td>
<td>.15†</td>
<td>.03†</td>
<td>-.08</td>
<td>.17†</td>
<td>.15†</td>
</tr>
<tr>
<td>Stranger</td>
<td>-.10</td>
<td>.31*</td>
<td>-.05*</td>
<td>.24†</td>
<td>-.28</td>
<td>.39*</td>
<td>.14†</td>
</tr>
<tr>
<td>Friend</td>
<td>.36†</td>
<td>.19†</td>
<td>.37†</td>
<td>.46*</td>
<td>.26</td>
<td>.22†</td>
<td>-.02</td>
</tr>
<tr>
<td>Enemy</td>
<td>.29*</td>
<td>-.32*</td>
<td>.34*</td>
<td>.24†</td>
<td>.07</td>
<td>-.11</td>
<td>.02†</td>
</tr>
<tr>
<td>Stranger</td>
<td>.15†</td>
<td>-.14</td>
<td>.43*</td>
<td>.26†</td>
<td>-.03</td>
<td>.28†</td>
<td>.26†</td>
</tr>
</tbody>
</table>

Note. Multiple comparison of correlations conducted using a Fisher Z transformation in a chi-square test of significance (Glass & Hopkins, 1996). Marascuilo procedure used for pairwise comparisons (Glass & Hopkins, 1996). Coefficients within cells sharing subscripts in common do not differ significantly.

* p < .05.

the stranger condition. Considered in this light, attributions do not appear to correlate uniformly across relationship conditions. This finding is forcefully demonstrated in the case of correlations between receiver attributions and receiver anger. Results with respect to anger suggest that receivers' responses of anger are differentially associated with internal locus of control. When interacting with a friend, the degree to which a receiver experiences anger is linked to his or her tendency to make internal attributions about his or her own behavior. In the case of an enemy, a receiver is likely to become more angry the less he or she makes internal attributions about his or her behavior. Noteworthy is the
absence of a strong correlation between the receiver's emotional response of anger and the receiver's own attribution of internal locus when collapsed across relationship condition (see Table 15). Differences similar to those that emerged in the case of correlations between anger and internal attributions were observed in the case of correlations between anger and the attribution dimensions of stability and controllability. In the case of controllability and anger, results suggest that the more a receiver makes controllable attributions about his or her own behavior, the more likely he or she is to experience anger if the other person is a friend, and the less likely he or she is to experience anger if the other person is an enemy. Meaningful differences between correlations coefficients in the three relationship conditions were observed for other emotional response/attribution dimension correlation analyses (e.g., guilt, embarrassment, happiness, pity), but these differences were not found to be statistically significant. These results are inconsistent with predictions that emotion responses to attribution patterns would not vary as a function of the nature of the relationship, as derived from Weiner's theory. These results do suggest that the links between the attributions one makes about his or her own behavior and the subsequent emotional response may vary as a function of the nature of the relationship, as Parkinson (1995) would predict.

**Emotional Response to Anger**

The next prediction to be tested based on the work of Weiner (1986) was that an expression of anger would elicit the emotional response of guilt regardless of the nature of the relationship. The corresponding prediction based on Parkinson's (1995) theory
stated that an expression of anger could elicit different emotions in the receiver (e.g., guilt, happiness, embarrassment, shame, anger) as a function of the nature of the relationship.

The first analysis conducted to test these predictions was a 3 x 2 x 7 (Nature of Relationship x Participant Sex x Emotional Response) mixed design ANOVA, in which ratings of seven possible emotional responses by the receiver (i.e., anger, guilt, shame, fear, embarrassment, pity, and happiness) were treated as a within-subjects factor. Table 17 shows statistically significant effects for emotional response and the Nature of Relationship x Emotional Response interaction. The main effect of emotional response is pertinent to Weiner’s (1986) prediction that sender anger primarily promotes receiver guilt. Comparisons were made among the mean ratings of guilt versus the remaining six emotions using a Tukey procedure as necessitated by the within-subjects factor (Stevens, 1992). The means depicted in Table 18 do indeed reveal that guilt ratings were significantly higher than the ratings for the other emotions. This result thus nicely confirms Weiner’s expectation. The relatively high ratings for the remaining negative emotions could nonetheless indicate that various negative reactions, in addition to guilt, are possible results of sender anger.

Although the main effect of emotion provided support for Weiner (1986), it was also clear from the Nature of Relationship x Emotional Response interaction that the same expression of anger elicited a variety of emotional responses by receivers in different types of relationships. That is, the magnitude of receivers’ emotional responses varied, as Parkinson (1995) would predict, as a function of the nature of the relationship.
Table 17

**Within Subjects Analysis of Variance of Emotional Response**

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Between subjects effects</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationship (R)</td>
<td>2</td>
<td>5.39*</td>
</tr>
<tr>
<td>Participant sex (PS)</td>
<td>1</td>
<td>0.00</td>
</tr>
<tr>
<td>R x PS</td>
<td>2</td>
<td>0.68</td>
</tr>
<tr>
<td>Within + Error</td>
<td>131</td>
<td>(5.58)</td>
</tr>
<tr>
<td><strong>Within subjects effects</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotion response (RP)</td>
<td>6</td>
<td>76.73***</td>
</tr>
<tr>
<td>R x EP</td>
<td>12</td>
<td>7.84***</td>
</tr>
<tr>
<td>PS x EP</td>
<td>6</td>
<td>1.02</td>
</tr>
<tr>
<td>R x PS x EP</td>
<td>12</td>
<td>0.41</td>
</tr>
<tr>
<td>Within + Error</td>
<td>786</td>
<td>(1.51)</td>
</tr>
</tbody>
</table>

**Note.** Values enclosed in parentheses represent mean square errors. *p< .05; ***p < .001.

Table 18

**Comparisons of Mean Ratings of Guilt to Six Emotional Responses**

<table>
<thead>
<tr>
<th>Guilt</th>
<th>Anger</th>
<th>Shame</th>
<th>Fear</th>
<th>Embarrassed</th>
<th>Happy</th>
<th>Pity</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.16</td>
<td>3.01*</td>
<td>3.28*</td>
<td>2.22*</td>
<td>3.59*</td>
<td>1.22*</td>
<td>2.85*</td>
</tr>
</tbody>
</table>

**Note.** Means are significantly different from the mean rating of guilt as determined by Tukey procedure for within-subjects designs (Stevens, 1992). *p < .05.
To examine this complexity in more detail, seven one-way ANOVAs were conducted on each of the emotion ratings, treating nature of the relationship as a between-subjects factor. Results of the seven ANOVAs are summarized in Table 19 (with more details on these analyses presented in Appendix F).

Table 19 reveals a statistically significant nature of relationship effect for five of the seven receiver emotion ratings (guilt, shame, embarrassment, happiness, and pity). Table 20 presents the mean ratings for these five emotions as well as the results of Student-Newman-Keuls comparisons among the three relationship conditions for each of the five emotions. Participants estimated that receivers would feel guiltier, more ashamed, and more embarrassed in the friend and stranger conditions compared to the enemy condition. Receivers were also seen as feeling statistically significantly more pity in the friend compared to enemy condition. In the case of happiness, the mean rating for the enemy condition was significantly greater than both the friend and stranger conditions.

Table 19

Summary of F Values for Between-Subjects ANOVAs on Seven Emotion Responses

<table>
<thead>
<tr>
<th>Source</th>
<th>Anger</th>
<th>Guilt</th>
<th>Shame</th>
<th>Fear</th>
<th>Embar</th>
<th>Happy</th>
<th>Pity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relation (R)</td>
<td>0.59</td>
<td>11.25***</td>
<td>8.34***</td>
<td>0.91</td>
<td>17.89***</td>
<td>7.00***</td>
<td>6.22*</td>
</tr>
<tr>
<td>Part. sex (PS)</td>
<td>2.09</td>
<td>0.62</td>
<td>0.55</td>
<td>0.59</td>
<td>0.00</td>
<td>0.66</td>
<td>0.00</td>
</tr>
<tr>
<td>R x PS</td>
<td>0.17</td>
<td>0.56</td>
<td>0.08</td>
<td>0.26</td>
<td>0.73</td>
<td>0.88</td>
<td>1.11</td>
</tr>
<tr>
<td>Error</td>
<td>(2.28)</td>
<td>(1.56)</td>
<td>(2.67)</td>
<td>(2.09)</td>
<td>(2.50)</td>
<td>(1.29)</td>
<td>(2.27)</td>
</tr>
</tbody>
</table>

Note. Values enclosed in parentheses represent mean square errors.

* p < .05, *** p < .001.
Table 20

Mean Emotional Response Ratings (and Standard Deviations) by Relationship Condition

<table>
<thead>
<tr>
<th>Emotion response</th>
<th>Relationship condition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Friend</td>
</tr>
<tr>
<td>Guilt</td>
<td>4.64 (1.33)&lt;sub&gt;a&lt;/sub&gt;</td>
</tr>
<tr>
<td>Shame</td>
<td>3.92 (1.72)&lt;sub&gt;a&lt;/sub&gt;</td>
</tr>
<tr>
<td>Embarrassed</td>
<td>4.04 (1.65)&lt;sub&gt;a&lt;/sub&gt;</td>
</tr>
<tr>
<td>Happy</td>
<td>0.90 (0.92)&lt;sub&gt;a&lt;/sub&gt;</td>
</tr>
<tr>
<td>Pity</td>
<td>3.41 (1.48)&lt;sub&gt;a&lt;/sub&gt;</td>
</tr>
</tbody>
</table>

Note. In each row, cells sharing subscripts in common do not differ significantly.  
*<i>p < .05</i>; **<i>p < .001</i>.

conditions. These results provide support for Parkinson’s (1995) prediction that an emotional message of anger will elicit different emotional responses and that these responses will vary as a function of the nature of the relationship.
CHAPTER V
DISCUSSION

Overview

This study set out to explore how the nature of relationship between individuals affects their attributions and emotional responses. Predictions about attributions and emotion responses, based on the work of an attribution-oriented theorist, Bernard Weiner (1986, 1995), and an interpersonal theorist, Brian Parkinson (1995, 1997), were tested and compared. Although the results provided mixed support for the role of attributions in emotion, they did implicate relationship variables as important to emotion induction. Moreover, the results suggest that the phenomenon known as emotion is even more complex than previously thought.

The results of this thesis are multifaceted and complex. In order to fully appreciate their implications, this chapter begins with a summary and discussion of study findings that were obtained in conditions most similar to those used by others to test attribution-based hypotheses (i.e., the stranger and especially the friend condition). The second section focuses on the implications of results found in conditions that have never been examined previously (i.e., the enemy condition). Results in both sections provide either direct or extended tests of Weiner’s (1986) hypotheses and allow exploratory conclusions regarding Parkinson’s (1995) idea that relational factors are crucial to understanding emotion. After discussing how the results bear on Weiner’s and Parkinson’s ideas, more general theoretical and practical implications of these results are
then considered. A subsequent section identifies possible explanations for the role of relationship factors in emotion. Finally, limitations of the study and future research directions are outlined.

It should be noted that this discussion purposefully discusses in detail all of the results that are inconsistent with Weiner, but is also fair in pinpointing results actually consistent with the Weinerian perspective. The decision to provide a rather detailed discussion of results favorable and unfavorable to Weiner’s perspective was based on the widespread impact that his model has had, and continues to have, on various fields of psychology. The validity of this impact can only be evaluated by serious and painstaking consideration of both types of evidence.

Organizational Framework of Discussion:

Replication Versus Extension

This study tested several hypotheses based on the work of Weiner (1986). These tests were conducted in three separate relationship conditions (i.e., friend, enemy, and stranger). Of these three conditions, the stranger and especially the friend conditions are the most similar to those examined in studies conducted by Weiner and other researchers. Of the five hypotheses derived from Weiner’s model and research, three can be examined independently of the relationship manipulation and are discussed first. The Weiner-based hypotheses that can be examined separately for the friend and stranger conditions are:

2. The attributions inferred by the receiver would be congruent with those implied by the sender.

3. An expression of anger would elicit the emotional response of guilt.

Additional hypotheses that bear on the validity of the Weinerian model were tested by comparing results obtained in the three relationship conditions. These hypotheses also bear on Parkinson's (1995) suggestion that relational factors are crucial components of emotional induction. The results bearing on these hypotheses will therefore be considered later, within a broader discussion of relational effects on emotion.

It should be emphasized that results regarding the pity condition are not a focus in the discussion, because the pity manipulation was ineffective. The discussion focuses primarily on results pertaining to the anger condition.

Summary of Results Pertaining to Weiner Replication

Hypothesis 1: Attributions Conveyed by Anger

Consistent with the findings of Weiner and colleagues (Weiner et al., 1982; Weiner & Graham, 1991), results in the friend and stranger conditions suggest that sender internal/stable/controllable attributions are often present in the context of an emotional signal of anger. However, there was little or no relationship observed in the friend or stranger conditions between the perceived intensity of the anger signal and the degree to which sender internal/stable/controllable attributions were conveyed. This raises questions about the extent to which attributions are integrally involved in emotional arousal, a point that is elaborated in more detail later.
Hypothesis 2: Congruence of Sender and Receiver Attributions

Another result from the friend and stranger conditions was found to partially support previous research deriving from the Weinerian paradigm. The finding that sender and receiver attributions may be associated is consistent with other attribution-focused research that has asserted sender attributions are somehow conveyed and picked up by the receiver (Graham, 1984). However, this support was limited to the dimension of stability and to locus of control in the stranger condition and to the stability dimension in the friend condition. Unlike previous findings reported by Weiner and his colleagues, there was no association between sender and receiver attributions of controllability, a key attribution in the link between sender anger and receiver guilt (Weiner, 1986, 1995).

Hypothesis 3: Anger Elicits Guilt

Finally, results were also found to support previously established links between sender anger and receiver guilt (Graham, 1984). In both the friend and stranger conditions, participants consistently rated guilt as the most intensely experienced emotional response to a sender’s expression of anger.

Conclusions Regarding Replication of Weiner’s Model

The findings summarized thus far support four conclusions. First, when respondents read about an interaction between two persons and rate the attributions made by both persons, they will generally make attributions that are consistent with predictions based on Weiner’s model. Second, although participants will offer attributional
inferences, other evidence calls into question the extent to which these attributions play a role in eliciting emotions in either the friend or stranger conditions—the two conditions that most closely align with previous tests of Weiner's model. Third, regardless of attribution-emotion links, it is clear that sender anger can induce guilt in its receivers, which strongly supports Weiner's hypothesis regarding sender-receiver emotion links. This leads to a fourth conclusion: If sender-receiver emotion links are not accounted for by a theoretically consistent pattern of attributions, then other variables must be identified to explain them. This fourth conclusion is considered in more detail in the general discussion.

Summary of Results Pertaining to Parkinson's Theory and Extended Tests of Weiner's Theory

In this section, the focus shifts to extending the test of Weiner's (1986, 1995) theory across different relationship conditions. These same comparisons also provide an initial test of Parkinson's (1995) views of how relationship factors influence emotion. The corresponding hypotheses based on the work of Weiner and Parkinson have been integrated into four opposing predictions, which are:

1. The pattern of attributions implied by a sender's anger should not vary as a function of the nature of the relationship (Weiner, 1986) versus the degree to which sender anger conveys causal attributions is free to vary in different types of relationships (Parkinson, 1995).

2. The association between sender and receiver attributions would not be expected
to vary as a function of the nature of the relationship (Weiner, 1986) versus the relationships between sender and receiver attributions would be free to vary (Parkinson, 1995).

3. An expression of anger should elicit the emotional response of guilt in all three relationship conditions (Weiner, 1986) versus anger can elicit different emotions as a function of the nature of the relationship (Parkinson, 1995).

4. The links between receivers’ attributions and receivers’ emotional responses should not vary (Weiner, 1986) versus they can vary (Parkinson, 1995) as a function of the nature of the relationship.

Sender Attributions

An important question regarding sender attributions is whether they are consistent or variable across different relationship conditions. Results revealed that sender attributions of internality and stability were highly variable across the three relationship conditions, with the highest internality and stability attributions being made in the enemy condition. Sender attributions of controllability, Weiner’s (1986) most crucial attributional dimension in relation to anger (and subsequently to guilt) did not vary across the three relationship conditions. In essence, aspects of each of Weiner’s (1986) and Parkinson’s (1995) predictions were thus supported. Different relationships did lead to different attributional inferences, but inferences regarding the most important attributional dimension for anger and guilt were unaffected by relational variables.

For Weiner’s (1986) model to receive complete support, one should also find
congruence between perceptions of sender anger and the attributional inferences that participants made, regardless of the relationship between sender and receiver. The same congruence is not inconsistent with Parkinson’s (1995) model, although he would view the links as epiphenomenal in terms of emotion induction and might expect more relationship-dependent variability in the strength of these links. When sender attribution-sender anger links were examined in each of the three relationship conditions, results revealed considerable variability in the strength of these associations. The strongest links between sender anger and attribution were found in the enemy condition and virtually no association was found between sender anger and attribution in the two conditions most pertinent to Weiner’s model. Ancillary analyses suggested that ceiling effects or restriction of range could partly explain certain of the correlations that were found, but these methodological problems could not account for the entire pattern of results. These results are highly inconsistent with predictions based on Weiner’s model and they call into question their generalizability across different types of relationships that have not been of major concern in Weiner’s analyses.

Sender and Receiver Attributions: Relationship Effects

Results discussed previously with respect to comparisons of sender and receiver attributions also shed light on the role of relationship variables in attribution. As noted previously, meaningful links between sender attributions and receiver attributions failed to materialize. Moreover, these links were not found to vary as a function of the nature of the relationship. This result might initially cast doubt on the conclusion that relationship
factors play an important role. It should be noted, however, that the associations between sender and receiver attributions were fundamentally inconsistent with Weiner’s (1986) model. The lack of significant links between sender and receiver attributions fails to support Weiner, but that the lack of variability in those links across relationship conditions also fails to provide support for Parkinson (1995).

In all, however, the results pertaining to sender attributions better confirm Parkinson’s (1995) speculations that relationship variables are involved in the arousal of emotion. They raise serious doubts about ability of attributions to arouse emotions.

**Emotional Responses to Anger**

As previously mentioned, results were consistent with prior attribution-based research that found that individuals typically report guilt in response to another’s anger. Importantly, however, guilt was not the only emotion that was significantly endorsed by participants. They also endorsed relatively high ratings of shame, anger, and embarrassment. These results are consistent with Parkinson’s (1995) view that there is not a one-to-one correspondence between sender and receiver emotions. The presence of a variety of emotional responses to a single emotion signal raises questions about Weiner’s (1986) assumption that an emotion signal of anger communicates a unique message to the recipient and thereby elicits a unique emotional response of guilt. Weiner and others may have found support for associations between sender anger and receiver guilt simply because they have rarely asked whether sender anger or anger-congruent attribution manipulations lead to emotional responses other than guilt.
Of course, one might question whether the high ratings for shame, anger, and embarrassment can be legitimately construed as counter-evidence for Weiner’s (1986) idea that sender anger leads to sender guilt. They could partly mean that people endorse emotions that are known to be highly correlated with guilt. After all, although there are meaningful and demonstrable differences among these emotions, self-reports of shame and embarrassment are known to be strongly related to those for guilt. Moreover, self-reports of shame are strongly related to those for anger (cf. Tangney & Fischer, 1995). In essence, the relatively high reports of guilt, shame, anger, and embarrassment could simply mean that the emotions are highly confusable in participants’ minds, reflecting their membership in the same emotion family or highly related emotion families (e.g., Barrett, 1996). If this is the only valid interpretation of results for the additional emotion ratings, then one might conclude that they do not provide a strong test of the validity of Weiner’s hypothesis regarding sender anger-receiver guilt associations. Then again, if perceptions of guilt truly are confounded with perceptions of other emotions, one might also question whether unequivocal tests of Weiner’s predictions are even possible.

Comparisons among the different relationship conditions also bear on the potential of sender anger to elicit guilt in a recipient. It was found that receiver guilt was lower when an enemy expressed anger than when either a friend or a stranger communicated anger. Obviously, this finding is consonant with most people’s intuitive expectations. Importantly, though, it is not a finding that can be accounted for by Weiner’s (1986, 1995) attributional analysis of emotion induction, especially given that
sender anger was rated highest in the enemy condition. The only way of salvaging the attributional analysis in this respect would be to argue that (a) the expression of anger in different relationships implies differing degrees of anger-congruent attributions, which (b) mediate the resultant emotion. However, most of the results presented earlier in the section on sender attributions fail to salvage even this rendition of Weiner's model. Most importantly: The extent to which senders were seen to be implying that the receiver's behavior was controllable did not differ across the three relationship conditions (cf. Table 11). Yet, receivers were perceived to experience differing degrees of guilt across the three relationship conditions (cf. Table 20). Thus, even though anger impacted controllability attributions as Weiner would have expected, these crucial attributions apparently were not all that were involved in inducing receiver guilt. Clearly, factors not taken into account by Weiner's model are needed to explain these findings and many others reported in this thesis.

The results with respect to the emotional response to anger are perhaps even more provocative because they often varied in magnitude as a function of the nature of the relationship between the sender of the emotion signal and the person responding to that signal. It seems that an expression of anger within the context of an adversarial relationship tends to evoke significantly less intense feelings of guilt, shame, and embarrassment and significantly greater feelings of happiness on the part of the recipient of the anger signal, when compared to a similar expression of anger between either friends or strangers. Thus, it appears that characteristics that define the relationships in
which emotion signals are received directly influence how an individual will respond emotionally.

**Attribution-Emotional Response Links**

Results of analyses that considered the degree of association between receiver attributions and receiver emotional response across different relationship conditions provided some support for Weiner's (1986) assertions that controllable attributions about one's own behavior are linked to an emotional response of guilt. However, a significant contradiction to Weiner's theory was observed in the case of shame. Rather than finding the expected negative correlations between shame and controllable attributions, shame was found to be positively correlated with controllable attributions, and to an even greater extent than guilt! Taken together, these findings raise questions about the ability of the attribution theory to differentiate these two emotions, and by extension, generate questions regarding the ability of attribution theory to fully explain emotion induction.

A significant role for relationship factors was suggested in the finding that the links between receiver attributions and receiver emotional response, particularly anger, varied as a function of the nature of the relationship. It thus appears that receivers of the same emotional signal are capable of inferring very different attributional explanations for their own behavior in different relationship conditions and that these inferences do not predict a specific emotional response. This finding suggests that Weiner's (1986) expectation that an expression of anger will always convey a controllable attribution and
thus generate more intense feelings of guilt on the part of the receiver, is too narrow.

Recall that Weiner asserted

...if the student fails because of lack of effort, the teacher will communicate anger. Anger is a cue that the other is responsible for the failure and that failure is controllable. Hence, if this affect is "accepted," then the student will ascribe his or her personal failure to lack of effort, which increases guilt. (Weiner, 1995, p. 265)

The question that immediately presents itself is how might the student react if the teacher is viewed as an adversary (i.e., enemy) versus an ally (i.e., friend)? Weiner's (1986) theory provides no explanation for the disparate reactions that might be anticipated in these two cases. One could argue that Weiner provides for relationship variability with his notion of "acceptance," and that the nature of the relationship merely determines whether the sender's attributions are "accepted" by the receiver. However, if one assumes that the sender's attributions are not accepted by the receiver, then what accounts for the receiver's emotional response? And if the attributions are not somehow conveyed from the sender to the receiver, what role do attributions play?

Practical and Theoretical Implications

What are the implications of the entire pattern of findings? First, the finding that relationship variables impact the emotions elicited could mean that emotions are not static phenomena that automatically occur as output to a particular pattern of appraisals or attributions about a given situation independently of contextual variables like the quality of interactants' relationships. This finding suggests that efforts to understand how emotions are elicited and what they communicate must take into account the relationship
variables that contribute to the context in which emotions are experienced. It appears that the validity of studies that fail to account for these variables may be seriously threatened in the absence of methodological control of relationship variables.

In addition to the implications for research, practical applications of emotion research, such as clinical treatments for mood disorders, that often rely on attribution and appraisal theories to address affective disturbance may be overly simplistic. For example, the learned helplessness model of depression proposed by Seligman (1975) and the model reformulated by Abramson, Seligman, and Teasdale (1978) state that depression arises when an individual develops a pattern of attributing negative events and behaviors to internal, stable, and global causes. Another widely known therapeutic approach proposed by Beck also places the attributional process at the core of depressive symptoms (Beck, Rush, Shaw, & Emery, 1979). Beck has suggested that depression arises when individuals lack the ability to rationally interpret events and instead draw rigid, overgeneralized, and exaggerated conclusions about events and their own behavior. These cognitions (thoughts) then lead to an affective response of depression. In both of these examples, the emphasis is placed on the manner in which an individual interprets events and/or behavior without regard for contextual variables such as relationship factors. Although it makes intuitive sense to say that relationship factors likely contribute to the emotions experienced in mood disorders, prevailing attribution-based treatment models do not take such variables into account. One possibility is that people become depressed because they themselves do not take relational factors into account in making their own attributions, almost as though they relationally blindly make a certain pattern of
depressogenic attributions. If people were made aware of relational factors, maybe this would help in keeping them from becoming depressed (at least when people in these different relationships are sending different messages.)

Another implication of these results stems from the emergence of serious doubts about the relationship between individuals' attributions and their subsequent emotions. If, in fact, the attributions made about a situation do not help explain the emotion experienced, then the fundamental validity of attribution-based theories of emotion is open to question. This has serious implications for practical applications of attribution-theoretic approaches to emotion. Treatments that are based on modifying a persistent pattern of attributions and thereby facilitating a change in emotional state assume a causal relationship between attributions and the emotion state. Yet, the findings of this study question whether a direct, causal relationship really exists between attributions and emotion.

Yet another implication of these results arises from the finding that an expression of anger may elicit a variety of emotional responses and that the degree of the emotional response varies as a function of the nature of the relationship. If there is not a one-to-one association between sender and receiver emotions, sender and receiver attributions, or receiver attributions and emotions, what then operates between individuals to elicit emotion responses? Studies have demonstrated that individuals implicitly understand and employ various communication strategies that are effective for inducing guilt in others (Ferguson & Eyre, 1998; Micelli, 1992). Interestingly, none of the guilt induction strategies discovered contain attributional information (either implicitly or explicitly) of
the type relied upon so heavily by Weiner and colleagues (Graham, 1984; Weiner, 1986) to unpack either sender or receiver emotions. Instead, many effective tactics of guilt inducement pertain more to issues concerning the consequences of one’s deeds for self-labeling (e.g., as a good person), other-labeling (e.g., as a valued person), and casting the relationship between two individuals in certain lights (e.g., as one worth continuing or nurturing). These findings, when combined with those of the present study, are extremely important. They suggest that Parkinson (1995) may actually be right when he asserts that individuals rely on expressions of emotion to assert claims about how they wish to be viewed or treated and that the specific claims being asserted are largely a function of the nature of the relationship between individuals. Given the variability of emotional responding that occurs in different relationship situations, it seems that individuals integrate subtle relationship variables into the formulation of emotion responses much more so than attributional ones.

Several phenomena may potentially operate within relationships and contribute in significant ways to the elicitation of emotions. A partial list of relational factors potentially involved in emotion induction is:

1. The degree to which the individuals in the relationship wish to ensure its future health.

2. The likelihood of future interaction between the same individuals.

3. The existence of shared objectives or degree of outcome dependency.

4. The degree to which individuals trust or have confidence in each other’s motives.
5. Feelings of unconditional acceptance that serve to disinhibit emotional responses.

6. Each individual’s need for predicting the other’s behavior.

7. The degree to which individuals are able to tolerate emotional intensity.

8. The relative status and/or power of the individuals.

9. The potential for positive or negative consequences.

10. The relative self-worth of individuals.

11. The degree to which individuals evaluate their behavior by observing others reactions versus relying on their own perceptions of themselves.

12. The relative tendency of individuals to identify with or own the emotional states of others.

13. Previous interactions that have acted to jointly shape the individuals’ emotional repertoire.

For purposes of illustration, one can explore how the need to predict behavior might operate variably in different relationships to evoke different emotional responses. In the case of an adversarial relationship compared to a friendly one, it makes intuitive sense that the two individuals involved in an adversarial relationship would have a greater need to use isolated instances of behavior to predict the behavior of the other person, perhaps as a means of avoiding aggression or confrontation. In this context, an expression of anger would provide a very salient message. Because of the adversarial nature of the relationship and the immediate need to predict behavior, the person receiving this message would attend to the implied threat. Thus, among enemies, a
person could potentially respond to a signal of anger with anger as a way of communicating a counter-threat to ward off aggression. In the case of two friends, a history of past experiences might render an isolated emotional incident less important for predicting behavior. Moreover, the one instance of anger is embedded within a richer emotional history, allowing the anger signal to be interpreted differently. In this context, a person might have far less need to attend to any implied threat and focus rather on the consequences that the expression of anger might have on a valued relationship. Thus, in this more intimate context, the recipient of the anger signal might respond with guilt as a means of communicating remorse and as a means of preserving the relationship. This one example, of many that could be given, importantly illustrates Parkinson’s (1995) point that emotions are used to stake identity claims pertaining to the self and to one’s relationships. These emotionally charged “identity exchanges” have little to do with attribution.

A related implication of the finding that an emotion signal may elicit multiple emotion responses to varying degrees in different relationship contexts is that some emotional responses may be more susceptible than others to the influence of relationship variables. That is, some emotional responses may be highly relationship dependent, while others may not be. For example, one can imagine that guilt could be experienced to a greater degree by someone who engages in behavior that has negative consequences for a significant other versus the same behavior directed toward a stranger. However, one can easily imagine similar degrees of self-satisfaction or happiness after one has assisted either a friend or a stranger in repairing a flat tire and getting back on the road. These
examples suggest that perhaps an emotion such as guilt may be relationship dependent, whereas happiness may be relationship independent.

A Final Note about Causality in Attribution-Emotion Links

Participants in this study were able to use attributions to conceptualize the events presented to them. However, these results raise a question about whether attributions play a causal role in eliciting emotion. It appears that attributions are a convenient way for individuals to organize or describe the processes that result in emotion. However, the question remains as to whether attributions have anything to do with what is really underlying (causing) emotions. It is difficult, if not impossible, to conceive of a causal role for attributions when they are not shared by both sender and receiver. Moreover, it is questionable whether the field of emotion should rely on attribution theoretic notions to account for a person's feelings of guilt if this emotion is not explicable in terms of correspondence in sender-receiver controllability attributions. These are significant issues and suggest a need for further research, as discussed in the concluding section.

Limitations and Future Directions

In fairness to Weiner's (1986, 1995) attribution model of emotion, it must be noted that the design of this study did not allow for the testing of causal relationships. Experimental designs that control for relationship variables, or actually manipulate them, are needed to establish the causal role that attributions have, if any, in inducing emotion. Moreover, the present study did not examine any of Weiner's (1995) ideas regarding links
between emotion and perceptions of responsibility or justice. There may well be a close connection between justice, fairness, or responsibility attributions and certain types of emotion. Weiner's more recent emphasis on "moral" rather than "purely causal" attributions in fact relates to some of Parkinson's (1995) discussions of identity claims. Future research should thus also carefully examine links between moral and causal attributions, identity claims, and emotions.

In addition, future research must overcome this study's reliance on nonparticipant observer's reports of emotion. Outsiders might not be able to read the situations, attributionally speaking, as well as someone judging this from the perspective of the actual receiver. Nonparticipant observers may be more or less inclined to turn to attributions to describe the processes involved in emotional arousal compared to actual participants. Studies that eliminate this third-party representation step will provide greater clarity into the true underlying causes of emotion.

There is another problem with relying on individuals' reports of events that might limit a study's ability to identify a causal role for attributions when, in fact, one exists. Relying on participant report is problematic because people are not always aware of what is really driving their emotional responses. Thus, using self-reports to measure attributions and then finding only a marginal role for attributions does not mean that attributions truly play no causal role in emotion induction. Conscious attributions may not play a causal role, but this does not eliminate the role of those made outside of awareness in emotion induction.
In addition to this study’s efforts to understand emotional responses to anger, future research must also broaden its scope to investigate how relationship factors may operate to affect other emotions, both positive and negative. The results of this study are limited to anger. The failure of the pity manipulation is likely due to participants’ expectations about how an individual should feel in a given situation. It appears that participants expected anger, even in the pity conditions, and that their expectations overrode the verbal and nonverbal cues for pity that were provided.

Another series of questions that remain unanswered by this study is whether and how gender and relational factors interact to impact the emotion ultimately aroused. This study did not reveal significant gender effects in terms of men’s and women’s perceptions of the events depicted. However, future research that relies on portrayals of emotion must consider not just the gender of participants but also the congruence between the gender of participants and the gender of actors. Gender is a crucial variable to explore especially when emotion is conceptualized in relational terms (Brody, 1997; Brody & Hall, 1993). Obviously, people have different relational goals in many same-sex versus opposite-sex interactions that are capable of significantly influencing the identity claims they wish to express with their emotions.

Finally, this study did not attempt to explain why different kinds of relationships evoke different responses to a given emotion signal. Future efforts to understand the role of relationship factors should take into account how individuals may use emotions to communicate messages about how they view themselves and how they expect to be
treated. Additional research is thus sorely needed to establish the role of identity claims in emotion.
REFERENCES


Appendix A

Scenarios Used to Operationalize Independent Variables
Scenario 1: A Day at the Ceramics Lab

**Anger/Friend Condition:**

Rita and Betty have been friends for many years. They spend several hours a week together and consider each other to be a trusted confidant. One day while working at the ceramics lab, Rita finds that she needs some materials from the supply room. In her attempt to get her supplies, Rita knocks a newly fired statue off of one of the cooling racks. The statue turns out to be the work of Betty, who has spent the past four months meticulously sculpting the statue as an anniversary gift for her husband. Rita watches as Betty approaches, finds her work completely destroyed, and learns that Rita is responsible. Rita hears Betty say in a voice of raised pitch and volume, “I am so mad at you!”

**Anger/Enemy Condition:**

Rita and Betty have been enemies for many years. Rita recently married Betty’s ex-husband. The two women go to great lengths to avoid one another. One day while working at the ceramics lab, Rita finds that she needs some materials from the supply room. In her attempt to get her supplies, Rita knocks a newly fired statue off of one of the cooling racks. The statue turns out to be the work of Betty, who has spent the past four months meticulously sculpting the statue as an anniversary gift for her husband. Rita watches as Betty approaches, finds her work completely destroyed, and learns that Rita is responsible. Rita hears Betty say in a voice of raised pitch and volume, “I am so mad at you!”

**Anger/Stranger Condition:**

Rita and Betty attend the same university but have never met. They are strangers to one another. One day while working at the ceramics lab, Rita finds that she needs some materials from the supply room. In her attempt to get her supplies, Rita knocks a newly fired statue off of one of the cooling racks. The statue turns out to be the work of Betty, who has spent the past four months meticulously sculpting the statue as an anniversary gift for her husband. Rita watches as Betty approaches, finds her work completely destroyed, and learns that Rita is responsible. Rita hears Betty say in a voice of raised pitch and volume, “I am so mad at you!”

**Pity/Friend Condition:**

Rita and Betty have been friends for many years. They spend several hours a week together and consider each other to be a trusted confidant. One day while working at the ceramics lab, Rita finds that she needs some materials from the supply room. In her attempt to get her supplies, Rita knocks a newly fired statue off of one of the cooling racks.
racks. The statue turns out to be the work of Betty, who has spent the past four months meticulously sculpting the statue as an anniversary gift for her husband. Rita watches as Betty approaches, finds her work completely destroyed, and learns that Rita is responsible. Rita hears Betty say, preceded by a sigh and in a soft tone of voice, “I am so sorry for you.”

**Pity/Enemy Condition:**

Rita and Betty have been enemies for many years. Rita recently married Betty’s ex-husband. The two women go to great lengths to avoid one another. One day while working at the ceramics lab, Rita finds that she needs some materials from the supply room. In her attempt to get her supplies, Rita knocks a newly fired statue off one of the cooling racks. The statue turns out to be the work of Betty, who has spent the past four months meticulously sculpting the statue as an anniversary gift for her husband. Rita watches as Betty approaches, finds her work completely destroyed, and learns that Rita is responsible. Rita hears Betty say, preceded by a sigh and in a soft tone of voice, “I am so sorry for you.”

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Rita and Betty attend the same university but have never met. They are strangers to one another. One day while working at the ceramics lab, Rita finds that she needs some materials from the supply room. In her attempt to get her supplies, Rita knocks a newly fired statue off one of the cooling racks. The statue turns out to be the work of Betty, who has spent the past four months meticulously sculpting the statue as an anniversary gift for her husband. Rita watches as Betty approaches, finds her work completely destroyed, and learns that Rita is responsible. Rita hears Betty say, preceded by a sigh and in a soft tone of voice, “I am so sorry for you.”
Scenario 2: The Dinner Party

e.g., Pity/Enemy Condition:

Sylvia and Candice have been enemies for many years. Candice recently married Sylvia’s ex-husband. The two women go to great lengths to avoid one another. One evening the two women find themselves at the same formal dinner party. Later in the evening, near the buffet table, Sylvia and Candice each becomes aware that the other is standing directly behind her. In other words, each realizes that the two of them are standing back to back. Just then, Sylvia’s very attractive male friend walks up to join Sylvia. As Sylvia reaches to take his arm, she brushes against Candice’s arm. Candice spills her drink all over her own dress. Candice looks down at her dress and finds it is thoroughly stained. Sylvia hears Candice say to her, preceded by a sigh and in a soft tone of voice, “I feel so sorry for you.”

Scenario 3: An Trip to the Grocery Store

e.g., Anger/Stranger Condition:

Harry and Richard live in the same neighborhood but have never met. They are strangers to one another. One day Harry realizes that he is already late for a party so he stops by the store for snacks and drinks. By coincidence, Richard also happens to be shopping for groceries at the same store. Both Harry and Richard complete their shopping and end up standing in the same check-out line. While waiting in line, Harry realizes that he has left his wallet in the car. Harry quickly asks the person in line behind him to watch his groceries while he runs to get his wallet. Soon after Harry leaves, the person behind him pushes his cart aside and steps forward to make her purchase. Just then a clerk walks up, notices the shopping cart left by Harry, and asks those in line if the cart belongs to anyone. Richard, who has his back to the clerk says nothing. The clerk pushes Harry’s cart away. Harry soon returns and finds Richard paying for his groceries. He asks but no one seems to know where his groceries have disappeared to. Harry approaches Richard and says to him, “You were here when I left, and you let someone take my stuff!” Richard then hears Harry say in a voice of raised pitch and volume, “I am so mad at you!”

Scenario 4: A Night at the Movie Theater

e.g., Pity/Friend Condition:

Bill and Jeff have been friends for many years. They spend several hours a week together and consider each other to be a trusted confidant. One day Bill asks a friend to
accompany him to view a new movie playing at a local theater. Independently of Bill, Jeff also decides to go to the theater with several of his friends. Throughout the movie Jeff and his friends are laughing and making distracting noise. Bill repeatedly turns to them and says, “Shhhhh!” About half-way through the movie, Bill leaves the theater to get some drinks for himself and his date, passing Jeff and his friends on his way out. As Bill returns with the drinks, he trips over Jeff’s leg which is stretched out into the aisle. Bill falls to the ground and the drinks go everywhere. Bill stands up and turns to Jeff and says, preceded by a sigh and in a soft tone of voice, “I feel so sorry for you.”
Appendix B

Manipulation Control Questionnaire
Memory Test

Without referring back to the previous page, please answer the following questions concerning the story you just read. Following each question, you are asked to make a rating of the answer you selected for that question. Circle the number that you believe is the best answer.

1. Where did the event take place?
   1. in a movie theater
   2. at a grocery store
   3. in a ceramics studio
   4. at a dinner party
   5. I don’t remember

2. Rate your confidence about the answer you selected in question 1 above.

   1  2  3  4  5  6  7
   Not at all confident  Somewhat  Very confident

3. There were two people involved in the incident that you just read. What were their names?
   1. Sylvia and Candice
   2. Rita and Betty
   3. Harry and Richard
   4. Bill and Jeff
   5. Helen and Ruth
   6. Beth and Joan
   7. Sam and Craig
   8. Ralph and Bob
   9. I don’t remember

4. Rate your confidence about the answer you selected in question 3 above.

   1  2  3  4  5  6  7
   Not at all confident  Somewhat  Very confident
5. The two people involved in the incident that you just read were:
   1. enemies
   2. siblings
   3. friends
   4. strangers
   5. I don’t remember

6. Outside of this particular incident, how much would you say that the two people generally like each other?

   1 2 3 4 5 6 7
   | | | | | |
   Not at all Somewhat Very much

7. One of the people in the incident had an emotional response. How would you characterize this response?
   1. anger
   2. happiness
   3. pity
   4. fear
   5. I don’t remember

8. You stated that the person felt a particular way. To what degree did the person experience this emotion?

   1 2 3 4 5 6 7
   | | | | | |
   Not at all Somewhat to a great extent
Appendix C

Causal Attribution Rating Form
Your Reactions to a Story
Part I

For your convenience, the story you read earlier is presented below. Please re-read the story and answer the questions that follow.

Rita and Betty have been friends for many years. They spend several hours a week together and consider each other to be a trusted confidant. One day while working at the ceramics lab, Rita finds that she needs some materials from the supply room. In her attempt to get her supplies, Rita knocks a newly fired statue off of one of the cooling racks. The statue turns out to be the work of Betty, who has spent the past four months meticulously sculpting the statue as an anniversary gift for her husband. Rita watches as Betty approaches, finds her work completely destroyed, and learns that Rita is responsible. Rita hears Betty say to her in a voice of raised pitch and volume, "I am so mad at you!"

Please circle the letter or number that you believe is the best answer for each of the following questions (9-14). Focus on Betty’s beliefs about Rita’s behavior.

9. Rate the degree to which you feel Betty believes Rita behaved the way she did because of something inside Rita.

1 2 3 4 5 6 7
| | |
Not at all Somewhat to a great extent

10. Rate the degree to which you feel Betty believes Rita behaved the way she did because of something to do with the situation.

1 2 3 4 5 6 7
| | |
Not at all Somewhat to a great extent
11. Rate the degree to which you feel Betty thinks that Rita could have avoided behaving as she did.

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12. Rate the degree to which you feel Betty believes that Rita could NOT help behaving as she did.

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13. Rate the degree to which you feel Betty thinks that Rita is likely to repeat the behavior in the future.

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14. Rate the degree to which you feel Betty thinks that Rita is NOT likely to repeat the behavior in the future.

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Turn to the next page.
Please circle the letter or number that you believe is the best answer for each of the following questions (15-20). Focus on how Rita feels about her own behavior given how Betty responded.

15. Rate the degree to which you feel Rita believes that her own behavior was caused by something inside herself.

   1  2  3  4  5  6  7
   |   |   |   |   |   |
   Not at all Somewhat to a great extent

16. Rate the degree to which you feel Rita believes that her own behavior was caused by something to do with the situation.

   1  2  3  4  5  6  7
   |   |   |   |   |   |
   Not at all Somewhat to a great extent

17. Rate the degree to which you feel Rita believes that her own behavior was avoidable.

   1  2  3  4  5  6  7
   |   |   |   |   |   |
   Not at all Somewhat to a great extent

18. Rate the degree to which you feel Rita believes that her own behavior was unavoidable.

   1  2  3  4  5  6  7
   |   |   |   |   |   |
   Not at all Somewhat to a great extent
19. Rate the degree to which you feel Rita believes that her own behavior is likely to be repeated in the future.

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20. Rate the degree to which you feel Rita believes that her own behavior is NOT likely to be repeated in the future.

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</table>
Appendix D

Emotional Response Rating Form
Your Reactions to a Story
Part II

For your convenience, the story you read earlier is presented below. Please re-read the story (if necessary) and answer the questions that follow.

Rita and Betty have been friends for many years. They spend several hours a week together and consider each other to be a trusted confidant. One day while working at the ceramics lab, Rita finds that she needs some materials from the supply room. In her attempt to get her supplies, Rita knocks a newly fired statue off of one of the cooling racks. The statue turns out to be the work of Betty, who has spent the past four months meticulously sculpting the statue as an anniversary gift for her husband. Rita watches as Betty approaches, finds her work completely destroyed, and learns that Rita is responsible. Rita hears Betty say to her in a voice of raised pitch and volume, "I am so mad at you!"

Think back to the story you just read and how Betty reacted. Given the way Betty reacted, indicate the degree to which you feel Rita will experience each of the following emotions. Circle the number corresponding to the degree you think Rita will experience each emotion. For example, if you think Rita was feeling very mildly angry, circle the number 1. If you think that Rita will not experience a particular emotion at all, circle zero.

<table>
<thead>
<tr>
<th></th>
<th>Extremely</th>
<th>Very Mildly</th>
<th>Moderately</th>
</tr>
</thead>
<tbody>
<tr>
<td>21. Angry</td>
<td></td>
<td>0 1 2 3</td>
<td>4 5 6 7</td>
</tr>
<tr>
<td>22. Pity</td>
<td></td>
<td>0 1 2 3</td>
<td>4 5 6 7</td>
</tr>
<tr>
<td>23. Guilty</td>
<td></td>
<td>0 1 2 3</td>
<td>4 5 6 7</td>
</tr>
<tr>
<td>24. Afraid</td>
<td></td>
<td>0 1 2 3</td>
<td>4 5 6 7</td>
</tr>
<tr>
<td>25. Ashamed</td>
<td></td>
<td>0 1 2 3</td>
<td>4 5 6 7</td>
</tr>
<tr>
<td>26. Sad</td>
<td></td>
<td>0 1 2 3</td>
<td>4 5 6 7</td>
</tr>
<tr>
<td>27. Happy</td>
<td></td>
<td>0 1 2 3</td>
<td>4 5 6 7</td>
</tr>
<tr>
<td>28. Embarrassed</td>
<td></td>
<td>0 1 2 3</td>
<td>4 5 6 7</td>
</tr>
<tr>
<td>29. Proud</td>
<td></td>
<td>0 1 2 3</td>
<td>4 5 6 7</td>
</tr>
</tbody>
</table>
Appendix E

Informed Consent and Demographic Questionnaire
Informed Consent

Title of Study: The affects of age on memories and reactions
Project Investigators: Dr. Tamara J. Ferguson and Chris L. Treadwell
Dept. of Psychology, Utah State University

In accordance with the Institutional Research Board at Utah State University, we provide you with the following information about the packet of questionnaires that you may decide to complete.

1. **Purpose of Study:** This study is part of a project to explore how people perceive everyday events as well as the person's thoughts and emotional reactions to those events.

2. **Description of Study:** You will be asked to read short stories that describe the interaction of two people. You will then be asked to complete a series of questionnaires that ask you about your memory of events described in the story and how you would think and feel if you were one of the actors in the story.

3. **Description of any procedures that may result in discomfort or inconvenience:** Some people may have experienced situations in their lives which are similar to the situations portrayed in the stories and may find the experience distressing.

4. **Expected risks of the study:** You may experience distress as a result of having identified with characters portrayed in a story.

5. **Expected benefits of the study:** A potential benefit to you is knowing that you are contributing to a scholarly investigation designed to increase our understanding of the way people think and feel in response to the actions of others. Another benefit to you is that you will receive extra class credit for your participation in this study. If you choose not to participate in this study, there are various other projects on which you may earn equivalent extra credit. If you have questions about the study, please contact Tamara J. Ferguson at (435) 797-3272 or Chris Treadwell at (435) 797-1633.

6. **Anonymity:** Your completed consent form will be kept on file and will be checked against your completed packet of questionnaires to ensure that a signed consent form is obtained for each completed packet of questionnaires. Your Social Security Number is requested for purposes of communicating your student identification number to your instructor for recording of extra-credit points. No personal identifying information will be put on your questionnaires. More specifically, each questionnaire packet will be assigned a unique identification number. All data will be recorded according to this questionnaire packet identification number. Therefore, your anonymity will be fully protected. Access to data collected during the course of this study will be limited to the Project Investigators and research assistants.

7. **Use of research results:** Information collected during the course of this study will be used for scholarly research, and the results and conclusions will be communicated in a thesis submitted to the graduate school at Utah State University. Additionally, results and conclusions may be submitted to scholarly journals read by professionals. Your name will never be associated with any information you provide. The data are always analyzed at the group level and not the individual level.

8. **Special circumstances:** Your decision to participate in this study is completely voluntary. You will receive class credit if you decide to participate. If you decide not to participate, you will not be penalized in any way. Participation in this project has no bearing on your grade in the class other than your receipt of extra credit. All information that you provide for this study will be anonymous. Your name will not be requested on the questionnaires or be connected in any way with any of the data. You may withdraw at anytime without consequence, other than you will not receive extra-credit points if you do not complete all study requirements.

If you feel fully informed about the study and are willing to participate, please complete the information requested below and return this form to the research assistant. The research assistant will then provide you with your questionnaire packet.

Your participation is greatly appreciated.

Your name (Please print): ____________________________

Social Security No.: ____________________________

Your Signature: ____________________________

Today’s Date: ____________________________
Participant Information

Last six digits of Student Identification Number

Age (in years)

MALE    FEMALE    (circle one)
Appendix F

Analyses of Variance of Participant Ratings of Receivers' Emotional Responses
Table F1

**Between Subjects Analysis of Variance of Receiver Anger**

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship (R)</td>
<td>2</td>
<td>0.59</td>
</tr>
<tr>
<td>Participant sex (PS)</td>
<td>1</td>
<td>2.09</td>
</tr>
<tr>
<td>R x PS</td>
<td>2</td>
<td>0.17</td>
</tr>
<tr>
<td>Error</td>
<td>131</td>
<td>(2.28)</td>
</tr>
</tbody>
</table>

*Note:* Values enclosed in parentheses represent mean square errors.

Table F2

**Between Subjects Analysis of Variance of Receiver Guilt**

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship (R)</td>
<td>2</td>
<td>11.25***</td>
</tr>
<tr>
<td>Participant sex (PS)</td>
<td>1</td>
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<td>R x PS</td>
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<tr>
<td>Error</td>
<td>131</td>
<td>(1.56)</td>
</tr>
</tbody>
</table>

*Note:* Values enclosed in parentheses represent mean square errors.  
***p < .001.
Table F3

**Between Subjects Analysis of Variance of Receiver Shame**

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship (R)</td>
<td>2</td>
<td>8.34***</td>
</tr>
<tr>
<td>Participant sex (PS)</td>
<td>1</td>
<td>0.55</td>
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<tr>
<td>R x PS</td>
<td>2</td>
<td>0.08</td>
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<tr>
<td>Error</td>
<td>131</td>
<td>(2.67)</td>
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</table>

*Note. Values enclosed in parentheses represent mean square errors.*** p < .001.

Table F4

**Between Subjects Analysis of Variance of Receiver Fear**

<table>
<thead>
<tr>
<th>Source</th>
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<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship (R)</td>
<td>2</td>
<td>0.91</td>
</tr>
<tr>
<td>Participant sex (PS)</td>
<td>1</td>
<td>0.59</td>
</tr>
<tr>
<td>R x PS</td>
<td>2</td>
<td>0.26</td>
</tr>
<tr>
<td>Error</td>
<td>131</td>
<td>(2.09)</td>
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</tbody>
</table>

*Note. Values enclosed in parentheses represent mean square errors.*
### Table F5

**Between Subjects Analysis of Variance of Receiver Embarrassment**

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
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</thead>
<tbody>
<tr>
<td>Relationship (R)</td>
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<td>17.89***</td>
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<td>Participant sex (PS)</td>
<td>1</td>
<td>0.00</td>
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<td>R x PS</td>
<td>2</td>
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<td>Error</td>
<td>131</td>
<td>(2.50)</td>
</tr>
</tbody>
</table>

*Note.* Values enclosed in parentheses represent mean square errors.  
***p < .001.

### Table F6

**Between Subjects Analysis of Variance of Receiver Happiness**

<table>
<thead>
<tr>
<th>Source</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Relationship (R)</td>
<td>2</td>
<td>7.00***</td>
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<tr>
<td>Participant sex (PS)</td>
<td>1</td>
<td>0.66</td>
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<td>R x PS</td>
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<td>Error</td>
<td>131</td>
<td>(1.29)</td>
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</tbody>
</table>

*Note.* Values enclosed in parentheses represent mean square errors.  
***p < .001.
Table F7

Between Subjects Analysis of Variance of Receiver Pity

<table>
<thead>
<tr>
<th>Source</th>
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<tr>
<td>Relationship (R)</td>
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<td>6.22**</td>
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<tr>
<td>Participant sex (PS)</td>
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<td>0.00</td>
</tr>
<tr>
<td>R x PS</td>
<td>2</td>
<td>1.11</td>
</tr>
<tr>
<td>Error</td>
<td>131</td>
<td>(2.27)</td>
</tr>
</tbody>
</table>

Note. Values enclosed in parentheses represent mean square errors.  
**p < .05.