COVERT AGGRESSION:
THE MEANS AND MOTIVE OF "GETTING AWAY WITH IT"

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Existing aggression literature covers a variety of aggressive means and motives, but so far

little research has examined the nature of covert aggression—aggression that simultaneously

contains both a positive and negative interpretation, thereby possibly escaping the negative

consequences of such aggression. This study stands as the first experimental investigation of

responses to covert aggression and the use of covert aggression. Participants (N = 295)

completed a bogus creative intelligence assessment and received false feedback from a partner

(actually nonexistent). The evaluative feedback was either positive, negative, or conveyed an

ambiguous (mixed) message. Participants then had the opportunity to send a combination of

positive, negative, and alternate messages to the evaluator. The alternate messages were either

ambiguous, and thereby provided an opportunity to employ covert aggression, or neutral, and

thereby provided no opportunity for covert aggression. Participants subsequently reported their

perceptions of their partners and emotional state. Pilot participants verified that the feedback in

the ambiguous, positive and negative feedback were perceived as containing mixed, positive, and

negative interpretations, respectively. In general, participants did not respond negatively to the

ambiguous feedback and viewed ambiguous and positive feedback partners in a similar, positive

manner. In contrast, participants receiving negative feedback were subtly affected by the

availability of mixed messages, indicating that when people can send mixed messages, they do so and are, on the surface at least, nicer than when they must express hostility in an open and clear manner. Negative feedback participants experienced more negative affect and reported less favorable views of their partners than either positive or ambiguous feedback participants. Individual difference measures moderating these effects are discussed.

CHAPTER 1
INTRODUCTION

If you can't say anything nice, then at least have the decency to be vague.

—Unknown

History books chronicle the existence of humankind's aggression pitting one civilization against another with history-changing consequences. Without a doubt, wars, shots fired, and men killed have certainly had long-lasting impact on societies throughout the world. However, just as many epic outcomes have resulted from far less conspicuous conflicts. Governments, militaries, and political groups have used spies throughout history to garner information, complete assassinations, and to aggress against other governments, militaries, and political groups in a covert manner that allows the sponsoring agent to preserve an image of dutifully abiding by formal agreements. Government spies frequently adopt and portray alternate identities that gain the confidence of others, gain access to important information, and conceal the spies' ulterior motives.

Although perhaps less likely to be recorded in history books, this subversive and covert form of approaching hostility and aggression that maintains a surface appearance devoid of malicious actions is just as likely to have important consequences for political groups as more conspicuous and physically violent actions. In a similar manner, individuals in everyday life also desire the appearance of civility while secretly devising and enacting hostile activities. Maintaining the appearance of one thing while doing another is a useful but potentially dangerous path to choose in interpersonal relationships. Unfortunately, little to no research has directly assessed interpersonal aggression considering this covert motive. Instead, much aggression research has ignored identity concerns—how the would-be aggressor appears to

others and manages his/her identity in the aftermath of aggression. In short, he/she must actively disguise his/her aggressive actions by engaging in covert aggression.

Although aggression comes in many forms and guises, social psychologists define aggression as behavior that is intended to cause harm. Previous research highlights several dimensions by which aggression can be categorized and also pinpoints specific personal characteristics and situational determinants of aggression. While some research delves into territory and behaviors that may be dually characteristic of the covert and overt aggressor, a covert aggressor faces challenges distinct from those of the overt aggressor, and there is reason to conclude that unique processes are at work as the covert aggressor acts in his/her social world. To fully understand the unique struggles and considerations of the covert aggressor, it is necessary to first have a proper understanding of the more prevailing aggression research before focusing on indirect aggression, a similar but still distinctly different type of aggression.

Aggression Taxonomy

A pioneer in aggression research, Buss (1961) developed a taxonomy to categorize various types of aggression that served as a guiding structure for subsequent generations of aggression researchers. When considering aggression, the most salient examples include beating, shooting, shoving, stabbing, etc. In fact, the majority of psychological studies have assessed physical forms of aggression by such measures as willingness to shock other participants or blast them with annoying and painfully loud noise. However, aggression also includes behavior such as verbal assault, rumor spreading, and ostracism. To capture the vast array of aggressive actions, Buss proposed three dimensions: physical vs. verbal, direct vs. indirect, and active vs. passive.

Physical versus Verbal

Although physical aggression may be the most obvious example, Buss (1961) emphasized that physical acts are not the sole means by which individuals can be aggressive. Verbal actions

can harm as well, but verbal aggression causes psychological harm rather than physical pain and injury. Specifically, Buss proposes two types of psychological pain: *threat of future violence* or *rejection*, with rejection incorporating any type of response that labels the victim as aversive, bad, unwanted, or lacking in some way. Some common examples of verbal aggression as *rejection* include aversive teasing of an unpopular peer, publicly denouncing a person's character, fabricating lies about another person, derogating another person in an argument, etc.

Active versus Passive

Buss's (1961) original taxonomy also included the difference between active and passive aggression. Buss noted in his brief mention of this dimension that aggression can vary in the degree to which it is actively vs. passively committed. Specifically, active aggression requires taking initiative to construct an impediment that prevents the victim from satisfying a goal, taking action to hurt another, etc.; in other words, it requires some degree of effort on the part of the aggressor to deliver noxious stimuli to the victim. In contrast, passive aggression does not require the aggressor to act and in fact, the very fact that the aggressor is *not* acting may constitute or allow the aggression. In other words, the simple presence of the aggressor or the aggressor's inaction may be aggressive. For example, failing to render help may be seen as passive aggression. Witnesses to a crime who fail to aid a victim may be accused of passive aggression if the witnesses intend this to be the side-effect of their inaction. Using this definition, it may be possible to classify some witnesses to the famous Kitty Genovese murder as passively aggressive, especially as her homosexuality may have given her neighbors sufficient aggressive motivation. Consider another example—a passive aggressor may fail to move out of another's path simply to irritate the victim. Passive aggression is likely to be a successful strategy for the person motivated to avoid repercussions. Buss (1961) argues that "Passive aggression is a subordinate's best weapon against his superior. Active attack invites retaliation. When the attack

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is passive, however, it is usually difficult for the victim to establish blame or to determine whether aggression has occurred" (p. 9). Unfortunately, social psychologists focused primarily on active aggression with little research attention to the more passive and subtle forms of aggression.

Despite social psychology's neglect of passive aggression, research on passive aggression is quite popular among clinical and counseling psychologists. Research on passive aggression led to the classification of the passive aggressive personality disorder (also known as the Negativistic Personality Type). According to this conceptualization, passive aggression is seen as a means of aggression for individuals restricted in their ability or willingness to confront another in a direct and open manner.[1] The Millon Clinical Multiaxial Inventory-III (MCMI-III) described the passive aggressive personality type as an "ambivalent orientation" in which people "are torn between following the rewards offered by others and those they themselves desire….These individuals experience endless wrangles and disappointments as they vacillate between deference and defiance, obedience and aggressive opposition. Their behavior is characterized by an erratic pattern of explosive anger or stubbornness intermingled with periods of guilt and shame" (Millon, Davis, & Millon, 1997, p. 18). Some of these behaviors match Buss's (1961) original conception of passive aggression but not all. Specifically, Buss suggests that individuals with a need to be covert in their aggression may choose passive aggression, and this is somewhat reflected in the ambivalent orientation of wavering between deference and defiance, but the anger and stubbornness are unique to this conceptualization. The primary means of passive aggression (failing to act rather than actively initiating a disruptive behavior) clearly establishes

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[1]An abundance of research on the topic led researchers to abandon it as a useful classification because criteria for diagnosing the disorder were imprecise and hard to substantiate.

difficulty in assigning blame for harm to the victim; in determining cause for some event, people look for changes or actions deliberately taken. Failure to act is a more difficult basis upon which to cast blame. For example, failing to help someone could be a form of passive aggression and more difficult to pass blame for such a behavior versus casting blame for physically assault.

The MCMI-III (Millon, Davis, & Millon, 1997) also characterizes passive aggressive people as *expressively resentful* by resisting the fulfillment of others' expectations, procrastinating, etc., and other behavior that receives gratification in the demoralizing and undermining of others' pleasures and aspirations. These individuals are also thought to have a *discontented self-image* in that they see themselves as misunderstood, luckless, underappreciated, and demeaned by others. The implication from this depiction of the passive aggressive personality disorder is one of a person who feels deserving of the appreciation of others but does not believe that he/she receives it to the degree deserved. In a sense, then, although they realize that they are devalued by others, they feel this devaluation is undeserved as juxtaposed with their own high-value self-assessment. Therefore, the passive aggressive person may be somewhat narcissistic.

The characterization of the passive-aggressive individual as someone who believes that he/she is underappreciated and demeaned and may resort to behaviors that thwart others implies two things. First, the characterization of someone who is demeaned implies that the passive aggressive individual is in a role of equal or lower status to those demeaning him/her. Moreover, the ability of this person to thwart the goals of others implies that he/she plays an active role in the lives of others. In short, individuals may be more likely to use passive aggressive when aggressing against those higher in status and those with whom one expects ongoing interaction. In contrast, aggressing against lower status individuals poses a lower need for covert aggression,

and so more openly and overtly hostile acts may occur to those lower in relative status than those higher in relative status.

Direct versus Indirect

The direct vs. indirect dimension of Buss's (1961) taxonomy describes whether or not the victim is present at the moment of aggression when harm is inflicted. Direct aggression is that which requires a face-to-face confrontation, i.e., aggression done in the presence of the victim. In contrast, indirect aggression is done in the victim's absence. Frequently, direct aggression is misconstrued as physical aggression and indirect aggression as verbal aggression. Although the overlap may frequently be true (hand-to-hand combat is considerably easier when in the victim's presence), it is not always the case. For example, an aggressor may engage in indirect physical aggressive by adding poison to food that the victim will eat hours later. Similarly, verbal aggression can be both direct (such as teasing someone) or indirect (by spreading gossip). Several authors have noted that indirect aggression is a particularly shrewd method to pursue because it helps to prevent a counterattack: because the aggressor is not present at the moment of aggression, it is difficult to identify the aggressor thereby hindering retaliation (Buss, 1961; Björkqvist, Österman, & Lagerspetz, 1994; Björkqvist, Österman, Lagerspetz, Landau, Caprara, & Fraczek, 2001). In fact, this "behind-the-back" nature of indirect aggression was originally construed by researchers to mean that the perpetrator would remain anonymous to the victim; however, in the strictest definition, indirect aggression does not necessarily protect identity. This focus on anonymity has since been expanded to include the fact that indirect aggression may not hide the identity of the aggressor, but simply the aggressive motivation for a particular action (Archer & Coyne, 2005). Björkqvist et al. (2001, p. 113) argue that indirect aggression "attempts to cause psychological, in rare cases even physical, harm to the target person by social manipulation, often [but not always] attacking the target in circuitous ways through a third

person to conceal the aggressive intent, or otherwise pretending the attack was not aggressive at all."

Special Note on Terminology: Indirect, Relational, and Social Aggression

Covert aggression, by necessity, must leave little clear evidence that implicates the offender. This will likely lead individuals to employ means of aggressing that leave little physical evidence, are subject to ambiguity and lend themselves easily to alternative interpretations. Of the domains available to the aggressor, physical, direct, and active aggression are particularly likely to convey a clear intention of aggression. Individuals may choose verbal, indirect, or passive aggression to aggress because tone-of-voice can be reinterpreted, eye-witness accounts are missing, and volitional actions are missing. As a result, the domain of behaviors likely to be chosen by the covert aggressor include a set of behaviors (e.g., aggression committed through social networks with social implications for the victim—teasing, ostracism, gossip, sarcasm, etc.) that have been classified in multiple ways. Indirect aggression, in the purest sense of Buss's original work (1961), does not imply intention to do social harm or the use of others to accomplish one's misdeeds. However, much of the previous work on indirect aggression has come to be nearly synonymous with aggression of a social nature. Archer and Coyne (2005) identified three distinct terms that share similar characteristics: indirect aggression, relational aggression, and social aggression.

The term r*elational aggression* was first introduced by Crick and Grotpeter (1995) in their study of aggression amongst pre-adolescent children. The authors later defined relational aggression as "behaviors that harm others through damage (or the threat of damage) to relationships or feelings of acceptance, friendship or group inclusion" (Crick et al., 1999). In its purest sense, then, relational aggression can be either indirect (such as gossip) or direct (such as a scorned lover who confesses all the torrid details to the ex-lover's spouse); hostile/emotional or

instrumental (damaging a victim's relationship or social standing in a group to create new social opportunities for the aggressor); or verbal.

The term *social aggression* was originally coined by Cairns et al. (1989) and defined as "the manipulation of group acceptance through alienation, ostracism, or character defamation" (p. 323) and later expanded as "…directed toward damaging another's self-esteem, social status, or both, and may take such direct forms as verbal rejection, negative facial expression or body movement, or more indirect forms such as slanderous rumors or social exclusion" (Galen & Underwood, 1997, p. 589). In contrast to relational aggression, social aggression focuses not on the means of aggression but rather on the intended harm. In other words, social relations are the goal, not the tool, of aggression.

Archer and Coyne (2005) argue that these three terms are fairly synonymous and equally viable alternatives to physical aggression and distinctions between the three terms causes unnecessary conceptual complications. Although the behaviors that characterize these three types of behaviors are very similar—if not identical—ignoring the differing motives behind the various types of aggression, as Archer and Coyne implicitly suggest, can have negative repercussions in trying to gain a thorough understanding of these behaviors. Behaviors may seem similar at a surface level, but the reasons behind these behaviors can vary dramatically. However, more importantly, failing to consider self-presentational concerns and the aggressor's desire to embrace both a nonaggressive identity and the efficacy of aggression neglects much of what the would-be aggressor must consider. Without properly understanding all of the considerations in the mind of an aggressor, a full understanding of aggression in an everyday context cannot be attained.

Gender Differences

In early aggression research, researchers concluded that men were more aggressive than women (Baron & Richardson, 1994). However, upon closer examination, researchers have tended to since conclude that when gender differences occur, men and women tend to choose different aggressive strategies that suit their particular gender constraints such that males choose direct physical aggression and females choose indirect verbal aggression (Björkqvist, Lagerspetz, Kaukiainen, 1992; Crick & Grotpeter, 1995; Lagerspetz, Björkqvist, & Peltonen, 1988). Although there is a tendency for men and women to differentially employ certain aggressive strategies, the reason for this is subject to interpretation. One path of reasoning may point to biological differences between the sexes that lead women to pursue a course of aggression more suited to their weaker physical strength whereas men have the physical prowess necessary to invoke direct physical aggression.

However, another path of reasoning suggests that women employ indirect aggression more than direct aggression because of differential social resources. Specifically, women are more socially connected than men (Green, Richardson, & Lago, 1996) and therefore face greater repercussions for direct aggression; e.g., attacking a single individual in a densely connected social network brings with it a greater likelihood that the victim has social connections that will come to the defense of the victim (versus attacking a single individual in a less dense social network). At the same time that a dense social network inhibits the likelihood of direct physical attacks, it simultaneously provides the resources necessary to utilize indirect (or social aggression) because this frequently requires the complicity of others (Green, Richardson, & Lago, 1996). Because men are less socially connected, they have fewer consequences for utilizing direct aggression and fewer resources to utilize indirect aggression. Green et al. (1996) propose that the gender differences in aggression type are merely an adaptation made to

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contemporary challenges of men and women—when controlling for social-connectedness, men with denser social networks reported more indirect than direct aggression and less direct aggression than men with low-density social networks, thereby demonstrating that the key difference is social connectedness, not gender. Indeed, as children progress into early adulthood, these developmental differences should decline; this is in fact the case for 23 year-olds (Björkqvist, Kaukiainen, Laurila, & Ylinen, 1994; as cited in Green, Richardson, & Lago, 1996).

Intelligence and Indirect Aggression

Just as gender-typed social networks can impact the type of aggression one chooses, other individual differences of a more dispositional nature also influence choice of aggressive tactics. Several theories contend that one key individual difference is intelligence. For example, Tedeschi and Felson (1994) argued that individuals with greater intellectual capacity are less likely to resort to aggression of any sort (versus other tactics such as negotiation), but should also be less likely to resort to the more brutal forms such as physical aggression. In other words, strong intellectual abilities allow individuals to circumvent direct physical attacks by means of more refined verbal or indirect attacks on another. This view elicits the possibility that less intelligent individuals should show more overt aggression than their more intelligent and covertly aggressive peers.

Similarly, to predict maladaptive social behavior and aggression, Crick and Dodge (1994) proposed an information processing model. This model outlines a series of steps that individuals (in particular, children) take when reacting to others. The social skills deficit model proposes a direct link between bullying behavior and a dearth of social skills. In other words, individuals who lack the necessary social skills to resolve conflict peacefully may resort to aggression as their only recourse.

The model outlines six distinct steps individuals take when acting in the social environment and these researchers argue that aggressive maladjusted children exhibit specific differences from nonaggressive socially adjusted children. First, individuals must encode cues from their environment (i.e., notice what is happening). Second, individuals must interpret these cues and give them meaning—was the shove from a classmate accidental or intentional? Third, individuals must select a goal—a desired end state, such as obtaining a toy, making a friend, getting even, or staying out of trouble. Fourth, individuals generate a host of possible behavioral responses that may aid the attainment of the goal—being nice to the other person, sharing a toy with the other person, reporting a transgression, etc. Fifth, individuals must select one of these generated responses and sixth, enact that response.

In an extensive review of this model, the authors report findings indicating that aggressive children are more attentive to aggressive cues in the environment, more likely to interpret cues as aggressive, generate fewer response options, and are more likely to select an aggressive response option. The seeming resolution to this problem is to teach these children a greater range of response options, how to better select options with a positive outcome (e.g., teaching children that playing nicely with others is more likely to win friends than punching their peers), and how to avoid misinterpreting environmental cues as aggressively motivated. In line with this reasoning, Björkqvist and colleagues (2001) describe anti-bullying programs that teach children a greater appreciation of their peers' emotional responses to aggression as a means to better predict the outcome of their aggressive actions (presumably, rejection by one's peers).

Although this model seems quite logical and matches the popular conceptualization of the slow-witted bully, it makes some critical oversights in understanding aggressive children. Specifically, Crick and Dodge (1994) investigated physical and direct forms of aggression by

operationalizing aggression as "the extent to which children start fights, hit, push, or threaten peers" (p. 82). Moreover, this social information processing model is an attempt to explain maladjusted behaviors broadly and the authors perceive aggression as so closely linked to social rejection that they frequently use the terms aggressive and maladjusted interchangeably. However, this specific operational definition of aggression limits the model to specific types of aggression: direct and physical. By failing to incorporate additional behaviors, this model does not capture the full array of aggressive behaviors because it overlooks the indirect and covert forms of aggression. These types of behaviors may not fit within the framework Crick and Doge promote of the socially inept aggressor.

In keeping with this possibility, this model fails to account for data that find positive social outcomes for aggressive children (e.g., LaFontana, & Cillessen, 2002; Salmivalli, Kaukiainen, & Lagerspetz, 2000). Specifically, these authors found that the use of indirect aggression as reported by peers was positively related to peer acceptance (Salmivalli, et al., 2000) and that relational aggressors may even attain higher sociometric status than their less aggressive peers (LaFontana, & Cillessen, 2002). In other words, an aggressive response option seems to be associated with at least some positive outcomes and, depending on one's goals, may actually be a fairly adaptable response choice. These resultant positive outcomes may then increase the likelihood of using aggression, just as any other reward increases behavior. Therefore, it seems that covert aggression requires a certain degree of social savoir faire; social illiteracy would sabotage attempts at indirect aggression. Indeed, other researchers such as Kaukiainen et al. (1999) even found that higher levels of *empathy* (the aspect of empathy that involves understanding the emotional perspectives of others) actually lead to higher levels of indirect

aggression. This tendency may cause the anti-bullying programs described above to backfire by giving the bullies new tools with which to cause harm.

This seeming disparity between the social information processing model (Crick & Dodge, 1994) and these other authors' work can be understood in terms of the specific aggressive types the authors are each considering. Indirect aggressors may or may not differ from the direct aggressors on which Crick and Dodge focused in terms of cue encoding, cue interpretation, or goal selection, but individuals choosing to aggress indirectly seemingly possess greater insight into the psychological state of their victims, making their aggression all that more powerful and harmful. Moreover, this greater insight likely also helps the children avoid the same repercussions direct aggression would elicit because as indirect, covert aggressors armed with increased understanding of their victims, they may know better whether their victims will retaliate, confront, or report them. Finally, indirect, covert aggressors may also differ in the generation of response alternatives and selection of responses. Björkqvist et al (1992) argue that aggressive strategies change as children develop new skills; children first use physical aggression when they develop self-motor control, then verbal aggression when they master sentence construction and vocabulary, and then finally indirect/social aggression when children develop social relationships and social skills. Therefore, more socially developed children may generate very different response options to an aggressive situation than less socially developed children.

In sum, children seem to select the response options that best suit their own abilities: socially maladjusted children select aggressive responses that do not rely on social skills or the social network because they do not possess these tools whereas socially skilled children select aggressive responses that maximize their own capital: a social network and skilled social interaction. Finally, Crick and Dodge's position assumes that socially adjusted children perceive

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the nonaggressive response alternative (if they generate such an alternative as a behavioral option) as more attractive and better suited to attaining their goals. For at least some people, a nonaggressive response option may be seen as less effective, and selection of such an option would be a mistake.

Self-Presentation and Reputation in Aggression's Aftermath

In traditional aggression experiments, participants are given the opportunity to aggress against other participants or confederates—virtual strangers. While true that people do aggress against those they do not know (e.g., rape and murder victims picked at random, mob aggression, etc.), most violence does not occur between total strangers. For example, in 2005, the U.S. Bureau of Justice estimates that seven out of ten rape victims knew their attacker and in 2002, of solved murders, 75% of the victims knew their attacker (Bureau of Justice Statistics Crime Characteristics). Although there are certainly some aggression processes that would be unaffected by aggressing against known others, aggressing against others who one must face later introduces a new problem. When one is motivated to harm another but must face the person in the future, it is worth avoiding being perceived as an aggressive individual. Being perceived as nonaggressive maintains positive relationships and the element of surprise for later aggression.

This conundrum of desiring a nonaggressive image yet desiring aggressive behavior can be thought of in terms of the effect/danger ratio. Bjrokqvist and his colleagues (1994) state that, "the effect/danger ratio is an expression of the subjective estimation of the likely consequences of an aggressive act. The aggressor assesses the relation between a) the effect of the intended strategy, and b) the dangers involved, physical, psychological or social, for him/herself, and for people important to him/her. The objective is to find a technique that will be effective and, at the same time, incur as little danger as possible" (p. 28-29). In other words, when individuals aggress against known others or those that they may encounter again in the future, there is the

added concern of prolonged repercussions for their actions and the danger component of the effect/danger ratio is heightened.

In traditional studies, the fear of future repercussions is minimized because the victim is someone that participants have never met and with whom participants have no reason to expect a future encounter. Neglecting to consider this aspect of interpersonal aggression ignores the fundamental human concern to maintain a particular image—images that rarely include being aggressive. Although there is a desire not to be seen as aggressive (particularly by those whom people must regularly encounter), the occasional desire to aggress against known others still exists. Therefore, people face a conundrum: how does one aggress against others while maintaining a nonaggressive image in the eyes of others? One possibility is using aggressive means that heighten the effectiveness of the danger to compensate for the added danger of future interactions with one's victim. Another possibility is to reduce the danger component through the use of skillful self-presentation tactics.

Self-presentation is the tool that people use to ensure that their desired images are maintained (Schlenker, 1980; Schlenker, 2003). These specific images may vary from situation to situation and may be communicated through a variety of techniques such as mannerisms, anecdotes told, manner of dress, manner of speak, props, etc. Although self-presentation does not necessitate deceitfulness, it certainly can be deceitful (such as claiming an identity that in no way reflects a person's actual image). Self-presentation also incorporates exaggerations of naturally occurring tendencies such as being friendly, reserved, generous, caring, articulate, etc., and omissions or underplaying other qualities. Any particular image desired to be presented is motivated by the specific social situation although some images may be universally desired. All self-presentations are restricted by reality and the believability of any given image claim: a

person asserting a particular identity can successfully do so only to the extent that the witnessing audience possesses no information conflicting with this identity. Keeping one's audience in the dark can be established by the audience a) possessing no information bearing on this claim (neither supporting nor conflicting with the desired image) or b) possessing information that is at least somewhat consistent with the desired image. In an aggressive situation, a person faces a difficult problem because his/her aggressive actions and traditionally desired nonaggressive identity are inconsistent. In order to successfully portray the desired image, one must make this inconsistency disappear. Specifically, the person must consciously disguise his/her actions as nonaggressive by creating enough ambiguity that the victim or other audience a) *must* draw a nonaggressive conclusion or b) at least consider a nonaggression interpretation a viable option.

Hardin and Higgins (1996) argue that all actors in the social environment simultaneously negotiate a shared reality; together, actors provide explanations and interpretations of their world, and reality is defined as the interpretation that all actors mutually agree upon. Actors are then obligated to treat this negotiated truth as truth. However, as actors encounter new situations and motivations, they may desire to renegotiate reality or find it necessary to defend the current reality. For example, perhaps a particular person previously considered a suitable friend commits a transgression serious enough to warrant being recast as an unsuitable friendship partner, or a reality in which a particular woman is considered nonaggressive is threatened by her aggressive actions. As such, individuals may provide alternative realities (e.g., recasting the role of the now unsuitable friend) or bolster the believability of the current negotiated reality by providing alternative explanations of the woman's behavior. The ability to manipulate the situation and the conclusions that can be drawn is a valuable skill.

Teasing provides one example of covert aggression. In many interpersonal relationships, teasing is considered a sign of affection and a way to demonstrate and increase social cohesiveness, although an abundance of research treats teasing as an aversive experience contributing to long-term maladjustment (e.g., Kowalski, Howerton, & McKenzie, 2001). As Campos, Keltner, Beck, Gonzaga, and John (2007) point out, "Teases, then, are ambiguous communications that convey both negative and affiliative intent….Given this ambiguity, the relational consequences of a tease depend on the extent to which the target interprets the tease as an affiliative gesture that is an affront to the self" (p. 4). In personal relationships characterized by teasing, the interpersonal partners may attribute any seemingly adverse teasing as benign. Indeed, research supports the idea that satisfied romantic partners will adjust attributions of their partners to maintain a positive view of the partner and relationship—excusing negative behavior for those they like (Bradbury & Fincham, 1992; Goldstein, Tisak, Persson, & Boxer, 2006). However, this tendency may be abused when a relationship partner becomes upset with his/her significant other (or with one's friend) and lashes out verbally at one's partner. If confronted for this hurtful behavior, an aggressor can dismiss the aggressive explanation by claiming that he/she was "only teasing" and rely on the actual ambiguity of teasing and the general positive attributions in the relationship to cover one's true intentions.

Teasing is only one of several methods that individuals may use to aggress that easily lend themselves to alternative explanations in certain situations. For example, aggressors who choose to ostracize a particular person can easily deny that the ostracism is intentional but rather merely accidental (the aggressors have plans with others, the victim is paranoid, etc.). Similarly, gossiping about a particular person can be framed as venting without malicious intent or as seeking advice. The use of double entendres may also provide a safe route to express negativity

that provides two plausible meanings—one innocuous meaning and another more risqué, offensive, or combative meaning. Other methods may include failing to aid a friend when aid is expected. For example, just as people try to manage the impressions that they themselves make on others, people also tend to help their friends make the impressions that will serve their friends' best interests, thereby engaging in beneficial impression management (Schlenker & Britt, 1999). Consider a person who desires to impress a potential date or employer. He/she may ask a mutual friend to help create an image in the eyes of the potential date as an attractive and fun individual or as a competent and intelligent individual to the potential employer. The mutual friend's failure to do so may be perceived as an act of aggression.

The primary emphasis in social psychology is how individuals behave and respond to a social situation, frequently resulting in the characterization of people as responding to the situation around them. This approach possesses a great deal of explanatory power but even more explanatory power can be gained by increased attention to the volition and decisiveness of individuals. Some research has demonstrated that people can and do actively construct their situation to influence the attributions that audiences draw about them and their behavior. One particularly well-known example is self-handicapping through which individuals negate unflattering dispositional attributions in the event of failure outcomes while simultaneously augmenting flattering dispositional attributions in the event of successful outcomes (Berglas & Jones, 1978). The construction of an actual performance impediment provides an alternative explanation for any forthcoming failure.

This type of behavior indicates that people are clearly sensitive to the attributional tendencies of others and will actively try to control these attributions. Although constructing their own alternative attributions (via excuses, self-handicaps, lies, etc.) may be preferred,

individuals can also sophisticatedly capitalize on existing situations to ensure the most favorable attribution. One classic example of this ability is illustrated by Snyder, Kleck, Strenta, and Mentzer (1979) in which participants tried to control attributions that might suggest that they possessed negative attitudes toward physically handicapped individuals. Specifically, participants were told to select a seat to watch a movie, choosing between watching a movie while sitting beside a person with a visible handicap (wearing a leg brace) or watching a movie in a different room while sitting beside a person without the visible handicap.

In one condition, the person's handicap was the only difference between the two rooms—the same movie was playing in the two separate rooms. However, in another condition, the rooms differed both in the person already seated and the movie playing. Therefore, in the former condition, participants choosing one room over the other might reasonably be perceived as choosing one room over the other based solely on the presence or absence of a handicap of the person already watching the movie. As such, choosing the room without the handicapped person would likely be considered an attempt to avoid the handicapped person. In the latter condition, however, choosing to watch the movie without the handicapped person could be attributed to either avoiding the handicapped person *or* a desire to watch the different movie in the other room (because both movie and confederate differed between the two rooms). Participants almost exclusively sat with the handicapped confederate when there was no plausible alternative explanation (same movie showing in both rooms). However, when both the movies and the confederates differed between the two rooms (providing attributional ambiguity), participants did not seek out the handicapped individual—choosing to sit with the non-handicapped person could easily be attributed to the movie selection rather than disliking the handicapped person. In other

words, participants were aware of the conclusions that audiences would draw about their intentions based upon their actions and factors present in the environment.

In a similar manner, Gaertner and Dovidio (1977) demonstrated that white participants were less likely to help black participants if failing to help could be attributed to something other than their own prejudice. In this study, white participants did not differ in their willingness to help white versus black confederates if participants believed that they were the only ones who could offer help. In contrast, white participants were significantly less likely to help black confederates when they believed that other people could offer help. In other words, when white participants have only themselves to blame for leaving a confederate unaided, they offered help regardless of race. However, if participants' failure to help could just as easily be attributed to another reason (i.e., others could help the person in need), then participants were significantly less likely to aid the black confederate than the white confederate. In short, the participants acted in accord with their socially proscribed prejudice when they believed it would not be easily detected, but restrained from acting on this prejudice if their actions clearly identified their prejudice beliefs.

Together, these two studies (Gaertner & Dovidio, 1977; Snyder, Kleck, Strenta, & Mentzer, 1979) along with a host of additional research suggest that individuals are clearly aware of the attributions that others are likely to make and are motivated to control these attributions to preserve a desirable image in the eyes of others. This awareness of the attributional tendencies of others may curb the use of aggression in situations that enhance conclusions that the individual is acting in a deliberately hostile manner. Instrumental aggression in particular, even when enacted covertly, may lead observers to deduce that the individual is acting in a deliberately hostile manner rather than in a nondeliberate manner. Hostile/emotional aggression is carried out purely

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for its own sake—aggression that is instigated by emotion such as anger, frustration, etc., and carries with it some personal gratification. In contrast, instrumental aggression is carried out as a means to some other end (be it good or bad in nature). Of course, as Bushman and Anderson (2001) point out, aggression may be multiply motivated: aggression may be instrumentally motivated, but still provide a measure of emotional satisfaction, if nothing more than a reduction in physiological arousal after aggressing (Geen, Stonner, & Shope, 1975).

As is frequently the case when classifying behavior, Bushman and Anderson (2001) argue that emotional vs. instrumental aggression is best characterized as a continuum from exclusively instrumental to exclusively hostile/emotional rather than a dichotomy. Likewise, covert aggression may serve multiple purposes. In keeping with the notion that social actors knowingly manipulate the attributions that others make for their behaviors, social actors may be especially guarded in their aggressive interpersonal actions when their victims or other observers are particularly likely to interpret behavior as selfish. In other words, when a person clearly gains from an action (as is the case in instrumental aggression), others may be especially suspect of this person. In short, instrumental covert aggression may be more desirous, but will be less likely than emotional covert aggression, to the extent that the person's gained rewards are evident to others. It is my contention that this type of behavior occurs regularly amongst those motivated to aggress against others. Individuals weigh the risks of getting away with such behavior against the cost of acting on their proscribed desires to inflict harm, respond aggressively, etc.

Situational Factors

Several factors can systematically affect an analysis of the cost-benefit ratio of social behavior. First, some groups and cultures proscribe openly expressing grievances more than others. For example, Cohen and colleagues demonstrated that U.S. southerners are more likely to suppress external indicators of anger longer than U.S. northerners (Cohen, Vandello, Puente, &

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Rantilla, 1999). Some groups value openly expressing grievances as a testimony to honesty and genuineness, and view denials of animosity and covert aggression as fake, hypocritical and dangerous to the social fabric because individuals do not possess an accurate understanding of which individuals they can truly trust. In contrast, other groups and cultures have established norms that stress playing nicely, maintaining a façade of pleasantry and civility and perceive open expressions of animosity as threatening, rude, uncivil, and/or immature (Cohen et al., 1999). Although groups that permit and encourage the expression of grievances and anger toward others may show higher absolute levels of clear aggression and nastiness, there is no necessary reason to assume that the aggressive and negative *motives* differ across these two types of groups. Presuming that such motives do not differ as a function of normative grievance expression, individuals with negative motives in the civility culture must resort to more covert means of expressing their negativity.

Beyond cultural proscriptions against expressing grievances to others within one's culture/group, there may be both cultural and practical concerns when expressing grievances against specific others such as those higher in status or authority. Particularly authoritarian cultures may pressure group members from expressing hostility toward others higher in authority while simultaneously increasing the likelihood that those of lower status will face repercussions of hostility. In addition to these cultural and normative concerns, however, there exists the very real possibility that those higher in status generally have greater ability to extract revenge for expressed hostility/aggression than those lower in status. Therefore, if individuals are motivated to aggress against a higher status person, the more cautious choice would be to aggress covertly. Indeed, aggressing openly can be quite foolhardy, such as openly threatening one's employer.

In addition to the status differential between a potential aggressor and his/her victim, there are other important factors that may mitigate the path chosen when facing aggressive motives. For example, some relationships may be marked by a generally tension-free nature with the rare occurrence of a desire to aggress or act on hostility. However, other relationships may be fairly tempestuous but their long-term survival is desired or necessary. For example, romantic relationships may be particularly tumultuous but still be valued and so openly aggressive behaviors may be undesirable. On the other hand, the relationship may not be valued in its own right, but a minimal level of civility must be maintained as a means to some other end; e.g., an employee may not care for his/her boss but must maintain a minimally positive relationship with the boss in order to ensure continued livelihood. Both of these types of relationships should be marked by more covert than overt aggression.

Hypotheses

First and foremost, future interaction is a critical antecedent of covert aggression. Without future interaction, self-presentational concerns are reduced. When people do not expect a future interaction with someone else, there is no need to hedge bets by covertly aggressing. Instead, any desire to aggress will be expressed overtly or stifled. Conditions in which participants do not anticipate a future interaction where their protagonist/victim parallel traditional aggression research and so little would be gained from investigating this possibility.

In strategic covert aggression, a person must carefully balance two primary concerns: a desire to effectively harm and also a desire to maintain a nonaggressive image. Maintaining a falsely pleasant façade encourages recipients of these covertly aggressive actions to perceive the entirety of the communication as pleasant rather than unpleasant, thereby serving a dual purpose. First, if the recipient of a covertly aggressive act is suspicious that the action is aggression, the ambiguous nature ensures a reasonable chance that the perpetrator will evade retribution for a

crime that was doubtfully committed in the first place. Second, a person may act in a covertly aggressive manner in response to a potential affront. If one later learns that no affront was actually intended and the act was misperceived, one has a ready alternative explanation for one's covertly aggressive behavior. In short, covert aggression serves a person well when he/she is motivated to do harm to another person but prevent detection, and covert aggression also serves as a strategic response to ambiguous communication from others. Responding in an ambiguous manner allows individuals the opportunity to play both sides of the fence until more information is gathered about the social situation. Until more information is available, a dually aggressive and pleasant communication allows both the maintenance of positive interaction and negative interaction simultaneously. Once more information is gathered, individuals can bolster the appropriate interpretation (pleasant or unpleasant) through less ambiguous communication. Thus, covert aggression may initiate an unpleasant interaction or it may be used a cautious response to the ambiguous behavior of others.

Because of the subtle duality of a covertly aggressive communication and based on previous research regarding indirect aggression (a similar but distinct concept), one would expect that socially savvy/sensitive individuals would be particularly likely to employ this strategy both of their own volition and also in response to communications from others. However, when people expect no future interaction with someone, there is no need for covert communication or hedging bets because there exist few (if any) repercussions for overt aggression. In situations that elevate consequences for acting overtly aggressively, individuals should be more likely to choose covert aggression over overt aggression. This leads to Hypothesis I:

- **Hypothesis I:** The likelihood of covert aggression is heightened when future interaction is expected, particularly when one is partially or wholly dependent on the other in that future interaction.

Moreover, the presence of a covert aggressive path should heighten the likelihood of aggressing than when individuals' only recourse is open and direct aggression. This leads to Hypothesis II:

- **Hypothesis II:** Overall aggression (combined straight forward and ambiguous aggression) will be less when one is forced to aggress openly than when the opportunity to aggress covertly is also available.

If no covertly aggressive option is available, individuals particularly concerned about the consequences for aggressing at all will be less likely to aggress in any manner—overtly or covertly. The consequences for aggressing at all are heightened to the extent that future interaction is likely or imminent, and to the extent that there are strong proscriptions against hostile behavior. Such proscriptions can arise due to cultural climate or status differentials (i.e., aggressing against individuals higher in power).

Specific types of individuals may be especially likely to engage in covert aggression. Because covert aggression and indirect aggression may involve the same types of behaviors, scales assessing the tendency to engage in indirect aggression may also assess predilection to engage in covert aggression. Several different measures of aggressive tendencies have been developed to assess predispositions toward aggression and aggressive personal histories. Of course, several scales focus on more overt forms of aggression, but some scales assess both proclivity to engage in direct overt forms of aggression as well as subscales tapping emotions that lead to the aggressive motive. For example, the Buss-Perry Aggression Questionnaire (Buss & Perry, 1992) does not exactly assess indirect aggression, but it does include subscales assessing not only physical and verbal aggression but also hostility and anger. In particular, later researchers demonstrated that the hostility subscale predicted indirect aggression better than the other subscale components and thus may be a useful tool in predicting whom is likely motivated to covertly aggress against others (Archer & Webb, 2006).

Other scales have come closer to assessing covert aggression. Richardson's Conflict Response Questionnaire (Richardson & Green, 2003) is a 28-item scale that assesses the tendency for individuals to use various strategies under conflict. The two subscales consist of a score for both direct (e.g., frequency of pushing, grabbing, or shoving someone; frequency of yelling or screaming at someone) and indirect aggression (frequency of spreading rumors about someone; frequency of telling others not to associate with someone). Other popular methods of assessing indirect aggression utilize peer nomination and/or ratings of all members of a specific group (frequently all students in a class) (Björkqvist et al., 1992). However, although this technique may work well with young children who have a limited and structured social world easily amenable to psychological research, this method is harder to employ with adults whose social worlds are not as easily compartmentalized into a single classroom. In the current study, both Richardson's Conflict Response Questionnaire and the Buss-Perry Aggression Questionnaire will be assessed as potentially moderating variables to predict likelihood of engaging in covert aggression and to test Hypothesis III and IV:

- **Hypothesis III:** Participants with greater proclivity toward (1) hostility, (2) anger, (3) verbal aggression, and (4) indirect aggression will show higher rates of covert aggression.

- **Hypothesis IV:** Participants with greater proclivity toward direct aggression will show higher rates of open aggression.

It is possible that individuals low in Hostility (as assessed by the Buss-Perry Aggression Questionnaire) or low in Indirect Aggression (as assessed by the Richardson's Conflict Response Questionnaire) may be less likely to (a) interpret an ambiguously aggressive response as aggressive and (b) employ ambiguous aggression in response.

In addition to measures assessing aspects of aggression, increased empathy (particularly the perspective taking aspect of empathy) actually provides individuals with increased knowledge of their victim and ability to cause harm to their victims. Therefore, the perspective

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taking and empathic concern subscales of Davis's Empathy Scale (1980) should also be assessed

to assess Hypothesis V:

- **Hypothesis V:** Individuals high in (1) empathy, especially(2) perspective taking, will show increased likelihood of using covert aggression.

Finally, despite the covert measures by which participants will be able to aggress in the

current study, some participants may be particularly reluctant to act in a harmful manner, despite

the temptation. Specifically, participants high in need for approval should be less likely to

engage in aggression of any sort, including covert aggression. To account for this possibility, the

Crowne-Marlowe measure of Social Desirability (Crowne & Marlowe, 1960) will be included in

the current study. Thus, Hypothesis VI:

- **Hypothesis VI:** (1) Individuals high in social desirability will be less likely to engage in aggression of any sort (either covert or open), but when they do, (2) they should show a greater preference for covert aggression than their low social desirability counterparts.

In short, the following predictions are made about each condition's aggressive behavior:

- **Hypothesis VII:** (1) Individuals receiving positive feedback will respond in kind to their evaluator—selecting positive messages. (2) The level of positive and negative messages sent will not differ between positive feedback participants who have a covert method of aggression and those who do not have a covert method of aggression available.

- **Hypothesis VIII:** (1) For participants expecting an interaction, individuals receiving straightforward negative feedback who do not have a covert method of aggression available to them will send primarily neutral messages and few negative messages. (2) For the negative feedback participants expecting an interaction but who do have a covert method of aggression will choose to send primarily double entendre messages (covert aggression), and few negative messages. (3) Negative- feedback participants with a covert strategy available to them but who are not expecting an interaction will send primarily negative messages and few (if any) double entendres (covert aggression).

- **Hypothesis IX:** (1) In general, participants who receive double entendre feedback (covert aggression), will use more double entendres than participants who receive positive or negative feedback. (2) More specifically, the participants who expect an interaction will use more covert aggression than the participants not expecting an interaction, who will use primarily negative statements with few double entendres.(3) Of those expecting an interaction, participants with covert aggression available to them will use many double entendres and few if any negative messages whereas (4) participants without covert aggression available to them will send primarily neutral and positive statements.

Moreover, in addition to actual behavior and messages sent to others (i.e., the actual act of aggression), beliefs about the other person will also likely be affected. These beliefs are unlikely to be affected by the response options available to the participants. As such, the following predictions are made regarding the beliefs about the original communicator.

- **Hypothesis X:** Communicators sending positive feedback will be viewed most favorably by the participants in terms of (1) being liked the most and (2) participants expecting to be liked by the communicator. Little difference is expected on these dimensions between the communicator sending negative feedback and the communicator sending covert aggression (double entendre) feedback.

Above and beyond the liking dimension and warmth of feelings toward the original communicator, the participants should differ in their estimation of the communicators' communication skills and deserved respect. Although being a recipient of covert aggression is anticipated to be an unpleasant experience and should manifest into dislike for the communicator, there may be admiration and respect for the skills necessary to successfully implement such a covertly aggressive maneuver. Therefore, the following is predicted:

- **Hypothesis XI:** Communicators sending double entendre feedback will be seen as more skillful communicators than both (1) negative feedback communicators and (2) positive feedback communicators. (3) Positive feedback communicators should be perceived as no more skillful than the negative feedback communicators, but a halo effect may lead to a slightly higher evaluation of the positive feedback communicator's skillfulness than the negative feedback communicator's skillfulness.

As suggested by research on the self-serving bias, individuals who receive negative and ambiguous feedback should diminish the validity of the test to downplay the relevance of the test in order to minimize the self-implications of negative feedback. As such, recipients of negative and double entendre feedback should not internalize the feedback they receive regarding their own creative intelligence.

- **Hypothesis XII:** Participants receiving (1) negative and (2) double entendre feedback will view the test as a less valid test of creative intelligence than the participants who receive positive feedback.

- **Hypothesis XIII:** Participants receiving negative and double entendre feedback should not internalize the negative feedback, although negative feedback participants will be more likely to internalize the feedback than ambiguous feedback participants due to the possible positive interpretation in the ambiguous feedback.

The emotional state of participants should also vary as a result of the feedback that they receive. Specifically, emotions should map onto the interpretations of the feedback. These emotions and anxiety should motivate participants to escape face-to-face interaction when possible. Therefore:

- **Hypothesis XIV:** (1) Participants receiving positive feedback should report positive emotions, (2) participants receiving negative feedback should report negative emotions, and (3) participants receiving double entendre feedback should report both positive and negative emotions.

- **Hypothesis XV:** Participants receiving negative and double entendre feedback will be most likely to avoid face-to-face interactions and instead seek out less immediate forms of communication (i.e., computer mediated interaction and intercom mediated interaction).

In sum, then, it was expected, generally, that participants would respond in kind to the feedback that they received. In other words, positive feedback participants would respond primarily in a positive manner, negative feedback participants would respond in a negative manner, and ambiguous feedback participants would respond via mixed messages when available, and would eschew outright negativity for positive messages when mixed messages were not available (and only neutral messages were). Likewise, the ability to employ mixed messages should similarly curtail the use of negative feedback participants' endorsement of outright negative messages. Moreover, a future interaction was expected to restrain the use outright negative messages in favor of mixed messages. It was also expected that ambiguous feedback and negative feedback participants would view their partners in a similar negative manner relative to positive feedback participants, who were expected to view their partners positively.

Current Study

The current study takes a unique approach to understanding interpersonal covert aggression. Little psychological attention has been given to the facet of aggression that requires continued interpersonal contact and thus a need to maintain an interpersonal identity as a nonaggressive person. I contend that when individuals anticipate future interaction with another person, the need for a costs/benefits analysis is heightened because in ongoing relationships, it is even more important to maintain a nonaggressive interpersonal identity. As such, people will be strongly motivated to avoid actions that will cause others to view them as aggressive rather than nonaggressive. However, because the motivation to aggress can be particularly strong, people will create opportunities or act on existing opportunities in the environment that capitalize on attributional ambiguity to escape dispositional aggressive attributions. When another person is conveying potentially aggressive or demeaning intent, the recipient of this message must determine the true meaning behind the ambiguity and respond appropriately. If the message is misinterpreted as aggressive or negatively toned and one responds in a defensive manner or in a retaliatory manner, one unnecessarily escalates an interaction into an openly aggressive and unpleasant situation that could have deleterious effects for the ongoing relationship between the interactants. In contrast, if one incorrectly misinterprets the communication as innocent, one may face the consequences of trusting those who should not be trusted, failing to prepare against future less covertly aggressive interactions, be perceived as foolish and naïve, etc. Therefore, when given the opportunity to rely on attributional ambiguity (e.g., through the use of double entendres), people should be more likely to demonstrate aggressiveness than when no such attributional ambiguity exists.

The extant research on aggression lacks experimental investigation of the process by which individuals decide to engage in covert aggression, their success in using it, and the repercussions

for themselves and others. In addition, although some research suggests that individuals who utilize indirect aggression (and possibly more specifically covert aggression) are more successful interpersonally than those who do not use this strategy, the reason is unclear. The reason indirect aggressors (and possibly covert aggressors) tend to have higher social status could be that a) the use of covert aggression actually increases social status by inspiring respect in others, or b) socially successful individuals are more adept at covert aggression but employing covert aggression does not actively influence one's social standing. The current study is an experimental analysis of this question.

CHAPTER 2
METHOD

Overview

The current study assessed reactions to varying types of communication: positive, negative, and ambiguous evaluations with potentially strong positive or negative connotations. These evaluations came in the guise of evaluative feedback regarding participants' attempts to complete a creative intelligence test. Most participants (with the exception of those in two offset conditions) expected a future interaction with the other participant who provided the evaluative feedback. Participants then had the opportunity to send a return communication to the other participant in response to the evaluative feedback. Some participants were then provided with a way to aggress covertly whereas others did not have this path available to them, and instead were only able to respond in a directly positive, negative, or neutral manner. Participants also reported their perceptions of the other person to the experimenter and then selected what method of communication (face-to-face, speaker system or computer mediated communication) they wished to use for the secondary group-based creative intelligence assessment. The communication method served as measure of how much participants chose to distance themselves from the other participant.

Design

The design was a 3 (Feedback: explicitly positive, explicitly negative or ambiguous overture) X 2 strategy (Strategy: mixed messages vs. neutral message response option) factorial. Two offset groups that did not expect any interaction underwent the critical manipulation receiving either negative or ambiguous feedback with an opportunity to respond via mixed messages. These offset conditions were included, pending variations in the use of mixed messages, to test the importance of anticipating an upcoming interaction.

Participants

Participants (N = 295) who reported English as their primary language were recruited from introductory psychology courses. Of these, 68 participants (54 females and 14 males) were randomly assigned to the offset comparison conditions leaving 227 participants in the main study design (170 females and 57 males). Participants were given credit toward completion of their course research requirement.

Prescreening Session

Prior to arriving at the main experimental session, participants participated in a brief prescreening session to gather individual difference information. As such, they completed the Richardson Conflict Response Questionnaire (Richardson & Green, 2003), the Buss-Perry aggression Questionnaire (1992), and the Social Desirability Scale (Crowne & Marlowe, 1960). To enhance the cover story, participants also completed some filler questions tapping extraversion, conscientiousness, and openness to experience. See Appendix A.

Procedure

Participants were run individually. When participants arrived, they were greeted by an experimenter, seated in a room by themselves, and asked to read and sign an informed consent, read a Study Overview briefly describing the purpose of the study. Participants were told that the study was investigating group problem solving versus individual problem solving efficacy throughout early adulthood. As such, participants first completed a creative problem solving assessment by themselves that ostensibly served as a comparison baseline to a second creative problem solving assessment completed collaboratively with another person. Prior to completing the first assessment, participants completed the perspective taking and empathic concern subscales of the Davis Empathy Scale (Davis, 1980). Participants were also asked to briefly

describe why they were attending the University of Florida, their future plans, and what they enjoy doing for fun on the Basic Information Questionnaire. See Appendix B.

Participants were told that the individual version of their creative problem solving assessment asked them to design a squirrel-proof birdfeeder and that their fellow worker was in a separate room working on a different form of the same test (a moon crash landing survival problem). To do so, participants were given six minutes to design, diagram, and explain a birdfeeder design that would prevent squirrels from accessing birdseed but still allowed birds access. Participants were given several sheets of blank paper to complete their design.

After completing the first assessment, the experimenter returned and collected the participants' designs. The participants were reminded that in many real-life work situations, people frequently receive feedback from co-workers that can be helpful when later tackling a similar problem and that such information can be elucidating. The current study was attempting to mimic that tendency in the real world by allowing the two individuals to evaluate and comment on each others' initial assessment prior to working together on second assessment. Participants were presented with the results of the other participant's (the fellow worker) creative problem solving assessment. Again, under the guise of mimicking real-world interaction in which individuals must provide evaluations of their peers' work, participants were asked to evaluate the quality of the other participant's solution to his/her problem via a free response item. The other participant's solution to the problem was a reasonably good but imperfect solution to the other participant's own problem. While the participant was evaluating the fellow worker's solution, the fellow worker was supposedly evaluating the participant's own drawing, and after a few minutes, the experimenter returned to retrieve the participant's evaluation before exchanging them with the evaluation of the participants' own drawing by the fellow worker and the fellow

worker's Basic Information Questionnaire (see Appendix C). The Basic Information

Questionnaire conveyed a basic level of information about the fellow worker and indicated the

other participant was the same gender as the participant himself/herself.

Participants anticipating an interaction were randomly assigned to either the positive,

negative, or ambiguous feedback condition. The positive feedback indicated the fellow worker

perceived the participants' designs as generally good, as showing a good deal of potential, and

praising the participants' creative intelligence. The negative feedback indicated that the fellow

worker perceived the participants' designs as faulty and uncreative, and disparaged the

participants' creative intelligence. The ambiguous feedback conveyed two possible

interpretations to the participants: both a potentially positive meaning and a potentially negative

meaning. The ambiguous feedback was pilot tested to determine that, given the nature of the

task, participants perceived the feedback to convey these two potential meanings. (See Appendix

D). Participants assigned to one of the two offset conditions *not* expecting an interaction were

assigned to receive either negative or ambiguous feedback, but not positive feedback as that was

not a primary concern for the current study.

After reviewing the Basic Information Questionnaire and reviewing the fellow worker's

feedback, the participants were then asked to communicate their initial impressions of the person

to both the fellow worker himself/herself via the First Impressions Questionnaire and

subsequently to the experimenter via the Preliminary Interaction Assessment. The First

Impressions Questionnaire was supposedly sent to the fellow worker to facilitate the secondary

assessment in that it is helpful to know what other people believe about oneself. On this

questionnaire, participants were presented with a list of eighteen statements. Half of the

participants were randomly assigned to receive a checklist that contained three different types of

descriptors, positive, negative, and mixed message descriptors (conveying both a positive and negative connotation). For example, a positive descriptor read, "This person is capable of doing many things." A negative descriptor read, "This person finds novel tasks difficult." A mixed message descriptor read, "The quality of this person's work is well-known." (Appendix E.)

The other half of the participants were randomly assigned to receive a checklist that only contains positive, negative, and neutral descriptors (no double entendres). (Appendix F.) In short, the participants in this condition had no ambiguous path available to them by which to respond safely—they had to choose to respond in a directly positive, negative, or neutral manner. Selecting neutral descriptors allowed individuals to take a middle-of-the-road approach but did not allow them the option of presenting a dually friendly and aggressive image. A neutral approach presented neither of these images. The eighteen statements were equally divided across the three types of responses presented to the participants (positive, negative and either neutral or mixed messages). Participants were asked to check off up to 8 items that they believed accurately described the person with whom they were interacting. After selecting 8 items, participants were asked to rank these 8 statements from most descriptive to least descriptive of the other person. This approach allowed participants to select all or none of the items in each category—if participants wished to eschew double entendres entirely, they had that ability.

After participants sent this information, they were told that the next phase of the study was the collaborative second assessment. Under the guise of assessing any extraneous variables that could potentially affect performance on the collaborative assessment, participants completed the Positive and Negative Affect Scale (Watson & Tellegen, 1988) described as part of a Preliminary Interaction Assessment (see Appendix G), as emotional responses may have mediated the extent to which participants derogate the fellow worker's personality or ability.

The remainder of the Preliminary Interaction Assessment assessed the feelings that participants had toward the other person, the impending interaction, and themselves such as how much they anticipated liking the other person, anticipated being liked by the other person, assessment of the other's social skills, etc. This questionnaire gave the participants the opportunity to express their negativity toward the fellow worker more openly because they were told that this questionnaire would not be shown to the fellow worker. Moreover, it was stressed that it was important to answer honestly to ensure validity of the final assessment. In addition to the previously mentioned questions, this questionnaire also assessed how positively participants believed they evaluated the other participants' initial assessment.

I predicted that because participants would not have received feedback on their own performance when evaluating the performance of others, they would have no reason to assess the performance of the other in a strongly negative way. Previous research shows that when evaluating a specific other person, people tend to evaluate that person fairly positively (as above average; Klar & Giladi, 1997). As such, participants' evaluations of the fellow worker's initial creative intelligence assessment would be fairly positive. The participants' evaluations of the partner's work were objectively assessed by independent raters at the conclusion of the study. However, participants who received a negative or ambiguously aggressive evaluation may have altered their retroactive evaluations of the evaluations they gave earlier by doing one of two things. First, they may have inflated the positivity of their evaluations to bolster their justification for a hostile reaction or, alternatively, they may have deflated the positivity of their evaluations to portray themselves as less naïve in their willingness to "play nice;" in short, participants may have portrayed themselves as having more of an upper hand than they actually had. Questions

assessing this possibility were only exploratory in nature, as either of these two possibilities were equally viable possibilities.

Finally, the experimenter told participants that there was a degree of flexibility regarding what communication method the participants used to collaborate on the final assessment and because the study had not been active for very long, the study still needed people to communicate in all methods. Therefore, the experimenter offered the participant a choice. The participant could choose between interacting face-to-face with the fellow worker, via a speaker system (only audio transmission), or via a computer chatting program. This measure assessed the degree to which participants desired control over their communications and psychological distance from the communication with the fellow worker. After the participants made their selection, the participants were carefully probed for suspicion, debriefed, and dismissed.

CHAPTER 3
RESULTS

Pilot Testing

Both the feedback and the statements in the first impressions questionnaire were pilot

tested to ensure that multiple meanings were able to be perceived. Several variations of

ambiguous feedback were tested, as were several variations of neutral and mixed messages. For

the ease of presentation, only the final selected measures will be discussed.

Feedback

Participants (N = 77) completed the squirrel proof birdfeeder problem described above.

Then, participants were asked to read one of the three possible versions of the feedback and

asked to (1) report their interpretation of the feedback, and (2) report, if such feedback had been

actually based on their birdfeeder solution, how they would feel about receiving such feedback.

Specifically, participants reported how positive an evaluation the feedback conveyed, how

negative an interpretation it conveyed, and how much a negative and positive interpretation were

simultaneously conveyed. Moreover, participants reported how sincere the author of such

feedback was, how upsetting the feedback would be, and how much the author of such feedback

was trying (1) to conceal an insult and (2) to be superior. All of these ratings were made on a

scale of 1-9 Likert-type scale. See Appendix D for the specific wording of the feedback and

dependent measures.

A significant effect of feedback was found for ratings of positivity (F (2, 74) = 126.39, $p <$

.0001, η_p^2 = .774), negativity (F (2, 74) = 111.58, $p <$ .0001, η_p^2 = .751), and simultaneous

positive and negative meanings (F (2, 74) = 8.22, $p =$ .0006, η_p^2 = .182). See Table 3-1 for mean

ratings as a function of feedback. Specifically, although participants perceived the ambiguous

feedback to be as positive as the positive feedback, they perceived the ambiguous feedback to be

more negative than the positive feedback. In addition, the ambiguous feedback was perceived to convey a double-meaning significantly more than both the positive and negative feedbacks.

Regarding visceral reactions and perceptions of the feedbacks' authors, participants expected being most upset after receiving the negative feedback (significantly more than both the positive and ambiguous feedbacks), and ambiguous feedback was seen as more upsetting than positive feedback. In keeping with this pattern, participants reported that the negative feedback and ambiguous feedback authors were most trying to appear superior (significantly more so than the positive feedback author). Ambiguous feedback was seen as trying to conceal an insult significantly more so than positive feedback; negative feedback was seen as intermediate and not significantly different from either positive or ambiguous feedback. Likewise, the same pattern on the inverse question was evident such that ambiguous feedback was seen as significantly less sincere than positive feedback, while negative feedback was intermediate and not significantly different from either.

In sum, ambiguous feedback was perceived as conveying both a negative and positive meaning, was more negative than positive feedback and was more positive than negative feedback. Likewise, ambiguous feedback was more upsetting and less sincere than positive feedback, and was seen as more of an attempt to be superior and conceal an insult than positive feedback. See Table 3-1 for mean ratings of positive, negative, and double-meaning interpretation of each feedback as well as pilot participants' reactions to the feedback and the feedback communicator. In short, the various forms feedback indicated that they had the desired effect; the feedback was effective in inducing the desired perceptions in the pilot participants.

Message Options

For the First Impressions Questionnaire in which participants select and rank statements to send to their partner after receiving feedback, it was necessary to have statements with a single

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positive meaning, statements with a single negative meaning, statements with a simultaneously strong positive and a strong negative meaning (mixed messages), and statements that were relatively neutral— i.e., a single low negative/slightly positive meaning. The same participants as above also rated possible statements as to how positive they were, how negative they were, and the extent to which they had both a positive and negative interpretation on a scale of 1 (not at all) to 9 (very much). The following guidelines were used to select statements for each category. Positive statements had to have a double-meaning score < 5, a positive score ≥ 6.5, and a negative score ≤ 3. Negative statements had to have a double-meaning score < 5, a positive score ≤ 3, and a negative score ≥ 6.5. Mixed message statements had to have a double-meaning score ≥5, a positive score ≥ 6, and a negative score ≥ 4. Neutral statements required a double-meaning score < 5, a positive score ≤ 6 but ≥ 3, and a negative score ≤4. See Appendices E and F for the final selected statements that met these criteria. Thus, the messages from which the actual participants could select were rated by the pilot participants as having the desired properties.

Scoring the First Impressions Questionnaire

To determine the use of positive, negative, or alternate responses (mixed messages or neutral messages), the 18 statements of the First Impressions Questionnaire were divided into the three categories: (1) 6 positive messages, (2) 6 negative messages, and (3) 6 alternate messages, which consisted of either mixed messages (for participants in the mixed message condition) or 6 neutral messages(for participants in the neutral condition). Participants selected 8 total messages and then ranked these 8 messages from most descriptive (rank = 1) to least descriptive (rank = 8).

Two types of information can be gathered from the First Impressions Questionnaire (FIQ). First, what messages did the participants select? For each category, the number of messages selected from each category was tallied such that if a participant selected 2 positive, 1 negative,

and 5 alternative messages, then he/she would have a positive-selection score of 2, a negative

selection-score of 1, and an alternative-selection score of 5.

The second piece of information to be gathered from the FIQ is how descriptive of their

partner the participants perceived the selected messages from each category to be (indicated by

the rank-value assigned to each statement). Therefore, rank-scores were computed by averaging

the ranks assigned to the 6 messages from each category. Because ten messages were not

selected and therefore not ranked, a rank value of 13.5 was assigned to these unselected 10

messages by computing the average value that would have been assigned to the unselected 10

messages if all 18 messages had been ranked. For example, if a participant selected 2 positive

messages and ranked them 1st and 2nd most descriptive and did not select the other four positive

messages, then this participant's positive-rank score is an average of 1, 2, 13.5, 13.5, 13.5, and

13.5. If none of the six messages from a given category were selected, then the score for that

category would be 13.5 as all messages in that category would be assigned a score of 13.5. If all

messages from a given category were selected and ranked as most descriptive, then the score for

that category would be 3.5 (i.e., an average of 1, 2, 3, 4, 5, and 6). Thus, the possible range of

scores for each category range from 3.5 to 13.5 with lower scores reflected greater endorsement

of that type of message.

These two measures of category endorsement were highly correlated with each other. As

would be expected, as more statements were selected from each category, the average rank for

each category was higher (where higher ranks are reflected by lower numerical values).

Specifically, selection scores and ranking score were highly correlated for each category: $r_{alternate}$

$_{statements}$ $(220) = -.91$; $r_{negative\ statements}$ $(220) = -.99$; $r_{positive\ statements}$ $(220) = -.98$; all p's $< .0001$.

Due to the extremely high correlation between these selection and ranking measures, only

analyses regarding the average ranks assigned to each category are presented for ease of presentation. The patterns of significant and non-significant findings were essentially identical for the ranking and selection measures, and any exceptions are indicated below.

Overview of Analyses

In the analyses below, participants who anticipated an interaction with their partner (N= 227) were included in a series of 3 (Feedback: Positive, Negative, or Ambiguous) X 2 (Response Option: Mixed Messages or Neutral Messages) general linear models that tested the use of positive messages, negative messages, and alternative messages (mixed messages or neutral messages, depending on response option condition). Although the effects on each dependent measure are interesting in and of themselves, testing specific hypotheses requires comparing across categories. Because the three categories are not independent of one another, a degrees of freedom restriction occurs if all three categories are compared to each simultaneously. To test hypotheses that predicted differences across categories, difference scores were calculated to compare each of the three categories to the other two. These differences scores were then submitted to the same general linear model described above. For ease of presentation, the statistical significance of mean comparisons described below are presented in Tables 2 and 4. Differences between specific conditions after a significant main effect involving more than 2 levels of a significant interaction were determined by tests of simple effects or specific contrasts. The results are indicated via subscripts in the tables. Gender was included as a possible moderator in each of the analyses, but failed to produce any significant interactions or main effects and so was dropped from the analyses.

The offset comparison conditions were included in the current study to assess the extent to which any differences in the use of mixed messages were affected by the possibility of a future interaction or generalized to reactions regardless of future interactions. Therefore, the dependent

measures of the offset comparison conditions were assessed using the same statistical framework

with follow-up comparisons describing whether the future interaction mattered. These analyses

are described in more detail below.

<center>**Messages Used**</center>

Positive, Negative and Alternate Messages

Variations in the average rank-value of each category of messages (positive, negative, and

alternate) was determined for each combination of feedback and response option using the 3

(Feedback) X 2 (Response Option) general linear model approach described above on each of the

three message categories. The average ranks assigned to each category are presented in Table 3-

2. Means for the average number of statements *selected* from each category (the selection scores

described earlier) are presented in Appendices H and I.

In general, the hypotheses predicted that participants would respond to the feedback they

received in a similar manner such that positive feedback participants would send positive

messages, negative feedback participants would send mixed messages when they were available

and negative messages when mixed messages were not available, and ambiguous feedback

participants would send primarily mixed messages when they were available but would resort to

neutral and positive messages when mixed messages were not available. Further, it was predicted

that the absence of mixed messages as a communication alternative would have no effect on the

primarily positive messages sent by positive feedback participants.

Regarding the use of alternate messages (neutral or mixed messages), a significant main

effect of feedback (F (2, 214) = 12.46, p <.0001, η_p^2 = .104) and simple effects comparisons

indicate that negative feedback participants endorsed the alternate messages ($M_{\text{negative feedback}}$ =

8.54) more than either positive feedback participants and ambiguous feedback participants ($p's$ <

.0001, $M_{\text{positive feedback}}$ = 9.65, $M_{\text{ambiguous feedback}}$ = 9.60). Surprisingly, ambiguous feedback

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participants and positive feedback participants did not differ from one another ($p = .81$). These findings are not consistent with the hypothesized contention that ambiguous feedback participants would most strongly endorse mixed messages as negative feedback participants were the most likely to endorse mixed messages/neutral messages and positive and ambiguous feedback participants generally avoided them.

Negative messages were also submitted to the above model. Main effects of both feedback ($F(2, 214) = 123.32$, $p < .0001$, $\eta_p^2 = .535$) and option ($F(1, 214) = 6.18$, $p = .01$, $\eta_p^2 = .028$) were qualified by a significant Feedback X Option interaction ($F(2, 214) = 7.23$, $p = .0009$, $\eta_p^2 = .063$). In short, negative messages were most endorsed (via higher rankings) by negative feedback participants, and practically ignored by all ambiguous and positive feedback participants (regardless of response option condition), and negative feedback participants ranked negative messages higher than both positive and ambiguous feedback participants in both response option conditions (p's $< .0001$). Negative feedback participants were most likely to endorse negative messages when they were in the neutral message condition ($M_{\text{negative feedback-Mixed Messages}} = 10.78$, $M_{\text{negative feedback Neutral Messages}} = 9.16$, $p < .0001$)—possibly endorsing negative messages here because they could not utilize the negative interpretation of mixed messages to send aggressive messages. Ambiguous and positive feedback participants did not differentially endorse negative messages across response option conditions (p's $\geq .84$). This pattern of findings is consistent with the hypotheses that negative feedback participants would most strongly endorse negative messages relative to other feedback conditions, and also that negative feedback participants would curtail their use of negative messages when mixed messages were available.

Regarding the ranking of positive statements, a feedback main effect ($F(2, 214) = 126.93$, $p < .0001$), $\eta_p^2 = .543$), qualified by a Feedback X Option interaction ($F(2, 214) = 6.21$, $p =$

.0024, η_p^2 = .055) indicates that positive feedback participants and ambiguous feedback

participants endorsed positive messages considerably more than negative feedback participants,

regardless of response option (p's <.0001), but these positive feedback and ambiguous feedback

participants endorsed positive messages equally (p Mixed Messages = .27, and p Neutral Messages = .24) .

However, while positive feedback participants were unaffected by response option (p = .94),

negative feedback participants in the mixed messages condition endorsed positive messages

more strongly than participants in the neutral messages condition (p = .01). In contrast, the

availability of mixed messages made ambiguous feedback participants weaken their endorsement

of positive messages compared to ambiguous feedback participants in the neutral messages

condition (p = .04). In sum, as predicted, positive feedback participants did employ primarily

positive messages and were unaffected by the availability of mixed messages, but ambiguous

feedback participants employed positive messages just as much as positive feedback participants,

which was not anticipated. However, ambiguous feedback participants did behave consistently

with the hypothesized notion that they would endorse positive messages more strongly in the

absence of mixed messages as a viable communication alternative, i.e., in the neutral messages

condition. In other words, when ambiguous feedback participants had neutral statements as their

alternative response option, they endorsed outright positive messages more strongly than when

mixed messages were available. In contrast, negative feedback participants gave *weaker*

endorsements of positive messages when mixed messages were available than when neutral

messages were available. In other words, negative feedback participants were *nicer* when mixed

messages were a communication outlet than when they were not.

Category Comparison

　　　To compare the use of one category to another, three difference scores were calculated for

the difference in the average ranks assigned to each category (i.e., difference scores to compare

alternative messages to negative messages, alternative messages to positive messages, negative

messages to positive messages). This way, relative endorsement of categories can be compared

to see if participants endorse, for example, negative messages more or less than alternative

messages. These difference scores were then submitted to the 3 (Feedback) X 2 (Response

Option) general linear model described above. Table 3-2 presents average ranks and when

differences between categories were significantly different from one another. For expository

purposes, Table 3-3 presents difference scores discussed below.

It was predicted that positive messages would be endorsed more than negative or

alternative messages for positive feedback participants, regardless of response option. In

contrast, when mixed messages were available, it was expected that both negative feedback and

ambiguous feedback participants would endorse mixed messages most, with secondary

endorsements of negative statements for negative feedback participants and positive messages

for ambiguous feedback participants. In contrast, when neutral messages were the alternate form

of communication instead of mixed messages, it was hypothesized that negative feedback

participants would primarily endorse negative messages and ambiguous feedback participants

would primarily endorse positive and neutral statements.

In general, participants in the positive feedback and ambiguous feedback conditions

strongly endorsed positive messages, avoided negative messages, and ranked alternative

messages intermediately. This was true regardless of response option. However, negative

feedback participants' endorsement varied as a function of response option; mixed message

participants rated positive messages and mixed messages equally highly and as more descriptive

than negative messages. However, negative feedback participants in the neutral messages

condition were more openly aggressive by rating negative messages more highly than positive messages (and as highly as neutral messages).

More specifically, significant main effects of feedback were found for all three difference score comparisons ($F_{\text{negative to alternative}}$ (2, 214) = 25.66, $p < .0001$, $\eta_p^2 = .193$; $F_{\text{positive to alternative}}$ (2, 214) = 75.93, $p < .0001$, $\eta_p^2 = .415$; $F_{\text{negative to positive}}$ (2, 214) = 150.71, $p < .0001$, $\eta_p^2 = .585$). A significant main effect of option was also found for comparison of negative messages to alternative messages (F (1, 214) = 8.08, $p = .0049$, $\eta_p^2 = .036$). These effects were qualified by significant Feedback X Option interactions for each of the three category comparison difference scores, ($F_{\text{negative to alternative}}$ (2, 214) = 3.24, $p = .04$, $\eta_p^2 = .029$; $F_{\text{positive to alternative}}$ (2, 214) = 3.93, $p = .02$, $\eta_p^2 = .035$; $F_{\text{negative to positive}}$ (2, 214) = 7.68, $p = .0006$, $\eta_p^2 = .070)^2$. In other words, differences between endorsing negative messages vs. alternative messages, positive vs. alternative messages, and positive vs. negative messages differed depending on feedback and response option for each kind of category comparison. The significant orthogonal simple effects comparisons are presented in Table 3-2.

Within each type of feedback and response option, participants consistently ranked negative messages as significantly less descriptive than alternative messages, with the sole exception that neutral message condition negative feedback participants did not differ in their use of negative messages and neutral messages ($p = .19$). Participants in the positive feedback and ambiguous feedback conditions (in both response conditions) ranked positive messages as significantly more descriptive than either negative messages or alternative messages (p's < .0001). However, negative feedback participants in the mixed message condition did not differ in

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[2]Although the three-way Category X Feedback X Option interaction was significant for ranking scores, the comparison of alternative statements to negative statements selection was only marginally significant, F (2, 216) = 2.63, $p = .0741$, $\eta_p^2 = .024$)

their rankings of positive messages and mixed messages ($p = .12$); negative messages were ranked as significantly less descriptive than both of these, $p < .0001$ and $p = .01$, respectively, indicating that while these negative feedback participants endorsed negative statements more than positive or ambiguous feedback participants, these participants still exhibited a slight preference for mixed messages and positive messages. Meanwhile, negative feedback participants in the neutral message condition ranked positive messages as less descriptive than both neutral messages and negative messages ($p < .0001$ and $p = .0045$, respectively) indicating that these participants alone were the most nasty in their messages.

This pattern of findings is partially consistent with the predicted effects. Specifically, as predicted, positive feedback participants did endorse positive messages more than negative or alternate messages, regardless of response option condition. The participants were motivated to be nice and overwhelmingly were. In contrast, ambiguous feedback participants were expected to use mixed messages more than either positive or negative messages in the mixed messages condition, but they employed positive messages more than mixed messages or negative messages in this condition. On the other hand, ambiguous feedback participants' use of primarily positive messages in the neutral messages condition was largely consistent with the hypothesis that participants would favor positive messages when mixed messages were not available. It was expected that negative feedback participants in the mixed messages condition would capitalize on the availability of mixed messages and endorse these more than negative or positive messages. While negative feedback participants did endorse mixed messages more than negative messages, they were not endorsed significantly more than positive messages in the mixed messages condition, indicating that perhaps the negative feedback participants were torn between positive messages and mixed messages. In contrast, it was hypothesized that because negative

feedback participants in the neutral messages condition could not satisfy their aggressive urges via mixed messages, they would endorse negative statements more strongly than the negative feedback participants with mixed messages available.

Summary of Message Use

The simple effects comparisons are presented in Table 3-2 for all of the above analyses. Orthogonal simple effects comparisons are presented in the table, with means having at least one factor in common and sharing a subscript not significantly different from one another.

It was expected, generally, that participants would respond in kind to the feedback that they received. In other words, positive feedback participants would respond primarily in a positive manner, negative feedback participants would respond in a negative manner, and ambiguous feedback participants would respond via mixed messages when available, and would eschew outright negativity for positive messages when mixed messages were not available and instead, only neutral messages were. Likewise, the ability to employ mixed messages should similarly curtail the use of negative feedback participants' endorsement of outright negative messages.

In general, participants receiving negative feedback were considerably more aggressive overtly and covertly, relative to participants receiving ambiguous and positive feedback, as determined by the ranks assigned to negative messages and mixed messages. Ambiguous feedback participants did not respond as aggressively as was expected—participants responded quite similarly and in a generally positive fashion after receiving positive and ambiguous feedback. However, while positive feedback participants exhibited low levels of overt and covert aggression and were entirely unaffected by response option, ambiguous feedback participants were somewhat affected by response option (mixed messages versus neutral messages as the alternative message). As compared to their neutral message counterparts, ambiguous feedback

participants were less nice when they had mixed messages available to them, but negative

feedback participants were *nicer* when they had mixed messages available to them. Thus, while

Hypothesis IX.1 predicted that ambiguous feedback participants would use more mixed

messages than positive feedback or negative feedback participants, this was not supported as

negative feedback participants were most likely to endorse mixed messages.

Because response option (mixed messages versus neutral message conditions) had no

effect on rankings of negative messages or alternate messages made by positive feedback

participants (p's > .90), Hypothesis VII.2 (that positive feedback participants would not differ in

their use of positive and negative messages across response options) was supported. Positive

feedback participants were always nice and unaggressive, regardless of whether they were in the

mixed message or neutral message condition.

Because negative feedback participants were generally nicer in the mixed messages

condition than the neutral messages condition, but the reverse was true for ambiguous feedback

participants, Hypothesis II (that overall aggression would be less when one is forced to aggress

openly than when the opportunity to aggress covertly is also available) received mixed support.

Negative feedback participants did not follow Hypothesis II: these participants were *less*

negative when they had mixed messages available to them and did not differ in their usage of

alternate statements. Ambiguous feedback participants, however, ranked mixed messages more

highly than neutral messages (attempting to be covertly aggressive) while they did not differ in

their use of negative messages.

Hypothesis IX.3 predicted that ambiguous feedback participants in the mixed messages

condition would use many mixed messages and few, if any, negative messages. In comparing the

use of negative messages to the alternate messages, participants in each of the feedback and

response option conditions ranked negative messages as less descriptive than the alternate messages, *except* for negative feedback participants in the neutral messages condition, who did not differ in their rankings of negative messages and neutral messages, thus supporting Hypothesis IX.3. Likewise, Hypothesis IX.4 predicted that ambiguous feedback participants in the neutral messages condition would send primarily neutral and positive messages, and received qualified support. While positive and ambiguous feedback participants ranked mixed messages and negative messages similarly, negative feedback participants ranked negative messages and mixed messages more similarly than both the ambiguous feedback participants, and the positive feedback participants. This effect stems primarily from negative feedback participants ranking mixed messages higher than positive feedback or ambiguous feedback participants. In other words, while ambiguous feedback and positive feedback participants demonstrated a clear preference for mixed messages over negative messages, negative feedback participants showed the same preference to a much lesser degree, seeing a considerably smaller distinction between mixed messages and negative messages.

One interpretation of the negative feedback participants' behavior is that when negative feedback participants did not have the opportunity to aggress covertly, they shifted to overt aggression. In contrast, negative feedback participants who *could* aggress covertly did so and reduced their level of overt aggression. This primary endorsement of positive messages by positive feedback participants (rather than negative messages or mixed messages) supports Hypothesis VII.1 that participants receiving positive feedback would primarily endorse positive messages. In contrast, Hypothesis VIII was not fully supported. Specifically, Hypothesis IX.4 predicted that negative feedback participants in the neutral messages condition would send primarily neutral messages and few negative messages, and this was found not to be the case.

Instead, while the general trend was that neutral messages were endorsed more strongly than negative messages by those in the neutral messages condition, this difference was not statistically significant. However, Hypothesis VIII.2 predicted that negative feedback participants *with* mixed messages available to them would primarily endorse mixed messages over than negative messages, and this was indeed found to be the case.

In sum, ambiguous feedback and positive feedback participants responded similarly and in a generally positive manner to their feedback such that they primarily endorsed positive messages, followed by alternate messages, and most weakly endorsed negative messages, which were essentially ignored. The only real difference between positive and ambiguous feedback participants lies in the manner in which they were affected by the availability of mixed messages. Specifically, positive feedback participants were not at all affected by their response option condition, but ambiguous feedback participants endorsed mixed messages more than neutral messages, possibly to send aggressive overtones, but also possibly to send positive intimations. In other words, the availability of mixed messages seems to have made ambiguous feedback participants slightly less nice, as further indicated by their weakened endorsement of positive messages when mixed messages were available. In contrast, for negative feedback participants, the availability of mixed messages resulted in less negative message endorsement and stronger positive message endorsement than the availability of neutral messages.

Objective Assessment of Design and Evaluation Quality

It is reasonable to ask whether some of the effects might be due to variations in how well participants completed their own design or how positively participants had originally evaluated their partners. For example, participants who had evaluated their partner very positively and received negative feedback or ambiguous feedback may have reacted more strongly to feedback than participants who had not evaluated their partner so positively. Likewise, participants who

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had developed a particularly exceptional squirrel-proof birdfeeder may have responded more strongly to negative or ambiguous feedback than participants who did not create such an exceptional design.

Two independent raters evaluated each participant's squirrel proof birdfeeder design on four different dimensions: 1) how much effort the participant exhibited in creating the design, 2) how creative the design was, 3) how effective the design would be at keeping squirrels out of a birdfeeder, and 4) how practical the design was (intraclass correlation reliabilities, ICC (3,k): r = .69, .66, .58, and .29, respectively). The two raters were assumed to be the entire population of raters and the reliability is for the mean of their ratings (Shrout & Fleiss, 1979). The raters also evaluated the written evaluation sent to the nonexistent partner of the partner's own creative intelligence assessment on two dimensions: 1) how positive the evaluation was, and 2) how much effort the participant put into evaluating the partner's work (α = .78 and .78, respectively). None of these measures significantly moderated the above findings.

Interaction Expectations

The manipulation of interaction expectations was successful. Participants who were told they would be meeting their partner should have reported that they were going to meet someone more than participants who were told they would not be meeting their partner. A between-subjects t-test revealed that this was the case, $t(142) = 8.70$, $p < .0001$, $M_{meet} = 1.99$, $M_{NO\ meet} = 1.47$.

Anticipating a future interaction was generally expected to restrain the use outright negative messages in favor of mixed messages such that participants would shift from mixed messages to negative messages when *not* facing a meeting such that outright negative messages would be used less and mixed messages would be used more when a meeting was imminent than when no meeting was anticipated. To assess the actual impact of expecting an important,

imminent collaborative interaction with their partner on the likelihood of using various forms of communication (positive, covert aggression, straightforward aggression), the participants in the offset comparison conditions were included in a 2 X 2 General Linear Model: Feedback (Ambiguous vs. Negative) X Interaction Expectation (Meet vs. No Meet), looking at each statement category ranking (positive, negative, mixed messages). All participants in this analysis had mixed messages available to them.

A marginal Feedback X Expectation interaction was found for the ranking of the positive messages (F (1, 137) = 2.72, p = .10). As shown in Table 3-4, negative feedback participants more strongly endorsed positive messages if they anticipated a future interaction (F (1, 137) = 4.06, p = .0460, M_{meet} = 9.31, $M_{NO\ meet}$ = 10.30), whereas ambiguous feedback participants did not differ in their ranking of positive messages as a function of anticipated interaction (F (1, 137) = 0.04, p = .85). See Table 3-4 for mean rankings as a function of feedback and meeting expectation. Rankings of mixed messages and negative messages were unaffected by interaction expectation ($p_{ambiguous\ feedback}$ = .30, $p_{negative\ feedback}$ = .44), or an interaction between interaction expectation and feedback ($p_{ambiguous\ feedback}$ = .16, $p_{negative\ feedback}$ = .47). The general lack of impact of an expected meeting fails to support Hypothesis I. In addition, because negative feedback participants not expecting a future interaction primarily endorsed mixed messages rather than negative messages, Hypothesis VIII.3 was not supported, which predicted that few mixed messages would be endorsed, and participants would instead rely on negative messages. Finally, Hypothesis IX.2 predicted that ambiguous feedback participants not expecting an interaction would use more mixed messages than those expecting an interaction and would primarily endorse negative messages. However, because ambiguous feedback participants expecting an interaction did not differ in their use of mixed messages compared to ambiguous

feedback participants *not* expecting an interaction and sent primarily positive messages rather than negative messages, Hypothesis IX.2 was not supported.

Perceptions of Partner

Twenty-three questions from the Preliminary Interaction Assessment assessed participants' perceptions of their partner and reactions to the test, and these questions were grouped into nine factors including how likeable, smart, condescending, straightforward, sincere, and a skilled communicator the other person was as well as how liked they expected to be by their partner, how smart they considered themselves to be, and how valid they believed the test to be. See Table 3-5 for a list of the items in each trait/grouping and relevant alphas. It was generally predicted that ambiguous feedback participants not expecting an interaction would use more mixed messages than those expecting an interaction and would primarily endorse negative messages.

Main effects of feedback were found for how likeable straightforward, sincere, skillfully communicative, smart and condescending one's partner was such that, in general, participants receiving positive feedback perceived their partner to be more likeable, sincere, a skilled communicator, smarter and less condescending than partners sending negative feedback. See Table 3-6 for F and p-values, effect sizes, means and simple effects comparisons. Significant main effects of feedback were also found on how liked participants felt by their partners, how smart participants themselves felt, and how valid participants believed the test to be. Participants receiving positive feedback thought they were liked more by their partners, thought the test was more valid, and thought they were themselves smarter than participants receiving negative feedback. Negative feedback participants believed their partner was more straightforward than participants receiving positive feedback ($p = .0015$) or ambiguous feedback ($p = .0008$). Ambiguous feedback partners were not seen as significantly different from positive feedback

partners on any of these measures. In short, partners who delivered positive feedback and partners who delivered ambiguous feedback were seen positively and created positive feelings, and both differed from partners who delivered negative feedback.

Hypothesis X.1 and X.2 predicted that positive feedback partners would be most likeable and would seem to like the participants themselves most while little difference would be found between negative and ambiguous feedback partners. While positive feedback partners were viewed more favorably than negative feedback partners, ambiguous feedback partners were viewed just as favorably, thus failing to support the notion that ambiguous feedback partners would suffer a tarnished reputation for their use of covert aggression. Hypothesis XI.1, XI.2, and XI.3 predicted that ambiguous feedback partners would be seen as the best communicators, followed by positive feedback partners, and negative feedback partners would be seen as the least effective communicators. Because positive and ambiguous feedback partners were viewed as equally good communicators and significantly better communicators than negative feedback partners, Hypothesis XI.1 and XI.3 were both supported (that ambiguous feedback partners would be seen as more skillful communicators than negative feedback partners and positive feedback communicators may experience a halo effect and be seen as a better communicator than negative feedback communicators). However, because ambiguous and positive feedback partners were viewed similarly, Hypothesis XI.2 (that ambiguous feedback partners would also be seen as more skillful communicators than positive feedback partners) was not supported. Therefore, although technically Hypothesis XI received partial support in that both positive and ambiguous feedback partners would be seen as better communicators than negative feedback communicators, the main focus of this hypothesis predicted that ambiguous feedback communicators would be seen as particularly cunning communicators in their use of covert

aggression, even relative to positive feedback communicators, and this was not found to be the case.

Hypothesis XII predicted that participants receiving (1) negative and (2) ambiguous feedback would perceive the creative intelligence test as less valid than positive feedback participants. In actuality, ambiguous and positive feedback participants perceived the creative intelligence test to be equally valid, and significantly more valid than negative feedback participants, thus Hypothesis XII.1 was supported but not Hypothesis XII.2. Hypothesis XIII predicted that negative and ambiguous feedback participants would not internalize the disparaging feedback they received and should not differ in how creatively intelligent they believe themselves to be (although negative feedback participants would be more likely to internalize than ambiguous feedback participants). Although negative feedback participants reported that they believed themselves to be less creatively intelligent than ambiguous feedback participants and positive feedback participants, this was not drastically different, and the ambiguous feedback participants did not differ from the positive feedback participants in how creatively intelligent they believed themselves to be. Thus, the spirit of this hypothesis was generally supported.

An additional measure was included to assess whether participants varied regarding how positively they believed they had evaluated their partner's creative intelligence assessment prior to completing the First Impressions Questionnaire. Participants did not differ in how positively they believed they had evaluated their partner's work as function of feedback (F (2, 219) = 0.04, p = .96), response option (F (1, 219) = 0.99, p = .32), or a Feedback X Option interaction (F (2, 219) = 0.82, p = .44).

To assess whether perceptions of their partners were affected by whether participants expected an interaction, a 2 (Interaction Expectation: Meeting or No Meeting) X 2 (Feedback: Ambiguous or Negative) general linear model was conducted with the offset comparison groups to assess whether meeting expectations predicted or moderated the above findings. With two exceptions, interaction expectations did not predict or moderate how participants viewed their partners. Participants who expected to meet their partner perceived the test to be somewhat less valid than those who did not expect to meet their partner (F (1, 139) = 6.12, p = .01, η_p^2 = .042, M_{meet} = 5.15, $M_{NO\ meet}$ = 5.76). In addition, there was a marginally significant trend for participants who expected a meeting to report that they had evaluated their partner more positively (F (1, 139) = 3.24, p = .07, η_p^2 = .023, M_{meet} = 7.49, $M_{NO\ meet}$ = 7.09) suggesting that perhaps participants who anticipated an interaction with someone wished to be a bit nicer than those who did not expect to meet their partner.

Affect

To determine whether or not affect differed as a function of feedback, positive and negative affect scores (Cronbach's α = .87 and .86, respectively) were subjected to a model with feedback and response option as predictors. Positive and negative affect scores were slightly, but significantly correlated, r (225) = -.18, p = .005. Mean levels of affect by feedback are presented in Table 3-6 along with F and p-values and effect sizes. A main effect of feedback was found for both positive and negative affect. Negative feedback participants reported less positive affect and more negative affect than positive feedback or ambiguous feedback participants (p < .0001); the latter two conditions did not differ. Therefore, Hypothesis XIV.1 and XIV.2 were supported (that positive feedback participants would report positive emotions, and negative feedback participants would report negative emotions) but Hypothesis XIV.3 (ambiguous feedback participants would report both positive and negative emotions) was not supported.

To assess whether participants experienced differential affect as a result of expecting an interaction, a 2 (Interaction Expectation: Meeting or No Meeting) X 2 (Feedback: Ambiguous or Negative) general linear model was conducted with the offset comparison groups to assess whether meeting expectations predicted or moderated the general above findings regarding positive and negative affect. Interaction expectation did not predict either positive or negative affect, alone or in combination with feedback.

Communication Preference

Participants were asked to select a method of communicating for their collaborative interaction with their partner. To test the hypothesis that participants receiving negative or ambiguous feedback would eschew face-to-face communication, communication method preferences were submitted to a chi-square analysis with feedback. As shown in Table 3-7, the results indicate a significant variation in communication method by feedback ($\chi^2 = 19.85$, $p = .0005$), such that face-to-face communication was preferred by all feedback conditions, but negative feedback participants preferred computer-mediated communication more than ambiguous feedback participants or positive feedback participants. Therefore, Hypothesis XV (that participants receiving negative and ambiguous feedback would be most likely to avoid face-to-face interactions and instead seek out less immediate forms of communication such as computer mediated interaction and intercom mediated interaction), found support in negative feedback participants, but not among ambiguous feedback or positive feedback participants.

Moderators

A variety of individual difference variables were included as possible moderators of effects. To determine the nature of any interactions, analyses were conducted using the SAS General Linear Model (GLM) procedure on ranking scores. The predictors in the model were *feedback* (3 levels: ambiguous, negative, or positive), *option* (2 levels: mixed message or neutral

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message condition), each respective moderator (as a continuous, centered variable), and all interactions. Moderators were centered so that any main effects of option or feedback could be interpreted as an effect on a person who has an average score on the moderator. High and low levels of each moderator were defined as 1 SD above and below the mean level; scores reported for high, low, and average moderator reflect GLM estimates of the values of the dependent measures at these integrity levels (see Cohen, Cohen, West & Aiken, 2003).

Perspective Taking

It was expected that participants higher in perspective taking would show an increased likelihood of using covert aggression, i.e., endorsing mixed messages, due to previous research findings that perspective takers were more capable of indirect aggression than low perspective takers. Neither total empathy scores ($\alpha = .78$) nor empathic concern scores ($\alpha = .76$) produced any significant affects on ranking of statements, alone or in combination with other predictors. A three-way feedback X option X perspective taking interaction was found on ranking negative messages, $F (2, 208) = 4.81$, $p = .0091$, $\eta_p^2 = .044$, $\alpha_{\text{perspective taking}} = .76$. See Figure 3-1 for estimated mean rankings generated by the SAS estimate command for participants high, medium, and low in perspective taking as a function of feedback and option. Table 3-8 presents these means along with comparisons across conditions and levels of perspective taking.

Closer examination of these interactions reveals that participants receiving positive or ambiguous feedback were unaffected by either response option or perspective taking ability in their selection or ranking of negative messages. In contrast, negative feedback participants generally ranked negative messages higher in the neutral messages condition than in the mixed messages condition and this tendency was exaggerated among participants high in perspective taking. Hypothesis V predicted that participants higher in perspective taking would use more mixed messages. This was not the case as perspective taking did not predict rankings of mixed

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messages. However, perspective taking did predict rankings of negative messages in response to negative feedback such that, in the mixed messages condition, high perspective takers did not endorse negative messages as strongly as low perspective takers. On the other hand, in the neutral messages condition, high perspective takers endorsed negative messages much more strongly than low perspective takers. Perhaps high perspective takers in the mixed messages condition perceived their endorsement of any mixed messages as sending negative messages and so could back off the endorsement of negative messages. In contrast, because neutral messages did not send this aggressive undertone, participants who wished to aggress were forced to more strongly endorse negative messages in the neutral message condition.

Other Moderators

Several other possible moderators were tested including hostility ($\alpha = .78$), anger ($\alpha = .82$), physical aggression ($\alpha = .85$), direct aggression ($\alpha = .87$), and indirect aggression ($\alpha = .83$). These moderators produced no significant effects either alone or in interaction with other predictors. As such, the results failed to support Hypothesis IV (that participants with greater proclivity toward direct aggression would show higher rates of overt aggression), and failed to support Hypothesis III.1, III.2, and III.4 (that participants with greater proclivity toward hostility, anger, and indirect aggression would show higher rates of covert aggression). Verbal aggression ($\alpha = .69$), was found to significantly predict ranking of alternate messages ($F(1, 208) = 4.61$, $p = .03$) such that *less* verbally aggressive participants endorsed alternate messages more than *more* verbally aggressive participants[3], thus failing to support Hypothesis III.3 that more verbally aggressive participants would show higher rates of covert aggression. Proclivity toward verbal aggression did not predict rankings of negative messages.

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[3] Selection of alternative statements (as opposed to ranking) was only marginally predicted by proclivity toward verbal aggression, $F(1, 210) = 1.94$, $p = .17$.

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It was expected that individuals high in social desirability would be less likely to endorse negative or mixed messages than positive messages, When these high social desirability participants do act on their aggressive motives, though, they would endorse mixed messages more than low social desirability participants, who would prefer outright negative messages over mixed messages Social desirability significantly interacted with feedback and option in ranking of negative messages (F (2, 208) = 4.33, p = .01, η_p^2 = .040), and ranking of positive messages (F (2, 208) = 3.01, p = .0513, η_p^2 = .028).[4] See Figures 3-2 and 3-3 for mean rankings of negative and positive messages. Table 3-9 presents these means along with comparisons across conditions and levels of perspective taking. The interaction indicates that while negative feedback participants' rankings were affected by social desirability and response option, positive and ambiguous feedback participants generally were not. Specifically, negative feedback participants in the mixed messages condition endorsed negative messages less than negative feedback participants in the neutral messages condition. This general tendency was exaggerated among high social desirability participants in the mixed messages condition such that high social desirability participants actually endorsed negative messages significantly more than low social desirability participants.

The inverse numerical pattern is true for rankings of positive messages, consistent with the above pattern that high social desirability participants are most likely to engage in socially desirable behavior when mixed messages were available rather than neutral messages as the alternate message. In keeping with the general findings, negative feedback participants endorsed

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[4] The effects of social desirability and perspective taking reflect similar patterns on the dependent measures. Social desirability was significantly correlated with perspective taking, r (227) = 0.33. However, this correlation alone cannot account for the similarities as a similar strength correlation was found between other moderators, e.g., social desirability was significantly correlated with both verbal aggression and hostility (r (227) = -.31 and .45, respectively, and these moderators did not significantly predict the dependent measures.

positive messages more in the mixed messages condition than the neutral messages condition, but this was particularly true for those high in social desirability.

In sum, participants higher in social desirability pursued their socially desirable motives to be nice in the face of negative feedback when mixed messages were available, but when only neutral messages were available, high social desirability participants were significantly more negative than their low social desirability counterparts. Therefore, Hypothesis VI.1 and VI.2 were not supported—social desirability participants did not differ in their use of covert aggression compared to low socially desirability participants. However, the presence or absence of mixed messages as an option did affect participants' ranking of negative and positive messages. In the wake of having mixed messages available, high social desirability participants were considerably nicer than their low social desirability counterparts. In contrast, in the wake of having neutral messages available, high social desirability participants were considerably more aggressive than low social desirability participants.

Table 3-1. Pilot study: Perceptions of feedback

	Ambiguous feedback		Negative feedback		Positive feedback	
Positive Interpretation	7.00_a	(1.70)	1.92	(1.26)	7.68_a	(1.25)
Negative interpretation	3.46	(1.53)	7.42	(1.45)	2.12	(0.88)
Double-meaning	5.35	(2.37)	2.85_b	(2.34)	3.68_b	(2.06)
Would be upset	3.27	(2.27)	5.15	(2.29)	2.04	(2.07)
Other trying to be superior	5.76_g	(2.22)	6.38_g	(2.23)	3.78	(2.15)
Other is concealing insult	4.92_e	(1.98)	4.23_{ef}	(2.41)	3.13_f	(1.66)
Other is sincere	5.38_e	(2.23)	5.96_{cd}	(2.07)	6.44_d	(1.53)
n	*26*		*26*		*25*	

For each dependent measure, means sharing a subscript are not significantly different.

Table 3-2. Ranking means

Feedback	Statement type	Mixed messages		Neutral messages	
Ambiguous feedback					
	Alternative messages	9.18_a	(1.07)	10.01_b	(1.43)
	Negative messages	13.40_{cd}	(0.48)	13.47_{ce}	(0.15)
	Positive messages	5.92_f	(1.22)	5.01_g	(1.46)
	n	*45*		*36*	
Negative feedback					
	Alternative messages	8.41_{hi}	(1.72)	8.67_{hj}	(1.55)
	Negative messages	10.78	(2.40)	9.16_j	(2.90)
	Positive messages	9.31_i	(3.05)	10.66	(2.44)
	n	*29*		*35*	
Positive feedback					
	Alternative messages	9.66_{ak}	(1.40)	9.64_{bk}	(1.62)
	Negative messages	13.39_{dl}	(0.38)	13.44_{el}	(0.27)
	Positive messages	5.45_{fm}	(1.43)	5.42_{gm}	(1.67)
	n	*38*		*37*	

Values reflect average ranking of messages. Therefore, *lower* values reflect more endorsement of that category. Orthogonal simple effects comparisons are presented in the table, with means having at least one factor in common and sharing a subscript not significantly different from one another. Standard deviations are indicated in parentheses.

Table 3-3. Category ranking difference scores

Feedback	Statement type	Mixed messages		Neutral messages	
Ambiguous feedback					
	Alternate minus Negative	4.22	(1.12)	3.46	(1.42)
	Negative minus Positive	-7.48	(1.51)	-8.46	(1.50)
	Positive minus Alternate	3.26	(2.24)	5.00	(2.89)
Negative feedback					
	Alternate minus Negative	2.37	(2.85)	0.49	(3.95)
	Negative minus Positive	-1.47	(5.22)	1.50	(5.13)
	Positive minus Alternate	-0.90	(4.33)	-1.99	(2.89)
Positive feedback					
	Alternate minus Negative	3.73	(1.47)	3.79	(1.61)
	Negative minus Positive	-7.94	(1.56)	8.02	(1.77)
	Positive minus Alternate	4.21	(2.81)	4.23	(3.28)

Values represent differences in category rankings. In the first cell, 4.22 indicates that participants receiving ambiguous feedback in the mixed messages condition rated mixed messages 4.22 ranks above negative messages, on average. Standard deviations are indicated in parentheses.

Table 3-4. Ranking means with offset comparison groups not expecting a future interaction

Feedback	Statement type	Future meeting		No future meeting	
Ambiguous feedback					
	Mixed messages	9.18_a	(1.07)	9.28a	(1.21)
	Negative messages	13.40_b	(0.48)	13.39_b	(0.32)
	Positive messages	5.92_c	(1.22)	5.84_c	(1.11)
	n	*45*		*36*	
Negative feedback					
	Mixed messages	8.41_{de}	(1.72)	7.80_d	(1.97)
	Negative messages	10.78_f	(2.40)	10.40_{fg}	(2.06)
	Positive messages	9.31_e	(3.05)	10.30_g	(2.08)
	n	*29*		*31*	

Values reflect average ranking of messages. Therefore, *lower* values reflect more endorsement of that category. Orthogonal simple effects comparisons are presented in the table, with means having at least one factor in common and sharing a subscript not significantly different from one another. Standard deviations are indicated in parentheses.

Table 3-5. Trait groupings and relevant Cronbach alphas

Trait	α
Liking of the other	.91
Do you believe that you will like the other participant?	
Do you think that the other participant is generally friendly?	
Do you believe you will respect the other participant?	
How much do you think you will enjoy working with the other participant?	
How well do you think this person gets along with other people?	
How much are you worried about interacting with the other person?*	
Intelligence of the other	.82
How much creative intelligence do you think the other participant possesses?	
How much do you value the other participant's opinion regarding creative intelligence problem solving?	
Evaluation by the other	.95
How much creative intelligence does the other participant believe you have?	
How positively did the other person evaluate your work?	
Straightforwardness of the other	
To what extent do you think that the other person is straightforward?	
Sincerity of the other	
To what extent do you think that the other person is sincere?	
Communication skill of the other	
To what extent do you think that the other person is a skilled communicator?	
Liking by the other	.91
Do you believe that the other participant will like you?	
How much do you think the other participant respects you?	
Test validity	.88
How well do you think the first assessment of creative intelligence actually assessed creative intelligence?	
How well do you think the second assessment of creative intelligence will assess your creative intelligence?	
Self intelligence	
How much creative intelligence do you believe you possess?	
Evaluation of other's individual creative intelligence assessment	
How positively did you evaluate the other person's work?	

*indicates item was reverse scored

Table 3-6. Perceptions of partner and affect

Dependent measure	Ambiguous feedback		Negative feedback		Positive feedback		Error df	F	p	η_p^2
Liking of the other	6.96_a	(0.87)	4.02	(1.18)	7.16_a	(0.58)	221	265.85	<.0001	.706
Intelligence of the other	7.33_a	(1.13)	4.28	(1.62)	7.15_a	(0.89)	219	131.44	<.0001	.546
Evaluation by the other	2.58_a	(1.21)	8.42	(0.72)	2.34_a	(0.68)	219	943.86	<.0001	.896
Straightforwardness of the other	6.83_a	(1.43)	7.55	(1.25)	6.87_a	(1.02)	221	7.06	.0011	.060
Sincerity of the other	6.78_a	(1.26)	4.64	(2.11)	6.94_a	(1.05)	221	50.07	<.0001	.312
Communication skill of the other	7.20_a	(1.33)	4.70	(1.95)	7.17_a	(0.95)	221	68.41	<.0001	.382
Liking by the other	6.68_a	(0.98)	3.37	(1.27)	6.67_a	(0.99)	221	219.25	<.0001	.662
Test validity	6.43_a	(1.47)	4.38	(1.71)	6.69_a	(1.04)	219	54.63	<.0001	.333
Self intelligence	6.70_a	(1.15)	5.80	(1.68)	6.58_a	(1.32)	219	8.79	.0002	.074
Evaluation of other's assessment	7.36_a	(1.17)	7.32_a	(1.41)	7.38_a	(1.10)	219	0.04	.9566	.000
Positive affect	27.94_a	(6.89)	23.03	(7.75)	29.21_a	(7.32)	220	13.44	<.0001	.109
Negative affect	13.46_a	(5.36)	18.23	(6.41)	12.58_a	(3.07)	220	24.48	<.0001	.182

For each trait or affect, means that share a subscript are not significantly different. Subscripts *a* and *c* denote marginally significant differences, $p = .15$ and $p = .11$, respectively. Standard deviations are indicated in parentheses.

Table 3-7. Participant communication method preferences

Feedback	Chosen communication method			
	Face-to-face	Speaker system	Computer	Total
Ambiguous	80	0	3	83
	(96.39%)	(0.00%)	(3.61%)	
Negative	47	2	15	64
	(73.44%)	(3.13%)	(23.44%)	
Positive	67	1	5	73
	(91.78%)	(1.37%)	(6.85%)	

Values not in parentheses indicate number of individuals choosing each communication method. Values in parentheses indicate percentage of participants in each feedback condition selecting that particular communication method.

Table 3-8. Ranking of negative messages as a function of perspective taking, feedback, and response option

Feedback	Mixed messages	Neutral messages	Response option comparison
Ambiguous feedback			
Perspective slope:	ns	ns	
High	13.36	13.49	ns
Average	13.42	13.47	ns
Low	13.47	13.46	ns
Negative feedback			
Perspective slope:	*	**	
High	11.34	8.01	****
Average	10.79	8.82	****
Low	10.25	9.63	ns
Positive feedback			
Perspective slope:	ns	ns	
High	13.45	13.46	ns
Average	13.36	13.44	ns
Low	13.28	13.42	ns

For each level of feedback and perspective taking, the response option comparison is indicated in the far right column ****indicates $p < .0001$, ** indicates $p < .01$, ns indicates $p > .05$. The significance of perspective taking for each combination of response option and feedback is indicated each set of means. Negative feedback differed significantly from both positive and ambiguous feedback for both response options at all levels of perspective taking; positive feedback did not differ significantly from ambiguous feedback at any level of perspective taking for either response option.

Table 3-9. Ranking of positive and negative messages as a function of social desirability, feedback, and response option

Feedback	Mixed messages	Neutral messages	Response option comparison
Ambiguous feedback			
Negative ranking			
Social des. slope	ns	ns	
High	13.48	13.48	ns
Average	13.40	13.47	ns
Low	13.32	13.46	ns
Positive ranking			
Social des. slope	ns	ns	
High	5.83	5.12	ns
Average	5.92	4.98	*
Low	6.01	4.84	.06
Negative feedback			
Negative ranking			
Social des. slope	**	*	
High	11.84	8.56	****
Average	10.95	9.13	****
Low	10.06	9.70	ns
Positive ranking			
Social des. slope	*	ns	
High	8.27	10.98	***
Average	9.14	10.68	***
Low	10.01	10.38	ns
Positive feedback			
Negative ranking			
Social des. slope	ns	ns	
High	13.42	13.46	ns
Average	13.40	13.44	ns
Low	13.37	13.41	ns
Positive ranking			
Social des. slope	ns	ns	
High	5.65	5.05	ns
Average	5.47	5.45	ns
Low	5.28	5.85	ns

Within each level of feedback and social desirability, the response option comparison is indicated between the columns of means. ****indicates $p <.0001$, ***indicates $p < .001$, *indicates $p <.05$, ns indicates $p > .05$. The significance of social desirability for each combination of response option and feedback is indicated above each set of means. For all three dependent measures (negative ranking and positive ranking) negative feedback differed significantly from both positive and ambiguous feedback for both response options at all levels of social desirability; positive feedback did not differ significantly from ambiguous feedback at any level of social desirability for either response option.

Figure 3-1.   Mean ranking for negative messages as a function of perspective taking, feedback, and response option. Lower values indicate more endorsement of negative messages.

Figure 3-2.   Mean ranking for negative messages as a function of social desirability, feedback, and response option. Lower values indicate more endorsement of negative messages.

Positive Message Ranking
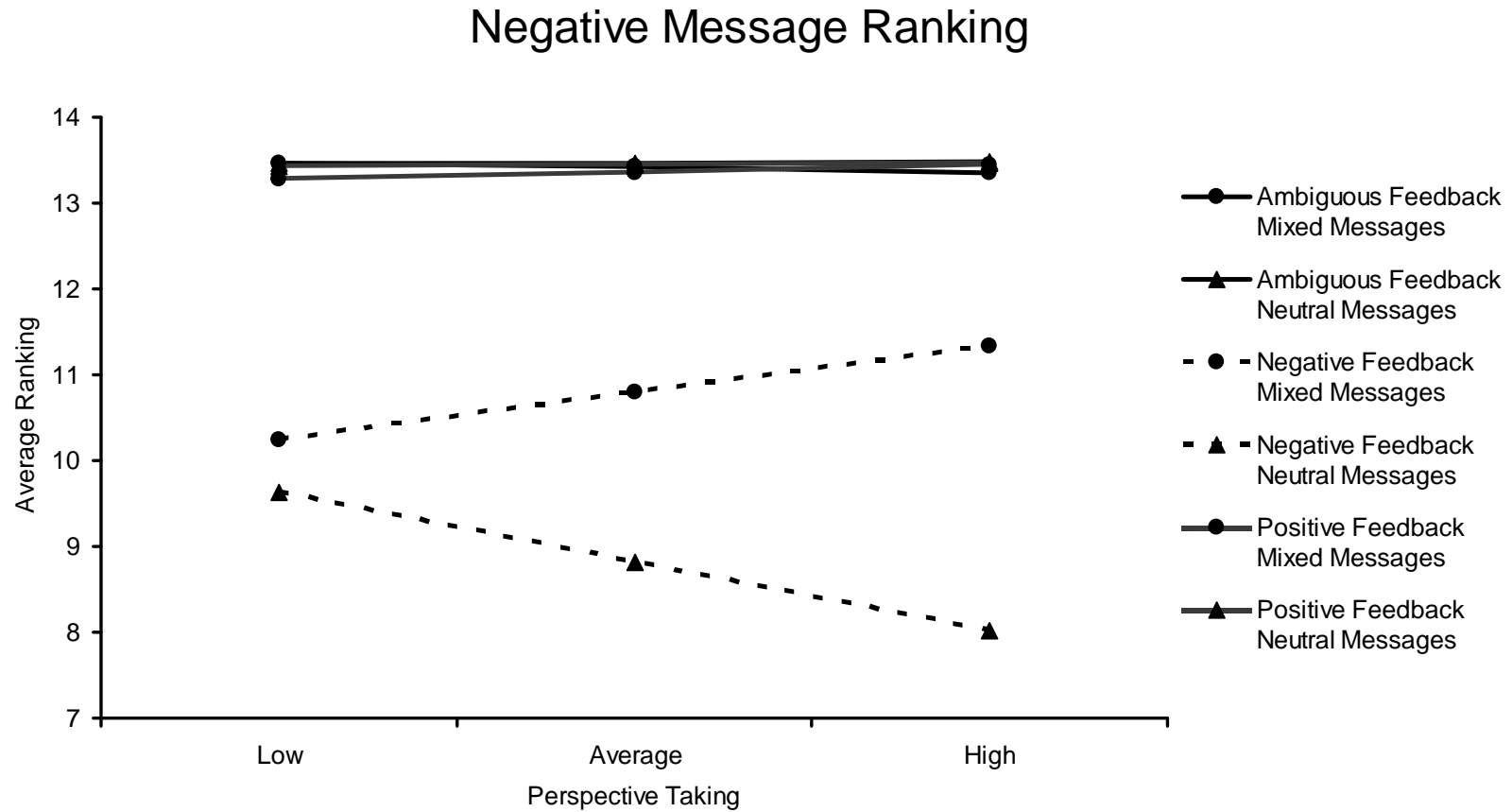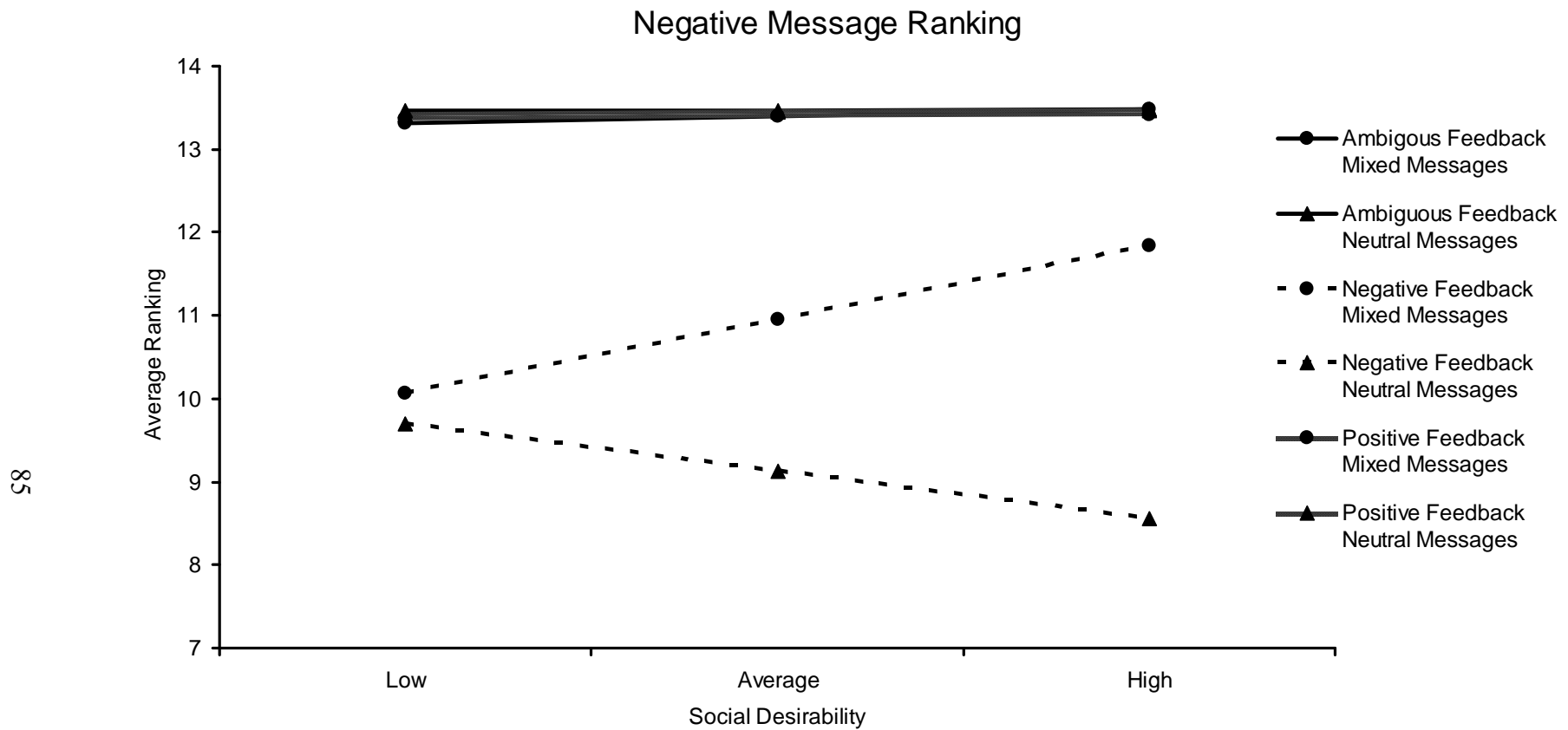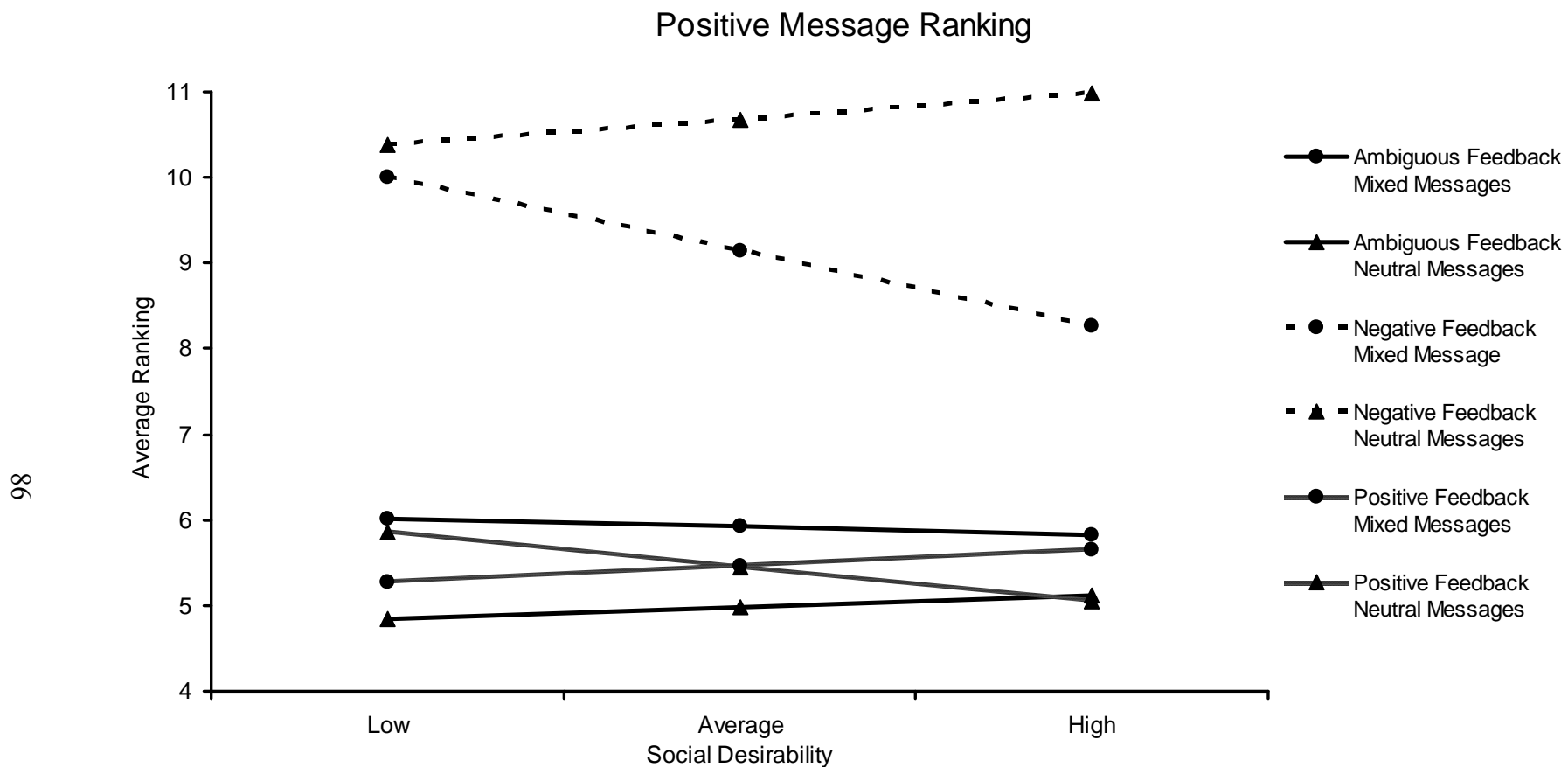
Figure 3-3.   Mean ranking for positive messages as a function of social desirability, feedback, and response option. Lower values indicate more endorsement of positive messages.

CHAPTER 4
DISCUSSION

It was predicted that participants receiving ambiguous feedback conveying a mixed message would interpret this feedback as covert aggression, and these participants would prefer to respond to such a message with covert aggression themselves by endorsing mixed message statements. In contrast, it was predicted that recipients of ambiguous feedback who were not able to respond with their own mixed message statements, would be cautious and resort to primarily positive messages. However, participants did not react to ambiguous feedback as expected and instead responded to their partners in a fashion quite similar to the manner in which positive feedback participants responded to their partner—in a primarily positive manner.

The availability of a mixed message option did produce some subtle effects on ambiguous feedback and negative feedback recipients. Specifically, while ambiguous feedback participants did not endorse mixed messages very strongly, they did endorse mixed messages more strongly than neutral messages (with a compensating weakened endorsement of positive messages), indicating some sensitivity to the message option manipulation and the subtle differences between neutral and mixed messages. One possible interpretation of this pattern is that ambiguous feedback recipients were indeed sensitive to the duality of both the feedback they received and the messages they sent. If so, this pattern of message endorsement indicates that these participants did perceive the feedback as a possible slight and were responding, subtly, via slightly stronger endorsement of mixed messages. However, this possibility is not consistent with other measures. Ambiguous feedback participants felt similar levels of positive and negative affect as positive feedback participants, indicating that they were not more upset by the partner's assessment of their work than positive feedback participants. Moreover, ambiguous feedback

participants reported perceiving their partner as positively as positive feedback participants saw their partner.

Although it is possible that ambiguous feedback participants did perceive the duality in their feedback and employed the negative interpretation of the mixed messages in retaliation, this is unlikely. Instead, what is more consistent with the other reports from the ambiguous feedback participants is that they were as motivated as positive feedback participants to send positive messages, and endorsed mixed messages because of their positive interpretation while oblivious to the negative interpretation. In short, their attempt to be positive was diverted between positive messages and mixed messages. The same attempt to send positive messages would not cause a strong endorsement of neutral messages because neutral messages were clearly less positive than positive messages and the positive aspect of mixed messages. This interpretation is consistent with the finding that positive feedback and ambiguous feedback participants did not significantly differ from one another in their use of positive messages, negative messages, or mixed messages. The only real difference between positive feedback and ambiguous feedback participants was that ambiguous feedback participants were somewhat affected by the mixed message option whereas positive feedback participants were not.

In contrast, while negative feedback participants endorsed mixed messages and neutral messages equally, there are indications that negative feedback participants may have still been sensitive to the dual nature of the mixed messages. More specifically, after negative feedback, participants were more negative and less positive in their messages if neutral message options were available than if mixed message options were available. On the surface, then, those who had mixed message options seemed friendlier. Yet, regardless of the message option condition, those who received negative feedback experienced negative affect, rated the other person

negatively, and clearly disliked that other. This suggests that the availability of the mixed messages may have led participants to become less hostile, which seems unlikely given their later negative affect and ratings of the other, or that they used the mixed messages as "digs." The latter interpretation is consistent with the ratings of the pilot participants and the intent of the manipulation. If this latter interpretation is correct, then these participants may have then felt endorsing positive messages better disguised their true motivation for endorsing mixed messages. Moreover, after receiving negative feedback, these participants may have been more attune to the negative connotations of mixed messages whereas positive and ambiguous feedback participants were not as "tuned in" to the possible negative connotations of the mixed messages. Thus, ambiguous and positive feedback participants may have been less aware of the negative connotations of the negative messages.

Although negative and ambiguous feedback participants were subtly influenced by the message option manipulation, positive feedback participants were not at all affected by this manipulation. Participants receiving positive feedback did not differ in their use of positive messages, negative messages or alternate messages as a function of message option. Instead, positive feedback participants chose to be primarily positive in their messages sent to their partner, avoided overtly negative messages altogether, and did not treat mixed messages and neutral messages differently, ranking these two types of messages similarly to each other; these messages were ranked intermediate between negative messages and positive messages.

Comparisons between Positive and Ambiguous Feedback

It may seem, on the face of it, that participants did not perceive much difference between the positive feedback and ambiguous feedback. However, pilot testing clearly indicated that ambiguous feedback was seen as significantly more upsetting, more negative, as conveying a negative meaning at the same time as a positive meaning, as concealing more of an insult, being

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less sincere, and as more of an attempt to be superior. If anything, pilot testing indicated that participants should have perceived the ambiguous feedback as much more like the negative feedback than the positive feedback.

There are at least two possible interpretations of this pattern of relatively few differences between positive feedback and ambiguous feedback in the face of pilot evidence that indicates there should be many differences between these two feedback conditions. One possibility is that although participants clearly identified the multiple nuanced interpretations of the feedback, they preferred to "play it safe." In other words, although the ambiguous, covertly aggressive feedback was upsetting, in deciding how to respond, participants considered the consequences of responding aggressively (covertly or overtly) and being wrong as more dire than responding nicely and being wrong. In keeping with this line of reasoning, ambiguous feedback participants may have identified the possible dual interpretations, but may have felt foolish to act on something that may have been estimated to be a very unlikely possibility, and may have then reported positive estimations of their partner.

If this is the case, then a couple of situational factors may have caused participants to decide it a better choice to play it safe. First, the negative interpretation of the ambiguous feedback may not have been seen as negative enough to risk the consequences of retaliating. In other words, although the negative interpretation may have been identified, the participants may not have seen this negative connotation as so strong that it deserved a response. A second possible factor is that instead of seeing the upcoming interaction and creative intelligence assessment as so important that negative communications should not be risked, is that perhaps the participants actually perceived little value in their performance on the upcoming assessment and so were not motivated to defend themselves as much as they would if the assessment were

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highly important. Although this second option seems possible given the sometimes apathetic nature of participants in general, this does not seem to be the most parsimonious explanation as some participants were visibly upset by the feedback they received and clearly took it personally (as reported anecdotally by research assistants serving as experimenters). Moreover, participants reported the measure to be a generally valid assessment of creative intelligence—even the negative feedback participants (who saw the test as least valid) on average reported that they perceived the test to be a moderately valid measure of creative intelligence with scores near the midpoint of a 9-point scale.

Another possibility for the general lack of differences between the positive feedback and ambiguous feedback conditions can be drawn from the literature on ingratiation. This literature indicates that recipients of ingratiation attempts are generally quite willing to believe that the ingratiation directed at them is sincere. However, witnesses to ingratiation attempts who are not themselves the target of the ingratiation attempt can readily identify the ingratiator's true motive (Jones, 1964; Vonk, 2002). This distinction between the person on the receiving end of an insincere compliment and an observer of such an act may elucidate the general failure to find differences between responses to positive and ambiguous feedback. Specifically, in the current study, participants receiving ambiguous feedback may have reacted the same way that a target of ingratiation responds: accept the insincere compliment at face value. In contrast, the participants in the pilot study evaluated the interpretations of the feedback knowing that the feedback was not from a real person in response to their actual work. Therefore, personal biases that come from being the true recipient of an insincere compliment may not have come into play.

People who find themselves as the target of ingratiation may not interpret insincere compliments accurately for several reasons. Most obviously, participants may be motivated to

interpret it as sincere (Jones, 1964). Not only does this provide a boost to one's self-worth (Vonk, 2002), but it is also simpler to interact with a person who is sincere rather than insincere, and people may be motivated to avoid believing that they interact with insincere others. Additionally, Vonk (2002) proposed that people actively engaged in interaction with another person would have fewer cognitive resources available to second-guess a person's motives than someone who is not actively engaged in conversation and having to monitor, plan, and evaluate their own contribution to the interaction. In short, witnesses are able to focus more attention on the potential insincerity of an ingratiator/covert aggressor and thus more likely to detect insincerity. Although his sole test of this possibility did not receive strong support, Vonk assessed situations in which the consequences for insincerity are not as dire (i.e., a potential criticism and an upcoming evaluative interaction), as in the current study. In contrast, with the heightened consequences of the communication in the current study, the cognitive business explanation may still be a viable explanation for the current data.

Alternatively, Vonk (2002) also assessed the possibility that a heightened ingratiation—self-concept discrepancy may result in a further consideration and questioning of the ingratiator's motives and sincerity. Vonk assessed this possibility via self-esteem and found that low self-esteem recipients of flattery believed ingratiators' comments to be less accurate than high self-esteem flattery recipients. Vonk concluded that these low self-esteem participants experienced a greater discrepancy between their self-view and the feedback they received from the ingratiators and were therefore more motivated to seriously evaluate the sincerity of the feedback. In contrast, the high self-esteem participants did not experience the same self-view—feedback discrepancy and so they were not motivated to reassess the sincerity of the feedback.

This alternative vantage point explanation is in some ways illustrated via the discrepancy in how ambiguous feedback participants viewed the dual nature of the feedback they received and the messages they sent to their partner. If these participants did not see the dual nature of the mixed messages, they would not have avoided these statements. However, participants who presumably saw little insincerity in the evaluation of their own work significantly preferred positive messages to mixed messages. In other words, while these participants were oblivious to the insincerity of the messages they received, they were at least somewhat aware of the potential insincerity of the mixed messages they considered sending. Otherwise, these messages should have been endorsed as often as the positive messages—they were not.

One possibility for future research would be to examine the extent to which witnesses to such covert aggression alter their interaction behavior toward the victim or the perpetrator of the aggression. Even if the covert aggression goes unnoticed by the intended victim, the aggression may still have consequences for the victim or the aggressor. For example, as previous research has suggested (LaFontana & Cillessen, 2002; Salmivalli, Kaukiainen, & Lagerspetz, 2000), indirect and relational aggression are predictive of peer acceptance and social status. This increase in social status should parallel a similar increase in respect (i.e., just as social status is boosted as a results of aggression, respect should also be increased after the use of aggression). Previous research does not specify whether this boon in social status is echoed in the victim of the aggression. After any given instance of aggression, a person's liking for their aggressor is almost certainly diminished, but the victim may also come to respect the aggressor more. However, given the dual nature of covert aggression and the requisite savoir faire necessary to properly encode the dual meaning, it is quite possible that individuals choosing to engage in covert aggression recognize that the targets of such aggression may never realize that they have

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been insulted. At times, it may even be plausible that covert aggression is intended solely for the purpose of impressing witnesses to such events. As such, covert aggressors' goal would not be simply to cause psychological pain in their victim, but rather the purpose is much more personal—to impress witnesses (who should be more capable of determining the insincerity of the covert aggression) with the aggressor's own intellect, communication skill, and willingness to attack another.

The awareness of the social ramifications of covert aggression does not preclude that occasionally, people may engage in covert aggression without witnesses to the event or with the assumption that their target will not understand the intended slight. In fact, they may find the gullibility of the victim all that more entertaining. In short, people may engage in covert aggression simply for their own personal pleasure. However, to the extent that covert aggression is intricately linked to the presence of third parties, then future research should examine how and to what extent the presence of a third party in the same social fiber affects the rate of covert aggression and the effectiveness of it. The presence of others should increase the use of covert aggression over overt aggression not only because it portrays the aggressor as a sophisticated social creature, but also because the presence of others within the same social network amplifies concerns with maintaining a cool, sophisticated, non-brutish image. In contrast, if covert aggression is truly intended as a social tool, then the presence of a third party not relevant to ongoing social interactions should have little effect on the implantation of covert aggression.

Nature of the Interpersonal Relationship

In addition to the possibility that covert aggression is primarily a social tool, future research should investigate and be able to demonstrate that changing the nature of the social situation should similarly affect use of covert aggression. For example, covert aggression should be a particularly successful tool for those who find themselves in a situation that prohibits overt

aggression—such as aggressing against a higher-status victim. As such, the covert to overt aggression ratio should be heightened as the appropriateness of engaging in overt aggression diminishes. For example, some cultures (e.g., southern culture) discourage open aggression (Cohen, Vandello, Puente, & Rantilla, 1999) and as a result, covert aggression should be even more likely. The existence these kinds of norms do not necessarily have to reflect larger cultural expectations, however. Such variations could also be a reflection of a specific peer-group's expectations for social behavior. Just as some individuals would rather hear a criticism in a straightforward manner and others prefer sugarcoated criticism, there is also variability in the degree to which certain friendship groups prefer open and honest communication versus aggression disguised as something sweet.

Other factors that may affect the use of covert aggression include not only the relative status of individuals or the norms for interactions, but also perceived security in a particular relationship. Covert aggression, as a social tool, is presumably more important in some relationships than others. Specifically, relationships vary in the degree to which they can be characterized by the game-playing nature of covert aggression. Some relationships, such as the early stages of romantic relationships are much more characterized by game playing, in that they involve a strategic approach and reaction to the other person's behavior. However, as relationships grow and mature, the role that such power concerns play decreases. The characterization of a mature relationship marked by openness and concern for the other does not have room for covert aggression. In fact, the use of covert aggression in such relationships may have quite the adverse effect on the relationship partner and any witnesses to such behaviors. Engaging in covert aggression in truly intimate relationships is likely not only to be more

difficult given that an intimate partner will be less easily duped, but the expectations for many relationships is to discuss concerns openly. Doing otherwise may indicate a mark of immaturity.

Gender

Another noteworthy pattern is the lack of impact that gender of participants made. A great deal of literature and a number of authors would argue that gender plays an important role in who aggresses and how. Popular social psychological opinions hold that females aggress verbally and indirectly whilst males aggress directly and physically (e.g., Galen & Underwood, 1997). If so, females in this study would have responded more negatively than men after receiving negative feedback, and perhaps would also have been particularly reactive to instances of covert aggression and the use of covert aggression. However, this was not found to be the case. In fact, there were essentially no gender differences in use of overt or covert aggression, or in response to overt aggression, covert aggression, or no aggression (positive messages).

Although this may seem surprising, one interpretation of these findings would actually be consistent with previous research regarding social network density (Green, Richardson, & Lago, 1996). This research suggests that proclivity to engage in physical or direct aggression versus verbal, relational, social, or indirect aggression, does not result necessarily from gender itself, but rather should be considered under resources available to men and women. Specifically, women tend to find themselves more heavily enmeshed in complicated social networks; their networks are generally larger and individuals in these denser social networks tend to know other members in the woman's social network. In other words, in women's network, there tend to be many social connections shared among members of the social network. In contrast, men tend to have smaller social networks and these networks tend to be more fragmented with each individual in a man's social network being considerably less likely to know other members of that social network than in a woman's social network. This greater social connectedness makes engaging in

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indirect/verbal/social/ relational/covert aggression not only easier for women than men, but also more efficacious. Men who choose to aggress using this strategy not only have fewer resources with which to carryout the aggression (e.g., spreading a rumor is harder when the rumor can only be spread to one person), but this aggression also has less social impact (the resulting negative evaluation of the victim due to the deleterious rumor will harm the victim less when only one person knows the rumor rather than many). Therefore, choosing to engage in nonphysical aggression is a much wiser choice for female aggressors than male aggressors. Moreover, engaging in this kind of aggression may spare a great deal of resources (physical energy, potential bodily harm, etc.), over physical aggression.

This disparity in the efficiency of covert aggression as a function of social network density is one factor that leads men to avoid this kind of aggression. However, Green, Richardson, and Lago (1996) also demonstrated that men who have higher social network density demonstrate an increased proclivity to engage in indirect aggression (and thus possibly covert aggression). In other words, when the social environment of men and women are equated, gender differences in indirect aggression are muted. In the current study, male and female participants found themselves in an identical social situation: they would soon be temporarily participating with one other same-sex person they did not know. In effect, this held the social environments of men and women equal. Following from the results of Green et al. (1996), this provides men and women the same social network resources and should therefore eliminate gender differences. As such, the lack of gender effects is perfectly consistent with prior research.

Of course, other possible explanations for the lack of gender differences could be a simple statistical anomaly. However given the prevalence of null findings involving gender, this possibility seems, at best, a weak argument. Alternatively, perhaps cultural influences on

available aggressive methods have altered the manner in which males and females engage in aggression. Specifically, as this age group becomes increasingly more reliant on non-face-to-face communication as a way to maintain interpersonal ties (i.e., cell phones, instant messaging, online social network communities, etc.), perhaps individuals—males and females alike—have, as a generation, begun to shift away from more direct forms of aggression. With less reliance on face-to-face interaction, there is perhaps less opportunity for males to practice direct or physical aggression. As a result, they may develop similar aggressive behaviors as females.

Expectation of a Future Interaction

Another direction that future research should explore is how a long-term relationship affects the nature of covert aggression. The current study attempted to investigate covert aggression within the context of a somewhat dependent relationship that participants could not readily avoid. Participants receiving negative feedback who did not anticipate a future interaction did endorse mixed messages more strongly than negative feedback participants not expecting an interaction, and also gave a weaker endorsement of positive messages when they did not expect an interaction. However, the future interaction manipulation did not have the hypothesized effect. It was predicted that participants facing an interaction would strongly endorse mixed messages, but participants not facing an interaction would feel less social concern about the consequences of engaging in overt aggression and would therefore abandon mixed messages for straightforward negative messages. However, not only were ambiguous feedback participants unaffected by the future meeting manipulation, but negative feedback participants were actually *more* likely to use mixed messages when they did not anticipate a future interaction then when they were.

One possibility for this pattern supports the above conjecture that participants were generally being extremely cautious in their responses to ambiguous feedback. Specifically, an

imminent interaction should provoke participants to be more cautious than participants not facing an imminent interaction. Therefore, in the face of an obviously negative attack, negative feedback participants expecting an interaction were less cautious and more strongly endorsed negative messages than ambiguous feedback participants expecting an interaction. However, negative feedback participants not expecting an interaction were not as motivated to be cautious and could therefore afford to be more negative, resulting in a stronger endorsement of mixed messages. This finding is not inconsistent with the reasoning presented in this paper that participants not anticipating a future interaction will be less concerned about the consequences of their behavior than those expecting an interaction. This interpretation does of course assume that negative feedback participants were aggressively motivated and perceived mixed messages as conveying a negative interpretation. Pilot testing clearly indicates that these messages were indeed perceived as having dual meanings, and the general eschewing of these messages by positive and ambiguous participants indicates that the duality of meanings did not go entirely unnoticed. Of course, these negative feedback participants *not* expecting an interaction were not recklessly abandoning all thoughts of social consequences and caution: they did not strongly endorse outright negative messages any more than negative feedback participants expecting an interaction.

Perhaps, despite instructions that some participants would not work on the second creative intelligence assessment with their partner, participants believed that they would in fact be meeting their partner at the end of the session or for some other task. Indeed, although the manipulation was generally successful, it was not a perfect manipulation and some participants who were told they would not be completing the second assessment with their partner still reported that they would be meeting their partner. This could have weakened the effect of this

manipulation, making participants who should not have expected a meeting to be more cautious in the messages they sent.

Another possibility is that the nature of the future interaction did not carry the psychological weight that is necessary to engage real life patterns of covert aggression. Perhaps the prospect of meeting another undergraduate with whom one would interact only briefly was not sufficient motivation for participants to be concerned with the other's true intentions or worth stooping to aggression (covert or overt). Future research should aim to increase the psychological magnitude of the future meeting, participants' desire to maintain positive interpersonal relationships, and the consequences of *not* aggressing (e.g., lowered sociometric status, decreased respect within a group, etc.). Ideally, such research would include investigation of ongoing interpersonal groups. Unfortunately, the logistics of such a project make this a difficult task to achieve. For example, previous unpublished research (Miller & Schlenker, 2008), attempted to study covert aggression in actual friendship pairs. In order to study these friendship pairs, participants were asked to bring a friend to the lab. The resulting attempts to provoke participants to covertly aggress against their friends were unsuccessful and essentially backfired when participants with the most motivation to aggress against their friends being the least likely to do so. Norms for appropriate friendship behavior were apparently heightened when the opportunity to break those norms presented themselves. Moreover, friends who agree to participate in a psychology study are likely close enough that it would take very extraordinary circumstances to provoke true aggression against each other—circumstances that are not readily reproduced in a psychological laboratory.

Perhaps experimental psychological research would be most successful in demonstrating covert aggression between mere acquaintances. In such situations, motivation to maintain a non-

aggressive image might be particularly high. Another alternative methodology to investigate the nature of covert aggression would be to create real experimental groups who would meet as part of an ongoing longitudinal study. As such, participants would develop ties to the other participants, be concerned with their image in the group, and be accountable to the group for their behavior.

<div align="center">**Social Desirability**</div>

It was predicted that participants higher in social desirability would be less likely to endorse either negative message or mixed messages than low social desirability participants, but if they did, they would show a preference for mixed messages over negative messages. In the wake of negative feedback, participants with mixed messages available behaved quite in line with the traditional nature of social desirability and this hypothesis: higher social desirability participants were less negative and more positive in their messages than low social desirability participants. *However*, when participants could only send neutral messages instead of mixed messages, negative feedback participants responded quite differently. When high social desirability participants could not send mixed messages, they were significantly *more* negative than their low social desirability counterparts. In other words, when their hands were figuratively tied and they were forced to be direct with their negative messages, high social desirability participants exhibited more aggression.

In some ways, this may seem counterintuitive. These high social desirability participants are most concerned with maintaining a positive interpersonal image, and strongly endorsing negative messages does not seem to be the most effective method of achieving this goal. A couple of possibilities exist that may explain this pattern. One possibility is that these participants were more bothered by the negative feedback than low social desirability participants. As a result, the high social desirability participants perceived the feedback as more

deserving of a negative response than low social desirability participants. However, although this possibility seems plausible, participants high versus low in social desirability did not differ in their emotional responses or views of the partner as a function of feedback.

An alternative account suggests that perhaps individuals high in social desirability regularly avoid straightforward negative messages by way of creating in their daily interactions ways to convey their own mixed messages. Left to their own devices, then, high social desirability participants may seemingly exhibit a lower rate of obvious aggression while they are in fact finding their own way to still be aggressive. Research on catharsis theory would suggest that by engaging in aggression (albeit socially presentable aggression), people will be more likely to aggress in the future. Most of the time, this increased aggression in high social desirability individuals will still be expressed in a more covert manner. However, when high social desirability individuals do not have the luxury of creating a socially acceptable way to express their aggression, they may actually exhibit higher rates of open aggression than those individuals who are not so creative in their aggressive endeavors.

Perspective Taking

Based on previous research regarding the role of perspective taking on successful aggression, it was expected that participants highest in perspective taking ability would be the most likely to engage in covert aggression by strongly endorsing mixed messages. However, this was not the case as perspective taking did not predict rankings of mixed messages or neutral messages. While this finding does not support the original hypotheses regarding use of mixed messages, perspective taking *was* predictive of negative message endorsement. In keeping with the general pattern, participants receiving negative feedback endorsed negative messages more strongly when neutral messages were available than when mixed messages were available. However, this preference for neutral messages over mixed messages is particularly evident in

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high perspective takers. In essence, high perspective takers were indeed more aggressive via negative messages when they did not have the ability to engage in mixed messages. In contrast, when mixed messages *were* available, high perspective takers were actually *less* aggressive than their low perspective taking counterparts.

One possible interpretation of this is that high perspective takers may exhibit more overt aggression but when other options are available, high perspective takers are not more aggressive. Given that negative messages in this study parallel closely indirect aggression (not face-to-face aggression that does not possess dual meanings), and traditional indirect aggression literature has not allowed for the possibility of mixed messages, this is consistent with previous research finding that high perspective takers can be more indirectly aggressive. Much of the existing literature regarding indirect aggression and perspective taking has focused on younger children and teenagers. If covert aggression is a more crafted and honed form of aggression, then perhaps children and teenagers essentially do not have covert aggression available to them—not because of situational constraints, but rather because they have not learned how to successfully employ such a tactic. In contrast, more socially sophisticated young adults may have learned the art of employing mixed messages in their aggression and favor this over more straightforward forms of aggression, and as such, perspective taking leads to an inverse relationship in straightforward aggression.

Distinguishing Covert Aggression from Other Forms of Aggression

One question that can be raised regarding these findings is the extent to which covert aggression differs from indirect aggression or, more broadly, aggression in general. Covert aggression shares many features with indirect aggression in the sense that both have an element of concealment to them. Indirect aggression does not try to disguise the aggression, but rather simply eliminates the opportunity for victims to immediately defend themselves. In contrast,

covert aggression may be done face-to-face, and while the victims of covert aggression have the opportunity to aggress in retaliation if they so choose, the victims must first discern whether the incident was actually malevolent. As a result, victims may postpone any immediate response not because of inability (as is the case with indirect aggression), but because further consideration may be warranted.

This similarity may result in future research ignoring the distinction between the two. However, this could be a mistake. Covert aggression is a unique construct that introduces different interpersonal costs and benefits for those choosing to engage in it. For example, if asked to defend one's aggressive behavior, an indirect aggressor's only defense is a lack of witnesses, which is something not always available to the indirect aggressor—simply because the victim was not present for the behavior does not mean that others were not present. In contrast, the covert aggressor's defense lies in whether the behavior can truly be considered aggression or not. The covert aggressor would not deny the behavior occurred, but rather deny the aggressive interpretation was intended. In other words, there is no perfectly decisive indicator that the covert aggressor intended aggression. Future research should address the different interpersonal consequences of engaging in covert aggression. At any single moment in time, victims or witnesses may give the covert aggressor the benefit of the doubt and apply a nonaggressive attribution to such behavior, but the kernel of doubt will be magnified with repeated exposure to a covert aggressor's shifty explanations for his/her behavior and will eventually come to view this person as an aggressive individual, despite no single aggressive act having enough evidence to support that conclusion. In many ways, this is similar to the effectiveness of excuses: although excuses for poor performance do indeed work in the moment to avert negative attributions about skill level, they negatively affect the holistic assessment of a

person's reliability and trustworthiness. Similarly, covert aggressors will come to develop

reputations that precede them and warn potential victims to avoid provoking the covert

aggressor.

Carefully read each section's instructions.

Questions 1-33: Listed below are statements concerning your attitudes, traits, and tendencies.
Read each item and decide whether the statement is true or false as it pertains to you.
1 = True
2 = False

1. Before voting I thoroughly investigate the qualifications of all the candidates.
2. I never hesitate to go out of my way to help someone in trouble.
3. It is sometimes hard for me to go on with my work if I am not encouraged.
4. I have never intensely disliked anyone.
5. On occasion I have had doubts about my ability to succeed in life.
6. I sometimes feel resentful when I don't get my way.
7. I am always careful about my manner of dress.
8. My table manners at home are as good as when I eat out in a restaurant.
9. If I could get into a movie without paying and be sure I was not seen, I would probably do it.
10. On a few occasions, I have given up doing something because I thought too little of my ability.
11. I like to gossip at times.
12. There have been times when I felt like rebelling against people in authority even though I knew they were right.
13. No matter who I'm talking to, I'm always a good listener.
14. I can remember "playing sick" to get out of something.
15. There have been occasions when I took advantage of someone.
16. I'm always willing to admit it when I make a mistake.
17. I always try to practice what I preach.
18. I don't find it particularly difficult to get along with loud-mouthed, obnoxious people.
19. I sometimes try to get even, rather than forgive and forget.
20. When I don't know something I don't at all mind admitting it.
21. I am always courteous, even to people who are disagreeable.
22. At times I have really insisted on having things my own way.
23. There have been occasions when I felt like smashing things.
24. I would never think of letting someone else be punished for my wrongdoings.
25. I never resent being asked to return a favor.
26. I have never been irked when people expressed ideas very different from my own.
27. I never make a long trip without checking the safety of my car.
28. There have been times when I was quite jealous of the good fortune of others.
29. I have almost never felt the urge to tell someone off.
30. I am sometimes irritated by people who ask favors of me.
31. I have never felt that I was punished without cause.
32. I sometimes think when people have a misfortune they only got what they deserved.
33. I have never deliberately said something that hurt someone's feelings.

Questions 34-62: Using the 5 point scale shown below, indicate how uncharacteristic or characteristic each of the following statements is in describing you.

1 = extremely uncharacteristic of me
2 = somewhat uncharacteristic of me
3 = neither uncharacteristic or characteristic of me
4 = somewhat characteristic of me
5 = extremely characteristic of me

34. Some of my friends think I am hotheaded
35. If I have to resort to violence to protect my rights, I will.
36. When people are especially nice to me, I wonder what they want.
37. I tell my friends openly when I disagree with them.
38. I have become so mad I have broken thinks
39. I can't help getting into arguments when people disagree with me.
40. I wonder why sometimes I feel so bitter about things.
41. Once in a while, I can't control the urge to strike another person.
42. I am an even-tempered person.
43. I am suspicious of overly friendly strangers.
44. I have threatened people I know.
45. I flare up quickly but get over it quickly
46. Given enough provocation, I may hit another person.
47. When people annoy me, I may tell them what I think of them.
48. I am sometimes eaten with jealousy.
49. I can think of no good reason to ever hitting a person.
50. At times, I feel I have gotten a raw deal out of life.
51. I have trouble controlling my temper.
52. When frustrated, I let my irritation show.
53. I sometimes feel that people are laughing at me behind my back.
54. I often find myself disagreeing with people.
55. If somebody hits me, I hit back.
56. I sometimes feel like a powder keg ready to explode
57. Other people always seem to get the breaks.
58. There are people who pushed me so far that we came to blows.
59. I know that "friends" talk about me behind my back.
60. My friends say that I'm somewhat argumentative.
61. Sometimes I fly off the handle for no good reason.
62. I get into fights a little more than the average person.

Questions 63-88: Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who likes to spend time with others? Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement.

Disagree strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly
1	2	3	4	5

I See Myself as Someone Who...

63. Is talkative
64. Does a thorough job
65. Is original, comes up with new ideas
66. Is reserved
67. Can be somewhat careless
68. Is curious about many different things
69. Is full of energy
70. Is a reliable worker
71. Is ingenious, a deep thinker
72. Generates a lot of enthusiasm
73. Tends to be disorganized
74. Has an active imagination
75. Tends to be quiet
76. Tends to be lazy
77. Is inventive
78. Perseveres until the task is finished
79. Values artistic, aesthetic experiences
80. Is sometimes shy, inhibited
81. Does things efficiently
82. Prefers work that is routine
83. Is outgoing sociable
84. Makes plans and follows through with them
85. Likes to reflect, play with ideas
86. Has few artistic interests
87. Is easily distracted
88. Is sophisticated in art, music, or literature

Questions 89-116: How frequently in the last 6 months might you engage in the behaviors listed below when you are angry with someone? Use the scale below.

1	2	3	4	5
Never				Very Often

89. Yelled or screamed at them
90. Did things to irritate them
91. threatened to hit or throw something at them
92. made up stories to get them in trouble
93. did not show that I was angry
94. cursed at them
95. threw something at them
96. tried to make them look stupid
97. stomped out of the room
98. made negative comments about their appearance to someone else
99. hit (or tried to hit) them with something hard
100. insulted them or called them names to their face
101. talked the matter over
102. spread rumors about them
103. sulked and refused to talk about it
104. kicked (or tried to kick) the other person
105. dropped the matter entirely
106. took something that belonged to them
107. hit (or tried to hit) the other person but not with anything
108. gossiped about them behind their back
109. pushed, grabbed, or shoved them
110. called them names behind their back
111. told others not to associate with them
112. waited until I calmed down and then discussed the problem
113. told others about the matter
114. threw something (but not at the other) or smashed something
115. destroyed or damaged something that belonged to them
116. gathered other friends to my side

PERSONALITY PACKET (PART 2)

The following statements inquire about your thoughts and feelings in a variety of situations. For each item, indicate how well it describes you by choosing the appropriate number on the scale at the top of the page. Answer as honestly as you can. Thank you.

1	2	3	4	5
Does not describe me well				Describes me very well

1. I often put off until tomorrow things I know I should do today.
2. Before criticizing somebody, I try to imagine how *I* would feel if I were in their place.
3. I am basically a lazy person.
4. I find satisfaction in working as well as I can.
5. I prefer to work in situations that require a high level of skill.
6. I more often attempt tasks that I am not sure I can do than tasks I know I can do.
7. If I'm sure I'm right about something, I don't waste much time listening to other people's arguments.
8. If I'm not good at something, I would rather keep struggling to master it than move on to something I may be good at.
9. I find satisfaction in exceeding my previous performance even if I don't outperform others.
10. I like to work hard.
11. I sometimes try to understand my friends better by imagining how things look for their perspective.
12. I believe that there are two sides to every question and try to look at them both.
13. I sometimes find it difficult to see things from the "other guy's" point of view.
14. Hard work is something I like to avoid.
15. I try to look at everybody's side of a disagreement before I make a decision.
16. I hate to see bad workmanship.
17. When I'm upset at someone, I usually try to "put myself in his shoes" for a while.
18. I can easily sit for a long time doing nothing.
19. I must admit I often do as little work as I can get away with.
20. I easily get bored if I don't have something to do.
21. When I see someone being taken advantage of, I feel kind of protective toward them.
22. I get a sense of satisfaction out of being able to say I have done a very good job on a project.
23. I would rather lean easy fun games than difficult thought games.
24. When I see someone being treated unfairly, I sometimes don't feel very much pity for them.
25. I often have tender, concerned feelings for people less fortunate than me.
26. It is no use playing a game when you are playing with someone as good as yourself.
27. I would describe myself as a pretty soft-hearted person.
28. Sometimes I don't feel very sorry for other people when they are having problems.
29. Other people's misfortunes do not usually disturb me a great deal.
30. There is satisfaction in a job well done.
31. I am often quite touched by things that I see happen.
32. Part of the satisfaction in doing something comes from seeing how good the finished product looks.
33. I would rather do something at which I feel confident and relaxed than something which is challenging and difficult.
34. I like to be busy all the time.
35. I feel like giving up quickly when things go wrong.

APPENDIX C
BASIC INFORMATION QUESTIONNAIRE

First Name: Taylor

Gender: Male   Female   Age: 21

Why are you at the University of Florida and what are your post-graduation plans?
I am a senior here at UF. I came to the University of Florida because of its good academic reputation at a pretty good price. I hope to attend graduate school next year after I graduate in May. I'm taking intro psych right now with Dr. Miller and I really like it so far. I'm thinking about taking another psychology class next semester.

What do you like to do for fun?
        I enjoy hanging out with my friends during the weekend.

FEEDBACK

Evaluator First Name: Taylor

Form: Squirrel-Proof Birdfeeder
                             GPACPL Form B-2.7

Time-limit: 6 minutes

Please take a moment to review the problem assigned to your fellow participant. Make sure that you fully understand what was described in the instructions. If you have any questions, please ask the researcher now.

Once you understand the problem assigned to your fellow participant, take a few moments to assess the solution developed by him/her in response to this problem.

In the space below, please give your impression of this participant's solution. Refer to the instructions associated with the participant's specific form of the test to determine how well his/her solution solves the problem.

Positive Feedback:
This design is a pretty creative one. I think it has a lot of potential to solve the squirrel proof birdfeeder in a useful and inventive way. Overall, good job. This person probably has a lot of creative intelligence.

Negative Feedback:
This design is pretty bad. I don't think it would really work well, if at all. I can easily think of several different solutions that would work much better. This person probably doesn't have much creative intelligence.

Ambiguous Feedback:
This person's abilities are self evident. A thorough analysis of his/her performance will surprise you. This person's worth to his/her future employer can only be imagined. This person has relatively few minor weaknesses. There is no doubt as to the extent of this person's creative intelligence.

FIRST IMPRESSIONS QUESTIONNAIRE (MIXED MESSAGES CONDITION)

***Condition: Mixed Messages. [M] denotes a mixed messages statement, [N] denotes a negative message statement and [P] denotes a positive message statement.

In real world groups, people work with individuals about whom they have varying degrees of knowledge, ranging from barely knowing some to knowing others well. In all cases, the impressions people have of others can be important. Some impressions may be held with confidence whereas others may be little more than guesses or hunches. Depending on the condition to which you've been assigned, you may have exchanged more or less information with the other, and this may also affect your impressions and the confidence you have in them. Moreover, people are often aware of what others think of them before ever meeting them, so we need to take this into account.

This questionnaire assesses your impressions. In the condition to which you have been assigned, your impressions will be shown to the other person prior to the second assessment. However, you will not learn the other person's impressions of you until the end of the session.

Please give us your impression of the other person, even if you are only guessing. Therefore, please review the statements below that describe individuals in a variety of domains—interpersonal, task performance, etc. From the list, please select 8 statements that you believe best describe the other person by placing an "X" on the 1st blank line next to the statement. Then, rank each of the ten selected statements from 1 to 8 where 1 = most descriptive, 2 = 2nd most descriptive, 3 = 3rd most descriptive, etc., through 8= 8th most descriptive by writing a number 1-8 on the second blank line next to the statement. The statements you did not select should all be less descriptive of the person than the eight that you selected.

Select by writing an X	Rank selected statements	
_____	_____	The quality of this person's work is well-known. [M]
_____	_____	Several people actively dislike this person. [N]
_____	_____	This person is someone I would like to get to know better. [P]
_____	_____	This is not the kind of person you encounter everyday. [M]
_____	_____	This person is not easy to respect. [N]
_____	_____	This person is capable of doing many things. [P]
_____	_____	This person is quite distinct from his/her peers. [M]
_____	_____	This person possesses many positive qualities. [P]
_____	_____	This person is hard to get to know. [N]
_____	_____	This person probably has a well-known reputation. [M]
_____	_____	A lot of people would like to be this person's close friend. [P]
_____	_____	This person finds novel tasks difficult. [N]
_____	_____	This person is a well-rounded individual. [P]
_____	_____	This person has made quite an impression on me. [M]
_____	_____	Few people consider this person one of their close friends. [N]
_____	_____	Many people come to this person to seek personal advice. [P]
_____	_____	This person is quite interesting. [M]
_____	_____	People usually find this person to have an unpleasant personality. [N]

FIRST IMPRESSIONS QUESTIONNAIRE (NEUTRAL MESSAGES CONDITION)

Condition: Neutral Messages [NL] denotes a neutral message statement, [N] denotes a negative message statement and [P] denotes a positive message statement.

In real world groups, people work with individuals about whom they have varying degrees of knowledge, ranging from barely knowing some to knowing others well. In all cases, the impressions people have of others can be important. Some impressions may be held with confidence whereas others may be little more than guesses or hunches. Depending on the condition to which you've been assigned, you may have exchanged more or less information with the other, and this may also affect your impressions and the confidence you have in them. Moreover, people are often aware of what others think of them before ever meeting them, so we need to take this into account.

This questionnaire assesses your impressions. In the condition to which you have been assigned, your impressions will be shown to the other person prior to the second assessment. However, you will not learn the other person's impressions of you until the end of the session.

Please give us your impression of the other person, even if you are only guessing. Therefore, please review the statements below that describe individuals in a variety of domains—interpersonal, task performance, etc. From the list, please select 8 statements that you believe best describe the other person by placing an "X" on the 1st blank line next to the statement. Then, rank each of the ten selected statements from 1 to 8 where 1 = most descriptive, 2 = 2nd most descriptive, 3 = 3rd most descriptive, etc., through 8= 8th most descriptive by writing a number 1-8 on the second blank line next to the statement. The statements you did not select should all be less descriptive of the person than the eight that you selected.

Select by writing an X	Rank selected statements	
____	____	This person has taken a formal logic course. [NL]
____	____	Several people actively dislike this person. [N]
____	____	This person is someone I would like to get to know better. [P]
____	____	This person probably has pets. [NL]
____	____	This person is not easy to respect. [N]
____	____	This person is capable of doing many things. [P]
____	____	He/she lives off campus. [NL]
____	____	This person possesses many positive qualities. [P]
____	____	This person is hard to get to know. [N]
____	____	This person comes from a large family. [NL]
____	____	A lot of people would like to be this person's close friend. [P]
____	____	This person finds novel tasks difficult. [N]
____	____	This person is a well-rounded individual. [P]
____	____	He/she wears corrective lenses. [NL]
____	____	Few people consider this person one of their close friends. [N]
____	____	Many people come to this person to seek personal advice. [P]
____	____	This person is originally from Florida. [NL]
____	____	People usually find this person to have an unpleasant personality. [N]

APPENDIX G
PRELIMINARY INTERACTION ASSESSMENT

Instructions. This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you feel this way right now, at this moment. Use the following scale to record your answers:

1……………………2……………………3……………………4……………………5
very slightly   a little   moderately   quite a bit   extremely
or not at all

It is very important that you answer as accurately as possible to ensure the validity of the final assessment. Your responses to these questions will not be shown to the other participant.

_____ interested		_____ irritable
_____ distressed		_____ alert
_____ excited		_____ ashamed
_____ upset		_____ inspired
_____ strong		_____ nervous
_____ guilty		_____ determined
_____ scared		_____ attentive
_____ hostile		_____ jittery
_____ enthusiastic		_____ active
_____ proud		_____ afraid

Please answer the following questions by circling the number that best corresponds to your opinion. Depending on the condition to which you have been assigned, some of the questions may seem irrelevant because you don't expect to meet your partner. If you are assigned to such a condition, imagine how a meeting with your partner would be.
It is very important that you answer as accurately as possible to ensure the validity of the final assessment. Your responses to these questions will not be shown to the other participant.

1. Do you believe that you will like the other participant?

   1……..2……..3……. 4……..5……..6……..7……..8……..9
    not   not   somewhat a good   extremely
    at all   much   bit

2. Do you think that the other participant is generally friendly?

   1……..2……..3……. 4……..5……..6……..7……..8……..9
    not   not   somewhat a good   extremely
    at all   much   bit

3. Do you believe you will respect the other participant?

   1……..2……..3……. 4……..5……..6……..7……..8……..9
    not   not   somewhat a good   extremely
    at all   much   bit

4. How much do you think you will enjoy working with the other participant?

   1……..2……..3……. 4……..5……..6……..7……..8……..9
    not   not   somewhat a good   extremely
    at all   much   bit

5. How well do you think this person gets along with other people?

   1……..2……..3……. 4……..5……..6……..7……..8……..9
   not at all   not very somewhat fairly extremely
    well   well   well   well   well

6. Do you believe that the other participant will like you?

   1……..2……..3……. 4……..5……..6……..7……..8……..9
    not   not   somewhat a good   extremely
    at all   much   bit

7. How much do you think the other participant respects you?

   1……..2……..3……. 4……..5……..6……..7……..8……..9
    not   not   somewhat a good   extremely
    at all   much   bit

8. How much creative intelligence do you think the other participant possesses?

    1……..2……..3……. 4……..5……..6……..7……..8……..9
    not at all   not very   somewhat   fairly   extremely
    creatively   creatively   creatively   creatively   creatively
    intelligent   intelligent   intelligent   intelligent   intelligent

9. How much do you value the other participant's opinion regarding creative intelligence problem solving?

    1……..2……..3……. 4……..5……..6……..7……..8……..9
    not   not   somewhat   a good   extremely
    at all   much   bit

10. How much creative intelligence do you believe you possess?

    1……..2……..3……. 4……..5……..6……..7……..8……..9
    not   not   somewhat   a good   extremely
    at all   much   bit

11. How much creative intelligence does the other participant believe you have?

    1……..2……..3……. 4……..5……..6……..7……..8……..9
    not at all   not very   somewhat   fairly   extremely
    creatively   creatively   creatively   creatively   creatively
    intelligent   intelligent   intelligent   intelligent   intelligent

12. How much creative intelligence do you think the other participant believes he/she has?

    1……..2……..3……. 4……..5……..6……..7……..8……..9
    not at all   not very   somewhat   fairly   extremely
    creatively   creatively   creatively   creatively   creatively
    intelligent   intelligent   intelligent   intelligent   intelligent

13. How well do you think the first assessment of creative intelligence actually assessed creative intelligence?

    1……..2……..3……. 4……..5……..6……..7……..8……..9
    not at all   not very   somewhat   fairly   extremely
       well   well   well   well   well

14. How well do you think the second assessment of creative intelligence will assess your creative intelligence?

    1……..2……..3……. 4……..5……..6……..7……..8……..9
    not at all   not very   somewhat   fairly   extremely
       well   well   well   well   well

15. How clearly do you express your thoughts and feelings to others?

1……..2……..3……. 4……..5……..6……..7……..8……..9
not at all   not very   somewhat   fairly   extremely
Well   well   well   well   well

16. How well do you understand the thoughts and feelings that others express to you?

1……..2……..3……. 4……..5……..6……..7……..8……..9
not at all   not very   somewhat   fairly   extremely
Well   well   well   well   well

17. To what extent do you prefer working with others versus working alone?

1……..2……..3……. 4……..5……..6……..7……..8……..9
always or   mostly   with others   mostly   always or
Almost always   alone   and alone   with   almost always
alone   equally   others   with others

18. To what extent do you think your final answer on the second assessment will be equal parts your work and the other participant's work?

1……..2……..3……. 4……..5……..6……..7……..8……..9
entirely   mostly   equally   mostly   entirely
other   other   me and   me   me
person   person   other
                           person

19. To what extent do you think the second assessment will be difficult?

1……..2……..3……. 4……..5……..6……..7……..8……..9
not   not   somewhat   a good   extremely
at all   much   bit

20. How positively did you evaluate the other person's work?

1……..2……..3……. 4……..5……..6……..7……..8……..9
not at all   not very   somewhat   fairly   Extremely
at all   very   positive   Positively   Positively
Positively   positively

21. How positively did the other person evaluate your work?

1……..2……..3……. 4……..5……..6……..7……..8……..9
not at all   not very   somewhat   fairly   Extremely
at all   very   positive   Positively   Positively
Positively   positively

22. To what extent do you think that the other person is straightforward?

1……..2……..3……. 4……..5……..6……..7……..8……..9
not   not   somewhat   a good   extremely
at all   much   bit

23. To what extent do you think that the other person is sincere?

1……..2……..3……. 4……..5……..6……..7……..8……..9
not   not   somewhat   a good   extremely
at all   much   bit

24. To what extent do you think that the other person is a skilled communicator?

1……..2……..3……. 4……..5……..6……..7……..8……..9
not   not   somewhat   a good   extremely
at all   much   bit

25. How much are you worried about interacting with the other person?

1……..2……..3……. 4……..5……..6……..7……..8……..9
not   not   somewhat   a good   extremely
at all   much   bit

Table H-1. Statement selection means

Feedback	Statement type	Mixed messages		Neutral messages	
Ambiguous feedback					
	Alternative messages	3.09_{ab}	(0.70)	2.57_c	(0.83)
	Negative messages	0.07_{de}	(0.33)	0.03_{df}	(0.16)
	Positive messages	4.84_g	(0.77)	5.41_h	(0.86)
Negative feedback					
	Alternative messages	3.34_{aij}	(1.01)	3.31_i	(0.90)
	Negative messages	1.83	(1.51)	2.83	(1.76)
	Positive messages	2.83_j	(1.93)	1.86	(1.52)
Positive feedback					
	Alternative messages	2.79_{bk}	(0.80)	2.79_{ck}	(0.82)
	Negative messages	0.05_{el}	(0.22)	0.05_{fl}	(0.05)
	Positive messages	5.15_{gm}	(0.87)	5.16_{hm}	(0.90)

Values reflect average number of messages selected out of a possible 6. Orthogonal simple effects comparisons are presented in the table, with means having at least one factor in common and sharing a subscript not significantly different from one another. Standard deviations are indicated in parentheses.

APPENDIX I
STATEMENT SELECTION MEANS WITH OFFSET COMPARISON GROUPS NOT
EXPECTING A FUTURE INTERACTION

Table I-1. Statement selection means with offset comparison groups not expecting a future
interaction

Feedback	Statement type	Future meeting		No future meeting	
Ambiguous feedback					
	Mixed messages	3.09_{ab}	(0.70)	2.97_a	(0.81)
	Negative messages	0.07_c	(0.33)	0.11_c	(0.32)
	Positive messages	4.84_d	(0.77)	4.92_d	(0.73)
Negative feedback					
	Mixed messages	3.34_{bef}	(1.01)	3.74_e	(1.12)
	Negative messages	1.83_g	(1.51)	2.10_g	(1.27)
	Positive messages	2.83_{fh}	(1.93)	2.16_h	(1.37)

 Values reflect average number of messages selected out of a possible 6. Orthogonal simple
effects comparisons are presented in the table, with means having at least one factor in common
and sharing a subscript not significantly different from one another. Standard deviations are
indicated in parentheses.

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BIOGRAPHICAL SKETCH

Marisa L. Miller was born in Valdosta, Georgia in 1981. She grew up in various cities in Georgia, graduating from Troup County Comprehensive High School in LaGrange, Georgia in 1999. She graduated summa cum laude with honors from Mercer University in Macon, Georgia in 2003 with a Bachelor of Arts in psychology and dual minors in art and photography. In fall 2003, she began her graduate work at the University of Florida were she earned her Master of Science in psychology, before beginning her doctoral work in social psychology.