# NOTE TO USERS

NAVIGATING THE INTERDEPENDENCE DILEMMA:

ATTACHMENT GOALS AND THE USE OF COMMUNAL AND EXCHANGE

NORMS IN NEW RELATIONSHIP DEVELOPMENT

Jennifer A. Bartz

Department of Psychology
McGill University
Montreal, Quebec, Canada

July 2004

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment
of the requirements of the degree Doctorate of Philosophy

# Canada

ABSTRACT

The early stages of a relationship present an interdependence dilemma: People want to demonstrate interest, but are reluctant because trust is not yet established (Holmes, 1991). Five studies investigated the influence of attachment on how people navigate the interdependence dilemma focusing on the use of communal and exchange norms (Clark & Mills, 1979). In Study 1, compared to secure and avoidantly attached individuals, anxiously attached individuals avoided using exchange norms with a potential friend, presumably to signal interest in closeness. In Study 2, when a potential friend used communal norms (compared to exchange norms), anxious individuals felt more anxious and exhibited lower appearance self-esteem, whereas avoidant individuals viewed their partner as more negatively communal and liked their partner less. In Study 3, secure individuals accepted help from a potential friend, and did not feel the need to reciprocate, whereas avoidant individuals quickly reciprocated, presumably to clear their debt and to establish boundaries. Anxious individuals again felt anxious upon receiving help. Study 4 focused on emotion regulation and cognition. When a potential friend used communal norms (suggested working as a team), anxious individuals performed worse on a mental concentration task (ruminated) compared to secures. Moreover, lexical decision analyses revealed that proximity accessibility was associated with better performance for the less anxiously attached, and worse performance for the more anxiously attached, suggesting that thoughts about closeness dampened anxiety and rumination for the secures, but increased it for the anxious individuals. Finally, in Study 5, which focused on attributions, anxious individuals tended to monitor and appraise discrete events for their

significance to relationship goals, and were more likely to infer relationship progress from discrete communal events. Moreover, anxious individuals made more relationship attributions for a potential friend's communal behavior, whereas avoidant individuals tended to downplay relationship motives. Taken together, this research suggests that chronic goals associated with attachment anxiety (desire for intimacy but concerns about rejection) and avoidance (desire for independence) play an important role in the early stages of a relationship when there is a great deal of uncertainty, especially with respect to the use of communal and exchange norms.

# RÉSUMÉ

Les premiers stades d'une relation interpersonnelle posent un dilemme d'interdépendance: Les gens souhaitent montrer leur intérêt pour l'autre, mais ils y sont peu disposés puisque la confiance n'est souvent pas encore établie (Holmes, 1991). Cinq études se concentrant sur les normes de communion et d'échange (Clark & Mills, 1979) ont étudié l'influence de l'attachement sur la façon dont les gens négocient ce dilemme d'interdépendance. Les individus avec un style d'attachement anxieux évitent davantage d'utiliser des normes d'échange avec un ami potentiel comparativement aux individus sécurisé ou évitant (étude 1). On présume que cet effet aurait lieu afin de signaler un intérêt de rapprochement. De plus, lorsqu'un ami potentiel utilise des normes de communion (comparativement aux normes d'échange), les anxieux ressentent davantage d'anxiété et manifestent une baisse d'estime de soi en lien avec leur apparence, alors que les évitants disent moins apprécier leur partenaire et les perçoivent plus négativement sur des dimensions communales (étude 2). Les sécurisés acceptent de l'aide d'un ami potentiel sans ressentir le besoin de rendre la pareille. Par contraste, les évitants ont rapidement retourné cet aide, possiblement parce qu'ils cherchent à établir leur limite et éliminer tout sentiment de redevance. Les anxieux ressentent encore une fois plus d'anxiété lorsqu'un ami potentiel leur apporte de l'aide (étude 3). Lorsqu'un ami potentiel utilise des normes de communion, les anxieux performent moins bien sur une tâche de concentration mentale (rapportant davantage de rumination) comparativement aux sécurisés. De plus, des analyses de tâches de décisions lexicales indiquent que l'accessibilité du rapprochement est associée avec une meilleure performance pour les individus les moins anxieux et une moins bonne performance pour les individus les plus anxieux (étude 4).

Finalement, les anxieux tendent à surveiller et à évaluer des événements mineurs en fonction de leur signification pour des buts relationnels. Ils sont également plus aptes à inférer le progrès de leur relation selon des événements de communion mineurs comparativement aux sécurisés. De plus, les anxieux ont davantage tendance à attribuer le comportement communal d'un ami potentiel à des motifs relationnels, alors que les évitants minimisent les attributions relationnelles pour de tels comportements (étude 5). Dans l'ensemble, cette recherche suggère que les styles d'attachement jouent un rôle important dans les premiers stades d'une relation lorsqu'il y a de l'incertitude par rapport a l'utilisation des normes de communion et d'échange.

# ACKNOWLEDGEMENTS

Special thanks are extended to Benjamin Karney, who first introduced me to social psychology and to the science of close relationships.

Finally, I would like to express sincere gratitude to my parents, Barbara Bartz, Rick McKenzie, Robert Bartz, Joan Head, et mes beaux-parents, Ghislaine Richard and Max Mendelsohn, for their unwavering enthusiasm and support. And last, but most definitely not least, I would like to thank my husband, Eric Mendelsohn.

# STATEMENT OF ORIGINAL CONTRIBUTION

Adult attachment theory has proven to be a successful framework for understanding adult close relationships (Fraley & Shaver, 2000; Mikulincer & Shaver, 2003). While considerable research has investigated attachment in established adult relationships, less has focused on new relationship development. Yet, a major proposition of adult attachment theory is that attachment models play a role in new relationships, guiding interpersonal perceptions, expectations, and behaviors with new partners (Hazan & Shaver, 1987; Collins & Read, 1994). Moreover, the role attachment models play in the initial stages of relationship development is not well understood. Drawing upon Lydon, Jamieson, and Holmes's (1997) theory and research on the "interdependence dilemma" people face at the outset of a relationship, and Clark's theory of communal and exchange norms, this research sought to fill this void.

Study 1 found that attachment was associated with the use of communal or exchange norms with a potential friend (i.e., an attractive, available other); Studies 2, 3, and 4 found that attachment was associated with people's response to a potential friend's use of communal or exchange norms; and, Study 5 found that attachment influenced the kind of attributions people make about a potential friend's communal behavior. Given that these exchanges occurring at the outset of a relationship have an effect on relationship development, this research is important as it helps to understand *how* attachment insecurity can undermine the formation of new relationships. Moreover, in 4 of the 5 studies presented in this thesis, participants interacted with a confederate, and their implicit behavioral responses were assessed. Whereas much of the research on

attachment relies on self-reports, this research is important in its focus on documenting actual behavioral response to real interaction partners in the lab. Finally, this is the first research to my knowledge to investigate attachment in the context of communal and exchange norms. Thus, these studies also contribute to the communal and exchange literature by demonstrating that attachment plays an important role in people's adherence to the communal script in new relationship situations.

Study 4 also made additional contributions to attachment theory more generally. Study 4 explored attachment differences in emotion regulation and the effects of emotion regulation on mental concentration in the context of new relationship development, again employing a behavioral measure of mental concentration (i.e., the d2 test). Attachment theory and research suggests that there are important attachment differences in emotion regulation. While attachment security is associated with feeling confident managing distress, and comfortable seeking support from others, attachment anxiety is associated with emotion-focused coping and rumination, and avoidance is associated with distance coping and suppression of unwanted thoughts (Mikulincer & Shaver, 2003). This study demonstrated these differential regulatory styles in response to possible closeness.

Study 4 also assessed the implicit activation of proximity and rejection themes using a lexical decision task, and in so doing was able to show that it was thoughts about closeness in particular that undermined the anxious individuals' concentration, but facilitated the secure individuals' concentration. According to attachment theory, one of the benefits of secure attachment is that feeing accepted and secure allows one to pursue non-attachment activities (e.g., exploration), while one of the problems associated with the anxious profile is that chronic activation of the attachment system leaves the

individual with few resources to pursue non-attachment activities (Mikulincer & Shaver, 2003). This research provides evidence for this idea: Thoughts about closeness dampened anxiety and rumination for the more secure individuals, allowing them to succeed at the mental concentration task, while thoughts about closeness increased anxiety and rumination for the more anxiously attached, undermining their performance. In addition, this study is noteworthy in its focus on the influence of attachment on attention, which is theorized to play an important role in attachment theory (Collins & Read, 1994).

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GENERAL INTRODUCTION

The desire and capacity for close relationships is a basic human characteristic.

Decades of research have shown that people have a need to establish close bonds with

others, and that this need for belonging and acceptance is a primary motivator of human

behavior (Bowlby, 1969, 1973; Maslow, 1962; Sullivan, 1953; for a review, see

Baumeister & Leary, 1995). The achievement of close relational bonds has been found to

be associated with improved mental and physical well-being (House, Landis, &

Umberson, 1988; Kiecolt-Glaser & Newton, 2001), while the failure to achieve closeness

has been linked to depression and mental illness (Bowlby, 1969; Leary, 1990; Davilia,

Burge, & Hammen, 1997), physical illness (Lynch, 1979), and even suicide (Trout, 1980).

Because of the central role that close relationships play in the human experience,

understanding the factors that influence the development of these bonds is an important

endeavor.

At the outset of a relationship there is a great deal of uncertainty. Is the other

person equally interested in developing a relationship? Can I trust this person? How do I

communicate interest? What if I come on too strong? If I put myself on the line, will I be

rejected? People want to demonstrate interest and commitment, but are reluctant as trust

is not yet established. Ironically though, as Holmes (1981, 1991) notes, in the early stages

of a relationship the development of trust and love are mutually reinforcing: Feelings of

trust determine the level of one's involvement, but trust cannot be assessed unless one is

at least somewhat involved. As Holmes (1991) writes,

As the risks and the sense of vulnerability grow, people become concerned with

the issue of whether the other's feelings and qualities make their investment a

secure one. Thus the central theme is that the decision to move further into the

relationship becomes increasingly tied to people's subjective forecasts of what the

future holds. This prospective analysis involves not only people's sense of what

their partner is capable of providing, but also their confidence that the other can

be depended upon to reciprocate their affection and to actualize the potential of

the relationship (p. 66).

Thus the ability to navigate this "interdependence dilemma" has important consequences

for the progress of the relationship. If one is not willing to take a leap of faith, the

relationship is unlikely to get off the ground. Sadly however, while some find it relatively

easy to deal with this uncertainty, others find it more difficult. What influences the ability

to navigate the interdependence dilemma?

One theory that has contributed greatly to the understanding of close relationships

is attachment theory (Bowlby, 1969, 1973; Hazan & Shaver, 1987, 1994; Simpson &

Rholes, 1998; Fraley & Shaver, 2000; Mikulincer & Shaver, 2003). The notion that

people have mental models for close relationships—"internal working models of

attachment"—that play a pivotal role in guiding interpersonal perceptions, expectations,

and behaviors has been a successful framework for understanding the development,

maintenance, and dissolution of close relationships (Fraley & Shaver). While

considerable research has investigated the role of attachment in established adult

relationships, less has focused on new relationship *development*, that is, the influence of

attachment on events that occur at the very outset of a relationship. Yet, the notion that

attachment models are transferred to new relationships, guiding interpersonal perceptions, expectations, and behaviors with new partners is a basic assumption of adult attachment theory (Hazan & Shaver, 1987; Collins & Read, 1994; Hazan & Zeifman, 1999; Fraley & Shaver; Mikulincer & Shaver; Pietromonaco & Feldman Barrett, 2000). The goal of this research is to explore how individual differences in attachment influence the formation and development of close relationships, specifically with regard to the interdependence dilemma people face at the outset of a relationship.

*Close Relationships & the Use of Communal and Exchange Norms*

What is a close relationship? One feature distinguishing close relationships from more casual relationships is the set of norms that govern the giving and receiving of benefits. According to Clark and her colleagues (Clark, 1984a, 1984b; Clark & Mills, 1979; Clark, Mills, & Powell, 1986), close relationships, such as those between family, friends, and romantic partners, are associated with the use of communal norms, whereas more casual relationships, such as those between business partners, acquaintances, and strangers, are associated with the use of exchange norms. Communal norms reflect a genuine concern for the welfare of the other. Benefits are given on the basis of need or to please, and people do not keep track of individual contributions to the relationship. Giving help or doing a favor for the other person does not necessitate that the other person reciprocate with a favor in return. Likewise, receiving help or a favor does not require that one respond in kind. By comparison, exchange norms reflect the idea that no obligation is felt toward the needs of the other person. Benefits are given in return for benefits received, or with the expectation of repayment, and, for this reason, people tend to keep track of individual contributions. In essence, the use of communal norms means

that benefits and aid are given freely, and if there is reciprocation, it is performed with the goal of meeting the needs of the other person, whereas the use of exchange norms means that benefits and aid are not given freely, and receiving a benefit or aid calls for prompt reciprocation, preferably in kind, in order to eradicate the outstanding debt.

Clark and her colleagues have found considerable support for their theory. In one study (Clark, 1984a), participants worked with a confederate on a group task for a shared reward. Upon completion of the task, participants were responsible for dividing the reward between the two group members. The dependent variable was whether participants chose to work with the same or different color pen from their partner. Choosing a different colored pen more often than chance was thought to indicate the use of exchange norms as individual contributions to the task would be clear, whereas choosing the same color pen more often than chance was thought to indicate the *avoidance* of the use of exchange norms, and the use of communal norms[1] as participants were obscuring individual contributions to the group task. Consistent with Clark's theory, participants avoided using exchange norms when they believed there was a possibility for friendship with their partner, presumably to signal their interest in a relationship with the other person, but participants used exchange norms when they believed friendship was unlikely.

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[1] The distinction between the avoidance of the use of exchange norms and the use of communal norms is important. Simply not keeping track of individual contributions (indicated by random pen choice) would reflect the use of communal norms, as it suggests participants were not anticipating using task contribution information when it came time to distribute the reward. By comparison, the *active avoidance* of the use of exchange norms (indicated by participants' choosing the same color pen significantly more often than chance) reflects an effort to avoid looking like one would prefer an exchange relationship (Clark, 1984a). As Clark states, "when people are trying to form a communal relationship, they are not only concerned with following communal norms but also with avoiding any perception on others' parts...that they might prefer an exchange relationship" (p. 553).

In a second study investigating the behavior of existing friends (communal condition) and strangers (exchange condition), Clark (1984a) found that, as predicted, while strangers generally chose to work with a different colored pen from their partner (used exchange norms), pen choice for existing friends was random. The fact that the existing friends did not go out of their way to actively avoid using exchange norms can be understood by recognizing that existing friends have an established relationship, and therefore, should not feel the need to send the message that they were interested in friendship. Importantly though, random pen choice is consistent with the use of communal norms as it suggests participants were not paying attention and thus not anticipating the need to keep track of individual contributions. Finally, in a study investigating reciprocation behavior, Clark and Mills (1979) found that when the possibility of friendship with the confederate was unlikely (the exchange condition), participants liked the confederate more when the confederate used exchange norms (i.e., reciprocated a favor), whereas when there was the possibility of friendship with the confederate (the communal condition), participants liked the confederate more when the confederate used communal norms (i.e., did not reciprocate a favor).

In summary, in support of the theory, Clark and her colleagues have shown that when the potential exists for a communal relationship with another person, people avoid using exchange norms, presumably to communicate their interest in a communal relationship, and dislike others who use exchange norms, but when the potential for a communal relationship does not exist, people use exchange norms, and they like others better when they also use exchange norms.

*New Relationship Development & the Interdependence Dilemma*

Lydon, Jamieson, and Holmes (1997) conducted a series of studies along these lines, focusing on the awkward position people face when they *hope* to establish a communal relationship with an acquaintance (also see Holmes, 1991). These researchers found that when people desire a communal relationship with someone, consistent with Clark's theory, they appear to know the communal script (i.e., give freely without concern for reciprocation), and they try to behave communally. However, because of their uncertainty arising from the fact that they do not know whether the other person also desires a communal relationship, people ironically employ exchange strategies in an effort to reduce their anxiety and uncertainty. That is, people go out of their way to do favors for or help the potential friend, but putting themselves on the line this way makes them anxious. To reduce their anxiety, they look for signs of interest and commitment (indicated by the timely reciprocation of benefits or aid given) in the other person's behavior. But unfortunately, these authors note, this preoccupation with reciprocation is a violation of the communal script, and has the effect of undermining relationship development. The constant monitoring of discrete relationship transactions suggests an exchange orientation and is likely to discourage friendship.

Lydon et al.'s (1997) findings nicely illustrate the dilemma people face when they seek to form a close relationship with another person. Although the rules of close relationships prescribe that one should give freely without concern for reciprocation, the inherent uncertainty of the situation makes the authentic use of communal norms difficult and anxiety provoking, and people often behave in ways that paradoxically undermine the development of closeness. On the one hand, sharing with, and helping someone in need communicates interest in a close relationship, and conveys that one has the potential

to be a good friend; however, through these acts of kindness, one runs the risk of incurring a debt that may never be repaid, as well as the potential for rejection if the other person does not share the same desire for closeness. On the other hand, not going out of one's way to communicate interest in friendship, or reciprocating a favor too quickly, may deter the other from pursuing the goal of closeness.

*Adult Attachment Theory*

According to adult attachment theory, individuals develop mental models for close relationships over the course of repeated interactions with significant others; these models contain information about whether the self is worthy of love and affection, and whether close others can be trusted to be loving and responsive (Hazan & Shaver, 1987, 1994; Mikulincer & Shaver, 2003). Over the years adult attachment models have been conceptualized in different ways. Drawing upon the work of Ainsworth and her colleagues investigating children in the "strange situation" (1978), Hazan and Shaver (1987) proposed that attachment models for adult romantic relationships can be categorized into secure, anxious-ambivalent, and avoidant types. Secure individuals feel comfortable with closeness, and are not particularly worried about rejection. Anxious ambivalent individuals want closeness but are preoccupied with being rejected or abandoned by significant others. Finally, avoidant individuals do not like intimacy and prefer to maintain a distance between themselves and others.

Bartholomew and Horowitz (1991) then made the distinction between avoidant-dismissive and -fearful types, noting that some people avoid intimacy in order to maintain a sense of independence (dismissives), while others avoid it because they fear rejection (fearfuls). Furthermore, drawing upon Bowlby's claim that attachment models reflect self

and other representations, Bartholomew and Horowitz's conceptualization of attachment was also based on the notion that differences in attachment reflect evaluative differences in self and significant other representations, that is, model of self and model of other. It is theorized that secure individuals have positive models of self and other (they believe they are worthy of love and affection and expect others to be trustworthy and reliable), preoccupieds (like Hazan and Shaver's anxious-ambivalent type) have a negative model of self and a positive model of other, dismissives have a positive model of self and a negative model of other, and fearfuls have negative models of self and other.

In recent years, researchers have begun to question the validity of the categorical approach as well as the model of self/model of other framework (for a discussion, see Fraley & Shaver, 2000). Fraley and Waller (1998) investigated the validity of using categorical models to study differences in adult attachment and found little evidence supporting a categorical approach. These researchers recommended that differences in attachment should instead be conceptualized in terms of continuous dimensions of anxiety and avoidance (see also Brennan, Clark, & Shaver, 1998). Moreover, as Fraley and Shaver argue, the model of self/model of other framework is problematic from empirical and theoretical perspectives. For example, as they point out, in theory preoccupied individuals have a positive model of other (and negative model of self); however, research has found that these individuals often feel their partner's are insensitive to their needs, which is inconsistent with a positive view of others. Also, attachment behavior is evident in infants and other animal species that do not have the capacity to form complex self and other representations; thus, in order to retain the model

of self/model of other framework, attachment theory would need to devise another set of assumptions to explain infant and animal attachment bonds.

Instead, researchers have begun to emphasize the emotion and behavioral regulation properties of the attachment system when describing differences in attachment (Fraley & Shaver, 2000; Mikulincer & Shaver, 2003). The primary function of the attachment behavioral system is to regulate behaviors that promote close contact with attachment figures (Bowlby, 1969; Mikulincer & Shaver). As Milulincer and Shaver note, when proximity with a responsive attachment figure is attained, the attachment system is turned off as it has reached its set goal. Moreover, repeated interactions with a responsive attachment figure promotes a sense of security: Others are seen as generally reliable, the self is seen as able to cope with distress, and the world is seen as a safe place. But when the attachment figure is unresponsive, or inconsistently responsive, the functioning of the attachment system is disrupted, as the primary goal is not attained. When this occurs, the secondary strategies of hyperactivation or deactivation, which are associated with anxiety and avoidance, come into play (Milulincer & Shaver).

When proximity seeking is seen as a feasible option, hyperactivation strategies emerge (Mikulincer & Shaver, 2003). Hyperactivation strategies aim to secure attention from an unresponsive attachment figure by chronically engaging the attachment system. Hyperactivation strategies are the hallmark of attachment anxiety. There is a heightened desire for closeness and intimacy combined with a preoccupation with attachment figure (un)availability. As Mikulincer and Shaver describe, at an interpersonal level, hyperactivation strategies look like primary attachment strategies gone awry: There is an intense monitoring of the attachment figure, strong efforts to maintain proximity, a

vigilance to attachment related cues (as these are crucial for attaining security), a hypersensitivity to cues of rejection, and general worries about being abandoned. In addition to their impact on interpersonal situations, hyperactivation strategies have profound implications for the self (Mikulincer & Shaver). Hyperactivation strategies encourage emotion focused coping, that is, a preoccupation with one's internal distress (focusing on negative emotions, ruminating on negative thoughts, a preoccupation with the self, and self-criticism). The self image is also vulnerable as overdependence on attachment figures tends to undermine confidence and self-efficacy. And finally, the chronic engagement of the attachment system leaves little resources for engagement in non-attachment activities such as exploration and affiliation.

By comparison, when proximity seeking is seen as unfeasible, the attachment system is deactivated. As Mikulincer and Shaver (2003) describe, the main goal of deactivation strategies is to prevent further distress from the failure to attain primary attachment goals (proximity), and this is achieved by shutting down the attachment system. Deactivation strategies are the hallmark of attachment avoidance. Attachment figures are generally seen as unreliable and unable to provide protection; to deal with this state of vulnerability, attachment needs are denied, the importance of closeness is minimized, and self-reliance is pursued. At an interpersonal level, monitoring of the attachment figure is avoided and efforts are made to prevent confrontations with threat, which could activate the attachment system and cause distress. Deactivation strategies are associated with distance coping, in which efforts are made to suppress threats and unwanted thoughts (Mikulincer & Shaver). According to Mikulincer and Shaver, although hyperactivation and deactivation strategies often arise in specific interpersonal

contexts, their chronic use in the long run results in consolidation, and they become the main regulatory device for dealing with attachment needs. In this way, they come to reflect chronic insecure attachment orientations of anxiety and avoidance.

In summary, differences in attachment are currently theorized to reflect regions in a two-dimensional space of anxiety and avoidance (Mikulincer & Shaver, 2003; Fraley & Shaver, 2000). As Mikulincer and Shaver note, attachment security, which is associated with low anxiety and low avoidance, is associated with a comfort with closeness, greater interpersonal confidence and self-worth, and the use of primary attachment strategies in times of need. Attachment anxiety is associated with a lack of security, a strong desire for closeness, worries about relationships, and the use of hyperactivation strategies. Attachment avoidance is also associated with a lack of security, but the importance of closeness is minimized, there is a desire to maintain distance between the self and others, self-reliance is pursued, and deactivation strategies are used.

### *Attachment and Relationship Development*

A major proposition of attachment theory is that attachment bonds are transferred to (some) new relationships in adulthood (Hazan & Shaver, 1987, 1994; Collins & Read, 1994; Pietromonaco & Feldman Barrett, 2000; Fraley & Shaver, 2000; Hazan & Zeifman, 1999). Although their work focused primarily on infants and their primary caregivers, both Bowlby and Ainsworth believed that attachment behavior persisted into adulthood (Bowlby, 1973, 1979; Ainsworth, 1989, 1991). As Bowlby (1979) writes, "Whilst especially evident during early childhood, attachment behavior is held to characterize human beings from the cradle to the grave" (p. 129). Basically, it is theorized that in adolescence and early adulthood, people begin to transfer their primary attachment

relationship from their parent(s) to a peer, and typically, to a romantic partner (Ainsworth, 1991; Weiss, 1991; Fraley & Davis, 1997; Hazan & Zeifman, 1999). But *how* and *when* are attachment bonds transferred in the development of a relationship, and do people's working models of attachment play a role at the very *outset* of a relationship?

Although the relationship is not yet established—and it certainly does not qualify as an attachment bond—I believe the attachment system should be critical in guiding perceptions, expectations, and behaviors with potential relationship partners, especially with respect to navigating the interdependence dilemma. Drawing upon social cognition theory, Collins and Read (1994) argue that the likelihood an attachment model will be used in a situation depends on the frequency with which it has been applied in the past (strength), whether the goals associated with the model are relevant to the situation (model-situation match), and how much is known about the other person (specificity—if little is known, more general relational models will be used). Specificity and model-situation match are especially relevant to interpersonal situations that occur at the outset of a relationship. These situations are ambiguous, and little is known about the other person, thus people should be especially likely to draw upon their working models of attachment to guide their expectations and to gauge their behavior. Along similar lines, Pietromonaco and Feldman Barrett (2000) note that general working models of attachment should be particularly influential at the beginning of a new relationship, or when people cannot or do not attend to relationship details (see also Pierce & Lydon, 2001). In addition, a salient feature of these situations is the possibility of a deeper relationship. Thus, to the extent that people see these situations as opportunities to satisfy chronic attachment goals, such as seeking intimacy or establishing independence,

attachment models, with their associated beliefs, plans, and strategies, should come into

play (see also Mikulincer & Shaver, 2003).

*The Present Investigation*

The goal of this research program was to investigate how attachment influences

people's response to the interdependence dilemma they face at the outset of a relationship,

specifically focusing on the use of communal and exchange norms. In devising and

conducting my program of research, I had three main objectives. The first objective was

to investigate how attachment influences the use of communal or exchange norms with a

potential friend, and to explore how attachment influences people's *response* to the use of

communal versus exchange norms by a potential friend, specifically in terms of affect,

self-perceptions, other-perceptions, and reciprocation behavior. My second objective was

to explore attachment differences in people's response to the use of communal norms by

a potential friend, focusing on emotion regulation, and the effects of emotion regulation

on cognitive processing. My third objective was to explore attachment differences in the

kind of attributions people make about a potential friend's communal behavior, and to

assess differences in the significance of those behaviors for the relationship.

*Objective 1*

My first objective was to investigate how attachment influences the use of

communal or exchange norms with a potential friend, and how attachment influences

people's response to the use of communal versus exchange norms by a potential friend.

Individuals high in attachment anxiety should be most susceptible to the interdependence

dilemma inherent in new relationship situations. Because of their desire for closeness,

individuals high in anxiety and low in avoidance (preoccupied) should go out of their

way to signal their desire for friendship, and to communicate their worthiness as a friend, by actively avoiding the use of exchange norms. However, situations in which the prospect of closeness is likely (compared to those in which closeness is unlikely) should also elicit the vigilant monitoring and appraisal of attachment-goal related cues characteristic of highly anxious individuals. These situations should also arouse a preoccupation with the self, increasing sensitivity to negative emotions, and concerns about self-worth and possible rejection. Thus, I predict that, ironically, when a potential friend signals interest (which is, in theory, what anxious individuals desire), anxious individuals will feel more anxious, and will be especially preoccupied with concerns about possible rejection and issues of low self-worth. By comparison, in situations in which closeness is not possible (because the other is unavailable for friendship, and/or because the other has not indicated a desire for friendship), anxious individuals should not be as strongly affected because the situation is irrelevant to the fulfillment of their attachment goals.

Highly avoidant individuals, and especially those who are low in anxiety (dismissive), should use exchange norms with a potential friend—even a desirable friend—because of their desire to maintain a distance between themselves and others. Using exchange norms will communicate their aversion to intimacy and will establish boundaries. Moreover, when a potential friend expresses interest in closeness, avoidant individuals should be distressed, but that distress should be manifested in derogating the other. Finally, because of their aversion to dependency, avoidant individuals should also attempt to quickly reciprocate favors or help given to them, so as to eradicate any debt owed.

Secure individuals (those low in avoidance and anxiety) should feel relatively confident interacting with a potential friend because of their general comfort with closeness, their high threshold for rejection, and their feelings of self-worth. This should translate into a more positive attitude toward the potential relationship partner, and more confidence in letting the relationship unfold naturally (i.e., without great effort on their part). That is, in contrast to their more anxious counterparts, secure individuals may be less desperate to communicate their interest in a relationship and their worthiness as a friend. Although they are expected to use communal norms, secure individuals may not go out of their way to avoid looking exchange-like. They should also be less likely to vigilantly monitor the situation for potential cues of rejection. In contrast to their more avoidant counterparts, secure individuals should feel comfortable when a potential friend expresses interest in closeness, and should not feel the need to immediately reciprocate aid or favors given to them.

Studies 1, 2, and 3 were designed to investigate Objective 1. Throughout these studies I tried to utilize, when possible, behavioral measures as opposed to self-reports so as to tap participants' implicit, unbiased behavior. In Study 1, I adopted Clark's "pens" paradigm (described above), in which participants work with a partner (a potential friend) on a task for a shared reward. The partner works on the task first and the participant must decide whether to use the same or different color pen as their partner. As in Clark's study, choosing a different color pen more often than chance would signify the use of exchange norms as participants are keeping track of individual contributions, whereas choosing the same color pen more often than chance would signify participants' *avoidance* of the use of exchange norms. In Study 2, I modified the procedures of Study 1 to create a new

psychological situation. In this study, the confederate worked on the group task *after* the

participant. The completed group task was then given to the participant who was in

charge of tabulating and dividing the earnings; in this way, the participant was able to see

whether the confederate used the same or different colored pen (experimental

manipulation of communal versus exchange norms). Participants' affect, state self-esteem,

and partner perceptions were assessed.

Finally, in Study 3, I employed a different operationalization of a potential

friend's communal behavior. In this study, I had the potential friend offer the participant

help (i.e., respond to a need), and then investigated whether participants' felt the need to

reciprocate that help—even when help was not needed by the other person. In this study,

participants worked on a word creation task with scrabble tiles, and on the first round of

the task, the participant asked for and received help from the potential friend. On the

second round the participant was given the opportunity to reciprocate that help (i.e., send

tiles to the potential friend); however, the potential friend had sent a message saying that

help was not needed. I was interested in whether avoidant participants would override the

potential friend's message and reciprocate the help anyway, even though reciprocating

help is inconsistent with communal norms.

The following predictions were made for Studies 1, 2, and 3 (Objective1):

Study 1: When interacting with a potential friend, anxious individuals should

*avoid* using exchange norms to communicate their interest in friendship, while avoidant

individuals should adopt an exchange orientation to signal their aversion to closeness.

Secure individuals may not feel the need to actively avoid the use of exchange norms in

this situation, but they should also not adopt an exchange orientation (i.e., their behavior may be more random).

Study 2: When a potential friend signals interest in closeness (compared to when there is no possibility for closeness), anxious individuals should feel anxious and uncertain. Moreover, the possibility of closeness may also arouse concerns about self-worth. Avoidant individuals should also feel uncomfortable when an other signals interest in closeness, but rather than their discomfort manifesting itself in negative affect, avoidant individuals should disparage the other; that is, they should like the other less, and see the other's behavior in a more negative light.

Study 3: When a potential friend offers help (uses communal norms), avoidant individuals should feel uncomfortable given the debt they owe, and should attempt to reciprocate the favor to establish boundaries. By comparison, secure individuals should not feel threatened by the other's offer of help; they should accept the help and not feel the need to reciprocate (if the other does not need help). Anxious individuals should again feel anxious as this communal act should arouse their need to monitor and appraise the situation; however, whether that anxiety leads to a specific behavioral outcome is less clear cut. Because of their intense focus on the situation and the uncertainty inherent in the situation, anxious individuals may be conflicted about how to respond. On the one hand, they may feel they should follow the communal script by accepting the help and doing nothing in return, but on the other hand, they may want to help the other in return to signal their equal interest.

*Objective 2*

A basic assumption of attachment theory is that the attachment system is responsible for regulating affect with respect to pursuing attachment related goals (Fraley & Shaver, 2000; Mikulincer & Shaver, 2003). Recently, researchers have begun to emphasize the importance of the "hot" features of working models of attachment. As Pietromonaco and Feldman Barrett (2000) note, "Definitions of working models often appear similar to definitions of schemas, but the working models concept reflects more motivated, dynamic, affectively charged processes" (p. 163). Attachment models are affect laden, and emotions, especially with respect to attachment needs, strongly influence how people think and behave in their close relationships. Objective 2 was to explore attachment differences in people's response to the use of communal norms by a potential friend, but this time focusing on emotion regulation, and the effects of emotion regulation on mental concentration.

Situations involving the desire and opportunity for closeness (i.e., potential communal situations), compared to situations where there is little possibility of closeness, should be distressing to insecurely attached individuals. Even when there is the desire to establish a relationship, people's chronic insecurities should come into play, undermining the development of closeness. Situations in which a potential friend expresses the desire for closeness should be distressing to avoidant individuals as they may arouse concerns that the other is trying to get too close and will encroach upon their independence. Situations affording the opportunity for closeness should also be distressing to anxiously attached individuals, since they should arouse the vigilant monitoring and appraisal of attachment-goal related cues characteristic of highly anxious individuals, as well as their

chronic relationship concerns and feelings of low self-worth. By comparison, situations

where there is no opportunity for closeness (i.e., those in which the other is either not

available for friendship, or does not communicate an interest in friendship) should be less

distressing as they are irrelevant to insecurely attached individuals' attachment goals.

How do insecurely attached individuals regulate their distress about the prospect of

closeness, and what are the implications of these regulation strategies?

Individual differences in attachment have been found to differentially influence

people's ability to cope with stress and adversity: Whereas attachment security is seen as

an "inner resource," facilitating coping, attachment insecurity is considered to be a risk

factor in adjustment (Mikulincer & Florian, 1998, 1995; Feeney & Kirkpatrick, 1996;

Pierce & Lydon, 1998; Rholes, Simpson, & Orina, 1999; Rholes, Simpson, Campbell, &

Grich, 2001; Simpson, Rholes, Campbell, Tran, & Wilson, 2003; Simpson & Rholes,

2002; Mikulincer & Shaver, 2003). As Mikulincer and Florian argue, because of their

basic trust in the world, themselves, and others, secure individuals are more likely to

appraise stressful situations as manageable, and are less likely to become distressed by

them. Basically, they feel equipped to deal with stressful situations, and feel comfortable

seeking support from others, resulting in the use of problem-focused coping strategies

and support-seeking. By comparison, insecure individuals tend to construe stressful

situations as threatening, irreversible, and unmanageable, and are more likely to become

distressed by them (see also Mikulincer & Shaver). To regulate their distress, avoidant

individuals tend to minimize and distance themselves from the problem by emphasizing

their autonomy and by inhibiting access to unpleasant affect and thoughts. By contrast,

anxiously attached individuals tend to have a more passive, ruminative, emotion-focused

coping style, focusing on the stress in a hypervigilant manner, and ruminating on negative thoughts, memories, and affect. They also have difficulty containing their distress—the negative affect aroused from the initial stressor often leads to the activation of other, often unrelated, negative thoughts and memories (Mikulincer & Florian; Mikulincer & Orbach, 1995).

Study 4 was designed to investigate the attachment differences in affect regulation in response to possible closeness. The prospect of closeness was manipulated by having participants interact with either: (a) an attractive, friendly, available partner who expressed the desire to work as a team on a Trivial Pursuit task (communal condition); or (b) an attractive but neutral, unavailable partner who would witness the participant's performance on the Trivial Pursuit task (performance-anxiety condition). Affect was assessed and then participants worked alone on a mental concentration task. Self-reported attention and interfering thoughts were assessed. In addition, the accessibility of proximity and distance/rejection themes was assessed to explore whether concerns with closeness and/or possible rejection were associated with participants' affective response and performance on the mental concentration task. Finally, expectations about the interaction were also assessed.

It was predicted that:

1. All participants would exhibit performance deficits on the mental concentration task in the performance-anxiety condition, but whereas secure individuals' performance would be facilitated in the communal condition, anxiously attached individuals' performance would be impaired. Avoidant individuals' performance was not theorized to

be influenced by the communal condition as it was thought they would likely suppress any worries and concerns.

2. Anxiously attached individuals would report more interfering thoughts and decreased attention during the mental concentration task in the communal condition compared to their less anxious counterparts.

3. Secure and anxiously attached individuals' performance on the mental concentration task in the communal condition should be differentially associated with proximity accessibility, with proximity accessibility being associated with better performance for the secure participants but worse performance for the anxiously attached participants. The association between performance on the mental concentration task and distance/rejection accessibility was also explored to probe whether the anxiously attached individuals are concerned with rejection in the communal condition; this prediction, however, was more speculative.

4. Finally, while avoidant individuals should not evidence performance deficits on the mental concentration task, or exhibit heightened accessibility of proximity and rejection (as they would be suppressing these concerns), they should, nevertheless, be distressed by the communal interaction, and express negative expectations about the interaction.

*Objective 3*

The goal of Study 5 was to explore the kind of attributions people with different attachment styles make when a potential friend behaves in a communal manner in order to help shed light on what participants may have been thinking in the laboratory investigations (Studies 1, 2, 3, and 4). In an effort to elicit participants' unbiased

responses to possible closeness, these studies focused on obtaining implicit behavioral (Study 1, 3, and 4), and cognitive measures (Study 4). Although the use of implicit measures versus self-reports represents an advance in research methodology, questions remain about how participants were construing their own and their partner's behavior. I have theorized that situations affording the possibility of closeness should be especially likely to activate attachment-related goals for insecurely attached individuals. Given their drive for closeness, anxious individuals should be more likely to see these situations as potential opportunities to satisfy their attachment goals. Furthermore, given their tendency to monitor and appraise situations for attachment cues, anxious individuals should also be more likely to invest these discrete events (in the experimental manipulations) with increased significance for relationship development. On the other hand, given their desire to maintain distance and self-reliance, avoidant individuals should also be sensitive to their partner's efforts at closeness, but should down play the significance of these events for relationship development.

Study 5 used a guided visualization, self-report methodology to investigate these predictions. Specifically, in this study, participants were asked to nominate someone with whom they hoped to establish a deeper relationship (a "potential friend"), and then visualized themselves in one of two situations in which their potential friend behaved in a communal manner. Affect, feelings of closeness, and attributions about relationship development, the potential friend's behavior, and the significance of the event for the future of the relationship were assessed.

STUDY 1

*Attachment and the Use of Communal Versus Exchange Norms with Potential Friends*

*(The "Pens" Study)*

The goal of this study was to investigate how attachment influences the use of

communal and exchange norms with a potential friend. The procedure for this study was

based on Clark's (1984a) original "pens" study paradigm. It was predicted that anxious

individuals would go out of their way to avoid appearing exchange-oriented in an effort

to signal their interest in closeness, whereas avoidant individuals would adopt an

exchange orientation to signal their aversion to closeness. Secure individuals may not feel

the need to actively avoid the use of exchange norms in this situation, but they should

also not adopt an exchange orientation.

Method

*Participants*

Seventy university students volunteered to participate. Single participants were

targeted via a pre-study questionnaire to ensure that they would be available and

interested in a communal relationship with the confederate (see Clark, 1986). Three

participants were dropped from the analyses because they used their own pen to work on

the group task.[2] In the final sample there were 67 participants (32 men and 35 women,

mean age = 19.5 years). Fifty-six participants described themselves as single and 11

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[2] The dependent variable in this study was whether participants used the same or different color pen
from their partner (three red and three black pens were placed in a holder on the desk for participants to
use), thus it was important that participants make their pen choice after they had seen which pen their
partner had used on the group task. These participants had taken out their own pen before seeing their
partner's pen choice, and thus had to be eliminated from the analyses.

participants described themselves as dating.[3] Participants received either extra-credit

towards their grade in a psychology course or $10 (Canadian) for their participation.

*Procedure*

Participants were recruited to participate in a study investigating "workers'

performance and monetary incentives." Upon arrival at the testing session, participants

had a 2 minute interaction with an attractive, opposite-sex confederate, who was

supposedly also participating in the study. This interaction period was designed to help

create the potential for a communal relationship between the participant and the

confederate. After the interaction period, the participant and the confederate were brought

into the lab. Following Clark's (1984a) procedure, the experimenter explained that the

study was interested in investigating the effects of monetary incentives on group

performance and group attitudes. The participant and the confederate were told that they

would be working on two group tasks for which there would be shared rewards; when the

first group task was completed, one person would be given the reward to divide between

the members of the group, and when the second group task was completed the other

person would have the opportunity to divide the reward. It was emphasized that they

were free to divide the reward however they wanted (participants never actually divided

the reward).

The participant and the confederate were then given a description of the first

group task. This task was presented as a "serial recognition task," which consisted of

finding a series of number sequences imbedded in a matrix. The participant and the

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[3] The 11 dating participants were left in the final sample as participants were sometimes confused about what "dating" meant (i.e., the question did not specify dating one person exclusively). Including the dating participants did not alter the results. For Studies 2, 3, 4, and 5, although single participants were targeted, the participants who described themselves as dating were left in the analyses.

confederate were told they would receive 50 cents for each number sequence found. The participant was always in charge of dividing the reward on the first group task and the confederate was always in charge of dividing the reward on the second group task (which actually never occurred).

The participant and the confederate were then told that to save time they would be working separately, so that one person could complete the personality questionnaires while the other began the first group task. The experimenter then escorted the confederate to a room next door, and returned to the participant with an informed consent form, the personality measures, including Bartholomew and Horowitz's (1991) relationship questionnaire (RQ), and a "group information sheet" for the participant to complete. The group information sheet was used to manipulate the potential for a communal relationship with the confederate (see Clark, 1984a, 1986). Specifically, the group information sheet requested demographic information about the participants in the study, including relationship status and length of attendance at the university. The group information sheet was given to the participant after the confederate had completed the top portion, indicating that she/he was single and a recently arrived transfer student. In this way, the participant was made aware that the confederate was available for a communal relationship.

After completing the personality measures and group information sheet, the participant was given the first group task, partially completed by the confederate, to finish. On the desk were three red pens and three black pens. The participant thus had the choice to work with either the same or different colored pen as the confederate (the confederate alternated working with either a red or black pen). The dependent variable

was whether participants chose to work with the same or different colored pen as their

partner (choosing the same colored pen obscured individuals contribution and was thus

considered indicative of the use of communal norms, whereas choosing a different

colored pen reflected an effort to keep track of individuals contributions and was thus

considered indicative of the use of exchange norms). The participant was given 4 minutes

to work on the task. After 4 minutes, the participant was informed that the study was over,

was probed for suspicions, fully debriefed, and compensated.

*Measures*

    *RQ.* (Bartholomew & Horowitz, 1991). This measure consists of four short

paragraphs describing the secure, preoccupied, avoidant-dismissive, and avoidant-fearful

attachment styles. Participants rated the extent to which they resembled each of the four

attachment styles in their close relationships (i.e., relationships with parents, siblings,

close friends, relatives, or romantic partners), based on a five-point scale, from 0 (*not at

all*) to 4 (*completely*). Two dimensions reflecting anxiety and avoidance were created

using weighted mean scores from participants' responses to the secure, preoccupied,

avoidant-dismissive, and avoidant-fearful items on the RQ. The weights were obtained

from Brennan et al.'s (1998) factor analysis of the extant measures of attachment, and

corresponded to the factor loadings for the anxious and avoidant factors on the RQ. In

addition, participants also selected the one attachment style that best described how they

felt in their close relationships. Thus the RQ produced two measures of attachment: (a) a

continuous measure reflecting participants' anxiety and avoidance; and (b) a categorical

measure.

Results

The goal of this study was to investigate whether chronic attachment influenced the use of communal and exchange norms (measured by pen choice) with a potential friend. The dependent variable was whether or not participants chose the same or different colored pen as the confederate. The data was analyzed in two ways. First, participants were grouped according to their self-categorized attachment style, and difference of proportion tests were conducted to investigate whether pen choice was associated with chronic attachment. Second, participants were grouped according to whether they chose the same or different colored pen as the confederate and independent samples *t* tests were conducted to investigate group differences on the individual attachment items, and on the composite avoidance and anxiety measures.

*Categorical Analyses*

In the present study, 39% of participants categorized themselves as secure, and 20%, 21%, and 20% categorized themselves as avoidant-dismissive, preoccupied, and avoidant-fearful, respectively. As predicted, the proportion of preoccupied participants who chose the same color pen (93%) was significantly greater than the proportion expected by chance (50%), $z = 3.3$, $p < .001$. With respect to the other three groups, pen choice did not differ significantly from chance. That is, the proportion of avoidant-dismissive participants who chose the same color pen (31%) was not significantly less than the proportion expected by chance, $z = 1.37$, *ns*; the proportion of secure participants who chose the same colored pen (39%) was not significantly less than the proportion expected by chance, $z = 1.17$, *ns*; and finally, the proportion of avoidant-fearful

participants (46%) who chose the same colored pen was not significantly less than the

proportion expected by chance, $z < 1$.

*Continuous Analyses*

Consistent with the previous set of analyses, results revealed that those who chose

the same color pen were significantly more preoccupied ($M$ (34) = .41) than those who

chose a different color pen ($M$ (33) = -.42), $t(65) = 3.71, p < .001$. By comparison, there

were no differences between the same and different pen choice groups on attachment

security, avoidant-dismissiveness, or avoidant-fearfulness, all $ts < 1.7$. With respect to the

anxious and avoidant dimensions, results revealed that, again, those who chose the same

color pen were significantly more anxious ($M = .37$) than those who chose a different

color pen ($M = -.38$), $t(65) = 3.31, p < .005$. There was no difference between the same

and different pen choice groups on the avoidant dimension, $t < 1$.

Interestingly, as displayed in Figure 1, when I analyzed the data for the men

separately,[4] the results showed that while men who chose the same color pen were

significantly more preoccupied ($M$ (20) = .57) than men who chose a different color pen

($M$ (12) = -.66), $t(30) = 4.18, p < .001$, men who chose a different color pen were

significantly more avoidant-dismissive ($M = .84$) than men who chose the same color pen

($M = -.10$), $t(30) = -2.60, p < .05$. There were no significant differences between the same

and different pen choice groups on attachment security or avoidant-fearfulness for the

men, both $ts < 1.65$.

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[4] The number of women in the avoidant-dismissive group ($n = 2$) was insufficient to properly investigate these effects for women.

Discussion

In summary, my predictions for the anxiously attached were supported: Preoccupied individuals were significantly more likely to choose the same colored pen as their partner, and those who chose the same color pen as their partner were significantly more preoccupied, and more anxious. Moreover, as predicted, pen choice for secure individuals was random. My predictions for the avoidant individuals however were not supported. Neither the dismissive individuals nor the fearful individuals were more likely to choose a different color pen from their partner than one would expect by chance, and those who chose a different color pen were not significantly more avoidant. That said, avoidant-dismissive individuals were more likely than the preoccupied individuals to choose a different color pen, suggesting their preference for an exchange orientation, and, analyses focusing on the men revealed that those who chose a different color pen were more dismissive.

Thus, when interacting with an attractive, available, opposite-sex partner, anxiously attached individuals went out of their way to avoid appearing exchange oriented to signal their openness to friendship, and to demonstrate that they would make a good friend. Secure individuals appeared to have not been paying attention to pen choice, suggesting their more lenient adherence to the communal script (i.e., they were not overly concerned with communicating their interest in friendship, but, at the same time, they were not anticipating needing to keep track of individual contributions). Finally, while the dismissive men's pen choice suggests their aversion to closeness, avoidant individuals overall did not adopt an exchange orientation.

STUDY 2

*Responses to a Potential Friend's Use of Communal or Exchange Norms:*

*The Influence of Attachment on Affect, Self-Esteem, and Partner Perceptions*

Study 1 investigated how attachment influences participants' use of communal and/or exchange norms with a potential friend. The goal of Study 2 was to investigate how attachment influences participants' *response* to the use of communal or exchange norms by a potential friend. Secure participants should feel comfortable with a potential friend's use of communal norms whereas insecure participants should feel distressed. Avoidant individuals should be concerned that the other may try to get too close, while anxious individuals should respond to the possibility of closeness with increased anxiety and concerns about self worth as the situation is highly relevant to their chronic attachment goals (closeness). For this study, I created a new psychological situation by modifying the procedures of Study 1. Specifically, the confederate worked on the group task after the participant, and the completed group task was then given to the participant who was in charge of tabulating and dividing the earnings. In this way, the participant was able to see whether the confederate used the same or different colored pen (experimental manipulation of communal versus exchange norms). Participants' affect, state self-esteem, and partner perceptions were assessed.

Method

*Participants*

Sixty-three university students volunteered to participate. Single participants were again targeted via a pre-study questionnaire to insure that they would be available and

interested in a communal relationship with the confederate. Four participants were dropped from the analyses: two participants were eliminated because they were in a serious relationship; and two participants were eliminated because they suspected that their partner (the confederate) was part of the study and not another participant. There were 59 (26 men and 33 women, mean age = 21.05 years) participants in the final sample. Fifty participants described themselves as single and eight participants described themselves as dating (one participant did not answer this question). Participants were randomly assigned to the communal condition ($n = 28$) or exchange condition ($n = 31$). Participants received either extra-credit towards their grade in a psychology course or $10 (Canadian) for their participation.

*Procedure*

Participants were recruited to participate in a study investigating "personality, group performance, and incentives." As in Study 1, upon arrival at the testing session, participants had a two minute interaction with an attractive, opposite-sex confederate, who was supposedly also participating in the study. After the interaction period, the participant and the confederate were brought into the lab, introduced to each other, and informed about the objectives of the study. Specifically, they were told that they would be working on two group tasks for which there would be shared rewards; when the first group task was completed, one person would be given the reward to divide between the members of the group, and when the second group task was completed the other person would be given the opportunity to divide up the reward. Different from Study 1, it was explained that one goal of the study was to investigate the effects of two different working conditions. Thus, although they would be working on the group task together in

both conditions, for the first group task, they would be working in two separate rooms, so they would be unable to communicate with each other, and for the second group task they would be working in the same room.

The first group task, which was similar to that used in Study 1, was then described. The participant and the confederate were told that they would be given a list of number sequences which they had to locate in the matrix. They were then told that they would each be given 6 minutes to find number sequences and that they would be given 25 cents for each number sequence found. Again, the participant was responsible for dividing up the reward on the first group task (the second group task never took place).

At that point, the participant was escorted into a private room next door, while the confederate was supposedly beginning the personality measures. The participant was given an informed consent form to read and sign and then the first group task was again explained. The participant began the first group task while the experimenter left to check on the confederate. After 6 minutes the experimenter returned with the group information sheet (similar to that used in Study 1), partially completed by the confederate, and the personality measures, including the Experience in Close Relationships (ECR) scale (Brennan et al., 1998), a measure of chronic attachment. The experimenter then brought the first group task to the confederate, who used either the same (communal condition) or different colored (exchange condition) pen as the participant.

The completed first group task was returned to the participant who was instructed to tabulate how many number sequences the team found and to indicate how the reward should be divided. In this way, the participant was able to see whether the confederate used the same or different colored pen as the participant. At this point, following Clark

and Mill's (1979) procedure, the participant was told that before beginning the second group task in which the participant and the confederate would be working in the same room together, it was necessary to complete a "social interaction pre-study questionnaire" to control for individual differences in expectations about working together. The questionnaire was comprised of a mood scale, the state self-esteem measure, and questions assessing partner perceptions and partner liking. After participants had completed these measures they were probed for suspicions, fully debriefed, and compensated.

*Measures*

*ECR.* (Brennan et al., 1998). This 36-item questionnaire is designed to assess the two underlying dimensions of attachment avoidance and anxiety. Avoidant items reflect comfort with closeness and dependency and anxious items reflect anxiety about being abandoned. Participants were instructed to indicate on a 7-point scale how much they agree/disagree with each item, in terms of how they experience romantic relationships. The ECR was added to assess chronic attachment in this study as it is, currently, the standard measure for assessing the anxious and avoidant dimensions (Shaver & Fraley, 2004, ¶ 3). Cronbach alpha coefficients in this study were .90 for the 18 avoidance items and .90 for the 18 anxiety items. Attachment avoidance and anxiety scores were computed for each participant by taking the mean response on the 18 avoidance and 18 anxiety items. Avoidance and anxiety scores were not associated $r(57) = .19$.

*Profile of Moods States* (POMS). (MacNair, Lorr, & Sroppleman, 1971). The *anxious* and *uncertain* subscales of the POMS were included to assess the predictions related to attachment anxiety. The *elated, composed, hostile* and *depressed* subscales

were also included for exploratory purposes. Each subscale consisted of six adjectives

describing emotions related to the overall construct (e.g., "tense" and "nervous" are two

adjectives reflecting anxiety). Participants were presented with a list of adjectives and

rated on a scale from 0 (*much unlike this*) to 3 (*much like this*) the extent to which each

adjective described how they were feeling at that moment. Cronbach alpha coefficients

for the *anxious, uncertain, elated, composed, hostile,* and *depressed* subscales

were .86, .85, .89, .81, .91, and .86, respectively.

*State Self-Esteem.* (Heatherton & Polivy, 1991). This scale consists of 20

questions assessing state self-esteem. The scale assesses three components of state self-

esteem: (a) performance (e.g., "I feel confident about my abilities"); (b) social (e.g., "I

am worried about what other people think of me"); and, (c) appearance (e.g., "I feel

unattractive"). Participants were asked to circle the response that best described their

thoughts at that moment on a 5-point scale from 1 (*not at all*) to 5 (*extremely*). Cronbach

alpha coefficients for overall state self-esteem, and for the performance, social, and

appearance subscales were .91, .77, .83, and .88, respectively.

*Pre-Social Interaction Questionnaire.* In this questionnaire, participants rated

how well certain traits applied to their partner (the confederate). The traits were taken

from the Extended Personality Attributes Questionnaire (Spence, Helmreich, & Holahan,

1979), and reflected positive and negative (i.e., socially desirable and socially undesirable)

agency and communion. The *warm, independent, spineless, arrogant, helpful,*

*competitive, servile, greedy, understanding, self-confident, fussy, hostile,* and *considerate*

traits were selected. Participants indicated their response by placing a slash through a line,

anchored from 0 (*not at all*) to 50 (*completely*). Cronbach alpha coefficients for

communal-positive, communal-negative, agency-positive, and agency-negative composites were .78, .59, .36, and .66, respectively.

Finally, participants' liking of the confederate was assessed. Participants indicated the extent to which: (a) they liked the person with whom they were working; (b) they would like to continue a conversation with that person on another occasion; (c) their partner is the kind of person they would want to have as a friend; and, (d) their partner is the kind of person they would want to work with on another project, by placing a slash through a line, anchored from 0 (*not at all*) to 50 (*completely*). A partner liking score was created by taking participants' mean response to the four partner-liking items. The Cronbach alpha coefficient was .87 for the four items.

## Results

The goal of this study was to investigate attachment differences in participants' response to the use of communal or exchange norms by a potential friend. The dependent variables were affect, state self-esteem, partner perceptions, and partner liking. To investigate my hypotheses, I looked at the within-cell correlations between attachment and the dependent variables compared across experimental conditions. Specifically, after standardizing all variables, I calculated cross-products of attachment anxiety or avoidance and each dependent variable (e.g., the product of the standardized scores of anxious attachment and feeling anxious). Independent samples two-tailed *t* tests were then conducted on the cross-products, with experimental condition (communal vs. exchange) as the between-subjects factor.

*Anxious Analyses*

As described in Table 1, the cross-product of anxious attachment and feeling anxious was significantly greater in the communal condition ($r = .64$) than in the exchange condition ($r = .20$), $t(57) = 2.07$, $p < .05$. The cross-product of anxious attachment and feeling uncertain was also marginally greater in the communal condition ($r = .68$) than in the exchange condition ($r = .24$), $t(57) = 1.80$, $p < .10$. Finally, the cross product of anxious attachment and appearance self-esteem was significantly greater in the communal condition ($r = -.81$) than in the exchange condition ($r = -.28$), $t(57) = -2.35$, $p < .05$. By comparison, the cross-products of anxious attachment and feeling composed, happy, hostile, or depressed did not differ between experimental conditions, all $ts < 1.6$. Similarly, the cross-products of anxious attachment and partner perceptions and partner liking did not differ between experimental conditions, both $ts < 1.6$.

*Avoidant Analyses*

Also as depicted in Table 1, the cross-product of avoidant attachment and participants' perceptions of their partner's negative communal traits was significantly greater in the communal condition ($r = .57$) than in the exchange condition ($r = .09$), $t(56) = 2.07$, $p < .05$, and the cross-product of avoidant attachment and partner liking was marginally greater in the communal condition ($r = -.56$) than in the exchange condition ($r = -.02$), $t(57) = -1.91$, $p < .065$. By comparison, the cross-products of avoidant attachment and affect did not differ between experimental conditions, all $ts < 1.6$. As well, the cross-product of avoidant attachment and the other partner perception measures (i.e., positive communion, positive agency, and negative agency) did not differ between experimental conditions, all $ts < 1.6$. Finally, the cross-product of avoidant attachment and state self-esteem did not differ between experimental conditions, all $ts < 1$.

Discussion

In summary, as predicted, anxious individuals felt particularly anxious and somewhat more uncertain when their partner used communal norms compared to when their partner used exchange norms. The partner's use of communal norms also influenced anxious individuals' appearance self-esteem: Anxious individuals had lower self-esteem about their appearance in the communal condition than in the exchange condition. This fits with the more general picture of highly anxious individuals: In attachment-goal relevant situations, anxiously attached individuals exhibit an increased sensitivity and vigilance to cues of acceptance and rejection, which often arouse concerns about self-worth. Ironically, it appears that when the realization of their chronic attachment goals— closeness and acceptance—become possible, anxiously attached individuals actually feel more anxious and uncertain, and more negative about their self image.

The partner's use of communal norms had a very different effect on avoidant individuals. Avoidant individuals liked their partner less, and perceived their partner as having slightly more negative communal traits (servile, spineless, and fussy) when their partner used communal norms, compared to when the partner used exchange norms. Thus, avoidant individuals were also uncomfortable with their partner's use of communal norms, but rather than letting their discomfort manifest itself in negative affect, avoidant individuals disparaged their partner.

It is noteworthy that it was not that avoidant individuals simply did not like their partner; rather, they disliked their partner when their partner attempted closeness—indeed, there was no relationship between avoidance and partner liking in the exchange condition.

Likewise, it was not simply that anxious individuals felt anxious about a social encounter. They were going to interact with the confederate in both conditions, but they were significantly more anxious in the communal condition in which the confederate used communal norms; when the confederate used exchange norms, anxious individuals were not as anxious.

One might wonder why anxious individuals were not more distressed when their partner used exchange norms as this would signal the partner's disinterest in a communal relationship. However, I believe that the use of exchange norms is not analogous to outright rejection. The norm when interacting with a stranger (which is what was going on in the experiment) is exchange, so anxious individuals may have thought that the confederate's behavior in the exchange conditions was normal (and thus did not take it as a personal rejection). It was when the confederate deviated from the norm expressing interest in closeness that piqued anxious individuals' anxiety.

STUDY 3

*Responses to a Potential Friend's Use of Communal Norms:*

*Attachment and Reciprocating Help Received*

Study 3 also looked at how attachment influences people's response to the use of

communal norms by a potential friend; however, in this study I focused on a more clear-

cut instance of communal behavior—helping. In Study 2, the confederate used the same

color pen as the participant on the group task, the idea being that he or she was making an

effort to work as a unit, and thus, being communal. The underlying intention to work as a

unit however was implied and participants may not have interpreted that behavior as

intentional. In Study 3, I wanted the confederate's use of communal norms to be

unambiguous, so I had the confederate offer the participant help even though it went

against the confederate's self-interest. Moreover, whereas Study 2 looked at affect, self-

esteem, partner perceptions, and partner liking, Study 3 focused on participants'

behavioral response, specifically with respect to whether or not participants felt the need

to reciprocate the help received *even when* the confederate said help was not needed.

Reciprocation is a violation of the communal script; however, it was theorized that while

secure individuals would feel comfortable receiving help from a potential friend, and not

feel the need to reciprocate when help was not needed, avoidant individuals would

quickly reciprocate the clear their debt and establish boundaries.

Method

*Participants*

Thirty-eight male university students volunteered to participate in the study. Single participants were again targeted via a pre-study questionnaire to insure that they would be available and interested in a communal relationship with the confederate. One participant was eliminated because he was in a serious relationship. Thus, there were 37 participants in the final sample (mean age = 19.3 years). Twenty-five participants described themselves as single and 12 participants described themselves as dating. Participants received $15 (Canadian) for their participation.

*Procedure*

The procedure used in this study was based on a modified version of the one developed by Clark and Mills (1979). As in Studies 1 and 2, participants had a 2 minute interaction with an attractive, opposite-sex confederate who was supposedly also participating in the study. After the interaction period, the participant and the confederate were brought into the testing room where the experimenter explained that the study was investigating the effects of "personality and communication on workers' performance." The participant and the confederate were then told that they would be answering some questionnaires and working on a vocabulary task in which they had to make as many four-letter words as possible with scrabble tiles that would be given to them. They were further informed that there was an easy and difficult version of the vocabulary task. In the easy version, they would be given 55 letters ranging from A to Z and in the difficult version they would be given 45 letters ranging from A to L. They were then told that they would be doing two rounds of the vocabulary task and that they would be randomly

assigned to the easy or difficult version by the experimenter on each round. The experimenter emphasized that the version to which each participant was assigned was unrelated to the version to which the other participant was assigned, and was also unrelated to the version to which they would be assigned on the second round of the task (i.e., both participants could have the easy version in the same round and a participant could have the easy version for both rounds). Finally, participants were told that they would receive 10 cents for each word created in the easy version and 50 cents for each word created in the difficult version to keep motivation high.

Participants were then told that because the study was investigating the effects of communication, they would not be able to talk to each other while working on the vocabulary tasks (they would be working in separate rooms), but that they would be able to send messages to one another in which they could offer and request letters. The experimenter emphasized that although each participant could request help, the other participant was not obligated to help as he or she might also have the difficult task; as well, each participant could choose to offer help, even if help was not requested. The vocabulary task and the opportunity to give and receive letters created a context in which the participant could receive and reciprocate favors from the confederate. Moreover, awarding money for performance on the vocabulary task pitted participants' desire to reciprocate against the self-interested motive of retaining letters so as to make as many words as possible.

The participant and the confederate then completed the group information sheet (which served the same purpose as that in Studies 1 and 2), in which the confederate indicated that she was single and a recent transfer student. The confederate was then

seated in the main testing room and the participant was escorted to a room next door. The experimenter reiterated the purpose of the experiment and told the participant that he would be able to send a message on the first round and that the other participant would be able to send a message on the second round. The message forms were pre-made and participants were able to select one of two options: (a) "Please send over any extra tiles you do not need;" or, (b) "I think I'll be fine." The participant then completed an informed consent form and the personality measures, which included a baseline mood assessment and Bartholomew and Horowitz's (1991) measure of chronic attachment.[5] The experimenter left to check on the confederate and returned shortly after.

The participant was then told that it was time to begin the first round of the vocabulary task. This round created the opportunity for the participant to receive help. The participant picked a slip out of a can to determine whether he would be doing the easy or difficult version of the vocabulary task (the participant was always assigned to the difficult version on the first round). After drawing the difficult slip, the participant was given 45 letters ranging from A-L and was told to begin. He was also reminded that he could send a message to the other participant. The experimenter returned after 3 minutes, asking if the participant wanted to send a message (the participant always did).[6] The experimenter then took the message to the confederate and returned with five letters and

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[5] The ECR (Brennan et al., 1998) was also included in this study; however, it did not predict reciprocation whereas the Bartholomew and Horowitz measure did. It is unclear why the Bartholomew and Horowitz measure was successful while the Brennan measure was not. This study had a much smaller sample size than the other studies ($n = 37$). The assessment of avoidance may also have been a factor: In this study as well as in Study 1 the exchange effects (i.e., use of a different color pen and reciprocation) were found for the dismissive but not the fearful participants. Thus, the Bartholomew and Horowitz measure may tap something about dismissive attachment that the Brennan measure does not capture.

[6] All but three participants requested help from the confederate; removing these participants did not alter the results.

said, "Sarah asked me to give you these." The experimenter then left giving the

participant enough time to use the letters so that the help would appear valuable.

On the second round, the participant was always assigned to the easy version of

the vocabulary task. After giving the participant the tiles, the experimenter instructed the

participant to get started on the task and left the room. The experimenter returned shortly

after with a message from the other participant with a check on the "I think I'll be fine"

box. The experimenter handed the participant the note folded and said she would be back

in a few minutes to see if he wanted to send over any tiles (the experimenter pretended

not to have seen the contents of the note so as to reduce any social desirability effects).

The experimenter returned 1 minute later saying, "Would you like to send over any extra

letters? Remember, it is up to you. You're not obligated to help. The other participant

could be in either condition." Importantly, the participant was given the message early in

the second round and was allowed only 1 minute to decide about whether or not to

reciprocate so that task ease or difficulty would not influence the decision. That is, the

situation was designed to prevent those who were skilled at the task from realizing that

they could afford to reciprocate and to prevent those who were less skilled from realizing

that they needed the extra tiles for their own performance. Round two thus gave

participants the opportunity to repay the confederate for the help they were given on the

first round. Moreover, care was taken to try to elicit participants' true desire to

reciprocate the favor, and to reduce social desirability motives, or motives associated

with task difficulty.

After the second round was completed, the experimenter informed the participant

that because participants are allowed to share tiles, they are also allowed to share the

money they earned. It was emphasized, however, that participants should not feel

obligated to share their earnings with each other. The participant was then given a form

which stated his earnings, and was told to simply indicate on the form whether he wished

to share the earnings with his partner, and, if so, how much he wished to give to his

partner. Importantly, participants were not aware that they would be able to share their

reward when they made the decision earlier to give tiles to their partner; in this way, the

decision to give tiles was not contaminated by the knowledge that participants would be

able to share their reward later. At this point, the participant was also given a post

experiment questionnaire to complete, which assessed mood and asked questions about

their interaction with their partner that day. After completing the post experiment

questionnaire, the participant was probed for suspicions, fully debriefed, and

compensated.

*Materials*

RQ. (Bartholomew & Horowitz, 1991). The same questionnaire used in Study 1

was used to assess participants' attachment style.

*Profile of Moods States* (POMS) (MacNair et al., 1971). To assess mood the

*elated* (happy, pleased, content), *anxious* (anxious, uneasy, nervous, tense), and *unsure*

(uncertain, unsure, inadequate, self-doubting) subscales of the POMS were used; I also

constructed a guilt subscale (guilty, regretful, blameworthy, ashamed). Participants rated

on a scale from 0 (*not at all*) to 6 (*very much*) the extent to which they were feeling each

adjective at that moment. Cronbach alpha coefficients for the *anxious, unsure, elate*d, and

*guilt* subscales were .80, .71, .67, and .93, respectively.

*Post-Experimental Mood Assessment.* The same adjectives used to assess baseline

mood were used to assess mood at the end of the testing session. Participants indicated on

a scale from 0 (*not at all*) to 6 (*very much*) the extent to which they were feeling each

adjective at that moment. Cronbach alpha coefficients for the *anxious, unsure, elated,* and

*guilt* subscales were .82, .74, .82, and .71, respectively.

<div align="center">Results</div>

*Reciprocation Analyses*

*Reciprocation with tiles.* To investigate the influence of attachment on

reciprocation (gives tiles vs. not give tiles), a binary logistic regression was performed.

As in Study 1, I created anxious and avoidant dimensions, reflecting participants'

answers to the 4 items on the RQ. The main effects of attachment avoidance and anxiety

were entered in the first step, and their interaction term (i.e., avoidance x anxiety) was

entered in the second step of the analysis. Whereas the model including the main effects

of avoidance and anxiety was marginally significant, $X^2(2, N = 37) = 4.85, p = .09$,

introducing the interaction term significantly improved the prediction of reciprocation, $X^2$

$(1, N = 37) = 9.05, p < .005$. The Wald statistic $(z^2)$ was used to test the significance of

each predictor in the final model. Avoidance significantly predicted reciprocation, $z^2 =$

$4.89, p < .05$, whereas anxiety did not, $z^2 = 1.44, ns$. Moreover, the interaction between

attachment avoidance and anxiety reliably predicted reciprocation, $z^2 = 6.13, p < .05$.

To investigate the nature of this interaction, a median split was performed on

attachment anxiety, creating low ($n = 19$) and high ($n = 18$) anxiety groups. Simple

effects tests using logistic regressions within each anxiety group were then performed

with avoidance as the predictor of reciprocation. To determine the size and direction of

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the obtained effects, point-biserial correlations were then performed between attachment

avoidance and reciprocation within each anxiety group. Results revealed that avoidant

attachment significantly predicted reciprocation for low anxious individuals, $X^2(1, N = 19)$

$= 8.06, r = -.60, p = .005$, but did not predict reciprocation for high anxious individuals,

$X^2(1, N = 18) = .46, r = -.16, ns$.

Thus, as hypothesized, attachment predicted whether participants reciprocated the

help they received from a potential friend. As described in Table 2, secure participants

(low avoidance/low anxiety) were less likely to reciprocate help received (31%),

reflecting the use of communal norms, whereas avoidant-dismissive participants (high

avoidance/low anxiety) were more likely to reciprocate help received (78%), reflecting

the use of exchange norms. In contrast, regardless of their level of avoidance, individuals

high in attachment anxiety (preoccupied and avoidant-fearful) were equally likely to

reciprocate or not reciprocate help from a potential friend.

*Number of tiles given.* A hierarchical multiple regression analysis was conducted

to investigate the relationship between attachment and the number of tiles sent to the

confederate. Avoidant attachment was positively associated with number of tiles given, *B*

$= .34, sr = .32, p = .052$; however, this effect was qualified by a significant interaction

between attachment avoidance and anxiety, $B = -.50, sr = -.48, p < .005$. To interpret the

direction of the obtained effects in the regression analyses, four groups varying in

avoidance and anxiety were created. Low avoidance/low anxiety groups were assigned a

value of one standard deviation below their group mean, and high avoidance/high anxiety

groups were assigned a value of one standard deviation above their group mean. These

values were then entered into the regression equation to predict the number of tiles sent by each group.

As displayed in Figure 2, avoidance was positively associated with numbers of tiles given for those low in anxiety, whereas those high in anxiety gave the same number of tiles regardless of avoidance level. Consistent with the previous analysis, avoidant-dismissive participants were not only more likely to reciprocate help from a potential friend, they also gave more tiles ($M = 5.14$) than their secure counterparts ($M = 1.28$). This finding underscores the paramount importance of reciprocation for avoidant individuals. Avoidant individuals should be concerned with performing well on the vocabulary task, which requires tiles. Nevertheless, they were willing to jeopardize this goal to pay back their outstanding debt. This finding also illustrates the avoidant individuals' use of tit-for-tat strategies. The confederate always gave five tiles and it was the avoidant-dismissive individuals who gave the most (on average, five) tiles to the confederate.

*Give tiles and/or share reward.* At the end of the testing session, participants were given the opportunity to share their reward with the confederate. I was interested in whether attachment was associated with differences in these two types of reciprocation. Importantly, participants did not know they would be able to share their reward when they made the decision to give tiles, so giving tiles was not contaminated by the knowledge that participants would be able to share their reward later. However, participants had already given tiles when they made the decision about sharing their reward, thus the following analyses should be treated with caution as sharing the reward was not completely independent of giving tiles. To investigate the relationship between

attachment, giving tiles, and sharing the reward, a series of two-way ANOVAs were conducted on participants' mean attachment scores. Give tiles (yes vs. no) and share reward (yes vs. no) were the between-subjects factors.

The ANOVA investigating the avoidant dimension revealed a significant main effect for giving tiles, $F(1, 33) = 8.87, p = .005$. $T$ tests revealed that those who gave tiles were significantly more avoidant ($M$ (19) = .84) than those who did not give tiles ($M$ (18) = -.67), $t(33) = 3.39, p < .001$. However, this was qualified by an interaction between giving tiles and sharing reward, $F(1, 33) = 4.95, p < .05$. Focused comparisons revealed that those who gave tiles but did not share their reward were significantly more avoidant ($M$ (6) = 1.52) than each of the other three groups: (a) those who gave tiles and shared their reward ($M$ (13) = .17), $t(33) = 2.03, p = .05$; (b) those who did not give tiles but shared their reward ($M$ (14) = -.22), $t(33) = 2.63, p < .05$; and, (c) those who did not give tiles and did not share their reward, ($M$ (4) = -1.13), $t(33) = 3.21, p < .005$. Those who gave tiles and shared their reward were also marginally more avoidant than those who did neither, $t(33) = 1.87, p < .10$. There were no significant main effects or interaction effects of giving tiles and/or sharing the reward on the anxious dimension, all $F$s < 1.

Supplementary ANOVAs and cell comparisons of the four attachment subscales were performed to further clarify these findings. The results for the avoidant-dismissive subscale were consistent with the above analyses, whereas there were no significant main effects or interaction effects for the avoidant-fearful subscale. The ANOVA investigating the secure subscale revealed a main effect for giving tiles, $F(1, 33) = 6.52, p < .05$. In contrast to the avoidant analyses, those who *did not* give tiles were significantly more secure ($M$ (18) = 2.64) than those who gave tiles ($M$ (19) = 1.89), $t(33) = 2.92, p < .01$.

This main effect, however, was qualified by a marginally significant interaction between giving tiles and sharing the reward, $F(1, 33) = 3.90$, $p < .06$. Focused comparisons showed that those who neither gave tiles nor shared their reward with their partner were more secure ($M (4) = 3.00$) than those who gave tiles but did not share their reward ($M (6) = 1.67$), $t(33) = 2.63$, $p < .05$, and were somewhat more secure than those who gave tiles and shared their reward ($M (13) = 2.12$), $t(33) = -1.96$, $p < .07$. Finally, the ANOVA on the preoccupied subscale revealed a marginally significant interaction between giving tiles and sharing reward, $F(1, 33) = 3.76$, $p = .061$. Results revealed that those who gave tiles and shared their reward were somewhat more preoccupied ($M (13) = 1.81$) than those who gave tiles but did not share their reward ($M (6) = .83$), $t(33) = 1.86$, $p < .10$. Interestingly, those who were most preoccupied were those who either gave tiles and shared their reward ($M (13) = 1.81$), or those who did neither, ($M (4) = 1.75$). In fact, planned contrasts revealed that those who gave both tiles and reward and those who did neither were somewhat more preoccupied than the other two groups, $t(33) = 1.94$, $p = .061$.

*Attachment and Post-Experimental Affect Analyses*

Affect was assessed at the beginning and end of the testing session. It was theorized that, as in Study 2, anxious individuals would feel significantly more distressed at the end of the testing session compared to their more secure or avoidant counterparts because of the potential for a communal relationship with their partner, and, possibly, because of their ambivalence about to how to behave in the situation.

*Attachment and post-experimental affect.* Hierarchical multiple regression analyses were conducted on the five affect subscales from the POMS (MacNair et. al.,

1971) to assess participants' affect at the end of the testing session, controlling for their baseline affect assessed at the outset of the testing session. Although attachment was not associated with post-experimental elation or regret, both $ts < 1.5$, attachment did predict whether participants' anxiety or uncertainty increased during the testing session.

To investigate the influence of attachment on feeling anxious and uncertain at the end of the testing session, the anxious and avoidant dimensions as well as baseline anxiety or uncertainty were entered into the model. Because the effect of avoidance was not significant in predicting anxiety or uncertainty, a simpler model including only the anxious dimension was used. The regression analysis revealed that anxious attachment predicted feeling anxious at the end of the testing session, controlling for baseline anxiety $B = .47, sr = .47, p < .005$. Anxious attachment also predicted feeling uncertain at the end of the testing session, controlling for baseline levels of uncertainty, $B = .32, sr = .32, p < .05$. Thus, as predicted, in contrast to the secure and avoidant individuals, anxious individuals' anxiety and uncertainty increased during the testing session.

## Discussion

In summary, as predicted, avoidant individuals were more likely to reciprocate the help they received from the confederate—even when the confederate had sent a message stating that help was not needed—and they also gave more tiles to the confederate; in fact, the mean number of tiles they gave was equal to the number the confederate had given them suggesting their use of tit-for-tat strategies. Avoidant individuals, however, were *less* likely to share their reward after they had given tiles. This makes sense when one considers the difference between these two modes of reciprocation. Giving tiles reflects a direct effort to balance the books, whereas sharing one's reward seems qualitatively

different. Not only does sharing the reward involve reciprocating in another medium (tiles vs. money), which is more consistent with the communal script, it involves self-sacrifice and an interest in the welfare of the other person. The avoidant individuals' goal is to eliminate their debt, and to deter closeness. Consistent with these goals, avoidant individuals reciprocated in kind, giving to the confederate roughly what they received.

In contrast to their avoidant counterparts, secure individuals respected the confederate's wishes and did not reciprocate help received. Communal norms means giving help when help is needed, and not feeling the need to reciprocate when one has received help. In this situation, when interacting with a potential friend, secure individuals appeared to be following the communal script. It should be noted that, if the confederate had asked for help, it was theorized that secure individuals would have gladly sent over tiles. Finally, anxious individuals were equally likely to give or not give tiles. Although the current investigation does not allow for a direct test of this hypothesis, this may have been because of their conflict about following the communal script. Not reciprocating is consistent with the communal script, but the anxious individuals may have been unable to inhibit their desire to show interest. Not reciprocating means not doing anything, and they may have felt the need to send some message to their partner communicating their interest. The fact that the most preoccupied participants were those who both gave tiles *and* shared their reward suggests they may have been trying to communicate that, although they reciprocated the favor, they were still interested in the welfare of the other person. It also underscores their more general ambivalence about how to behave in this situation. As in Studies 1 and 2, attachment anxiety was again

associated with increased anxiety: Anxious individuals continued to feel anxious at the

end of the testing session, even controlling for baseline anxiety.

STUDY 4

*Responses to a Potential Friend's Use of Communal Norms:*

*The Influence of Attachment on Cognition and Affect Regulation*

The goal of this study was to investigate the self-regulatory strategies used by individuals with different attachment styles to cope with potential communal situations, and, specifically to investigate the consequences of anxiously attached individuals increased anxiety in response to possible closeness. A second goal of this study was to provide further evidence that situations affording the possibility of closeness, compared to situations where the prospect of closeness is unlikely, are indeed distressing to insecure, and especially anxiously attached individuals, using a different, more direct operationalization of the confederate's use of communal versus exchange norms.

A basic assumption of attachment theory is that the attachment system is responsible for regulating affect with respect to pursuing attachment related goals. Situations involving the desire and opportunity for closeness (i.e., potential communal situations), compared to situations where there is little possibility of closeness, should be especially likely to arouse the goals associated with attachment insecurity (Mikulincer & Shaver, 2003). Even when there is a desire for friendship, insecurely attached individuals should be distressed when the possibility arises because of their chronic concerns regarding closeness. Given their preference for independence and maintaining a distance between themselves and others, avoidant individuals should be apprehensive that the other's efforts at closeness may encroach upon their independence. Situations affording the opportunity for closeness should be distressing to anxiously attached individuals, as

they should arouse the vigilant monitoring and appraisal of attachment-goal related cues characteristic of highly anxious individuals. That is, in these situations, anxious individuals should be especially preoccupied with "reading" and understanding the cues in the situation, and how they might relate to the fulfillment of their attachment related goals. Also, given their history, anxiously attached individuals may also wonder about their partner's intentions, and may worry about doing and saying the right things so as to not botch this opportunity for closeness.

This distress should, in turn, activate the coping strategies associated with the different attachment orientations. Anxiously attached individuals should respond to the prospect of closeness with increased anxiety and uncertainty, resulting in rumination, and poorer performance on a mental concentration task. Avoidantly attached individuals should also be distressed; however, because their typical coping response is to distance themselves from the source of distress, and inhibit the accessibility of unpleasant thoughts, their performance on a mental concentration task should not be impaired. Finally, in contrast to the insecures, secure individuals should not view the potential communal situation as distressing; in fact, they should benefit from contact with a supportive other, resulting in enhanced performance.

## Method

### Participants

Sixty-nine male university students volunteered to participate in the study (mean age = 19.7 years). Again, single participants were targeted via a pre-study questionnaire to increase the likelihood that they would be available and interested in a communal relationship with the confederate; there were 54 single and 15 dating participants.

Participants were randomly assigned to either the communal ($n = 32$) or the performance-anxiety conditions ($n = 37$). Participants received $10 (Canadian) for their participation.

*Procedure*

As in the previous studies, participants had a two minute interaction with an attractive, opposite-sex confederate, who was also supposedly a participant. After the interaction period, the participant and the confederate were brought into the testing room where the experimenter introduced the participants to one another and explained that the study was investigating "cognitive abilities and distributive reasoning." The participant and the confederate were then told that in the first part of the study they would be working on some cognitive tasks individually to assess mental concentration, and for the second part of the study they would be working on a Trivial Pursuit type task. After being given a brief description of the Trivial Pursuit task (see Experimental Manipulation below), the participant was escorted to a separate testing room and was left alone to complete an informed consent form and a thought listing task.

The experimenter returned after a few minutes and gave the participant a mood scale, a set of personality measures including the Experience in Close Relationships (ECR) scale, and the "Group Information" sheet to complete (as in the previous studies, the "Group Information Sheet" contained basic demographic information about the other participant, including relationship status, and University status). Once the participant had completed these measures, they were introduced to the d2 test, which was used to assess mental concentration/rumination. The experimenter then timed participants as they worked on the d2. After completing the d2, participants answered a few question about

their experience (see "d2 evaluation form" below) and then began the lexical decision

task, at which point the experimenter left the room.

After a few minutes the experimenter returned supposedly to bring the participant

to the other room for the second part of the study. Participants were told that prior to

beginning the Trivial Pursuit portion of the study, it was necessary for them to complete a

short questionnaire (see Trivial Pursuit expectations questionnaire below) to "control for

individual differences in expectations about the upcoming task." In this questionnaire,

participants were asked about their positive and negative expectations about the Trivial

Pursuit task, and also rated the extent to which they were looking forward to the task.

Upon completion, participants were probed for suspicions, debriefed, and compensated

for their time.

*Experimental Manipulation*

*Communal condition.* In this condition, participants were told that the second part

of the study was interested in "distributive reasoning." Participants were informed that

they would be working on a Trivial Pursuit type task, in which the experimenter would

ask each participant Trivial Pursuit questions. Moreover, participants were told that they

had the *option* to work with their partner on this task. Specifically, the experimenter said:

"For this task, you have the option to work with your partner; so, if you choose to work

with your partner, although each question will be directed at one of you, you will be able

to help the other participant with the answer by giving clues to the question." The

experimenter then paused, and the confederate looked at the participant, smiled, and

suggested working together as a team on the second task; in this way, expressing her

desire to be communal. The experimenter then confirmed that they would be working as

a team on the Trivial Pursuit task (all participants agreed to work with the confederate) and asked if they had any further questions.

In addition to the confederate expressing the desire to work as a team, the confederate was presented as single and a recent transfer student in the communal condition, so as to increase the likelihood that participants would desire a communal relationship with her and see her as available for a communal relationship. The confederate was also was more talkative during the hallway interaction.

*Performance-anxiety/control condition.* In this condition, participants were told that the second part of the study was interested in assessing "general knowledge" and would be using a Trivial Pursuit game. Importantly, so that participants would not feel rejected by the confederated, participants were not even given the option to work together in this condition; they were simply told that the experimenter would be asking them the Trivial Pursuit questions individually and that each, in turn, would have the opportunity to answer questions. In contrast to the communal condition, in this condition, the confederate was presented as dating and not a transfer student so as to decrease the likelihood that participants would desire a communal relationship with her and see her as less available for a communal relationship. The confederate was also less talkative during the 2 minute interaction, but she was not rude (i.e., if the participant initiated conversation, the confederate would reply but not move the discussion forward).

*Materials*

*ECR.* (Brennan et al., 1998). The full 36-item version of this questionnaire was used to assess the two underlying dimensions of attachment avoidance and anxiety. Cronbach alpha coefficients were .91 for the 18 avoidance items and .89 for the 18

anxiety items. Attachment avoidance and anxiety scores were computed for each

participant by taking the mean response on the avoidance and anxiety items. Avoidance

and anxiety scores were not associated $r(67) = .06$.

*POMS.* (MacNair et al., 1971). The *anxious, unsure, elated, hostile,* and

*composed* subscales were selected from the POMS to assess mood. Participants rated on a

scale from 0 (*much unlike this*) to 3 (*much like this*) the extent to which they were

experiencing each feeling at that moment.

*The d2 Mental Concentration Test* (Brickenkamp, 1981). This test consists of a

matrix of 14 rows of random sequences of the letters *d* and *p* with one, two, or no

apostrophes above and/or below each letter. Participants were instructed to find all the *d*'s

with two apostrophes, and were given 15 seconds to go through each row (the

experimenter timed participants with a stop watch). Participants were instructed to work

as quickly and accurately as possible. The *d2* test is theorized to be an index of

"resistance against interference" and has previously been used to assess rumination (see

Kuhl, 1981). Performance on the d2 test is assessed by calculating participants' errors of

omission (i.e., the number of d2s missed), and errors of commission (i.e., the number of

non-d2s erroneously marked).

*The d2 Evaluation Form.* This questionnaire asked participants about their

experience during the d2 test. Participants indicated on a scale from 0 (*not at all*) to 4

(*extremely*) how important it was to them to do well and how well they thought they

performed on the d2 test. Participants also rated how much attention they devoted to the

task, and how much time they spent thinking about how well they were doing on the task

by placing a slash through a line form 0% to 100%. The latter two questions were combined to create a measure of participants' intrusive thoughts.

*Lexical decision task.* The purpose of this task was to assess the cognitive accessibility of proximity and distance/rejection themes. This task was programmed using E-prime and run on a Dell Pentium 3 XPS T700r PC computer. Participants were given 12 practice trials to familiarize themselves with the task, and then began the 87 experimental trials. Participants were instructed to work as quickly and as accurately as they could to judge whether each letter string was a word or nonword by pressing the *d* key (covered by a "word" sticker) if they thought the string was a word and the *k* key (covered by a "nonword" sticker) if they thought it was a nonword.

Each trial began with a star presented in the middle of the screen followed by the target stimulus after a pause of 500 ms. The target stimulus lasted on the screen for 1000 ms during which participants indicated whether the target was a word or nonword. After indicating their response, a blank screen followed for 500 ms and then the next trial began. The target letter strings were taken from Mikulincer, Birnbaum, Woodis, and Nachmias (2000) and consisted of three proximity words (*closeness*, *love*, and *affection*)[7] and six distance/rejection words (*separation, rejection, abandonment, distance, loneliness,* and *alone*). For exploratory purposes I also included five coping strategy words (*intimacy, escape, worry, security,* and *control*) taken from Mikulincer (1998), which are theorized to reflect the coping strategies associated with different attachment

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[7] Mikulincer et al. (2000) actually used six proximity words; however, pilot testing revealed that three of the words (*kiss, hug,* and *caress)* were repeatedly mentioned as curious and out of place given the context of the study and thus were deleted from the lexical decision task.

orientations.[8] In addition, nine communion and nine agency words were included for

pilot-testing purposes, along with 10 neutral words, and 45 nonwords. The 10 neutral

words had no positive or negative connotations and no link to proximity or rejection

themes (e.g., *elephant*, *book*, and *picture*). The 45 nonwords were created by taking

common English words and changing one letter. All words and nonwords were matched

for number of letters and trials were randomly ordered across participants.

*Trivial Pursuit expectations questionnaire.* In this questionnaire, participants were

asked to imagine what the Trivial Pursuit task would be like, and then to rate on a scale

from 0 (*not at all*) to 6 (*very much*) how they thought they would feel in terms of six

positive (e.g., happy, composed) and six negative emotions (e.g., nervous, inadequate).

Participants also rated the extent to which they were looking forward to the task by

placing a slash through a line measuring from 0 (*not at all*) to 100 (*very much*).

*Manipulation check.* After participants were debriefed, they were reminded that

the confederate's role in the experiment was to act as someone with whom participants

*might* like to have a communal relationship. They were further told that it was expected

that people would differ in the extent to which they saw the confederate as a potential

friend, and that it would be helpful if they could give their honest impression of the

confederate. At this point the experimenter asked whether the participant would mind

completing one last questionnaire to assess the effectiveness of the experimental

manipulation. The questionnaire asked participants to rate the extent to which they (a)

liked their partner, (b) were attracted to their partner, and (c) would like to be friends with

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[8] It was thought that *worry* and *security* might be more accessible for the anxiously attached while *escape* and *control* might be more accessible for the avoidantly attached, and that this might interact with experimental condition. However, no mean differences in RTs to these words were found, nor were any correlations between these RTs and mental concentration found as a function of attachment.

their partner by placing a slash through a line ranging from 0 (*not at all*) to 100 (*very much*). Participants were given privacy to answer the questionnaire, and were assured that their responses would remain anonymous and confidential.

## Results

*Manipulation Check*

An overall attraction to partner measure was created by taking participants' mean response to the three manipulation check items (liking, attraction, and desire to be friends). The independent samples *t* test revealed a significant difference between experimental conditions, $t(67) = 3.48, p < .001$. In support of the manipulation, those in the communal condition liked their partner more, were more attracted to their partner, and were more interested in becoming friends with their partner ($M = 69.55; SD = 11.73$) than those in the performance-anxiety condition ($M = 58.62; SD = 14.05$).

An analysis of variance (ANOVA) was also conducted to investigate the effects of experimental condition and attachment on the attraction to partner measure, and revealed a three way interaction between condition and attachment anxiety and avoidance, $F(1, 61) = 4.63, p < .05$. Focused comparisons revealed that the those low in both anxiety and avoidance and those high in both anxiety and avoidance were more attracted to the confederate in the communal condition ($M = 77.19; SD = 4.91$, and $M = 70.30; SD = 4.33$, respectively) than in the performance-anxiety condition ($M = 55.08; SD = 3.75$, and $M = 57.52; SD = 3.92$ respectively), $t(61) = 3.58, p < .001$, and $t(61) = 2.19, p < .05$. There were no attachment group differences within the communal and performance-anxiety conditions.

*Mental Concentration/Rumination*

To investigate the influence of condition and attachment on mental concentration/rumination a 2 (condition: communal vs. performance-anxiety) X 2 (attachment anxiety: low vs. high) X 2 (attachment avoidance: low vs. high) ANOVA was conducted on participants' d2 score (i.e., the sum of d2 hits minus mistakes).[9] The ANOVA investigating the effects of experimental condition and attachment on d2 performance yielded a main effect for condition, $F(1, 58) = 4.70, p < .05$. As predicted, overall performance was worse in the performance-anxiety condition ($M = 183.36; SD = 5.36$) than in the communal condition ($M = 200.66; SD = 5.90$). However, this effect was qualified by an interaction between condition and attachment anxiety, $F(1, 58) = 4.49, p < .05$, but not by an interaction with avoidance, $F < 1.5$. As depicted in Figure 3, participants low in attachment anxiety in the communal condition performed significantly better ($M = 212.68; SD = 8.75$) than their low anxious counterparts in the performance-anxiety condition ($M = 178.49; SD = 7.17$), $t(58) = 3.05, p < .01$, and, importantly, also performed significantly better than their high anxious counterparts in the communal condition, ($M = 188.64; SD = 7.92$), $t(58) = 2.05, p < .05$. There was no difference between the low and high anxious participants in the performance-anxiety condition, nor was there a difference between conditions for the high anxious participants, both $ts < 1.5$.

Thus, as predicted, overall participants were less able to concentrate in the performance-anxiety condition, suggesting their preoccupation with answering the Trivial Pursuit questions in front of their partner. However, importantly, while the communal condition facilitated performance for the more secure participants, it impaired

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[9] Three participants with errors of commission scores (mistakes) greater than 60 (i.e., more than 4 standard deviations above the group mean of 5.75) were dropped from the d2 analyses as it is likely they misunderstood the instructions to the d2 test. The fourth highest participant had an error of commission score of 17.

performance for the more anxiously attached, suggesting the anxious participants' distress about the possibility of a communal interaction.

*Importance to do well.* The overall mean (3.64) was above the midpoint (2), suggesting that the d2 test was an engaging and meaningful task. In addition, analyses revealed an effect of condition on importance to do well yielded a main effect for condition, $F(1, 61) = 4.67, p < .05$. Overall, participants felt it was more important to do well on the d2 test in the communal condition ($M = 3.86; SD = .13$) than in the performance-anxiety condition ($M = 3.48; SD = .12$).

*Performance estimation.* The ANOVA investigating the effects of condition and attachment on d2 performance estimation also yielded a main effect for condition, $F(1, 61) = 9.74, p < .005$. Overall, participants felt they performed better on the d2 test in the communal condition ($M = 2.74; SD = .11$) than in the performance-anxiety condition ($M = 2.28; SD = .10$). However, this was qualified by an interaction between experimental condition and attachment anxiety, $F(1, 61) = 6.72, p < .05$. Participants low in attachment anxiety, in the communal condition, gave significantly higher performance ratings ($M = 2.93; SD = .16$) than their low anxious counterparts in the performance-anxiety condition ($M = 2.08; SD = .14$), $t(61) = 4.05, p < .001$, and gave slightly higher ratings then their high anxious counterparts in the communal condition ($M = 2.56; SD = .14$), $t(61) = 1.74$, $p < .10$. There were no differences between conditions for the high anxious participants, $t < 1$. These estimations are consistent with participants' actual performance, suggesting their awareness of their performance on the d2 test.

*Self-reported attention-distraction.* An attention-distraction score was calculated by subtracting how much participants reported they were thinking about how well they

were doing on the d2 from how much attention they said they devoted to the d2 (higher

numbers reflect greater attention and less distraction). The ANOVA investigating the

effects of condition and attachment on self-reported attention-distraction yielded a

marginally significant interaction between condition and attachment anxiety, $F(1, 61) =$

5.32, $p = .073$. In the communal condition, participants low in attachment anxiety

reported paying more attention and being less distracted ($M = 62.36$; $SD = 12.13$) than

their more anxious counterparts ($M = 29.39$; $SD = 10.70$), $t(61) = 2.03$, $p < .05$. There

were no other group differences, $ts < 1.5$. Thus, as predicted, anxious participants' self-

reports reflected their difficulty attending to the mental concentration task.

*Lexical Decision Analyses* [10]

Drawing upon Greenwald, McGhee, and Schwartz (1998), reaction times (RTs)

on the lexical decision task less than 300 ms were recoded as 300 ms, and RTs greater

than 3000 ms were recoded as 3000 ms. Overall the error rates were low (the mean was

2.7%)[11]. RTs for words with incorrect responses were replaced with the mean RT for that

word. Error rates were not related to experimental condition or attachment. The mean RT

across all conditions was 740.96 ($SD = 146.84$).

Because I was primarily interested in the association between the accessibility of

proximity and/or distance/rejection themes and performance on the d2 test, I compared

the within-cell correlations of proximity or distance/rejection word RTs and d2

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[10] Although native English speakers were targeted, 13 participants reported that English was their second language. One participant who rated his English proficiency as moderate (3 on a scale from 1 to 5) was dropped from the lexical decision analyses. The twelve remaining participants who reported that English was not their native language did not differ from the native English speakers on error rates, $t < 1$, or RT, $t < 1$.

[11] Three real words and seven nonwords had exceptionally high error rates (greater than 15%), and consequently were dropped from the analyses. The real words that were dropped were not target words.

performance across experimental conditions and levels of attachment. Specifically,

standardized residuals of the proximity and distance/rejection RTs were created using

control word RT as the predictor (negative numbers reflect quicker RTs/increased

accessibility). Participants' d2 scores were also standardized (negative numbers reflecting

poorer performance). The cross-products of the standardized scores (e.g., the product of

proximity accessibility and d2 score) were taken, and I then conducted 2 (condition:

communal vs. performance-anxiety) X 2 (attachment anxiety: low vs. high) X 2

(attachment avoidance: low vs. high) ANOVAs on the following cross-products: (a)

Proximity RT X d2 performance, and (b) Distance/rejection RT X d2 performance. For

exploratory purposes, I also conducted ANOVAs on the cross-products of each control

strategy word and d2 performance (e.g., "worry" accessibility and d2 performance).[12]

*Proximity and distance word accessibility and d2 performance.* The ANOVA

investigating the cross-product of proximity accessibility and d2 performance yielded a

significant interaction between condition and attachment anxiety, $F(1, 57) = 4.49, p < .05$.

In the communal condition, proximity accessibility was associated with better

performance on the d2 test for those low in attachment anxiety ($M = -.69$; $SD = .36$), but

proximity accessibility was associated with poorer d2 performance for those high in

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[12] I also looked at the effects of experimental condition and attachment on the accessibility of the proximity, distance/rejection, and the control strategy words. These analyses yielded one marginal effect. Specifically, the ANOVA investigating the effects of experimental condition and attachment on proximity word RT, controlling for control word RT, yielded a marginal interaction between experimental condition and attachment anxiety and avoidance, $F(1, 59) = 2.83, p = .098$. In the communal condition, high avoidant, low anxious participants were quicker at identifying proximity words ($M = 636.27$; $SD = 59.24$) than high avoidant, high anxious participants ($M = 837.72$; $SD = 55.37$), $t(59) = 2.49, p < .05$. Moreover, unexpectedly, the pilot test of communion words uncovered a similar three-way interaction between experimental condition and attachment anxiety and avoidance, $F(1, 59) = 4.48, p < .05$, such that high avoidant, low anxious participants were also quicker at identifying communion words in the communal condition ($M = 636.62$; $SE = 30.80$) than the high avoidant, high anxious participants ($M = 763.55$; $SE = 28.78$), $t(59) = 3.01, p < .01$, and were also quicker at identifying communion words than their high avoidant, low anxious counterparts in the performance-anxiety condition ($M = 721.05$; $SE = 29.23$), $t(59) = 2.00, p < .05$.

attachment anxiety (M = .47; SD = .34), $t(57) = 2.37$, $p < .05$. Thus, as predicted, in the communal condition, proximity accessibility facilitated performance for less anxiously attached, but impaired performance for more anxiously attached.

In addition to the predicted interaction between attachment anxiety and experimental condition, a second interaction was found between attachment anxiety and avoidance, independent of experimental condition, $F(1, 57) = 4.29$, $p < .05$. In general, among those high in anxiety, proximity accessibility increased performance for those low in avoidance ($M = -.46$; $SE = .35$) but decreased it for those high in avoidance ($M = .76$; $SE = .33$), $t(57) = 2.68$, $p < .01$.

There were no significant main or interaction effects of condition and attachment on the cross-product of distance/rejection accessibility and d2 performance, all $Fs < 2$, nor were there any significant main or interaction effects of condition and attachment on the cross-products of the control-strategy words and d2 performance, all $Fs < 2.5$.

*Proximity word accessibility and anxiety and uncertainty.* After the experimental manipulation, but before beginning the d2 task, participants' anxiety and uncertainty at that moment were assessed. To investigate whether proximity accessibility was associated with anxiety and/or uncertainty for the anxiously attached individuals, I looked at the within-cell correlations of proximity word RT and anxiety and uncertainty ratings (computed in the same manner described above).

The ANOVA investigating the cross-product of proximity accessibility and affective anxiety yielded a main effect for attachment anxiety, $F(1, 60) = 4.34$, $p < .05$, such that proximity accessibility was associated with increased anxiety for the high anxiously attached participants ($M = -.50$; $SD = .14$), but was not associated with anxiety

for the low anxious participants ($M$ = -.08; $SD$ = .14). This effect was qualified by a marginal interaction with attachment avoidance, $F(1, 60) = 3.65, p = .061$. Focused comparisons revealed that the association between proximity accessibility and anxiety was slightly stronger for the high anxious, low avoidant participants ($M$ = -.76; $SD$ = .22) than for high anxious, high avoidant participants ($M$ = -.24; $SD$ = .19), $t(60) = 1.87, p$ < .10.

The ANOVA investigating the cross-product of proximity accessibility and uncertainty revealed a marginal three-way interaction between condition and attachment anxiety and avoidance, $F(1, 60) = 3.23, p = .077$. Focused comparisons found that, in the communal condition, proximity accessibility was associated with increased uncertainty for the high anxious, low avoidant participants ($M$ = -.71; $SD$ = .30) but was associated with decreased uncertainty for the other three groups: low anxious, low avoidant participants ($M$ = .32; $SD$ = .34), $t(60) = 2.28, p < .05$; high anxious, high avoidant participants ($M$ = .19; $SD$ = .32), $t(60) = 2.06, p < .05$; and, high anxious, low avoidant participants in the performance-anxiety condition, ($M$ = .29; $SD$ = .36), $t(60) = 2.11, p$ < .05.

*Expectations about the Trivial Pursuit Task*

Prior to beginning the Trivial Pursuit task, participants rated their positive and negative expectations about the task and rated how much they were looking forward to the task. A composite expectations scale was created by subtracting participants' negative expectations from their positive expectations. The ANOVA investigating participants' expectations revealed a main effect for attachment avoidance, $F(1, 61) = 6.28, p < .05$. Across conditions, low avoidant participants had more positive expectations about the

Trivial Pursuit task ($M = 1.94$; $SD = .32$) than their high avoidant counterparts ($M = .81$; $SD = .31$). There were no other main or interaction effects, all $F$s < 1.55.

With respect to how much participants were looking forward to the Trivial Pursuit task, although there were no main or interaction effects of condition or attachment, inspection of the data revealed that low avoidant participants in the communal condition were looking forward more to the group task ($M = 77.27$; $SD = 4.37$) than their high avoidant counterparts ($M = 64.29$; $SD = 4.37$), $t(61) = 2.12$, $p < .05$.

## Discussion

This study was designed to investigate the self-regulatory strategies used by individuals with different attachment styles to cope with the prospect of a communal interaction, and, specifically to investigate the consequences of anxiously attached individuals' increased anxiety in response to possible closeness. While performance on a mental concentration task was impaired for everyone in the performance-anxiety condition, anxiously attached individuals also performed poorly in the communal condition, suggesting their distress about the prospect of closeness. This is consistent with the anxious individual's tendency to use passive, ruminative, emotion-focused coping strategies (Mikulincer & Florian, 1998).

What is it about the potential communal situation that was distressing to the anxiously attached? In the previous investigations, anxiously attached individuals responded to the prospect of closeness with increased anxiety. At first glance, this seems strange: Should they not be relieved as the very thing they desire most—closeness—is about to come about? Analyses looking at the association between d2 performance and proximity and distance/rejection accessibility suggest that it was thoughts about

closeness—and not thoughts about rejection—that preoccupied the anxious participants. Moreover, proximity accessibility was also associated with increased uncertainty for the anxious participants in the communal condition. Because of their concerns about their own worthiness, and their previous relationship experiences, anxious individuals may have felt uncertain about their partner's intentions. They may have wondered whether their partner's suggestion to work as a team was intended to communicate interest. They may also have been concerned about their own ability to do and say the right thing so as to not spoil this opportunity. Finally, self-reports of how much attention participants devoted to the d2 task, and of how much time participants thought about how well they were doing and how good they were at the task suggest that the anxious participants' distress about the upcoming communal interaction was activating more general doubts about the self. This is consistent with research by Mikulincer and his colleagues who have found that anxious individuals have difficulty containing their distress, and that concerns in one domain often spread to concerns in unrelated domains (Mikulincer & Florian, 1998; Mikulincer & Orbach, 1995).

In contrast, avoidant individuals did not exhibit performance deficits in the communal condition. This, however, should not necessarily be taken as evidence that they were not distressed by the prospect of closeness. A core feature of avoidant attachment is discomfort when others try to get too close, so it is likely that the confederate's suggestion to work as a team would have been distressing to the avoidant participants. However, avoidant attachment is associated with a deactivation of the attachment system, and avoidant individuals tend to deal with distress by suppressing worries and concerns; thus their distress in the communal condition may not have

compromised their performance on the mental concentration task. (Interestingly, as noted, dismissive individuals did exhibit increased activation of proximity and communion themes in the communal condition that was not associated with performance on the mental concentration task. This was not hypothesized; however, it is possible that they were experiencing a "rebound effect." That is, they were suppressing concerns about closeness, but the d2 task taxed their resources, making these themes more accessible during the lexical decision task. I will return to this point in the General Discussion.)

Secure individuals benefited the most from the communal condition. In contrast to their more anxious counterparts, the communal condition and thoughts about closeness facilitated their performance on the mental concentration task. Secure participants also performed better in the communal condition compared to secure participants in the performance-anxiety condition suggesting that proximity accessibility dampened their anxiety. These findings highlight the importance of a secure base: When secure participants interacted with someone who expressed liking and acceptance, as opposed to someone who was simply neutral, they went on to excel at the mental concentration task. Self-reports revealed that they were also better able to focus on the task and were less distracted with thoughts about how well they were performing. Moreover, compared to their more avoidant counterparts, secure individuals had more positive expectations about what the Trivial Pursuit task would be like (regardless of conditions), and were looking more forward to the Trivial Pursuit task in the communal condition compared to the performance-anxiety condition, suggesting that they did not construe the prospect of closeness as stressful, but rather a source of support.

STUDY 5

*The Influence of Attachment on Attributions about the Significance of a Potential Friend's Use of Communal Norms for Relationship Development*

The goal of Study 5 was to explore the kind of attributions people with different attachment styles make when a potential friend behaves in a communal manner in order to help shed light on what participants may have been thinking in the laboratory investigations described in Studies 1 through 4. In this study, participants were asked to nominate someone with whom they hoped to establish a deeper relationship (a "potential friend"), and then visualized themselves in one of two situations in which their potential friend behaved in a communal manner. In the "notes" scenario, designed to reflect a discrete communal behavior, participants need to borrow notes for a class they have missed, and the potential friend offers to loan them the notes; in the "study partner" scenario, designed to reflect a more general gesture of friendship, the potential friend suggests being study partners and exchanging phone numbers. Affect, feelings of closeness, and attributions about relationship development, the potential friend's behavior, and the significance of the event for the future of the relationship were then assessed.

Borrowing notes is a relatively common event in the life of a student, and the offer to lend someone notes can be attributed to a variety of non-relationship factors, whereas the suggestion to exchange phone numbers and be study partners is less common, and the underlying motives for the behavior are arguably more relational. It was predicted that overall those responding to the study partner scenario would feel

closer to their potential friend, make more relationship attributions, and feel that the event had greater significance for the progress and future of the relationship than those responding to the notes scenario.

Attachment, however, was predicted to moderate these effects. Because of their desire for closeness and their tendency to monitor and appraise discrete events for their significance with respect to attachment-related goals, anxious individuals, in contrast to their less anxious counterparts, should report feeling closer to their partner, make more positive attributions about relationship progress, make more relationship attributions for their potential friend's behavior, and feel that the event has significance for the future of the relationship *regardless* of scenario. That is, even in the discrete communal behavior scenario, anxious individuals should exhibit a "relational attribution bias." Moreover, consistent with the laboratory investigations, it was predicted that anxious individuals, compared to their less anxious counterparts, should report feeling more anxious in response to a potential friend's communal behavior.

Given their desire to avoid intimacy, avoidant individuals should not exhibit a relationship attribution bias; that is, they should not infer relationship progress, make relationship attributions for their partner's behavior, or feel that the event had particular significance for the future of the relationship. That being said, avoidant individuals were not predicted to be totally impervious to their potential friend's behavior, and the possibility of closeness inherent in the scenarios. Their tendency to minimize the importance of closeness should be reflected in their reporting greater indifference to their potential friend's behavior across scenarios. In addition, given their aversion to dependency, avoidant individuals should report decreased happiness ratings in the notes

scenario, in which they receive help from their potential friend. Finally, secure (i.e., low anxious, low avoidant) individuals were considered to be the baseline group. That is, overall they should make more relationship attributions in the study partner scenario than in the notes scenario.

## Method

*Participants*

Two hundred seventy-nine participants were recruited on a volunteer basis to complete one of two relationship surveys. Single participants were targeted to insure participants were adequately interested in developing a communal relationship with their chosen person. Two participants were dropped because they were unable to nominate a potential friend, 23 participants were dropped as they were insufficiently interested in developing a relationship with their potential friend (i.e., their interest in developing a relationship ratings were below the midpoint) (these participants did not differ in attachment avoidance or anxiety scores), and one person was dropped as she did not complete the attachment questionnaire. Two hundred fifty-three participants completed one of two relationship surveys (126 men and 126 women, 219 single and 33 dating, mean age = 21.03 years).

*Procedure*

Prospective participants were asked if they would be interested in completing a survey about new relationship development. Participants were informed that it would take approximately 25 minutes of their time, and that it was important to complete they survey in one sitting, alone, and in a quiet place. Agreeing participants completed an informed consent form and were given the survey and an envelope, and were instructed to return

the survey in the sealed envelope to ensure anonymity. Surveyors were unaware of the hypotheses when administering the survey, and participants were debriefed upon returning the survey.

The survey began with a brief introduction stating that the goal was to learn more about the development of new relationships. Participants were informed that they would be asked to think about someone they are not currently friends with, but someone with whom they could imagine being close friends. They were told that they would be asked to visualize themselves and their chosen person in a social interaction scenario, and would be asked some questions about the social interaction. Participants were encouraged to fully immerse themselves in the scenario, for example, by visualizing themselves and their chosen person in the situation, imagining the surroundings, et cetera. Moreover, to help participants mentally simulate the experience, blank spaces were inserted throughout the scenario, and participants were instructed to write their chosen person's first name in the spaces provided.

After the introduction, participants were asked to think of a same sex or opposite sex *acquaintance*. Specifically, they were instructed to think of:

> Someone with whom you are not currently friends, but someone with whom you could imagine being close friends if you got to know each other better. This person could be a casual friend with whom you would like to establish a deeper friendship, or, possibly, a romantic relationship[13]....Although you are not close

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[13] Participants were allowed to nominate individuals with whom they desired either a friendship or romantic relationship for two reasons. The first was to ensure that most participants would be able to nominate a potential friend for the exercise; if the nature of the relationship had been more restrictive, those who did not desire one type of relationship would be unable to complete the survey. The second reason was to model the methodology used in the lab studies. Although the goal in the lab studies was to create the potential for a romantic relationship, the nature of the relationship between the participant and the

friends right now, you think you might really enjoy spending time together in the future. It remains to be seen how your relationship will develop.

Due to the nature of the social interactions (borrowing class notes and exchanging phone numbers to be study partners), participants were directed to select a peer, that is, someone relatively close in age so that the scenario was would seem appropriate and realistic.

After selecting their chosen person, but before going on to the social interaction scenario, participants were instructed to visualize their chosen person. To aid in the visualization process, participants were asked a series of questions about their chosen person (e.g., What does this person look like? What is it like being with this person? How do you feel when you are with this person? How would you feel if they were here with you now? (see Baldwin, Keelan, Fehr, Enns & Koh-Rangarajoo, 1996)). The guided visualization and mental simulation were designed to help participants immerse themselves, so as to discourage top of the head responses (see Lydon et al., 1997).

After the visualization, participants were instructed to turn the page and read one of the following two scenarios:

*Notes (discrete communal behavior) scenario.* "Imagine that you and _____ are taking a class together. You have missed a few classes since the last midterm and _____ has the notes for the classes you missed." After rating how comfortable they would feel in that situation, participants were asked to imagine that their chosen person had offered to lend them the notes.

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confederate was, nevertheless, ambiguous, as some participants may have been thinking about being friends with the confederate while others may have been thinking more about a possible romantic relationship. For these reasons participants were allowed to select either a potential friend or romantic partner.

*Study partner (general gesture of friendship) scenario.* "Imagine that you and

_____ are taking a class together. One day after class _____ gives you

his/her phone number and suggests being study partners for the upcoming exam."

Participants' affect, attributions about closeness, relationship development,

reasons for the potential friend's behavior, and significance of the behavior for the future

of the relationship were the assessed. Specifically, participants rated how *happy, uneasy,*

and *indifferent* they would feel on a scale from 1 (*not at all*) to 7 (*extremely*). Participants

then indicated on a scale from 1 (*not at all*) to 7 (*a lot*) the extent to which they thought

the event would say something about the progress of their relationship with their chosen

person, and how much closer they would feel to their chosen person after this event

compared to prior to the event.

Attributions for their potential friend's behavior were also assessed in terms of the

following dimensions: (a) dispositional ("because he/she is a nice person"); (b) relational

("because he/she likes me;" "because he/she cares about me;" "to become closer;" and,

("as a gesture of friendship"); (c) situational (e.g., "outside circumstances were probably

the primary cause of this event"); and, (d) self-interest (e.g., "because he/she may need

something from me in the future"). Participants indicated their responses to the seven

attribution items on a scale from 1 (*disagree strongly*) to 7 (*agree strongly*). Finally,

participants rated the extent to which they agreed with following three statements about

the implications of the event for the future of their relationship with their chosen person

using the scale above: (a) "we will probably get closer;" (b) "this event cements our

relationship;" and (c) "this event has no particular implications or significance for the

relationship."

At the end of the questionnaires participants indicated: (a) whether or not they were able to think of an acquaintance with whom they sought friendship; (b) how long they had known the person; (c) how interested they were in developing a relationship with that person; (d) what type (romantic or friendship) of relationship they desired; and (e) the appropriateness of the scenario. Demographics and chronic attachment style were also assessed at this point.

*Measures*

*ECR*. (Brennan et al., 1998). This 36-item questionnaire is designed to assess the two underlying dimensions of attachment avoidance and anxiety. Avoidant items reflect comfort with closeness and dependency and anxious items reflect anxiety about being abandoned. Following Brennan et al. participants were instructed to indicate on a 7-point scale the extent to which they agree/disagree with each item, in terms of how they experience romantic relationships. Cronbach alpha coefficients were .91 for the 18 avoidance items and .91 for the 18 anxiety items. Attachment avoidance and anxiety scores were computed for each participant by taking the mean response on the 18 avoidance and 18 anxiety items. Avoidance and anxiety scores were not associated $r(251) = .06$.

## Results

To investigate the influence of attachment anxiety and avoidance on the kinds of attributions people make about a potential friend's communal behavior and about the significance of that behavior for the development of the relationship, I conducted a series of hierarchical multiple regressions. The unique effects of scenario (notes vs. study partner; contrast coded as 1 and -1, respectively), attachment anxiety, and attachment

avoidance were examined in the first step; the two-way interactions of attachment anxiety

and avoidance, scenario and attachment anxiety, and scenario and attachment avoidance

were examined in the second step; and the three-way interaction of scenario, attachment

anxiety, and avoidance was examined in the third step of the regression. Following Aiken

and West (1991), each predictor was centered around its mean.[14]

*Relationship Characteristics*

One hundred three participants thought of a potential friend, and 149 participants

thought of a potential romantic partner (if participants selected both they were

categorized as seeking a romantic relationship). The mean interest in developing a

relationship was 5.27 (range = 4 to 7). The mean relationship length was approximately a

year and a half (540 days), and the median was six months (168 days) (range = 2 days to

11 years). The mean scenario realism score was 4.83 (range = 1 to 7). Attachment was

not associated with the type of relationship participants were interested in developing,

both $ts < 1$, nor was attachment associated with interest in developing a relationship, or

perceived scenario realism, all $r$'s < .1. Avoidant attachment, however, was marginally

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[14] Whether the type of relationship participants thought about (friend vs. romantic) influenced any of the dependent variables, and whether relationship type qualified any effects of attachment was also investigated. Importantly, relationship type did not qualify any of the main hypotheses concerning attachment anxiety and the relational attribution bias; however, relationship type did interact with attachment on three of the eight dependent variables. Specifically, relationship type interacted with avoidance on feelings of closeness, $B = .17$, $sr = .17$, $p < .005$, such that avoidance was positively associated with feeling close when participants were thinking about a potential romantic partner, but was negatively associated with feeling close when participants were thinking about a potential friend. Analyses also revealed an interaction between relationship type, attachment avoidance and attachment anxiety on dispositional attributions, $B = .17$, $sr = .16$, $p < .005$. While attachment was not associated with dispositional attributions when participants were thinking of a potential romantic partner, high anxious, low avoidant participants were more likely to make dispositional attributions about a potential friend's offer to lend them notes. Finally, relationship type interacted with scenario, attachment avoidance and attachment anxiety on happiness ratings, $B = .14$, $sr = .14$, $p < .05$. While happiness ratings were high and stable in the study partner scenario, in the notes scenario, dismissive participants felt the least happy when thinking about being helped by a potential romantic partner, and fearful participants felt the least happy when thinking about being helped by a potential friend.

associated with relationship length $r(251) = -.11$, $p = .085$. In addition, relationship type

was associated with interest in developing a relationship, $t(248) = 5.99$, $p < .001$. Those

seeking a romantic relationship were significantly more interested in developing a

relationship with their chosen person ($M = 5.56$; $SD = .96$), than were those seeking a

friendship ($M = 4.85$; $SD = .87$).

*Significance of Event for Relationship Progress*

Analyses investigating beliefs about the extent to which participants' felt the

event would say something about the progress of the relationship revealed an effect of

scenario, $B = -.34$, $sr = -.34$, $p < .001$. As predicted, overall participants inferred greater

relationship progress from their potential friend's suggestion to be study partners than

from their potential friend's offer to lend them notes. Analyses also revealed a significant

effect of attachment anxiety, $B = .15$, $sr = .14$, $p < .05$. As predicted, anxiously attached

individuals inferred greater relationship progress from their potential friend's communal

behaviour *regardless* of scenario.

Although the interaction qualifying these main effects was only marginally

significant, $B = .10$, $sr = .10$, $p = .082$, as described in Figure 4, simple effects revealed

that attachment anxiety was positively associated with progress attributions in the notes

scenario, $r(127) = .23$, $p < .01$, but was not associated with progress attributions in study

partner scenario, $r(121) = .06$, primarily because *everyone* made more optimistic

attributions about the progress of their relationship in the study partner scenario.

*Feelings of Closeness After the Event (Compared to Prior to the Event)*

Analyses investigating feelings of closeness after the event revealed a significant

effect of scenario, $B = -.34$, $sr = -.34$, $p < .001$, such that participants felt closer to their

potential friend in the study partner scenario than in the notes scenario. Analyses also revealed a significant effect of anxiety, $B = .17$, $sr = .17$, $p < .005$, and a significant interaction between attachment anxiety and avoidance, $B = -.12$, $sr = -.12$, $p < .05$. Essentially, insecurely attached individuals reported a greater increase in feelings of closeness than securely attached individuals in both scenarios.

*Attributions for Potential Friend's Behaviour*

Participants rated the extent to which they thought various statements reflecting dispositional, self-interested, relational, and situational motivations explained their potential friend's behavior. A composite relational attribution measure for their potential friend's behaviour was created by subtracting participants' mean situational and self-interested attributions from their mean relational attributions (higher numbers reflect greater relational attributions). The dispositional (i.e., "because he/she is a nice person") attribution item is presented individually.[15]

*Relational (like, care, close, & friend) - (situational & self-interest).* Analyses investigating relational attributions revealed a negative association between avoidance and making relational attributions, $B = -.22$, $sr = -.22$, $p < .001$. Analyses also revealed an effect of scenario, $B = -.15$, $sr = -.15$, $p < .001$, and an interaction between scenario and attachment anxiety, $B = .13$, $sr = .13$, $p < .05$. As displayed in Figure 5, while participants

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[15] The dispositional attribution item was not included in the relational attribution composite because the way the item was phrased ("because he/she is a nice person") may have elicited participants' chronic beliefs about others (i.e., attachment), and not simply non-relational attributions. That is, anxious participants may have been inclined to agree with the statement and avoidant participants may have been inclined to disagree with the statement irrespective of their beliefs about their potential friend's relational motives. Indeed, an investigation of the correlations between situational and dispositional attributions for low versus high anxious participants revealed that whereas dispositional and situational attributions were highly positively correlated for the low anxious participants, $r(124) = .31$, $p < .001$, they were not correlated for the high anxious group, $r(123) = .02$. Similarly, whereas dispositional and situational attributions were highly positively correlated for the low avoidant participants, $r(124) = .31$, $p < .001$, they were not correlated for the high avoidant group, $r(123) = .05$.

were generally more likely to make relationship attributions for their partner's behaviour in the study partner scenario compared to the notes scenario, similar to the relationship progress analyses above, even in the notes scenario high anxious participants were more likely to make relational attributions for their partner's behavior.

*Dispositional (nice person).* Analyses investigating dispositional attributions revealed an effect of scenario, $B = .45$, $sr = .45$, $p < .001$, such that participants made more dispositional attributions for lending notes than for offering to be study partners. However, this effect was qualified by an interaction between scenario and avoidance, $B = -.12$, $sr = -.12$, $p < .05$. Whereas participants were overall more likely to discount a discrete communal behaviour such as an offer to lend notes to their potential friend's general disposition (i.e., he or she is a nice person) than they were to discount the suggestion to be study partners, high avoidant participants were also less likely to discount the suggestion to be study partners to their potential friend's general disposition. The avoidant individuals' reluctance to attribute their potential friend's behavior to being nice seems to reflect their more general negative view of others, and not a desire to attribute that behaviour to relational motives—indeed, as indicated above, avoidant individuals were the least likely to make relational attributions for their potential friend's behavior.

*Significance of Event for Future of the Relationship*

An index of the implications of the event for the future of the relationship was created by averaging the "we'll probably get closer" and "this event cements our relationship" items and subtracting the "this event has no significance for the future of the relationship" item. Analyses investigating the significance of the event for the future of

the relationship revealed an effect of scenario, $B = -.35$, $sr = -.35$, $p < .001$, such that participants felt the suggestion to be study partners had greater implications for the future of the relationship than the offer to lend the class notes. Attachment anxiety, again, was also positively associated with making attributions about the significance of the event for the future of the relationship, $B = .12$, $sr = .12$, $p < .05$.

These effects, however, were qualified by a three-way interaction between scenario, attachment avoidance, and anxiety, $B = .13$, $sr = .13$, $p < .05$. As displayed in Figure 6, in the notes scenario, I obtained the hypothesized positive association between anxiety and relationship implications for those high in avoidance, $r(60) = .41$, $p = .001$, but not for those low in avoidance, $r(64) = .03$. In addition, in the study partner scenario, those low in avoidance made more positive attributions about the significance of the event for the future of the relationship than their high avoidant counterparts.

*Affective Response to Potential Friend's Communal Behavior*

*Uneasy.* Analysis revealed a main effect of scenario on feeling uneasy, $B = -.15$, $sr = -.15$, $p < .05$. Overall, participants felt more uneasy in the study partner scenario than in the notes scenario. Analyses also revealed positive effects of attachment avoidance, $B = .22$, $sr = .22$, $p = .001$, and a positive effect of attachment anxiety, $B = .13$, $sr = .13$, $p < .05$; however, these were qualified by a marginal interaction between attachment avoidance and anxiety, $B = .12$, $sr = .12$, $p < .05$. Analyses of the interaction revealed that avoidance was positively associated with feeling uneasy for high anxious participants.

*Happy.* Analyses investigating happiness ratings revealed a significant interaction between scenario and avoidant attachment, $B = -.14$, $sr = -.14$, $p < .05$. Basically, while happiness ratings were stable for low and high avoidant individuals in the study partner

scenario, avoidance was negatively associated with happiness in the notes scenario. As hypothesized, given the avoidant preference for self-reliance and independence, this decreased happiness in response to a potential friend's helping behaviour makes sense.

*Indifferent.* The regression analysis investigating indifference revealed an effect of scenario, $B = .20$, $sr = .20$, $p < .005$. Overall, participants felt more indifferent in the notes scenario then in the study partner scenario. Analyses also revealed a positive effect of attachment avoidance, $B = .13$, $sr = .13$, $p < .05$, such that avoidance was associated with greater indifference regardless of scenario.

## Discussion

As predicted, overall, participants felt the suggestion to be study partners and exchange phone numbers was more important for the relationship than their potential friend's offer to lend the notes. However, these effects were qualified by attachment. As predicted, attachment anxiety was associated with increased feeling of closeness, greater inferences about the significance of the event for relationship progress, more relational attributions for their potential friend's behaviour, and the belief that the event would have important implications for the future of the relationship, regardless of scenario. Even in the discrete communal behaviour scenario, in which more secure participants were reluctant to make relationship inferences; anxious individuals' invested their potential friend's behaviour with increased meaning. These findings support the idea that in the laboratory investigations anxious individuals were more likely to view the confederate's behavior as having implications for their chronic attachment goals. Avoidant individuals, on the other hand, were less likely to make relationship attributions for their potential friend's behaviour, reflecting their desire to minimize the importance of closeness, and

their more pessimistic expectations about others. Interestingly, avoidant individuals did report feeling closer to their potential friend after the communal event. Although this was not hypothesized, this could reflect their sensitivity to other's efforts to get close, and to those events that signify intrusion on the part of the other (Collins & Read, 1994). With respect to the laboratory investigations, this suggests that avoidant individuals were also, like their anxious counterparts, particularly sensitive to the confederate's communal behavior, albeit for different reasons.

With respect to affect, overall, participants felt less indifferent in the study partner scenario than in the notes scenario supporting the idea that the study partner scenario had greater implications for the relationship. Participants also felt more uneasy in the study partner scenario. On the one hand this seems strange: Why would participants report feeling more uneasy when someone with whom they would like to establish a deeper friendship suggests exchanging phone numbers? Should this not be a relief as it suggests interest on the part of the other? I believe this unease is indicative of the feelings of uncertainty and anxiety people experience in association with the interdependence dilemma at the beginning stages of relationship development. Someone with whom one would like to be close has expressed interest, but the behaviour is ambiguous, and the task of deciding how to behave under conditions of uncertainty begins. Importantly, participants high in attachment anxiety felt more uneasy, regardless of scenario. This is consistent with the prediction that anxious individuals would be most susceptible to the interdependence dilemma: Even in response to more minimal communal overtures, anxious individuals (including those high in avoidance) responded with feelings of unease. Avoidant individuals, characteristically, reported being more indifferent to their

partner's communal behaviour in both scenarios, reflecting again their efforts to minimize the importance of closeness. They were also particularly unhappy upon receiving help from a potential friend, suggesting their displeasure about being indebted to another. This finding helps to confirm the underlying motives for the avoidant individuals' reciprocation behaviour in Study 3: Avoidant individuals reciprocated not out of an altruistic desire to help the other, but rather because receiving help made them feel uncomfortable and they felt the need to balance the books.

GENERAL DISCUSSION

The goal of this research was to investigate the influence of attachment in the early phases of relationship development, specifically, with respect to differences in people's ability to deal with the uncertainty inherent in potential relationship situations. As a vehicle for exploring this question, I focused on the use of communal and exchange norms that govern the distribution of benefits in different kinds of relationships. Typically, strangers and acquaintances are guided by exchange norms: People keep track of individual contributions, and the rule is "tit-for-tat." By comparison, close relationships are guided by communal norms: Benefits are given to help or make the other happy, and people do not record-keep. Similarly, people who *hope* to establish a relationship also try to follow the communal script, but the uncertainty of the situation presents difficulties: People must weigh their desire to express interest and commitment with the uncertainty of how the relationship will develop and the risk of possible rejection. Potential relationship situations thus present a catch 22: The ability to trust the other promotes relationship development, but trust can only be ascertained by investing in the relationship. Because working models of attachment reflect people's chronic beliefs about whether the self is worthy of love and affection, and whether others are trustworthy and reliable, individual differences in attachment should moderate people's ability to tolerate the interdependence dilemma that occurs at the outset of a relationship.

*Summary and Discussion of Findings*

Anxiously attached individuals want closeness, but worry others do not want to be close to them. They are also especially vigilant of, and sensitive to, attachment goal

related cues: They tend to monitor and appraise events with respect to their chronic attachment goals (proximity and felt security), and have a low threshold for detecting threats to security and rejection (Fraley & Shaver, 2000). Given their goal of closeness, I theorized that anxious individuals (and, in particular, those low in avoidance) would go out of their way to communicate interest in closeness with a potential friend. However, because of their chronic concerns about possible rejection and their doubts about others, I theorized that anxious individuals would be most susceptible to the interdependence dilemma. That is, situations in which the prospect of closeness is likely (compared to those in which closeness is unlikely) should hold increased meaning for anxious individuals as they provide opportunities to satisfy their attachment goals; they should also elicit the vigilant monitoring and appraisal of attachment-goal related cues characteristic of highly anxious individuals, as well as their chronic concerns about rejection and self-worth. Thus, ironically, I predicted that situations in which a potential friend expressed interest in closeness, anxious individuals would respond with increased anxiety, concerns about self-worth, and intense monitoring of the situation for attachment related cues. Overall, these predictions were supported.

In Study 1, when anxious individuals interacted with a potential friend, they avoided appearing exchange-like by choosing to work with the same color pen as their partner more often than chance. Drawing upon Clark's (1984a) theorizing, their avoidance of choosing a different color pen from their partner suggests their desire to communicate that they are not concerned with "keeping track" of individual contributions, and to express their more general interest in closeness. In Study 2, anxiously attached individuals were more anxious and uncertain, and more worried about their appearance

when a potential friend used communal norms, compared to when a potential friend used exchange norms. In Study 3, anxious individuals again responded with increased anxiety when a potential friend offered them help (another operationalization of communal norms), and, in Study 4, when a potential friend expressed interest in closeness by suggesting to work as a team, anxiously attached individuals performed worse than secures on an unrelated mental concentration task, suggesting their distress about the prospect of closeness. Moreover, further analyses revealed that it was thoughts about closeness in particular that preoccupied the anxious participants, impairing their performance on the mental concentration task, and increasing their uncertainty in the communal condition. Finally, Study 5 revealed that anxiously attached individuals have a tendency to invest discrete events with increased significance for relationship development. That is, they viewed these events as more meaningful with respect to their attachment goals than their more secure and avoidant counterparts.

The anxiously attached individuals' response to a potential friend's efforts at closeness is, undoubtedly, the most counter-intuitive finding of the present investigation. Given their chronic goals for closeness and intimacy, why would anxiously attached individuals feel *more* anxious and uncertain when a potential friend expressed interest in friendship? Should they not have felt relieved? Moreover, should they not have felt worse in the exchange condition, in which the other participant did not express interest in closeness? With respect to the latter question, the exchange condition (Studies 2 and 4) was not analogous to outright rejection. The norm when strangers and acquaintances interact is exchange, so anxious individuals may have thought that their partner's behavior in the exchange condition was normal and, consequently, did not feel

particularly slighted. It was when their partner deviated from the norm, expressing

interest in closeness, that anxiously attached individuals' anxiety was piqued. Why?

I believe there are several possible explanations for this finding. First, the

ambiguity of the situation may have caused uncertainty and anxiety as it was difficult to

determine for certain the other's intentions and the status of the relationship. Second,

anxiously attached individuals may have felt aroused about the prospect of closeness—

their deepest hopes were about to be realized—but their arousal may have led to distress

about their ability to manage the situation. Third, the prospect of closeness may have

elicited vigilance to cues of rejection and brought to mind chronic feelings of low self-

worth.

The ambiguity of the situation, and of the other's behavior, likely fueled

anxiously attached individuals' anxiety. These situations afforded the opportunity for

closeness, but because of their doubts about their own self worth and the reliability of

others, they may have been searching for cues indicating the status of goal progress.

Anxious individuals require considerable reassurance, and it may have been that the more

their partner made ambiguous overtures, the more they craved concrete evidence of their

partner's intentions. They may also have been skeptical about their partner's motives. In

Study 2 and, to a lesser extent in Study 4, the explicit intentions of the confederate were

not clear. Given their beliefs about their own desirability as a friend, anxiously attached

individuals may have been doubtful that another participant would want to pursue a

communal relationship with them. However, this explanation is inconsistent with the

finding from Study 5 in which anxious individuals attributed more relationship motives to

a potential friend's communal behavior, and inferred greater relationship progress. It is

possible that the situational ambiguity fed their ambivalence, and that anxious individuals were experiencing an internal dialectic between their deepest hopes and fears. That is, they were motivated to read more into the other's behavior, but they believed that, ultimately, they would be found unworthy.

Study 1 suggests anxious individuals were looking for closeness in these situations, so it is likely that when the confederate behaved in a communal manner anxiously attached individuals were particularly aroused as it provided them with an opportunity to satisfy their chronic goals. However, the arousal and stress associated with the prospect of fulfilling their goals may have quickly turned to distress. Anxiously attached individuals tend to construe stressful situations as threatening, irreversible, and unmanageable, and are more likely to become distressed by them (Mikulincer & Florian, 1998). Anxious individuals may have become concerned with their ability to pull off the interaction (given their passive, ruminative response in Study 4, this concern may have been warranted) and may have felt anxious and threatened. Indeed, in Study 4, their response to a basically positive social occurrence (an attractive other's suggestion to work as a team) reflected their typical coping response to a distressing event—increased rumination.

Anxious participants may have also been concerned with how to appropriately respond to their partner's expression of interest. In Study 3, when given help by a potential friend, anxious individuals again exhibited increased anxiety and uncertainty. While the confederate's use of communal norms may have been ambiguous in Study 2, it was fairly straight forward in Study 3. Offering help when it goes against one's self-interest certainly suggests concern for the welfare of the other person. So why were

anxious individuals still anxious and uncertain? One possible explanation, although not specifically tested in the current investigation, is that their anxiety arose from their ambivalence about how to respond. In Study 3, a great deal was at stake: The confederate had conveyed interest, and participants were given one opportunity to communicate their feelings. Moreover, the only means of communication was to send or not send tiles. Although not sending tiles would have been consistent with the communal script, and would have respected their partner's wishes, it would also have left a lot to chance—how might that act be interpreted by their partner? Not reciprocating might not adequately communicate interest in a friendship, whereas giving tiles would be actively sending a message. Basically, choosing to not reciprocate required confidence that the other would interpret the behavior in the best light, but confidence is something anxiously attached individuals lack.

The reward findings also suggest anxious individuals' ambivalence about how to appropriately respond to their partner's communal behavior. Sharing one's reward is qualitatively different from giving tiles. Whereas giving tiles represents a direct effort to balance the books, sharing the reward is reciprocation in another medium; moreover, it involves self-sacrifice. The most preoccupied participants were those who both gave tiles and shared their reward (or those who did neither). This suggests that they may have been trying to communicate to their partner that, although they reciprocated the favor, and consequently violated the communal script, they wanted to make up for it by expressing their interest in their partner's welfare. This finding is consistent with recent research investigating attachment and caregiving (Collins & Feeney, 2000; Feeney & Collins, 2001). Collins and Feeney found attachment anxiety to be associated with the provision

of less instrumental support, overall less responsiveness, and more negative support behaviors, especially when the partner's efforts at support seeking were ambiguous. It was theorized that anxious individuals have difficulty setting aside their own attachment needs and thus lack the motivation and resources to provide effective support. Moreover, Feeney and Collins found attachment anxiety to be associated with overinvolved and controlling caregiving, due (in part) to their high level of relationship interdependence, their egoistic motivates, and their lack of trust. The basic idea is that their intense self-focus and their conflicting motives prevent them from responding effectively and appropriately. To a certain extent this may have been going on in Study 3.

Finally, the prospect of closeness may have elicited vigilance to cues of rejection and brought to mind chronic feelings of low self-worth. Anxious individuals are particularly concerned with threats to security and with possible rejection, and have a low threshold for detecting cues of rejection (Fraley & Shaver, 2000). Given their concomitant desire for closeness and concerns about rejection, the potential communal situation in the present investigations may have been especially likely to trigger concerns about possible rejection, and feelings of low self-worth, which would be associated with increased anxiety. Indeed, anxious individuals responded to their partner's overtures with increased feeling of low self-worth in Study 2, and, in Study 4 they doubted their ability to perform the d2 test. However, Study 4, which directly assessed the activation of rejection themes, did not find an increased activation of rejection themes for the anxious participants, nor were rejection themes associated with performance on the mental concentration task, or with increased uncertainty. Rather, what preoccupied the anxiously attached participants was the prospect of closeness. So it seems that, at least based on the

findings from Study 4, anxious individuals are worried about closeness, and have a low self-image, but are not jumping to rejection conclusions. Study 4 is also noteworthy in that the findings support Mikulincer and Shaver's (2003) proposition that hyperactivation of the attachment system leaves anxious individuals with little resources to engage in non-attachment activities.

In contrast to the anxious individuals, avoidant individuals tend to minimize the importance of closeness, maintain a distance between themselves and others, and value self-reliance. Moreover, avoidant attachment is associated with a generally negative view of others with respect to attachment goals. It was predicted that avoidant individuals would adopt exchange norms when interacting with a potential friend to communicate their aversion to closeness, and would be distressed when a potential friend expressed interest in closeness as it would arouse concerns about threats to independence. These predictions were mainly supported in the current investigation. When interacting with a potential friend, avoidant individuals tended to use exchange norms, they disliked their partner when their partner used communal norms, and they downplayed relationship motives for the other's behavior.

In Study 1, dismissive individuals (and men in particular) were more likely to choose a different color pen than the preoccupied individuals, suggesting their preference for an exchange orientation (although their pen choice did not differ significantly from chance, thus these findings were less strong than expected). Study 3 provided more ample support for the avoidants' use of exchange norms. Upon receiving help from a potential friend, avoidant individuals quickly reciprocated the help, a clear indication of the use of exchange norms. Importantly, in this study, the confederate had indicated that she did not

need help on the second round, but avoidant individuals ignored this information and gave tiles anyway. These findings are impressive given that reciprocating involved giving up tiles that were needed to perform well on the task. Nevertheless, avoidant individuals sacrificed the goal to do well in order to reciprocate the favor, suggesting the paramount importance of self-reliance. One might question whether avoidant individuals' behavior was altruistic; that is, even though the confederate had sent a message saying help was not needed, avoidant individuals may have wanted to help anyway because they were concerned about their partner's welfare. Two findings suggest this explanation is unlikely. Participants were given the opportunity to share their reward at the end of the session, and avoidant individuals were the least likely to do so. If they were truly concerned for their partner they might have shared their earnings, but if they were simply trying to balance the books they would be less likely to share their earnings as they had already sent over tiles. Moreover, in Study 5, avoidant individuals said they would feel particularly unhappy upon receiving help from a potential friend, suggesting their displeasure about being indebted to another. Given their general discomfort about receiving help, it is likely they reciprocated in Study 3 not out of an altruistic desire to help the other, but because receiving help made them feel uncomfortable and they wanted to clear their debt.

In Study 2, when their partner tried to work as a unit (i.e., used communal norms), avoidant individuals liked their partner less, and saw their partner as more negatively communal, suggesting that they are generally uncomfortable when others attempt closeness, not just when others try to help them. The fact that they saw their partner as possessing more negative *communal* traits in the communal condition (and not simply

more negative traits overall), suggests that they were sensitive to their partner's use of communal norms. Given the ambiguity of the partner's behavior in Study 2, avoidant individuals may also have been suspicious that their partner was trying to exploit them (using the same color pen obscures individual contributions); however, if this were the case, one would think that the avoidant individuals would have ascribed more negative *agency* traits to their partner (e.g., greedy). In Study 4, when a potential friend expressed interest in closeness by suggesting working as a team, in contrast to their more anxious counterparts, avoidant individuals did not exhibit performance deficits on the mental concentration task. However, this does not preclude the idea that avoidant individuals may have been distressed at the prospect of closeness as they tend to cope with distress by suppressing worries and concerns. Thus, their distress in the communal condition may not have compromised their performance on the mental concentration task.

Interestingly, additional analyses of the lexical decision results found an increase in communal themes as well as a slight increase in proximity themes for high avoidant, low anxious participants in the communal condition, compared to the high avoidant, high anxious participants in the same condition. In accord with recent findings by Mikulincer, Dolev, and Shaver (2004), it is possible that avoidant participants were experiencing a "rebound effect." That is, high avoidant, low anxious individuals were suppressing their concerns about the prospect of closeness, but because the d2 task (a highly challenging mental concentration task) depleted their resources, they experienced a rebound effect on the lexical decision task, and communal/proximity themes became more accessible. Of course, this hypothesis was not predicted, and should be specifically tested in future research.

Finally, in Study 5, avoidant individuals were less likely to attribute a potential friend's communal behavior to relational motives, again suggesting their desire to downplay the importance of closeness. Interestingly, in this study, insecure participants, including avoidant participants, reported feeling closer to their partner after a communal event. Given their desire to de-emphasize the importance of closeness, it is strange that they would report feeling closer. However, I have theorized that both anxious and avoidant individuals should be sensitive to the possibility of closeness inherent in potential communal situations given their chronic (albeit different) concerns about closeness. That avoidant individuals saw their partner as more negatively communal (Study 2), exhibited an increased accessibility of proximity and communal themes (Study 4), and reported feeling closer to their partner when their partner behaved in a communal manner suggests their sensitivity to the prospect of closeness.

In contrast to their more insecure counterparts, secure individuals are not chronically concerned about rejection, they generally expect others to be reliable, they feel confident about their own self-worth, and they feel comfortable with closeness. I believe their general trust in others, their esteem for themselves, and their previous successful close relationship experiences account for their behavior in the present investigations. As Mikulincer and Shaver (2003) note, a history of attachment figure availability can have a powerful effect on one's personal and interpersonal experience: An accumulation of positive interactions reinforces the idea that the world is safe and that people are generally well intentioned, thus allowing one to develop new relationships and engage in non-attachment activities. In Study 1, in contrast to their more anxious counterparts, secure participants did not actively avoid using exchange norms when

interacting with an available, attractive, opposite-sex partner; rather, they appeared to not be paying attention to what their behavior would communicate to their partner. In Study 2, secure participants were not distressed when their partner used communal norms, and in Study 3, they did not reciprocate the help they received from their partner. The fact that they did not reciprocate the help suggests that they felt comfortable following the communal script (accepting help) with a potential friend. Whereas the avoidant participants were determined to eliminate their debt, the secure participants accepted the help that was offered to them, but respected the message from the confederate saying that help was not needed. Of course, if the confederate had expressed the need for help, I would have predicted that the secure participants would have gladly helped her.

In Study 4, secure participants benefited the most from the communal condition. While this study was designed primarily to investigate the implications of anxiously attached individuals' anxiety, it highlights the beneficial effects of a "secure base." When secure participants interacted with someone who expressed liking and acceptance, as opposed to someone who was simply neutral, they went on to excel at the mental concentration task. Moreover, results from the lexical decision task suggest that, in contrast to their more anxious counterparts, thoughts about closeness dampened anxiety and rumination for the more securely attached. Self-reports revealed that they were also better able to focus on the task and were less distracted with thoughts about how well they were performing. Finally, they were also looking forward more to the Trivial Pursuit task in the communal condition compared to the performance-anxiety condition, suggesting that they did not construe the prospect of closeness as stressful, but rather a source of support.

One might wonder whether the secure participants were simply not interested in a relationship with their partner. Because the secure participants were the most likely to have a relatively strong network of close relationships, they may not have been particularly concerned with establishing a new close relationship. I believe that this explanation is unlikely as I drew upon Clark's research and theorizing to create a communal condition in which the potential for friendship was particularly desirable and feasible. I targeted single participants and paired them with an attractive, friendly, opposite sex confederate who was also single, and who, they were informed, was a recent transfer student (the idea being that they may not have an established network of friends). So, even if the secure participants had an established network of friends, they still were not involved in a romantic relationship, and thus, should have been interested in the confederate.

A more probable explanation is that because of their confidence and trust in others, the secure participants may have been more similar to existing friends in Clark's original pens study. In that study, pen choice was random for existing friends, and it was argued that this was because existing friends probably did not feel the need to send a message to their friend expressing interest in closeness—existing friends know they are friends, so there is no need to go out of one's way to communicate interest in a friendship. Similarly, in the current investigation, secure participants may have felt more confident that the relationship would develop without a great deal of effort on their part, and thus did not go out of their way to make it happen. Also, as Study 5 revealed, secure participants were not investing discrete communal behaviors with increased significance for relationship development, so while they may have been interested in developing a

relationship with the confederate, they may not have been so focused on the meaning of each discrete behavior; rather, they may have been adopting a more holistic perspective.

*Research Strengths and Limitations*

One of the strengths of this research is the assessment participants' implicit behavioral responses. Whereas many studies investigating attachment rely on self-reports of how people think they would respond, or on retrospective reports of past instances, this research assessed actual behavior in the lab. Using the same or different color pen from a partner, sending (or not sending) tiles to a partner, and performance on a mental concentration task are relatively automatic behavioral responses that are unlikely to be influenced by demand characteristics and/or social desirability. Likewise the experimental manipulations of the confederate's communal behavior were also designed to be subtle, and to reflect what might naturally occur at the outset of a relationship.

One potential criticism of this research (Studies 1, 2 and 3 in particular) is that it is unclear how participants were construing their own behavior, the confederate's behavior, and the situation in general. Did participants intend to communicate interest or to establish boundaries through their actions? Did they perceive the confederate's behavior as an effort to get close? Were they even paying attention to these discrete events? Questions about cognitive mediation are difficult to answer. I believe that while people use communal and exchange behaviors to convey how they feel about closeness, this frequently occurs at an implicit level. That is, people typically do not explicitly think to themselves, "I'm going to use the same color pen as my partner because I want to communicate my interest in closeness," even if closeness is their primary motive. In addition, people may also rationalize their behavior to appear more socially desirable.

Thus, answering questions about construal would be challenging even if participants had been asked about the reasons for their behavior. That said, questions about construal are intriguing, and efforts were made in Studies 4 and 5 to shed light on this issue. The lexical decision task in Study 4 was designed to tap into what participants were thinking about in response to the experimental manipulation, and Study 5 was designed to clarify how participants were construing their partner's behavior, and what meaning they saw in their potential friend's communal behaviors.

A second strength of the current investigation is the use of an actual confederate to create the context for possible closeness with another. When investigating how people think, feel, and behave at the outset of a relationship, what better way to approach this question than to have participants interact with a real person, who could, potentially, become a friend. Again, however, there are limitations with using a confederate. Were all participants interested in establishing a friendship with the confederate? Would it have been preferable to have participants bring in people with whom they wanted to establish a deeper relationship? This option was considered, but I decided against it in these initial investigations for a few reasons. First, the logistics of recruiting participants who were all equally interested in developing a relationship with a potential friend, and who had relatively equivalent knowledge about that person (recall that what is known about the person should be associated with the extent to which people will draw upon their working models of attachment) to come into the lab seemed complicated. More generally, the point of this research was to focus on the very early stages of relationship development, so interacting with a highly desirable stranger seemed like the best vehicle to explore this question.

With respect to whether participants were interested in developing a relationship with the confederate, I believe that, overall, they were. I drew upon Clark's research and theorizing to create a communal condition in which the potential for friendship was particularly desirable and feasible. As noted, I targeted single participants (i.e., people who would be most interested in establishing new relationships) and paired them with an attractive, friendly, opposite sex confederate who was also single, and who, they were informed, was a recent transfer student (the idea being that he or she may not have an established network of friends). Moreover, I targeted 1$^{st}$ and 2$^{nd}$ year students, as they would be more interested in forming a new relationship than students who would be graduating. Studies 2, 3, and 4 assessed participants liking of the confederate, and responses were well above the midpoint.

This question, however, leads to the larger issue of whether these findings apply to all close relationships, friendships, or romantic relationships in particular. The nature of the relationship between the participant and confederate, although modeled on a romantic relationship, was still ambiguous. In order to increase the chances that participants would desire a relationship with the confederate, I made salient the possibility of a possible romantic relationship; that is, I targeted single participants and paired them with attractive, opposite-sex partners. That being said, it is difficult to know what participants were thinking: Some may have thought of the confederate as a potential romantic partner, while others may have thought of the confederate as a friend. Study 5 speaks to this issue. In Study 5 participants were allowed to nominate either a potential friend or potential romantic partner, and with the exception of a few findings, the type of relationship participants thought about did not qualify the results. It is worth noting,

however, that people were significantly more interested in developing romantic

relationships than they were in developing friendships. Moreover, as noted, most

attachment relationships tend to be romantic relationships (although some friendships do

qualify as attachment relationships (for a discussion, see Hazan & Ziefman, 1999;

Bretherton & Munholland, 1999; Fraley & Davis, 1997; Fraley & Shaver, 2000)). So, I

would argue that these findings should be particularly important in potential romantic

situations, but they may also be relevant to some close friendship situations, depending

on how interested people are in developing a relationship with the other person, and the

extent to which the other is perceived as a potential attachment figure.

Finally, the use of men in Studies 3 and 4 is also a limitation of the present

investigation. In these studies I chose to focus on men primarily for standardization

purposes. In Studies 1 and 2, as well as in other research I have conducted, I have found

that trying to experimentally manipulate the potential for a communal relationship with

female participants and a male confederate is complicated as females tend to be more

wary of a male confederate who is acting friendly—for reasons that have nothing to do

with attachment—than males are with a friendly female confederate, and this tends to

create noise. That being said, I believe the findings from Studies 3 and 4 would apply to

women as well as men given that Studies 1, 2 and 5 used both women and men

participants.[16]

In summary, now that these initial findings have been established, it would be

informative to investigate the influence of attachment on the use of communal and

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[16] In addition, the study described in Appendix 1 investigating the influence of attachment on the use of communal and exchange norms in existing relationships used men and women and revealed no gender differences.

exchange norms at different stages in a relationship—a point I will return to shortly—as well as in different kinds of adult close relationships.

*Theoretical Contributions and Implications for Future Research*

A major proposition of attachment theory is that attachment models are carried forward into new relationships guiding perceptions, expectations, and behavior with new partners (Collins & Read, 1994); however, little is known about how the attachment system operates during the early phases of relationship development. This research establishes the importance of attachment at the outset of a relationship, and points to specific circumstances under which working models of attachment should be especially likely to come into play. Working models of attachment appear to be influential at the outset of a relationship when little is known about what can be expected from the other person, and about the direction in which the relationship is headed. In these situations trust is an important factor in determining the course the relationship will take. As Holmes (1991) notes, "It appears that trust in a partner enables people to diminish psychologically the risk of moving further into the relationship, allowing emotions to crystallize in a way that lets people more fully acknowledge feelings of being 'in love'" (p. 66). Working models of attachment, which to a large extent reflect trust in whether others can be relied upon, are an important factor in whether relationships progress.

The match between the situation and chronic attachment goals related to security attainment is also important in whether working models will be operative (Collins & Read, 1994; see also Mischel & Shoda, 1995). The goal of the attachment system for the individual is felt security (Ainsworth, 1989; Mikulincer & Shaver, 2003), but differences in attachment security moderate how people achieve this goal. As Pietromonaco and

Feldman Barrett (2000) note, preoccupied individuals strive for intimacy as a way of attaining felt security, dismissing individuals strive to maintain independence from others as a way of achieving felt security, and fearful individuals hold conflicting chronic goals for intimacy and independence to achieve felt security. To the extent that a situation activates these sub-goals, and provides an opportunity to satisfy these goals, attachment should come into play. This research suggests that potential communal situations, in which another expresses interest in closeness, appears to activate chronic goals associated with attachment insecurity. Anxious individuals viewed these situations as opportunities to satisfy intimacy and closeness goals, but their lack of trust in the other increased their anxiety and feelings of low self worth, made them hypervigilant to discrete events, and distracted them from attending to the situation. Avoidant individuals responded to possible closeness with efforts to establish boundaries and dislike of the other.

What does this research say about the prognosis for insecurely attached individuals? Are insecure individuals fated to have insecure relationships indefinitely? This research focused on the initial first moves that occur at the very outset of a relationship, and did not assess how these behaviors are perceived by the interaction partner, so it is difficult to answer this question. However, drawing upon other research sheds light on the situation. Anxious individuals' increased anxiety, feelings of low self worth, and inability to concentrate should influence the subsequent interaction. Feelings of low self-worth should undermine their confidence and may decrease their likeability in the eyes of the other. More insidious are the effects of anxiety on attention capacity. As Collins and Read (1994) note, when attention capacity is limited, people tend to rely on over-learned schemas. If anxious individuals become preoccupied and distracted in a

situation involving the possibility of closeness, they should fall back on their working models of attachment to guide their behavior and interpret the other's behavior, which would then fuel a cycle of distrust and feelings of low self-worth. On the other hand, if anxiously attached individuals could attend to the situation, they would be more likely to notice when the other deviates from their expectations, which could promote trust. With respect to more avoidant individuals, based on Clark's research, their adoption of an exchange orientation in a potential communal situation is likely to be perceived by the other not as an effort to establish boundaries but as disinterest in a relationship. That being said, future research should explore more fully how these interactions unfold and their consequences for relationship development.

Related to this issue is the question of whether attachment influences the use of communal and exchange norms in established relationships. The early stages of a relationship are fraught with uncertainty, and people try to communicate their interest, and assess the other's interest by reading the other's behaviors, typically behaviors involving the exchange of social commodities (Holmes, 1991). In existing relationships however, people presumably have established a certain level of trust, and are more knowledgeable about the intentions of the other person and the status of the relationship. Nevertheless, I believe attachment should influence the use of communal and exchange norms in established relationships to the extent that chronic attachment goals (intimacy seeking or self-reliance) are still important.

I explored this question in a study (see Appendix 1) looking at the use of communal and exchange norms within specific attachment relationships.[17] The findings

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[17] Rather than focusing on participants' more general working models of attachment as I did in the investigations described in this thesis, I chose to focus on the attachment quality of the specific relationship.

from this study are remarkably similar to the findings from the laboratory investigations. Those in secure relationships generally followed the communal script (helped a friend in need, expected their friend would help them), and felt comfortable when their friend used communal norms (e.g., being treated to dinner). They were less likely to immediately reciprocate favors or help received, and did not place great importance on their friend's failure to reciprocate favors. Those in anxious-ambivalent relationships, however, had more difficulty following the communal script. While they were very willing to help a friend in need, they felt their friend's failure to reciprocate would have important consequences for the relationship. Similar to the results from Study 5, anxious individuals were monitoring their friend's behavior for signs of commitment, and using that information to make judgments about the quality of the relationship. What is also interesting is that when their friend *actually did* do something nice for them, although those in anxious-ambivalent relationships felt especially happy, they felt anxious, again replicating the findings from the laboratory investigations.

Finally, those in avoidant relationships consistently used exchange norms—even though they were describing a friendship. They were less likely to help a friend in need, and were more indifferent to their friend's plight. They were also less likely to ask for help, and upon receiving help from a friend, similar to findings from Study 3, they intended to quickly reciprocate help received. Finally, they were also anxious and annoyed when their friend did them a favor (e.g., when their friend treated them to

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It is now recognized that once people get to know their partners they can modify their more general working models to fit the characteristics of a specific relationship leading to the development of relationship specific attachment models (Collins & Read, 1994; Kirkpatrick & Hazan, 1994; Kirkpatrick & Davis, 1994; Baldwin, Keelan, Fehr, Enns, & Koh-Rangarajoo, 1996; Pierce & Lydon, 2001; Pietromonaco & Feldman Barrett, 2000). For example, someone may have a general working model of attachment that is relatively secure, but be particularly anxious in a specific relationship. Thus to increase precision, I chose to focus on relationship specific attachment models.

dinner), so it seems that as in the laboratory investigations, it is not just receiving help but a friend's use of communal norms more generally that perturbed those in avoidant relationships.

*Concluding Comments*

In conclusion, working models of attachment play an important role in relationship development. The early stages of a relationship are marked by uncertainty, and people should be especially likely to draw upon their mental models for close relationships at that time for guidance. Unfortunately, the early stages of a relationship are complicated. At the outset of a relationship, people face an interdependence dilemma in which they must wager the motives of the other person, and decide whether being communal is worth the risk. They must also tailor their own behavior to communicate interest but not appear overly concerned with social transactions. The belief structures and goals associated with different attachment orientations provide road maps to relationship development. Although people share the same script for close relationships, differences in attachment influence how that script will be played out as the relationship unfolds.

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Table 1

*Cross-Products of Attachment and Affect, Self-Esteem, Partner Perceptions, and Partner Liking Compared Across Experimental Conditions (Study 2)*

| | Condition | |
|---|---|---|
| Cross-Products | Communal | Exchange |
| **Attachment anxiety** | | |
| Affect | | |
| Anxiety | .64 | .20* |
| Uncertainty | .68 | .24[†] |
| Hostile | .33 | .13 |
| Composed | -.11 | -.24 |
| Happy | .03 | -.32 |
| Depressed | .39 | .23 |
| Self-Esteem (State) | -.78 | -.36 |
| Appearance | -.81 | -.28* |
| Social | -.63 | -.42 |
| Performance | -.49 | -.20 |
| Partner perceptions | | |
| Agency (pos.) | -.19 | .18 |
| Agency (neg.) | .29 | .15 |
| Communion (pos.) | -.26 | -.03 |
| Communion (neg.) | .42 | .16 |
| Partner liking | -.06 | -.00 |
| **Attachment avoidance** | | |
| Affect | | |
| Anxiety | .30 | .19 |
| Uncertainty | .56 | .15 |
| Hostile | .39 | .04 |
| Composed | -.11 | -.22 |
| Happy | .13 | -.33 |
| Depressed | .28 | .23 |
| Self-Esteem (State) | -.36 | -.25 |
| Appearance | -.36 | -.26 |
| Social | -.26 | -.30 |
| Performance | -.28 | -.04 |
| Partner perceptions | | |
| Agency (pos.) | -.35 | -.27 |
| Agency (neg.) | .39 | .17 |
| Communion (pos.) | -.31 | -.09 |
| Communion (neg.) | .57 | .09* |
| Partner liking | -.56 | -.02[†] |

*$p < .01$, two-tailed. [†]$p < .05$, one-tailed.

Table 2

*Reciprocation Behavior (Giving Tiles) as a Function of Attachment (Study 3)*

| | Reciprocation | |
| Attachment style | No | Yes |
| --- | --- | --- |
| Secure | 69% | 31% |
| Preoccupied | 43% | 57% |
| Avoidant-dismissive | 22% | 78% |
| Avoidant-fearful | 40% | 60% |
| Total | 49% | 51% |

Figure 1

*Men's standardized mean preoccupied and avoidant-dismissive attachment scores as a*

*function of pen choice (Study 1).*

Figure 2

*Mean number of tiles given to confederate as a function of attachment (Study 3).*
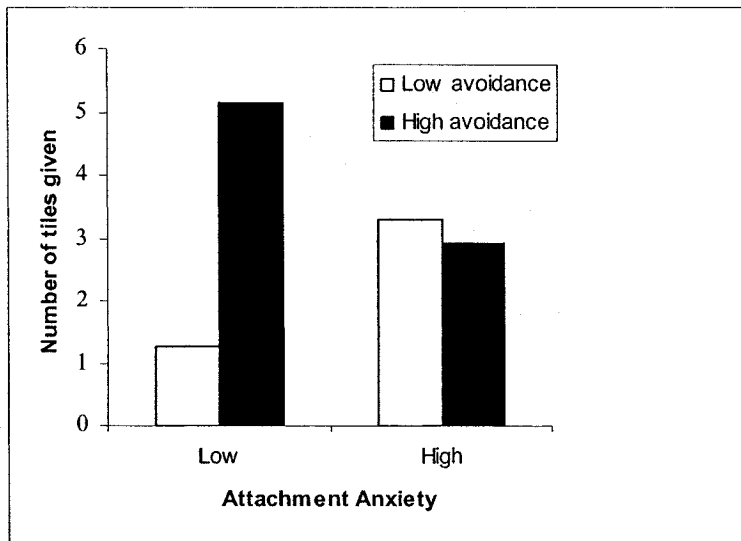
Figure 3

*Mental concentration (d2 performance) as a function of experimental condition and*

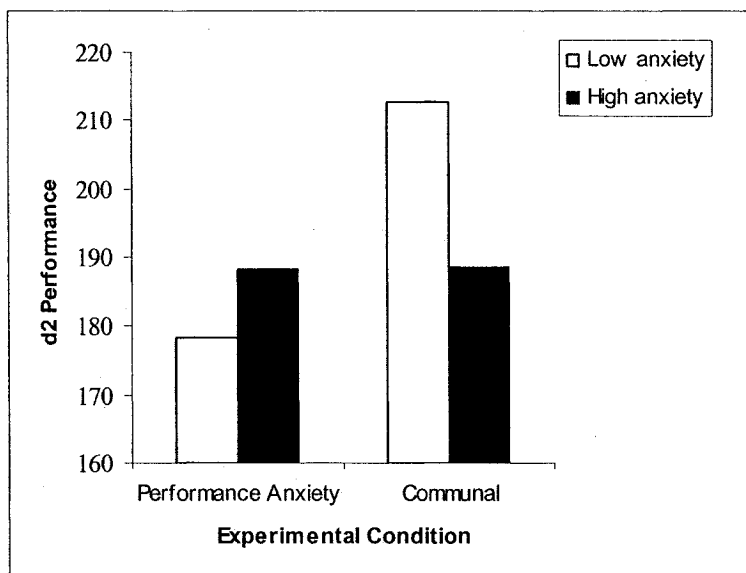*attachment anxiety (Study 4).*

Figure 4

*Relationship progress inferences as a function of scenario and attachment anxiety (Study 5).*
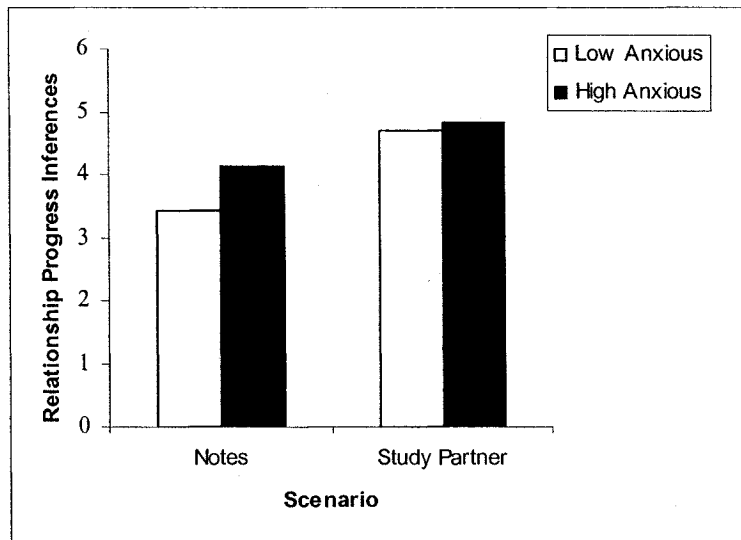
Figure 5

*Relationship attributions (for potential friend's behaviour) as a function of scenario and*

*attachment anxiety (Study 5).*

Figure 6

*Significance of event for future of relationship as a function of scenario and attachment*
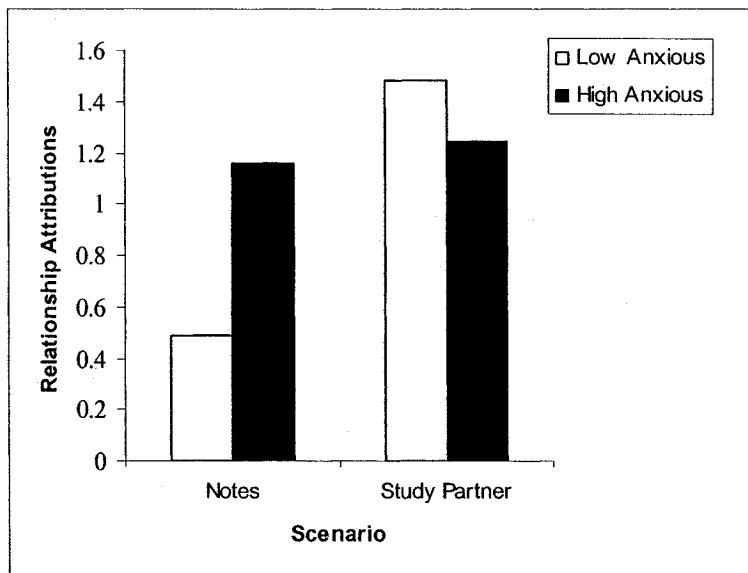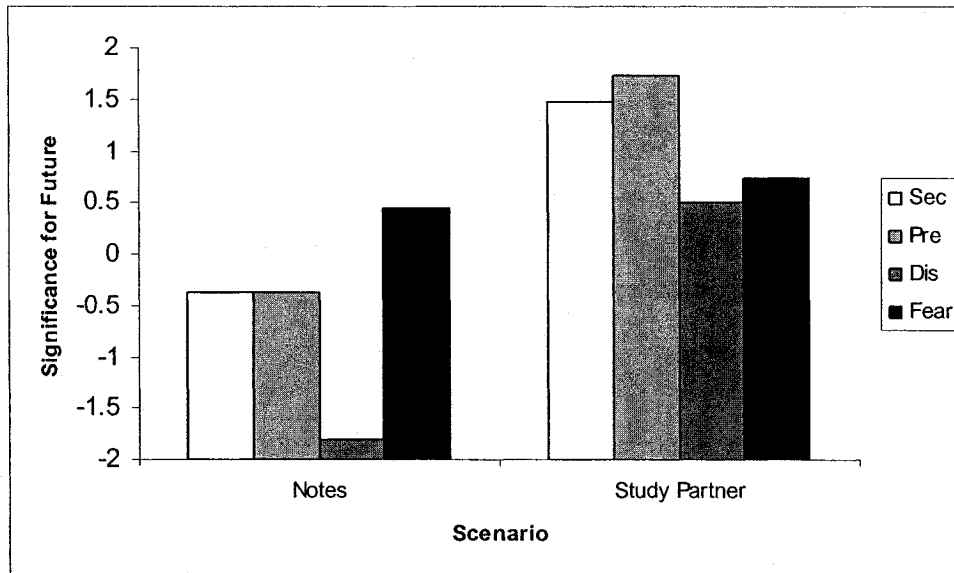
*anxiety (Study 5).*

APPENDIX 1

*Navigating the Interdependence Dilemma: Attachment and the Use of Communal and*

*Exchange Norms in Close Relationships*

*(Manuscript submitted for review at Personality and Social Psychology Bulletin)*

Navigating the Interdependence Dilemma: Attachment and the use of Communal and

Exchange Norms in Close Relationships

Jennifer A. Bartz and John E. Lydon

McGill University

Montreal, Quebec, Canada

Abstract

This research explored how the interdependence dilemma posed by different attachment

relationships influences the use of communal and exchange norms. Participants thought

about a secure, avoidant, or anxious-ambivalent relationship, and visualized scenarios

involving the receipt/payment of social commodities. Behavioral intentions, affect, and

reciprocation timing and importance were assessed. As predicted, those in secure

relationships followed the communal script, and were comfortable with their own and

their partner's use of communal norms, whereas those in avoidant relationships

consistently used exchange norms, and were distressed when their partner used

communal norms. Those in anxious-ambivalent relationships inconsistently adhered to

the communal script: Although they strived to act communal (offer help), they were

vigilant about their partner's reciprocation (a violation of the communal script).

Moreover, when their partner used communal norms (did a favor), they were happy, but,

ironically, anxious. The discussion focuses on how attachment insecurities perpetuate

themselves in close relationships.

Keywords: Adult attachment, communal, exchange, norms, close relationships

Navigating the Interdependence Dilemma: Attachment and the use of Communal and

Exchange Norms in Close Relationships

The exchange of commodities is a basic feature of almost all forms of social

interaction, whether it is between family members, romantic partners, close friends,

business partners, acquaintances, or even, on occasion, strangers. Moreover, the rules or

norms governing these exchanges are often what distinguish one relationship from

another: Close relationships are typically associated with communal norms, whereas

more casual relationships are associated with exchange norms. Attachment theory is one

of the most predominant theories in the area of close relationships; however, to our

knowledge, little research has focused on how attachment influences this most basic

feature of close relationships. The goal of this research was to investigate how attachment

influences the use of communal norms in close relationships; and, more specifically, to

explore whether attachment insecurities may be especially likely to surface and

perpetuate themselves in interactions involving the exchange of social commodities.

Adult attachment relationships are theorized to be close, important relationships and thus

should be associated with the use of communal norms, but we believe close relationships

may pose an interdependence dilemma to more insecurely attached individuals, making

adherence to the communal script difficult.

*Communal and Exchange Norms*

One way researchers have distinguished close relationships from more casual

relationships is by recognizing the different norms used to govern the distribution of

benefits (Clark, 1984a, 1984b; Clark & Mills, 1979; Clark, Mills, & Powell, 1986). Close

relationships, such as those between family, friends, and romantic partners, are associated

with communal norms. In close relationships there is a genuine concern for the welfare of the other person; as Clark notes, "members feel a special obligation to be responsive to one another's needs" (1984b). As such, benefits are given because the other is in need, or with the goal of making the other happy, and people do not keep track of individual contributions. Giving help, or doing a favor, then, does not obligate the other to reciprocate with a favor in return. Likewise, receiving help, or a favor, does not compel one to respond in kind. By comparison, more casual relationships, such as those between strangers or acquaintances, are similar to business partnerships, and are associated with the use of exchange norms. In casual relationships no obligation is felt toward the welfare of the other person. As such, benefits are given in return for benefits received, or with the expectation of compensation, and, consequently, people keep track of individual contributions. In short, the use of exchange norms means that benefits and aid are not given freely, and receiving a benefit or aid from the other calls for prompt reciprocation, preferably in kind, with the goal of eradicating the outstanding debt.

*The Interdependence Dilemma*

So, in theory, people in close relationships use communal norms, whereas people in more casual relationships use exchange norms. In an interesting series of studies, Lydon, Jamieson, and Holmes (1997) explored the unique predicament people face when they *hope* to establish a close relationship with another person. These researchers theorized that those who aspire to friendship ("would-be friend") straddle the line between mere acquaintances (people who know each other but do not seek friendship) and established friends, and this is reflected in their adherence to the communal script. When people desire to establish a friendship with another person, they know the

communal script (i.e., they know that in close relationships one is supposed to give freely, without concern for reciprocation), and they try to behave communally to signal their interest in friendship. However, because the basic features of friendship such as closeness, trust, and interdependence are not yet established, there is a great deal of uncertainty, and following the communal script is distressing. One wants to communicate interest in friendship, but, all the while, one wonders whether one's efforts will be met with acceptance or rejection.

Lydon et al. (1997) argue that in potential friendship situations people will be especially likely to engage in behaviors and make inferences to reduce their uncertainty about the status of the relationship. Ironically, reciprocity (a violation of the communal script) gains importance in potential friendship situations, as it is a means by which people can infer acceptance or rejection. Would-be friends should be quicker to reciprocate favors or aid given to them, not to clear the debt, but to communicate their equal interest; would-be friends should also monitor the other's behavior for signs of reciprocity, again, not for exchange purposes, but to confirm the other's equal interest. By the same token, discrete events are given increased significance such that kind gestures (treating one to dinner) are more readily interpreted as expressions of commitment, while the failure to reciprocate a favor is seen as a bad omen, as it signals possible disinterest. The effect of this vigilance to reciprocity, however, is that it undermines the possibility of closeness.

In support of their theory, Lydon et al. (1997) found that while would-be friends intended to act like a friend, they experienced more discomfort than established friends when they followed the communal script. Moreover, compared to established friends and

mere acquaintances, would-be friends were more likely to interpret a kind gesture as having special meaning for the relationship, and were more anxious to return the favor (reciprocate). Finally, failure to reciprocate a favor (by either party) was deemed to be more important by would-be friends than by established friends or mere acquaintances. Lydon et al.'s findings highlight the interdependence dilemma people face when they seek to form a close relationship with another person. Although the communal script says that one should give freely without concern for reciprocation, the inherent uncertainty of the situation makes following the communal script difficult. The problem is that in response to their uncertainty, people behave in ways that ironically undermine the development of closeness. Their distress about behaving communally, their vigilance about reciprocity, and their preoccupation with discrete events discourages the closeness, trust, and interdependence characteristic of true friendships.

*Attachment and the Interdependence Dilemma*

Lydon et al.'s (1997) research describes most people's experience when they want to establish a close relationship with an acquaintance. We believe that anxiously attached individuals are chronically engaged in these communal strivings. Lydon et al.'s findings regarding would-be friends is what anxiously attached individuals experience all the time, even in their established close relationships. They go out of their way to be communal, but putting themselves "on the line" in this way is distressing, and to reduce their distress, they become vigilant about their own and the other's reciprocation. The following study was designed to investigate the influence of attachment on the use of communal and exchange norms in close relationships.

*Hypotheses*

Securely attached individuals generally believe they are worthy of love and affection, and that close others are trustworthy and reliable (Hazan & Shaver, 1987; Bartholomew & Horowitz, 1991). Consistent with Clark's theorizing secure individuals should follow the communal script in close relationships: They should give freely without concern for reciprocation; and, because of their beliefs about their own worthiness as a friend and the reliability of others, they should feel comfortable asking for help when they are in need. Moreover, the other's use of communal norms should not be distressing as secure individuals are generally comfortable with closeness. Finally, because of their confidence in the stability of the relationship, secure individuals should not be preoccupied with the meaning of discrete events: They should not feel the need to immediately reciprocate gifts or aid received; and, likewise, the other's failure to reciprocate should not be particularly important.

Anxiously attached individuals want closeness but do not believe they are worthy of love and affection, and tend to be preoccupied with fears of being abandoned by close others (Brennan, Clark, & Shaver, 1998; Hazan & Shaver, 1987; Bartholomew & Horowitz, 1991). Basically, the interdependence and trust characteristic of true friendships are lacking in their close relationships. For this reason, we believe fully adhering to the communal script should be difficult for anxiously attached individuals, resulting in their inconsistent use of communal norms. Like the would-be friends in Lydon et al.'s (1997) research, they should be especially likely to act communal in an effort to establish closeness, but acts of kindness may arouse concerns about their greater interest in the relationship (i.e., inequality), and the possibility that they might be neglected if the tables were turned. Thus they should be vigilant about the other's failure

to reciprocate (a violation of the communal script), and should use that information to make judgments about the quality of the relationship. Moreover, they may be less optimistic about whether others will help them in a time of need, and feel less comfortable about asking for help, because of their beliefs about their desirability as a friend. With respect to their friend's use of communal norms (offering favors or help), we believe that although anxious individuals should be especially happy, they will, ironically, also be anxious, as this prospect for closeness may bring to mind fears about what closeness entails (i.e., the possibility of rejection). Finally, anxious individuals should want to quickly reciprocate favors or help received, not for exchange motives, but, like would-be friends, to signal their equal interest.

Avoidantly attached individuals, like their anxious counterparts, should also have trouble following the communal script, but for different reasons. Avoidant individuals generally believe that others should not, or cannot, be trusted, and tend to avoid closeness and dependency (Brennan, Clark, & Shaver, 1998; Hazan & Shaver, 1987). Avoidant individuals should thus use exchange norms, even in their close relationships, to communicate their aversion to closeness and to maintain their independence. They should be less likely to help a friend; and they should be less likely to ask for help, and feel less comfortable about asking for help. They should also be distressed when others act communal, as the possibility of closeness should encroach upon their independence. Like the anxious individuals, avoidant individuals should also more quickly reciprocate favors, but for purely exchange motives—to pay the other back in an effort to restore equity and independence. Finally, failure to reciprocate may be important to avoidant individuals as it suggests an imbalance; but, notably, it should not be as important as it is to anxious

individuals as diagnosing the status of the relationship is not a primary concern for avoidant individuals.

The following study was designed to test these predictions. Drawing upon Lydon et al. (1997), we presented participants with various social interaction scenarios involving the receipt or payment of social commodities (e.g., getting treated to dinner, borrowing a friend's class notes), and then assessed their behavioral intentions, affective response, and the timing and importance of reciprocation. Because we wanted to look at the effects of attachment in real-life close relationships, rather than hypothetical situations, we adopted a procedure used by Baldwin and his colleagues (Baldwin, Keelan, Fehr, Enns, and Koh-Rangarajoo, 1996). Participants nominated exemplars of secure, anxious-ambivalent, and avoidant attachment relationships, and then were randomly assigned to think about themselves in the scenarios with one of those exemplars. In this way, we were able to investigate the influence of attachment in real relationships, but in a controlled setting.

In summary, we predicted that:

1. Those in secure relationships should: (a) act communal when the situation calls for it (i.e., offer help, and ask for help), and feel comfortable using communal norms; (b) expect their friend to use communal norms, and feel comfortable with their friend's use of communal norms; (d) not feel the need to immediately reciprocate favors or aid received; and, (e) not attribute special importance to the other's failure to reciprocate.

2. Those in anxious-ambivalent relationships should: (a) act communal when given the opportunity (i.e., offer help), but feel uncomfortable asking for help; (b) not expect their friend to use communal norms; (c) feel happy but anxious when their friend

uses communal norms; (d) want to quickly reciprocate favors (to signal equal interest); and, (e) attribute special importance to their friend's failure to reciprocate.

3. Those in avoidant relationships should: (a) not act communal (i.e., offer help, and ask for help), even when the situation calls for it, and, feel anxious and annoyed in communal situations; (b) not expect their friend to use communal norms, and feel distressed when their friend uses communal norms; (d) want to immediately reciprocate favors or aid received; and, (e) (possibly) attribute special importance to their friend's failure to reciprocate.

## Method

### *Participants*

One hundred-fifteen undergraduates were recruited. Participants first completed a pre-study questionnaire by email in which they nominated representatives of Hazan and Shaver's (1987) three attachment relationships. Similar to Baldwin et al.'s (1996, Study 3) findings, 14 participants were unable to nominate representatives from all three attachment categories, so they were ineligible to complete the remainder of the study as random assignment to attachment condition was not possible. Moreover, 14 participants were dropped because they did not follow instructions. The final sample consisted of 87 participants (37 male and 50 female, mean age = 19.7 years). Participants were randomly assigned to the secure, anxious-ambivalent, or avoidant attachment relationship condition. There were 29 participants in each condition. Participants received $8 (Canadian) for their participation.

### *Procedure and Materials*

Participants were recruited to participate in a study investigating "social interactions and the self." Prior to the testing session, participants completed a pre-study questionnaire. Following Baldwin et al. (1996), the questionnaire listed descriptions of different types of relationships, or different kinds of people, and asked participants to nominate someone in their life who fit each description. Three items reflected Hazan and Shaver's (1987) attachment orientations modified to reflect a relationship with a specific person. The remaining descriptions were filler items (e.g., an adventurous person). Notably, to insure that the attachment nominees would be significant, it was underscored that participants should nominate only individuals with whom they have relationships they would characterize as important. Moreover, participants were instructed to nominate peers as the social interaction scenarios were most appropriate for peer relationships (e.g., borrowing notes). Participants emailed their completed questionnaire to the experimenter prior to their appointment.

Upon arrival, participants were given a brief description of the study, and completed an informed consent form, a demographic questionnaire, and a baseline mood scale. They were then reminded of the pre-study questionnaire, and were told that one of the individuals they had nominated had been randomly selected for them to think about during the testing session; they were then given the initials of the attachment figure corresponding to the condition to which they were assigned. Following Lydon et al. (1997), participants went through a short guided visualization in which they were instructed (via headphones) to think about various characteristics of their attachment figure, and to imagine themselves interacting with their attachment figure.

Once participants had completed the guided visualization they began the main questionnaire, which consisted of four social interaction scenarios involving the receipt or payment of social commodities. At the outset, participants were encouraged to fully immerse themselves in the scenarios, for example, by visualizing themselves and their chosen person in the situation, imagining the surroundings, et cetera. To help them mentally simulate the experience, blank spaces were inserted throughout the scenarios, and participants were instructed to write their chosen person's first name in the spaces provided. The purpose of the guided visualization and the mental simulation was to help participants immerse themselves in the situations described, so as to discourage top-of-the-head responses (see Lydon et al., 1997).

The scenarios addressed a range of situations involving the request, offer, or receipt of different social commodities (i.e., favors and help). Each scenario was followed by questions assessing behavioural intentions, affect, and feelings about the timing and importance of reciprocation. For most of the questions, participants indicated their response by placing a slash through a line measuring 150 millimeters. To facilitate interpretation, responses were transformed so that the ratings would range from 0 to100.

In scenario one, participants imagined that they had gone out to dinner with their chosen person. At the end of the meal, the participant leaves the table to go to the restroom, and in their absence the waitress brings the check. Participants first rated the probability that their chosen person would treat them and pay for both dinners while they were away from the table. They were then asked about how they would respond *if* their chosen person had treated them to dinner. Specifically, they indicated how: (a) happy, (b) anxious, and (c) annoyed they would feel, (d) the likelihood that they would want to take

their friend to dinner another time with the *explicit intention* of paying for the meal, and (e) how much time (in days) they would feel comfortable letting pass between the two meals (i.e., the gift meal and reciprocation meal). Finally, participants imagined that they had paid for both dinners while their friend was away from the table, and rated the extent to which they "felt it would say something about the overall nature of the relationship if they had picked up the tab and the other person did not take them out to dinner on another occasion" (i.e., the importance of their friend's failure to reciprocate).

In scenario two, participants imagined that they and their chosen person were taking a class together. The participant had missed a few classes since the last midterm. Participants rated the likelihood that they would ask to borrow their friend's notes, and the likelihood that their friend would lend them the notes. Affective response to the situation (confidence, anxiety, and annoyance), intentions, timing, and importance of reciprocation were assessed as in scenario one.

In scenario three, participants imagined themselves in their room one evening studying for a midterm that they had the next day. Their chosen person phones while they are studying, is concerned about a personal matter, and would like them to go for a cup of coffee. Participants' affective response (indifference, annoyance, anxiety and discomfort) to the situation was assessed, as well as the likelihood that they would sacrifice studying for their midterm to go for coffee. Importance of their chosen person's failure to reciprocate if the situation were reversed was assessed last.

In scenario four, participants imagined that it was the holiday season and their chosen person unexpectedly gave them an expensive gift. The questions for this scenario focused on participants' affective response (happiness, anxiety, and annoyance).

At the end of the questionnaire, relationship type (e.g., friend, romantic partner, et cetera), length, status (existing or past relationship), and importance were assessed. As a manipulation check, participants were given descriptions of Hazan and Shaver's (1987) three attachment relationships modified to reflect a relationship with a specific person, and rated the extent to which each described their relationship with the person they were instructed to think about that day. Finally, chronic attachment was assessed at the end of the questionnaire.

*Experience in Close Relationship Scale* (Brennan et al., 1998). This 36-item questionnaire assesses the two dimensions of attachment avoidance and anxiety. Participants indicated on a 7-point scale how much they agree/disagree with each item, in terms of how they generally experience close relationships. A seven-item version of this questionnaire was used to assess chronic attachment.

*Profile of Moods States* (MacNair, Lorr, & Sroppleman, 1971). Baseline mood was assessed using affect items selected from hostile, elated, uncertain, anxious, depressed, composed, and confident subscales. Participants rated on a scale from 0 (*not at all*) to 100 (*extremely*) the extent to which they experienced 17 affect items in the past week.

<div align="center">Results and Discussion</div>

*Manipulation Check*

A series of one-way analyses of variance (ANOVAs) confirmed that the individuals participants' thought about reflected the attachment relationship condition to which they were assigned. Specifically, experimental condition was significantly associated with relationship security ratings, $F(2, 84) = 85.80$, $p < .001$, relationship

avoidance ratings, $F(2, 84) = 59.43$, $p < .001$, and relationship anxious-ambivalence ratings, $F(2, 84) = 50.10$, $p < .001$. *T*-tests revealed that those in the secure condition rated their relationship with their assigned person as more secure ($M = 6.48$; $SD = 1.02$) than those in the avoidant condition ($M = 2.35$; $SD = 1.08$), $t > 12$, and than those in the anxious-ambivalent condition ($M = 3.35$; $SD = 1.59$), $t > 9$. Those in the avoidant condition rated their relationship as more avoidant ($M = 5.55$; $SD = .95$) than those in the secure condition ($M = 1.85$; $SD = 1.37$), $t > 10$, and than those in the anxious-ambivalent condition ($M = 2.64$; $SD = 1.67$), $t > 8$. Finally, those in the anxious-ambivalent condition rated their relationship as more anxious-ambivalent ($M = 5.04$; $SD = 1.32$) than those in the secure condition ($M = 1.59$; $SD = 1.05$), $t > 9$, and than those in the avoidant condition ($M = 2.59$; $SD = 1.62$), $t > 6$.

*Relationship Characteristics*

*Relationship type.* Of the individuals nominated, 75% were characterized as friends, 6% as siblings, 5% as romantic partners, 2% as co-workers, 5% as roommates, and 8% as classmates. Relationship attachment style was not associated with relationship type, $X^2(10, N = 87) = 10.22$, *ns*.

*Relationship length and status.* The mean relationship length was just over 1 year (377 days). Relationship attachment style was not associated with relationship length, $F < 1$, *ns*. With respect to relationship status, 54% of participants thought about current relationships. Attachment relationship style was marginally associated with relationship status, $X^2(2, N = 87) = 5.92$, $p = .052$. Although there was a trend for the secure attachment relationships to be current (72%), whether or not the relationship was current did not interact with attachment relationship condition on any of the findings.

*Relationship importance.* Finally, the mean importance rating was 7.16, and the median was 8 (the scale ranged from 1 to 10). Attachment relationship condition was associated with importance ratings, $F(2, 80) = 19.40, p < .001$. Those in secure relationships rated their relationship as more important ($M = 8.59, SD = 1.37$) than those in avoidant relationships ($M = 5.70; SD = 2.08$), $t(80) = 6.22, p < .001$, and than those in anxious-ambivalent relationships ($M = 7.25, SD = 1.65$), $t(80) = 2.88, p = .005$. Those in anxious-ambivalent relationships also rated their relationship as more important than those in avoidant relationships, $t(80) = 3.37, p = .001$.

*Overview of Main Analyses*

A series of ANOVAs were conducted to investigate our predictions. The between-subjects factor was attachment relationship condition (secure, avoidant, or anxious-ambivalent), and the dependent variables were participants' behavioral intentions (self and other), affect, and timing and importance of reciprocation. When possible, responses across scenarios were analyzed together in repeated measures analyses. To facilitate processing the results, we have created one table containing participants' responses on all the dependent variables as a function of attachment relationship type (see Table). Finally, there were no significant main or interaction effects for chronic attachment in the subsequent analyses.

*Behavioral Intentions to Use Communal Norms and Affect*

In the coffee scenario participants rated the probability that they would make a personal sacrifice and offer help, and in the notes scenario participants rated the probability that they would ask for help. Although both scenarios assess intentions to use communal norms, they were not analyzed together as it was thought that those in

anxious-ambivalent relationships might be especially willing to help a friend in need, but be reluctant to ask a friend for help.

*Offering Help (The Coffee Scenario)*

The ANOVA investigating the probability that participants' would forgo studying for their midterm and go for coffee with their friend was significant, $F(2, 84) = 5.82, p < .005$. Planned contrasts revealed that those in avoidant relationships were significantly less likely to go for coffee with their friend ($M = 49\%$; $SE = 29$) than those in secure relationships ($M = 65\%$; $SE = 29$), $t(84) = 2.38, p < .05$, and than those in anxious-ambivalent relationships ($M = 72\%$; $SE = 21$), $t(84) = 3.31, p < .01$. Those in secure and those in anxious-ambivalent relationships did not differ in their probability to go for coffee, $t < 1$, *ns*.

*Affective Response to Offering Help*

*Indifference.* Upon reading the coffee scenario, participants rated how they would feel about being in a situation in which they are asked to make a sacrifice and help a friend in need. The ANCOVA investigating participants' indifference, controlling for baseline indifference, yielded a significant effect for attachment relationship, $F(2, 83) = 7.67, p < .001$. Focused comparisons revealed that those in avoidant relationships felt significantly more indifferent ($M = 31$; $SE = 4$) than those in secure relationships ($M = 13$; $SE = 4$), $t(83) = 3.50, p < .005$, and than those in anxious-ambivalent relationships ($M = 14$; $SE = 4$), $t(83) = 3.30, p < .005$. Those in secure and those in anxious-ambivalent relationships did not differ in indifference ratings, $t < 1$, *ns*.

*Annoyance.* An aggregate measure of annoyance was created by taking participants' mean response to the *angry* and *annoyed* items in the coffee scenario. The

ANCOVA investigating participants' annoyance, controlling for baseline annoyance, yielded a significant effect for attachment relationship, $F(2, 83) = 13.05, p < .001$. Focused comparisons revealed that those in avoidant relationships felt significantly more annoyed ($M = 44$; $SE = 4$) than those in secure relationships ($M = 17$; $SE = 4$), $t(83) = 4.61, p < .001$, and than those in anxious-ambivalent relationships ($M = 19$; $SE = 4$), $t(83) = 4.22, p < .005$. Those in secure and those in anxious-ambivalent relationships did not differ in annoyance ratings, $t < 1.5$, *ns*.

*Anxiety and discomfort.* The ANCOVA investigating participants' anxiety in this situation (i.e., being asked to make a sacrifice and help a friend in need), controlling for baseline anxiety, was not significant, $F < 1$. However, participants also rated how uncomfortable they would feel, *given* that they went for coffee with their friend, and the ANOVA investigating the effects of relationship type on discomfort was significant, $F(2, 82) = 10.48, p < .001$. Planned contrasts revealed that those in avoidant relationships felt significantly more uncomfortable about going for coffee with their friend ($M = 61$; $SE = 5$) than those in secure relationships ($M = 32$; $SE = 4$), $t(83) = 4.40, p < .001$, and than those in anxious-ambivalent relationships ($M = 40$; $SE = 4$), $t(83) = 3.27, p < .005$. Those in secure and those in anxious-ambivalent relationships did not differ in discomfort ratings, $t < 1.5$, *ns*.

As predicted, those in anxious-ambivalent and secure relationships were more likely to follow the communal script and help a friend in need—even if it involved making a personal sacrifice—compared to those in avoidant relationships. Those in avoidant relationships were more indifferent to their friend's plight, and were more annoyed and uncomfortable about being in that situation.

*Asking for Help (The Notes Scenario)*

The ANOVA investigating participants' intentions to borrow their friend's notes revealed a marginal effect for relationship type, $F(2, 84) = 2.46$, $p < .10$. Planned contrasts revealed that those in avoidant relationships were significantly less likely to ask to borrow their friend's notes ($M = 76\%$; $SD = 27$) than those in secure relationships ($M = 89\%$; $SD = 21$), $t(84) = -2.16$, $p < .05$. Those in anxious-ambivalent relationships did not differ from those in secure relationships in behavioral intention ratings, ($M = 85\%$; $SD = 17$), nor did they differ from those in avoidant relationships, both $ts < 1.55$, *ns*.

*Affective Response to Asking for Help*

*Confidence.* The ANCOVA investigating participants' confidence about asking to borrow their chosen person's notes, controlling for baseline confidence, yielded a significant effect for attachment relationship, $F(2, 83) = 12.24$, $p < .001$. As predicted, focused comparisons revealed that those in secure relationships felt more confident ($M = 90$; $SE = 4$) than those in avoidant relationships ($M = 62$; $SE = 4$), $t(83) = 4.70$, $p < .001$, and than those in anxious-ambivalent relationships, ($M = 67$; $SE = 4$), $t(83) = 3.75$, $p < .005$. Those in avoidant and those in anxious-ambivalent relationships did not differ in confidence ratings, $t < 1$, *ns*.

*Anxiety.* The ANCOVA investigating participants' anxiety about asking for help, controlling for baseline anxiety, revealed a main effect for relationship type, $F(2, 83) = 12.59$, $p < .001$. Focused comparisons found that those in secure relationships felt significantly less anxious about asking for help ($M = 5$; $SE = 3$) than those in avoidant relationships ($M = 29$; $SE = 3$), $t(83) = 4.91$, $p < .001$, and than those in anxious-

ambivalent relationships ($M = 22$; $SE = 3$), $t(83) = 3.37$, $p < .01$. Those in avoidant and those in anxious-ambivalent relationships did not differ in anxiety ratings, $t < 1.55$, *ns*.

*Annoyance.* The ANCOVA investigating participants' annoyance about asking for help, controlling for baseline annoyance, revealed a main effect for relationship type, $F(2, 83) = 5.78$, $p < .005$. Focused comparisons revealed that those in avoidant relationships felt significantly more annoyed ($M = 26$; $SE = 4$) than those in secure relationships ($M = 6$; $SE = 4$), $t(83) = 3.33$, $p < .01$, and than those in anxious-ambivalent relationships ($M = 13$; $SE = 4$), $t(83) = 2.28$, $p < .05$. Those in secure and those in anxious-ambivalent relationships did not differ in annoyance ratings, $t < 1.5$, *ns*.

Thus, as predicted, those in secure relationships were quite willing to ask for help in a time of need, and felt confident doing so, whereas those in avoidant relationships were considerably less willing to ask for help, and were more anxious and annoyed about being in that situation. We thought it was possible that those in anxious-ambivalent relationships might also be less willing to ask for help than their secure counterparts, but these two groups did not differ on their behavioral intentions ratings; however, those in anxious-ambivalent relationships did feel considerably more anxious and less confident about having to ask for help.

*Expectations about the Other's Use of Communal Norms (Dinner and Notes Scenarios)*

In the dinner and notes scenarios, participants rated the probability that their chosen person would use communal norms (i.e., do them a favor and help them in a time of need). The 3 (relationship type: secure, avoidant, anxious-ambivalent) X 2 (scenario: dinner, notes) repeated measures ANOVA revealed a main effect r relationship type, $F(2, 82) = 3.51$, $p < .05$. This main effect was not qualified by the scenario variable, $F < 1$, *ns*.

Focused comparisons revealed that those in secure relationships believed it was somewhat more probable that their friend would act communal ($M = 70\%$; $SE = 3$) than those in avoidant relationships ($M = 59\%$; $SE = 3$), $t(2, 82) = 1.87$, $p < .10$. Those in anxious-ambivalent relationships did not differ from those in secure relationships in their expectations about their chosen person's behavior, ($M = 65\%$; $SE = 3$), nor did they differ from those in avoidant relationships, both $t$s $< 1.55$, $ns$.

Interestingly, the influence of relationship type was strongest in the notes scenario, in which participants rated the probability that their friend would offer help. Specifically, the ANOVA investigating the notes scenario alone revealed a significant effect for relationship type, $F(2, 82) = 5.28$, $p < .01$. Planned contrasts found that those in secure relationships thought it was more likely that their friend would lend them the notes ($M = 98\%$; $SD = 3$) than those in avoidant relationships ($M = 90\%$; $SD = 15$), $t(82) = 2.99$, $p < .005$, and than those in anxious-ambivalent relationships ($M = 91\%$; $SD = 11$), $t(82) = 2.57$, $p < .05$. Relationship attachment type also influenced participants' estimates of their friend's comfort level in this situation, $F(2, 84) = 9.10$, $p < .001$. Planned contrasts revealed that those in secure relationships thought their friend would feel more comfortable about lending the notes ($M = 96$; $SD = 5$) than those in avoidant relationships ($M = 77$; $SD = 26$), $t(84) = 3.59$, $p = .001$, and than those in anxious-ambivalent relationships, ($M = 76$; $SD = 25$), $t(84) = 3.79$, $p < .001$. Those in avoidant and those in anxious-ambivalent relationships did not differ in estimates of their friend's comfort level in this situation, $t < 1.5$, $ns$.

Thus, with respect to expectations about the other's use of communal norms, attachment primarily influenced beliefs about whether others will be willing to help

during a time of need. Those in insecure relationships (avoidant and anxious-ambivalent) were less confident about their friend's willingness to help, and believed their friend would feel less comfortable helping. The primacy of the helping scenario is not entirely surprising. From the perspective of attachment theory, one of the main distinctions between secure and insecure attachment concerns expectations about reliability of others to meet one's needs, thus, one would expect stronger effects in the notes scenario. Moreover, from the perspective of communal and exchange theory, responsiveness to need is considered the gold standard for assessing communal norms (Clark, 1984b).

*Affective Response to Other's Use of Communal Norms (Notes and Gift Scenarios)*

Participants rated how happy, anxious, and annoyed they would feel upon being treated to dinner, and upon receiving an expensive gift from their chosen person. To investigate the influence of relationship type on participants' affective response to their chosen person's use of communal norms, a series of 3 (relationship type: secure, avoidant, anxious-ambivalent) X 2 (scenario: dinner, gift) repeated measures ANOVAs were conducted, controlling for the relevant baseline affect.

*Happiness.* An aggregate measure of happiness was created by taking participants' mean response to the *happy* and *elated* items in the dinner and gift scenarios. The repeated measures ANCOVA investigating participants' happiness upon receiving a favor, controlling for baseline happiness, revealed a main effect for relationship type, $F(2, 83) = 7.85, p = .001$. This effect was not qualified by the scenario variable, $F < 2, ns$. Focused comparisons found that those in anxious-ambivalent relationships felt significantly happier about receiving a favor ($M = 56; SE = 4$) than those in avoidant relationships ($M = 37; SE = 4$), $t(83) = 2.73, p < .01$. Those in secure relationships felt

marginally more happy about receiving a favor ($M = 51$; $SE = 4$) than those in avoidant relationships, $t(83) = 1.92$, $p < .10$. Those in anxious-ambivalent and those in secure relationships did not differ in happiness ratings, $t < 1$, *ns*.

*Anxiety.* An aggregate measure of anxiety was created by taking participants' mean response to the *uneasy, unsure, anxious* and *tense* items in the dinner and gift scenarios. The repeated measures ANCOVA investigating participants' anxiety upon receiving a favor, controlling for baseline anxiety, revealed a main effect for relationship type, $F(2, 83) = 14.48$, $p < .001$. This effect was not qualified by the scenario variable, $F < 1$, *ns*. Focused comparisons revealed that those in avoidant relationships felt significantly more anxious about receiving a favor ($M = 54$; $SE = 3$) than those in secure relationships ($M = 29$; $SE = 3$), $t(83) = 3.78$, $p < .001$. Those in anxious-ambivalent relationships also felt significantly more anxious about receiving a favor ($M = 45$; $SE = 3$) than those in secure relationships, $t(83) = 2.30$, $p < .05$. Those in avoidant and those in anxious-ambivalent relationships did not differ in anxiety ratings, $t < 1.5$, *ns*.

*Annoyance.* The repeated measures ANOVA investigating participants' annoyance upon receiving a favor, controlling for baseline annoyance, revealed a main effect for relationship type, $F(2, 83) = 8.84$, $p < .001$. This effect was not qualified by the scenario variable, $F < 1$, *ns*. Focused comparisons revealed that those in avoidant relationships felt significantly more annoyed about receiving a favor ($M = 37$; $SE = 4$) than those in secure relationships ($M = 15$; $SE = 4$), $t(83) = 2.63$, $p < .01$, and than those in anxious-ambivalent relationships ($M = 16$; $SE = 4$), $t(83) = 2.53$, $p < .05$. Those in secure and those in anxious-ambivalent relationships did not differ in annoyance ratings, $t < 1$, *ns*.

Thus, as predicted, the attachment quality of the relationship was associated with participants' affective response to their friend's use of communal norms. Those in secure relationships were relatively happy and not at all anxious or annoyed when their chosen person used communal norms. By comparison, those in anxious-ambivalent relationships were especially happy when their chosen person did something nice for them, but they also felt particularly anxious, whereas those in avoidant relationships were the least happy, the most annoyed, and also anxious.

*Intentions to Reciprocate (Dinner and Notes Scenarios)*

In the scenarios in which participants received a favor or help (dinner and notes), participants rated the probability that they would feel the need to do something for their friend with the *explicit intention* of reciprocation. The 3 (relationship type: secure, avoidant, anxious-ambivalent) X 2 (scenario: dinner, notes) repeated measures ANOVA investigating participants' intentions to reciprocate was not significant for relationship type, $F < 1$, *ns*. However, the repeated measures ANOVA did reveal a main effect for scenario, $F(1, 84) = 63.60, p < 001$. Participants were more likely to feel the need to reciprocate a favor, such as being treated to dinner ($M = 73\%$; $SE = 3$), than they were to reciprocate help received ($M = 39\%$; $SE = 3$).

Although the interaction between relationship type and scenario was not significant, $F(2, 84) = 2.26, p = .11$, careful inspection of the data revealed that whereas relationship type was not associated with likelihood to reciprocate a favor, it was marginally associated with likelihood to reciprocate help, $F(2, 84) = 2.4, p < .10$. Planned contrasts revealed that those in avoidant relationships were more likely to reciprocate help received ($M = 47\%$; $SE = 32$) than those in secure relationships ($M = 30\%$; $SE = 31$),

$t(84) = 2.19, p < .05$. Those in anxious-ambivalent relationships did not differ from those in secure relationships or from those in avoidant relationships with respect to likelihood of reciprocation ($M = 40\%$; $SE = 28$), both $t$s $< 1.5$, *ns*.

*Time to Reciprocate (Dinner and Notes Scenarios)*

Participants also rated how much time (in days) they felt comfortable letting pass before reciprocating the favor or help received from their friend. [1][2] Similar to the reciprocation intention analyses, whether participants received a favor or help influenced their response. Specifically, the 3 (relationship type: secure, avoidant, anxious-ambivalent) X 2 (scenario: dinner, notes) repeated measures ANOVA investigating days to reciprocate yielded a marginal effect for relationship type, $F(2, 50) = 2.51, p < .10$. However, this effect was qualified by a significant interaction between scenario and relationship type, $F(2, 50) = 4.39, p < 05$. Whereas there was no difference between estimated days to reciprocate in the dinner scenario, $F < 1.5$, *ns*, the ANOVA investigating days to reciprocate in the notes scenario revealed a significant effect for relationship type, $F(2, 50) = 3.96, p < .05$. Planned contrasts found that those in secure relationships felt comfortable letting more days pass between receiving and reciprocating help ($M = 47$; $SD = 57$) than those in avoidant relationships ($M = 16$; $SD = 20$), $t(50) = 2.69, p < .05$, and than those in anxious-ambivalent relationships ($M = 20$; $SD = 21$), $t(50) = 2.23, p < .05$. There was no difference between those in avoidant and those in anxious-ambivalent relationships in estimated days to reciprocate, $t < .5$, *ns*.

In sum, the attachment quality of the relationship was associated with participants' reciprocation behavior. Interestingly, however, attachment only predicted differences in reciprocation for *help* received. Consistent with the communal script, upon

receiving help, those in secure relationships did not feel the need to do something with the explicit intention of reciprocation. By comparison, those in avoidant relationships wanted to reciprocate the help received, illustrating their use of exchange norms in a communal situation. Moreover, whereas those in secure relationships felt comfortable letting a few months pass between receiving and reciprocating help, those in avoidant relationships wanted to reciprocate within a few weeks. Although those in anxious-ambivalent relationship fell between those in secure and those in avoidant relationship on specific intentions to reciprocate, as predicted, like those in avoidant relationships, they also wanted to quickly do something for their friend in response to receiving help.

*Importance of Reciprocation (Failure)*

Finally, in each scenario, participants were asked to imagine that the tables were turned and they had done a favor or helped their friend. We then assessed how important their chosen person's *failure* to reciprocate that favor or help would be to the overall quality of the relationship. The 3 (relationship type: secure, avoidant, anxious-ambivalent) X 3 (scenario: dinner, notes, coffee) repeated measures ANOVA investigating reciprocation importance revealed a main effect for scenario, $F(2, 83) = 8.09, p = .001$. Overall, failure to reciprocate was rated more important in the coffee scenario ($M = 45$; $SE = 3$) than in the notes scenario ($M = 32$; $SE = 3$), $t(84) = 3.58, p < .001$, and than in the dinner scenario ($M = 36$; $SE = 3$), $t(84) = 2.71, p < .01$. There was no difference between importance ratings in the notes and dinner scenarios, $t < 1$, *ns*.

The ANOVA also revealed a main effect for relationship type, $F(2, 84) = 6.92, p < .005$. Importantly, the interaction between relationship type and scenario was not significant, $F < 2$, *ns*. Focused comparisons found that those in anxious-ambivalent

relationships felt that failure to reciprocate would be more important to the overall quality of the relationship ($M$ = 46; $SE$ = 4) than those in secure relationships ($M$ = 25; $SE$ = 4), $t(84)$ = 2.02, $p$ < .05. Those in avoidant relationships did not differ from those in anxious-ambivalent relationships in importance ratings ($M$ = 42; $SE$ = 4), nor did they differ from those in secure relationships, both $ts$ < 2, $ns$. Thus, while those in anxious-ambivalent relationships were very willing to make a sacrifice and help a friend in need, they nevertheless felt that it was important that their friend reciprocate that gesture on another occasion, and that their friend's failure to reciprocate would have implications for the relationship.

## Discussion

Close relationships such as those between family members, friends, and romantic partners are theorized to be associated with the use of communal norms (Clark, 1984a, 1984b; Clark & Mills, 1979). In close relationships there is a basic concern for the welfare of the other person, and the script is that both parties give freely—offering help when the other is in need, asking for help when one is in need, and occasionally doing favors to make the other happy—without concern for reciprocation. The goal of this research was to investigate whether the attachment quality of the relationship moderates individuals' adherence to the communal script.

Our predictions were supported in the current investigation. Those in secure relationships generally followed the communal script, and felt comfortable doing so. They were more likely to help a friend in need, putting aside studying for their midterm to go for coffee with their friend, and they expected that their friend would help them if they were in need. They also expected their friend to use communal norms, and, again,

felt comfortable with their friend's use of communal norms, that is, with being treated to dinner, or being given an expensive gift. Finally, they were less likely to immediately reciprocate favors or help received, and they did not attribute great importance to their friend's failure to reciprocate. Thus, in support of Clark's theory, when people feel worthy of love and affection, and feel the other is trustworthy and reliable—which is the majority of close relationships—people follow the communal script.

Those in anxious-ambivalent relationships, however, had more difficulty following the communal script. Like those in secure relationships, they were very willing to make a personal sacrifice to help a friend in need, but, notably, they were vigilant about reciprocation. Compared to those in secure relationships, those in anxious-ambivalent relationships felt their friend's failure to reciprocate would have important consequences for the quality of the relationship. Thus, while those in anxious-ambivalent relationships strived to be communal—presumably to signal their interest—they monitored their partner's behavior for signs of commitment, and used that information to make judgments about the overall quality of the relationship.

Asking for help—also part of the communal script—was a different story. Although those in anxious-ambivalent relationships were not significantly less likely to ask for help than their secure relationship counterparts, they were less confident and more anxious about having to do so. Most likely, this was due to their negative beliefs about their desirability as a friend, and their expectations about the reliability of others. Indeed, like those in avoidant relationships, those in anxious-ambivalent relationships were more pessimistic about whether their friend could be relied upon to help them in a time of need.

This finding is consistent with existing research on attachment theory; in fact, a negative

expectation about the reliability of others is a core feature of attachment insecurity.

What is interesting is that when their friend *actually did* do something nice for

them, although those in anxious-ambivalent relationships felt especially happy, they also

felt anxious. One would think that their friend's use of communal norms would make

them *less* anxious as it implies their friend's acceptance of them and interest in the

relationship, but this was not the case. We believe there are several possible explanations

for this finding. First, they may have simply felt aroused and anxious about the prospect

of closeness—their deepest hopes for the relationship were about to be realized and they

may have felt pressure to act correctly. Second, they may have been reluctant about

drawing conclusions about the status of the relationship, or the intentions of the other

person, and this uncertainty may have caused anxiety. Finally, the friend's communal

behavior may have brought to mind previous experiences of hoping to be close, but being

let down in the end. That is, the potential for closeness may have brought to mind prior

experiences of rejection, which, of course, would be anxiety provoking. Future research

should explore these possibilities.

Finally, although those in anxious-ambivalent relationships did not intend to do

something to *explicitly* reciprocate the help received, they did want to quickly do

something for their friend in response to receiving help. This finding is suggestive of

Lydon et al.'s (1997) would-be friends, who used the exchange of social commodities to

communicate their equal interest in the relationship. We believe the intention to quickly

do something for their friend by those in anxious-ambivalent relationships was motivated

by the desire to signal their equal interest, and not simply to balance the scales. The fact

that they did not have specific intentions to reciprocate suggests this possibility is likely, but future research should confirm this.

Those in avoidant relationships, as predicted, did not follow the communal script. In fact, they consistently used exchange norms, even though they were describing a friendship. Specifically, they were less likely to help a friend in need. They were also more indifferent to their friend's plight, and they were angrier, and more uncomfortable about being in a situation in which they were called upon to make a personal sacrifice to help their friend. They were also less likely to ask for help, and they felt less confident, more anxious, and more annoyed about having to do so. Similarly, they had lower expectations about their friend's use of communal norms, and they were uncomfortable when their friend used communal norms. When their friend treated them to dinner, or bought them an expensive gift, they were anxious and even annoyed! Finally, upon receiving help from a friend, those in avoidant relationships intended to quickly reciprocate help received—another violation of the communal script. The consistent use of exchange norms by those in avoidant relationships is indicative of the preference for independence and the desire to maintain a "safe distance" between the self and close others associated with the avoidant orientation.

This research helps to illuminate how attachment insecurities perpetuate themselves in close relationships. A basic feature of all relationships is the exchange of social commodities, and this research suggests that the exchange of social commodities is one area in which attachment insecurities manifest themselves. One of the interesting findings, we believe, concerns the results for those in anxious-ambivalent relationships. An outstanding question in attachment theory and research is why anxiously attached

individuals, who desperately seek closeness, have difficulty achieving and sustaining close bonds with others (Hazan & Shaver, 1987; Shaver & Hazan, 1993; Kirkpatrick & Hazan, 1994), and why the close bonds they do achieve are often marked by conflict and dissatisfaction (Simpson, Rholes, & Phillips, 1996; Kirkpatrick & Davis, 1994; for a review, see Simpson, Ickes, & Grich, 1999). It is curious that individuals who are so preoccupied with the goal of closeness should have such difficultly achieving that goal.

This research suggests that ambivalence about following the communal script may be an important factor. Like those in secure relationships, those in anxious-ambivalent relationships wanted to follow the communal script, but, like those in avoidant relationships, they were vigilant about reciprocation. Ironically, it appears that their very drive for closeness creates a state of worry and hypervigilance that may lead to a climate of stress and dissatisfaction in the relationship. Their reluctance to ask for help, their anxiety about receiving help or a favor, and their preoccupation with whether the other returns help or favors should undermine the closeness, trust, and interdependence that are the foundation of close relationships. Of course, this research focused on the actor. Subsequent research should investigate how the partners of anxiously-attached individuals respond to these individuals' behavior, and whether their relationship satisfaction is undermined.

This research is also unique in its focus on relationship-specific attachment experiences. Whereas the majority of research on attachment looks at the effects of people's chronic or global attachment orientations, this research employed a different methodological approach to investigate the causal effects of attachment. Drawing upon the idea that people have different attachment models for different relationships (Baldwin

et al., 1996), we were able to look at the effects of attachment in a controlled laboratory setting which enabled causal predictions to be tested (see Mikulincer, Gillath, et al., 2001, for a discussion). However, using this methodology highlights the importance of looking at relationship specific experiences: The effects found were a function of the quality of the specific relationship and were unrelated to participants' global attachment style. This suggests that, in addition to the history people bring to their close relationships, the dynamics of the specific relationship are important. In this research, it was not that securely attached individuals felt comfortable offering and asking for help, it was that when people—regardless of their chronic attachment orientation—felt secure in relation to a close other, they were more comfortable offering and asking for help.

One limitation of the current methodology is the use of self-reports. Although great care was taken to immerse participants in the social interaction scenarios, they were scenarios, nevertheless, and the dependent variables were based on self-reports. A second question is the issue of whether all participants' nominees qualified as attachment figures. Although we employed a procedure previously developed by Baldwin et al. (1996), and also used by Mikulincer and Arad (1999), and stressed that participants should nominate individuals with whom they had relationships they would characterize as important, there was still variability in relationship importance. We believe, however, that relationship importance may be a natural confound of the attachment quality of the relationship. The person you can turn to in times of trouble should be more important than the person who cannot be trusted, but that does not mean that the relationship with the person who cannot be trusted is unimportant or insignificant. We believe many people contend with close relationships in which they feel insecure, and this research is directed at understanding

the dynamics of those relationships. To address both of these limitations, future research

should investigate actual behavior between existing friends as it unfolds in naturally

occurring interpersonal situations.

In conclusion, in addition to helping understand how attachment influences an

important aspect of close relationships—the exchange of social commodities—we

believe this research makes a more general contribution to the field of close relationships.

This research sought to integrate work that has arisen from two different traditions—on

the one hand, attachment theory and, on the other hand, communal and exchange norms.

In so doing, our research underscores that the core issue of interpersonal insecurities

permeates social commerce in close relationships.

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Author Note

Jennifer A. Bartz and John E. Lydon, Department of Psychology, McGill University, Montreal, Quebec, Canada.

Correspondence concerning this article should be addressed to Jennifer A. Bartz, Department of Psychology, McGill University, 1205 Dr. Penfield Avenue, Montreal, Quebec, Canada H3A 1B1. E-mail: jbartz@ego.psych.mcgill.ca

## Endnotes

1 The time to reciprocate question asked for the *specific* number of days, weeks, and/or months participants felt comfortable letting pass between receiving the favor or help and reciprocating. Unfortunately, 39% of participants indicated their response with a check mark and their responses could not be included. Analyses revealed that relationship type was associated with answering the time question correctly, $X^2(2, N = 87) = 6.47, p < .05$. While there was no difference between the number of participants answering this question correctly in the secure and anxious-ambivalent relationship groups (48% and 55%, respectively), significantly more participants answered this question correctly in the avoidant group (79%). Importantly, analyses investigating the interaction between condition and correctly answering the time question on all the dependent variables revealed only one significant interaction out of 20 tests.

2 Inspection of the data revealed one outlier in the secure group who reported feeling comfortable letting 10 months (280 days) pass between receiving and reciprocating help. Although we believe this response is not a mistake (i.e., it is reasonable to assume that someone might wait 10 months to reciprocate help received), to insure that the effects obtained for this question were not due to this outlier, this response was replaced with the second highest value (Tabachnick & Fidel, 2001).

Table

*Mean Responses as a Function of Attachment Prime*

| | Attachment relationship | | | | |
|---|---|---|---|---|---|
| | Secure | | Anxious-ambivalent | | Avoidant |
| **Behavioral intentions self and affect** | | | | | |
| Offering help (Coffee) | 65%$_a$ | = | 72%$_a$ | > | 49%$_b$ |
|    Anxiety/discomfort | 34%$_a$ | | 43%$_{a,b}$ | | 53%$_b$ |
|    Annoyance/anger | 17%$_a$ | = | 19%$_a$ | < | 44%$_b$ |
| Asking for help (Notes) | 89%$_a$ | | 85%$_{a,b}$ | | 76%$_b$ |
|    Anxiety | 5%$_a$ | < | 22%$_b$ | = | 29%$_b$ |
|    Annoyance | 6%$_a$ | = | 13%$_a$ | < | 26%$_b$ |
| **Behavioral intentions other** | | | | | |
|    Dinner scenario | 70%$_a$ | | 65%$_{a,b}$ | | 59%$_b$ |
|    Notes scenario | 98%$_a$ | > | 91%$_b$ | = | 90%$_b$ |
| **Affective response to other** | | | | | |
|    Anxiety | 29%$_a$ | < | 45%$_b$ | = | 54%$_b$ |
|    Happiness | 51%$_a$ | = | 56%$_a$ | > | 37%$_b$ |
|    Annoyance | 15%$_a$ | = | 16%$_a$ | < | 37%$_b$ |
| **Reciprocation** | | | | | |
|    Intention (Notes) | 30%$_a$ | > | 40%$_{a,b}$ | = | 47%$_b$ |
|    Days (Notes) | 47$_a$ | > | 20$_b$ | = | 16$_b$ |
| Failure to reciprocate (significance) | 25%$_a$ | < | 46%$_b$ | = | 42%$_{a,b}$ |

*Note.* Within rows, means with different subscripts differ significantly ($p < .05$).

# APPENDIX 2

*Ethics Certification*