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## Attachment and Information Seeking Strategy Preference in Romantic Relationships

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Graduate Program in Psychology  
A thesis submitted in partial fulfillment of the requirements for the degree in Master of Science  
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ATTACHMENT AND INFORMATION SEEKING STRATEGY PREFERENCE IN  
ROMANTIC RELATIONSHIPS

(Spine title: Attachment and Information Seeking in Romantic Relationships)

(Thesis format: Monograph)

by

Jennifer C. Pink

Graduate Program in Psychology

A thesis submitted in partial fulfillment  
of the requirements for the degree of  
Master of Science

The School of Graduate and Postdoctoral Studies  
The University of Western Ontario  
London, Ontario, Canada

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THE UNIVERSITY OF WESTERN ONTARIO  
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entitled:

**Attachment and Information Seeking Strategy Preference in Romantic Relationships**

is accepted in partial fulfilment of the  
requirements for the degree of  
Master of Science

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## Abstract

Two studies examined how attachment relates to information seeking strategy preference in established romantic relationships using a hypothetical scenario (Study 1) and an experiment (Study 2). In both studies, we tested hypotheses examining 1) if highly anxious individuals prefer to seek information indirectly (vs. directly) in potentially relationship-threatening situations, and 2) if these individuals tend to associate direct information seeking with negative outcomes. Study 1 revealed that as predicted, highly anxious individuals were more likely to endorse indirect information seeking strategies but less likely to endorse a direct approach. The negative association between attachment anxiety and direct strategy endorsement was fully mediated by expected outcomes. In contrast, in Study 2 highly anxious individuals in the threat condition reported *greater* desire to directly seek information from their partners. These conflicting results suggest that the conditions influencing highly anxious individuals' strategy preferences may be quite complex and warrant future research.

*Keywords:* attachment, information seeking, romantic relationships

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### Attachment and Information Seeking Strategy Preference in Romantic Relationships

Imagine Ryan is doing laundry for his partner Michelle one day and discovers an unknown male's phone number ("Joel") in the pocket of her jeans. Is Joel a co-worker, making their contact work-related? Is he simply a cousin of Michelle's who has yet to come up in conversation? Or is Joel a highly attractive, single guy intent on pursuing Ryan's girlfriend? How can Ryan obtain more information to determine if Joel is in fact a threat to his relationship?

Information seeking strategies can range from being direct to indirect in nature. For example, Ryan could straightforwardly ask Michelle about the phone number (a direct strategy), or he might choose to snoop around in her purse, ask her close friends, or peruse her email inbox for information (indirect strategies). Importantly, there are different advantages and disadvantages to each strategy. For example, if Ryan questions Michelle directly, she may assuage his worries immediately and convincingly (e.g., by stating Joel is a family member), or she may dismiss him angrily with an accusation of jealous suspicion. On the other hand, if he decides to go about the matter more indirectly by asking around or engaging in intrusive behaviour, he could remain undetected yet find himself struggling to interpret the true meaning of ambiguous or misleading information.

Information seeking refers to any consciously deliberated, calculated attempt at obtaining information in an effort to acquire new knowledge, reduce uncertainty, or corroborate a current set of beliefs (Berger, 1997; Heyman, Henriksen, & Maughan, 1998). In fact, the information seeking process often involves carefully selecting the verbal and nonverbal behaviour required to gather the desired information while simultaneously satisfying a number of secondary goals including relationship and arousal

management goals (Dillard, Segrin, & Harden, 1989). Therefore while Ryan's desire for more information would drive his search, his secondary goals (e.g., maintaining relational harmony or control of his emotions) would shape how he went about the task.

There are a number of everyday experiences and events in romantic relationships that may motivate romantic partners to seek relationship-relevant information. There is clearly ample opportunity for uncertainty concerning a partner's thoughts, feelings, and behaviour because one cannot see inside a partner's mind and must maintain some degree of independence from him or her. Both the importance and complexity of information seeking in relationships become apparent when you consider the number of strategies available to relationship partners as well as the potential costs of failing to act on a desire for more information (e.g., anxiety, distrust).

Based on the attachment and interpersonal communication literatures, there is reason to expect that individuals' attachment orientations influence their information seeking strategy preferences within romantic relationships. Given that highly anxious people are motivated to avoid engaging in behaviours that alienate romantic partners or destabilize relationships (Hazan & Shaver, 1987), these individuals may prefer to gather information indirectly to avoid the potential for relational harm inherent in direct communication (Berger, 1997). As avoidance is characterized by a desire for emotional and psychological distance (Hazan & Shaver, 1994), highly avoidant individuals may also be especially likely to adopt an indirect or avoidance approach rather than directly confront their partners. Importantly, indirect information seeking often leads to unreliable and ambiguous information (Afifi & Burgoon, 1998) and may therefore negatively

impact insecure individuals' relationships by exacerbating worries and creating conflict that could be avoided with a more direct approach.

While prior research has investigated the different ways people seek relationship-relevant information in fledgling romantic relationships (e.g., Baxter & Wilmot, 1984) as well as how attachment influences interest in relationship-relevant information (e.g., Rholes, Simpson, Tran, Martin, & Friedman, 2007), the current studies provide the first known investigation of information seeking strategy preference from an attachment perspective. As well, although a great deal of research has examined how attachment can influence immediate cognitive and affective reactions to relationship threat, the present research explored the strategies individuals select to help determine if a perceived threat does in fact put their romantic relationships at risk.

### **Information Seeking in Romantic Relationships**

Information seeking resembles important relationship maintenance processes including conflict resolution and support provision as it involves goal-directed communication between partners striving to obtain desired information and resolve uncertainty (Knobloch & Solomon, 2002). In fact, information seeking appears to be crucial to relationship maintenance because uncertainty in romantic relationships is primarily harmful and associated with negative emotions as well as decreased liking and attraction (Knobloch & Solomon, 2002). Considering the many possible sources of uncertainty within relationships, negotiating information seeking behaviour is also likely a routine, daily experience for relationship partners.

### **Information Seeking Strategies**

Research on information seeking strategy use in intimate relationships has typically focused on how individuals seek information about the status of developing relationships (e.g., Baxter & Wilmot, 1984; Bell & Buerkel-Rothfuss, 1990) rather than how people in established romantic relationships seek relationship-relevant information. Most research on information seeking strategies is published in communication journals and typically examines how individuals gather information in employment settings (e.g., Miller, 1996; Bennett, Herold, & Ashford, 1990).

Once a person decides that more information on a topic is desired, available information seeking options are typically considered before a strategy deemed suitable for the particular interaction partner and context is selected (Berger & Kellerman, 1994). Efficiency (or effectiveness) and appropriateness are two important meta-goals that influence strategy choice and may or may not be compatible in a given situation (Berger & Kellerman, 1994). Thus in addition to speed, impression management and a desire for the interaction to go smoothly will constrain how individuals go about gathering information (Dillard et al., 1989). For example, while directly asking a partner if he or she happened to speak to any unattached, attractive romantic rivals on a recent trip to the bar may be very efficient, it may not be the most socially appropriate way of gathering that information. Indirect methods may be preferable if asking for the information directly will require asking too many or too probing of questions, which can come across as intrusive (Berger & Kellerman, 1994).

There is really only one direct information seeking strategy, which involves overtly asking the target for the desired information using direct, explicit questions. In contrast, the most indirect strategy for obtaining social information is passive,

unobtrusive observation or surveillance of the target. This strategy allows individuals to acquire considerable information about people or situations without being concerned about self-presentation. Not having to monitor one's own actions is thought to free up cognitive resources which can then be used to monitor and attribute meaning to the target's behaviour (Berger & Kellerman, 1994).

Asking a third party for information, specifically someone familiar with the target and perceived to have the requisite knowledge, is an example of a strategy that goes beyond mere observation but does not involve direct interaction between the information seeker and target. Third parties can provide valuable insight into a target's behaviour as well as information about important aspects of a situation that could not be directly witnessed by the target (Hewes, Graham, Doelger, & Pavitt, 1985).

Indirect strategies involving interaction between the information seeker and target include: indirect conversational tactics referring to the use of non-interrogative questions or hinting; testing, which involves deliberately annoying the target or breaking an established relationship rule in order to observe how the target reacts; engaging in self-disclosure in hope that the interaction partner will reciprocate in turn; and attempting to relax the target so that he or she will be more likely to spontaneously provide the information (Miller & Jablin, 1991; Berger & Kellerman, 1983). Although indirect strategies are less obtrusive, they are also typically less efficient and provide much less control over the situation in that the target may or may not respond with the desired information. Instead of providing the seeker with information, an indirect strategy (e.g., deliberately pushing a partner's buttons to see how she will respond) may merely frustrate or anger the target (Miller & Jablin, 1991). Further, information obtained

indirectly is often lower in quality and therefore requires more interpretation by the information seeker (Afifi & Burgoon, 1998). Clearly, the complex process of trying to interpret information obtained indirectly as well as its meaning for a relationship may serve to raise doubts rather than dispel them (Vinkers, Finkenauer, & Hawk, 2011).

A major advantage of indirect strategies is that protection from potential negative consequences can be built into the strategy. For example, deliberate ambiguity can allow people to deny their intent, disguise their feelings on a topic, or provide the most advantageous interpretation of their actions if need be (Berger, 1997). In fact, paying close attention to a person's verbal and nonverbal responses to an ambiguous message can be useful because critical information regarding their goals or affective state may be leaked (Berger, 1997).

Although a direct strategy is typically the most efficient, it increases the opportunity for impression management or dishonesty on behalf of the target (Berger & Kellerman, 1994). This means that while individuals may not struggle with interpreting vague, ambiguous information, they may need to evaluate the target's honesty or sincerity. Perceived target honesty as well as perceived communication efficacy or perceptions of one's ability to communicate effectively with a partner about an issue can influence search directness (Afifi, Dillow, & Morse, 2004). Specifically, people are more likely to directly seek information if they believe their partners will tell them the truth and if they feel confident in their ability to be upfront about the issue (Afifi et al., 2004). Perceived social costs associated with a direct search (e.g., anticipated discomfort, embarrassment) also influence strategy choice, in that individuals are more likely to turn to indirect strategies when social costs are expected to be high (Miller, 1996).

Previous research suggests that within the context of close relationships people sometimes prefer less confrontational, more indirect ways of seeking information (Berger & Kellerman, 1994; Miller & Jablin, 1991). In fact, based on a review of the literature Knobloch and Solomon (2002) suggested that individuals will only employ a direct strategy from positions of security resulting from high intimacy, power (relative to one's partner), or positive outcome expectations. Similarly, Afifi and colleagues (2004) found that relationship partners were more likely to use a direct strategy when the issue was important, anxiety about the issue was low, and the expected outcome was positive.

### **Choosing Not to Seek Information**

Importantly, individuals in romantic relationships may choose to avoid seeking information altogether particularly if the subject matter is expected to be relationship-damaging (Baxter & Wilmot, 1985). Sometimes uncertainty may be preferable to potentially threatening or upsetting information. This becomes clear when considering the topics frequently avoided within romantic relationships: the state of the relationship, partners' previous romantic experiences, and negative life events (Baxter & Wilmot, 1985). Such topics are considered taboo because their discussion is expected to have negative relational implications (e.g., by inducing anger or jealousy) or even result in relationship termination (Baxter & Wilmot, 1985).

In a review, Sillars (1985) identified three general situations in which information seeking can harm relationships: when differences or conflicts are unlikely to be resolved, when generous partner misconceptions are disproven, and when negative information is delivered to a partner in a blunt, harsh manner. Overall then, intentional topic avoidance motivated by relational protection may benefit a relationship (Caughlin & Golish, 2002).



## **Attachment and Information Seeking**

### **Adult Attachment**

According to Bowlby (1969, 1982), individuals develop experience-based mental representations of what close relationships and close relationship partners should be like based on their early interactions with significant others. These beliefs and expectations come to influence how people think and behave in adult romantic relationships.

Individual differences in adult attachment are represented by two relatively independent dimensions: anxiety and avoidance (see Brennan, Clark, & Shaver, 1998). Attachment anxiety refers to the degree to which individuals tend to worry about being rejected or abandoned by their romantic partners, while attachment avoidance refers to the extent individuals are comfortable with intimacy and closeness within their relationships. Secure individuals score lower on both dimensions, meaning they tend to feel relatively accepted by their romantic partners and comfortable with intimate, interdependent relationships.

Mikulincer and Shaver (2003, 2007) proposed a model to describe the activation and operation of the attachment behavioural system. The system is activated by threatening events that create a need for protection and support, and serves to reduce fear, anxiety, or other forms of distress by organizing an individual's attachment-related behaviour in functional ways (Bowlby, 1969, 1982). Once activated, the system attempts to restore security by employing its primary strategy of seeking proximity to attachment figures (Bowlby, 1969, 1982). If attachment figures are available and responsive, proximity seeking effectively meets attachment-related needs and system activation is terminated (Bowlby, 1969, 1982). However, if attachment figures are inconsistently available or unavailable, proximity seeking fails to assuage insecurity and secondary

strategies involving hyperactivation or deactivation of the system will be employed (Mikulincer & Shaver, 2003, 2007).

Specifically, hyperactivation of the system or a “fight” response involves intensifying proximity seeking behaviours in an effort to coerce attention and support from an unresponsive attachment figure (Mikulincer & Shaver, 2003, 2007). This strategy is most typical of individuals high in attachment anxiety, who worry about their romantic partners’ love for them and are therefore preoccupied with vigilantly monitoring their relationships for signs of waning interest (Cassidy & Berlin, 1994). On the other hand, deactivation of the attachment system is a “flight” response to the unavailability of an attachment figure which involves ceasing proximity seeking and deactivating the system without restoring security (Mikulincer & Shaver, 2003, 2007). This strategy is most characteristic of highly avoidant individuals, who prefer to maintain independence from their partners by dealing with threats on their own (Mikulincer & Shaver, 2003, 2007).

### **Attachment and Communication**

There is a wealth of prior research establishing links between insecure attachment and specific ways of communicating in romantic relationships. Research on fundamental relationship processes including support seeking and conflict resolution have found both anxious and avoidant attachment are related to predictable patterns of interactive behaviour.

One major finding is that, relative to secure individuals, highly anxious people tend to experience and exhibit greater distress when discussing major relationship problems with their partners (e.g., Simpson, Rholes, & Phillips, 1996; Campbell,

Simpson, Boldry, & Kashy, 2005). They also tend to feed the fire and escalate the severity of relationship conflicts (Campbell et al., 2005). Further, highly anxious individuals tend to report feeling less positively about their partners and relationships (e.g., feel less love and commitment) after discussing a major conflict in their relationship whereas the reverse is true for less anxious individuals (Simpson et al., 1996). Therefore while less anxious people tend to view their current relationship more positively following conflict resolution, highly anxious individuals may not derive the same benefits from discussing relationship issues directly with their romantic partners.

Highly avoidant individuals also struggle with direct communication in their romantic relationships (e.g., Davis et al., 2006). For example, attachment avoidance is associated with showing less warmth and support when discussing a major relationship issue as well as lower quality communication (Simpson et al., 1996). Collins and Feeney (2000) found that when asked to disclose a stressful problem to their romantic partners, highly avoidant people tended to engage in more indirect support seeking involving verbal strategies (e.g., complaining or hinting without directly asking for help) and nonverbal cues of distress (e.g., sulking).

When experiencing distress, highly anxious individuals typically rely on emotion-focused coping strategies which maintain or even intensify their worries and concerns whereas highly avoidant individuals tend to use distancing coping strategies that involve defensively blocking out negative feelings and increasing independence (Lazarus & Folkman, 1984; Simpson & Rholes, 2012). In contrast, securely attached individuals are more likely to take a “problem-focused” approach (Lazarus & Folkman, 1984) and directly seek support from their partners because they are confident that their romantic

partners will be attentive and responsive to their needs (Simpson & Rholes, 2012). By directly approaching their partners in times of distress, secure people can deactivate the attachment system more quickly and effectively, and thus are better able to move past a stressor and carry on with their lives (Mikulincer & Shaver, 2003).

Unfortunately, insecure individuals' characteristic patterns of interpersonal communication may create self-fulfilling prophecies that reinforce their negative models of self and/or other (Bartholomew, 1993; Collins & Read, 1994). As an example, if highly anxious individuals expect that confronting their partners about a potentially relationship-threatening issue will result in a fight they may behave in ways that ensure their expectations are realized. Similarly, if these individuals anticipate negative search outcomes they may interpret whatever information is found as being consistent with their pessimistic expectations.

### **Attachment and Information Seeking Behaviour**

Although people in general are considered to be relatively avid information seekers, previous research has investigated the possibility that individual, relationship, and contextual variables influence how information is sought within intimate relationships (e.g., Knobloch & Solomon, 2002; Afifi et al., 2004). Considering that goal-oriented communication is influenced by knowledge of the self and others, social interaction processes, and the communication skills (or lack thereof) needed to achieve one's goals (Berger & Kellerman, 1994), there are many reasons to expect that attachment is associated with information seeking within romantic relationships.

Research on attachment and information seeking to date has focused on individuals' self-reported desire to view information varying in subject, valence or

amount rather than individuals' preferred methods to gather information. As an example, it is well established that highly anxious individuals seek as much attachment-relevant information as possible because it has the potential to increase intimacy or decrease the chance that signs of impending rejection are missed (see Cassidy & Berlin, 1994). Consistent with this theorizing, a study by Rholes and colleagues (2007) found that relative to secure and avoidant individuals, more anxiously attached people were more interested in information about a romantic partner's intimate thoughts, feelings, and future plans for the relationship (Rholes et al., 2007).

Attachment has also been associated with curiosity, which relates to information seeking behaviour more generally. Mikulincer (1997) found that secure and anxious individuals described themselves as more curious and held more positive attitudes toward curiosity than did avoidant individuals. Interestingly, highly anxious individuals were more likely to mention that the potential to discover painful things and jeopardize relationships are dangers of curiosity. This suggests that highly anxious people may be all too familiar with the sometimes negative consequences of relational information seeking.

As well, attachment anxiety has been linked with intrusive behaviour in romantic relationships (Lavy, Mikulincer, & Shaver, 2010), which can be a form of information seeking. Examples of intrusive behaviour include attempting to monitor a partner's actions, disrespecting a partner's privacy, and snooping through a partner's belongings (Lavy et al., 2010; Lavy, Mikulincer, Shaver, & Gillath, 2009). Although it can refer to directly asking overly personal questions or attempting to control a partner, intrusive behaviour is often indirect in nature (Vinkers et al., 2011).

Additionally, prior research has demonstrated that individuals are more likely to seek information straight from the source if they feel confident in their ability to directly obtain the information, trust that the target will tell them the truth, and anticipate positive outcomes (Afifi et al., 2004). As highly anxious people have negative models of self and only moderate trust for relationship partners, they may thus be less likely to seek information directly because the process depends on a partner's goodwill.

As well, in response to ambiguous, potentially negative partner behaviours, highly anxious individuals tend to make more negative attributions, respond with more distress, predict that more conflict will arise as a result of the event, and behave in ways that create conflict (Collins, 1996). Highly anxious individuals may therefore be especially likely to behave negatively when seeking information directly from their partners and to interpret partners' responses to bids for information with a negative bias. As highly anxious individuals are typically involved in dissatisfying, conflict-ridden romantic relationships, indirect methods of seeking relationship-threatening information may become one way to avoid further relational discord. These individuals may particularly value the ambiguity that indirect methods can afford, in that their intent can be disguised or denied if need be.

Furthermore, experiencing high arousal in connection with an interpersonal influence attempt (e.g., persuading a partner to provide desired information) has been associated with less direct, less positive, and poorer-reasoned communication (Dillard et al., 1989). It could be that highly anxious individuals' ability to directly communicate with their partners is impeded by their tendency to overreact to relationship threat with greater anger, resentment and anxiety regarding their partners' long term commitment

(Rholes, Simpson, & Oriña, 1999). Consistent with this notion, highly anxious individuals are more likely to report engaging in surveillance behaviour (e.g., “spying” or “keeping tabs” on a partner) when experiencing romantic jealousy (Guerrero, 1998).

In contrast, more avoidantly attached individuals report less desire to seek relationship-relevant information and engage in less self-disclosure with their partners (Rholes et al., 2007; Vinkers et al., 2011). These individuals are thought to limit their attention to attachment-relevant information in an effort to defensively exclude potentially threatening information (Edelstein & Gillath, 2008). In response to romantic jealousy, highly avoidant individuals are less likely approach their partners to try to reach an understanding or express their concerns (Guerrero, 1998). Instead, these individuals are more likely to respond to relationship threat with avoidance or denial (e.g., pretending nothing is wrong) and actively distance themselves from the partner (Guerrero, 1998). Rather than seeking potentially threatening information, highly avoidant individuals may react defensively by creating physical and psychological distance between themselves and their partners to avoid being hurt.

Overall, highly anxious as well as highly avoidant individuals may prefer to avoid seeking potentially relationship-threatening information directly for different reasons. Highly anxious individuals may prefer indirect strategies because they want to avoid what is expected to be a negative, conflict inducing exchange with their partners whereas highly avoidant individuals may find direct communication with their partners too intimate or dependent for their liking. Understanding the influence of attachment on information seeking behaviour is important because if insecure individuals are consistently choosing to avoid obtaining information directly by engaging in indirect or

avoidance strategies, it could be further impeding their ability to develop healthy, satisfying romantic relationships.

### **The Present Research**

In summary, previous research on attachment and interpersonal communication suggests that insecure individuals may be less likely to seek relationship-relevant information directly and instead opt for indirect or avoidance strategies. The present research examined how attachment relates to information seeking strategy selection in the context of romantic relationships using a hypothetical scenario (Study 1) and a laboratory experiment (Study 2). In both studies, we tested hypotheses examining if 1) highly anxious and highly avoidant individuals prefer to seek information indirectly (vs. directly) in potentially relationship-threatening situations, and 2) insecure individuals tend to associate direct information seeking with negative outcomes in the context of their romantic relationships. It is worth noting that no known study to date has investigated romantic partners' information seeking behaviour preferences in a lab setting. Studies on the topic have typically operationalized information seeking in a "yes/no" manner by equating it with participants' self-reported desire to view relationship-relevant information (e.g., Rholes et al., 2007), or asked participants to describe past information seeking behaviour (e.g., Bell & Buerkel-Rothfuss, 1990; Afifi et al., 2004). The current research sought to determine *how* romantic partners in established relationships actually go about acquiring relationship-relevant information in potentially threatening circumstances.

### **Study 1**



Study 1 was an online study that examined how attachment relates to information seeking strategy preference in response to a hypothetical relationship-threatening scenario. Participants imagined a relationship-threatening situation occurring in their own romantic relationships, and then reported which strategies they would enact to gather more information on the matter. They also reported their expectations for a direct information seeking exchange.

### **Hypotheses**

Based on prior research, attachment anxiety was expected to predict indirect strategy endorsement but negatively predict direct strategy endorsement. Anxiety was also expected to be associated with the belief that direct information seeking would lead to predominantly negative outcomes (e.g., harm the relationship). In relationship-threatening situations, indirect information seeking is expected to allow highly anxious individuals to fly below their partners' radar so they may simultaneously gather highly valued attachment-relevant information and avoid potentially relationship-damaging confrontation.

In contrast, attachment avoidance was expected to predict endorsement of indirect and avoidance strategies as well as negatively predict direct strategy endorsement. Highly avoidant individuals were expected to prefer to avoid directly seeking sensitive information from their romantic partners due to their discomfort with intimacy and self-disclosure.

### **Method**

#### **Participants**

A total of 148 participants were recruited online through Amazon Mechanical Turk (MTurk). Participants lived in the United States and ranged from 18 to 60 years of age ( $M = 32.14$ ,  $SD = 10.39$ ). Approximately 51% of participants were in exclusive dating relationships, 43% were in long-term committed relationships (engaged, married, or in common-law relationships), and 5% were casually dating their partners and others. Participants were in relationships ranging from 1 – 444 months in duration ( $M = 68.95$ ,  $SD = 78.13$ ). Individuals received \$0.50 in compensation for their participation. A study by Buhrmester, Kwang, and Gosling (2011) examined MTurk's use to conduct psychological research and concluded that the site allows for efficient, cost effective data collection that is at least as reliable as traditional methods.

### **Materials**

**Attachment.** Attachment orientations were assessed with the Experiences in Close Relationships Scale (ECR; Brennan, Clark, & Shaver, 1998; see Appendix A). This measure is a 36-item self-report questionnaire assessing attachment anxiety (18 items) and avoidance (18 items) dimensions using a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Examples of anxiety items include “I worry a fair amount about losing my partner” and “I often wish that my partner's feelings for me were as strong as my feelings for him/her.” Examples of avoidance items include “I get uncomfortable when a romantic partner wants to be very close” and “I feel comfortable depending on romantic partners” (reverse scored). Anxiety and avoidance scores were created by averaging participant responses to the 18 relevant items, with high scores indicating greater anxiety and avoidance respectively (anxiety dimension:  $\alpha = .94$ ; avoidant dimension:  $\alpha = .95$ ).

**Self-esteem.** Rosenberg's (1965) Self-Esteem Scale was used to measure self-esteem (see Appendix B). This scale consists of ten items rated on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*), with sample items including "I feel that I'm a person of worth, at least on an equal basis with others" and "All in all, I am inclined to think that I am a failure" (reverse scored). A self-esteem score was calculated by averaging participant responses to all items ( $\alpha = .86$ ), with a higher mean score indicating greater self-esteem.

**Neuroticism.** A 10-item questionnaire from the International Personality Item Pool (<http://ipip.ori.org/>) was used to measure neuroticism (see Appendix C). Participants responded to items such as "I often feel blue" and "I am not easily bothered by things" (reverse scored), rating how well each item described them on a 7-point scale from 1 (*not at all characteristic*) to 7 (*very characteristic*). Scores for all items ( $\alpha = .94$ ) were averaged to create a neuroticism score for each participant, with higher mean scores indicating greater neuroticism.

**Information seeking strategies.** Participants imagined a hypothetical potentially relationship-threatening information seeking situation occurring in their romantic relationships. Specifically, participants read the following scenario:

Imagine you discover something your partner did or said that you think suggests a threat (directly or indirectly) to your relationship and therefore you would like to know more information about it. For example, your partner befriends an attractive member of the opposite sex from work or you figure out that your partner lied about where he or she went one night. You want to gather more information on

the matter to determine if what you *perceive* as a potential threat to your relationship is in fact a *real* threat.

Next, participants indicated how they would go about gathering more information (see Appendix D). The strategy questionnaire included 23-items adapted from an information seeking tactic measure developed by Miller (1996). Two items created for this study were added to represent the self-disclosure and relaxation strategies described by Berger and Kellerman (1994). Two items from Fowler and Afifi (2011) were also added to measure active avoidance of the issue. All items were answered using a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). In total, the 27-item scale tapped 10 different information seeking strategies: direct (4 items;  $\alpha = .84$ ), indirect tactics (4 items;  $\alpha = .83$ ), disguising conversation (3 items;  $\alpha = .70$ ), testing (4 items;  $\alpha = .84$ ), third party (3 items;  $\alpha = .80$ ), surveillance (2 items;  $\alpha = .61$ ), observation (3 items;  $\alpha = .79$ ), self-disclosure (1 item), relaxing the target (1 item), and active avoidance (2 items;  $\alpha = .79$ ). For each strategy, participants' responses were averaged across all items, with higher mean scores indicating greater endorsement of the information seeking approach.

**Outcome expectancy.** Participants' expectations regarding the consequences of directly seeking information from their partners were measured using 3 items taken from Fowler and Afifi (2011) (see Appendix E). Example items are "Talking to my partner directly about this issue would produce..." and "Approaching my partner to ask about this issue would produce...", rated on a 7-point scale ranging from -3 (*a lot more negatives than positives*) to 3 (*a lot more positives than negatives*). Responses were averaged across all items ( $\alpha = .62$ ), with higher mean scores indicating more positive expectations.

**Perceived social costs.** A 5-item measure of the anticipated social costs of engaging in direct information seeking was adapted from Miller (1996) (see Appendix F). Participants responded to such items as “If I were to seek this information directly from my partner, I would make myself and my partner uncomfortable” and “I would not be embarrassed to ask my partner for this information” (reverse scored) using a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Responses to all items ( $\alpha = .62$ ) were averaged, with higher mean scores indicating greater perceived social costs of directly communicating with the partner.

### **Procedure**

Participants read a description of the current study on MTurk and gave informed consent before they were able to access the online survey. Individuals first completed a brief demographic questionnaire and all individual difference measures. Next, they were asked to imagine the hypothetical information seeking scenario and completed the information seeking measures. Finally, participants were given feedback regarding the purpose and goals of the current investigation and compensated.

### **Results**

Study hypotheses were tested with multiple regression analyses. Analyses focused on attachment anxiety as most predictions concerned this attachment dimension; however results for attachment avoidance will be presented as well. First, ten models with each information seeking strategy (direct, indirect tactics, disguising conversation, third party, testing, surveillance, observation, self-disclosure, relaxing the target, and avoidance) serving as the outcome variable were ran with attachment anxiety and avoidance entered as predictors. Self-esteem and neuroticism were included as individual difference control

variables because they are sometimes offered as alternative explanations to attachment effects.

In line with predictions, attachment anxiety significantly predicted the endorsement of all indirect strategies except for relaxing the target (see Table 1). All of these results remained significant when controlling for self-esteem and neuroticism. Also as expected, anxiety negatively predicted direct strategy endorsement,  $\beta = -.16$ ,  $t(145) = -2.06$ ,  $p < .05$ . When self-esteem and neuroticism were individually added as predictors, this relationship was eliminated ( $ps > .10$ ) however the regression coefficients for self-esteem and neuroticism were also non-significant ( $ps > .20$ ),  $\beta = .14$ ,  $t(143) = 1.05$  and  $\beta = .03$ ,  $t(143) = .24$  respectively.

In addition, two regression models were ran with anxiety and avoidance predicting perceived social costs and expected outcomes for direct information seeking. As anticipated, social costs and expected outcomes were negatively correlated,  $r = -.48$ ,  $p < .01$ . Results revealed that as expected, anxiety positively predicted perceived social costs of directly confronting a partner regarding a potentially relationship-threatening issue,  $\beta = .34$ ,  $t(145) = 5.58$ ,  $p < .01$  and negatively predicted expected outcomes,  $\beta = -.39$ ,  $t(145) = -4.19$ ,  $p < .01$ . These results remained significant when controlling for self-esteem and neuroticism.

Next, we explored whether the negative association between attachment anxiety and endorsement of the direct strategy was mediated by expectations that direct communication would result in negative outcomes and social costs using bootstrapping procedures for multiple mediator models described by Preacher and Hayes (2008). We tested a mediation model with direct strategy endorsement entered as the outcome

variable, attachment anxiety as the predictor variable and expected outcomes and perceived social costs as proposed mediators. Avoidance was entered as a covariate.

Analyses revealed that the total effect of attachment anxiety on direct strategy endorsement (total effect =  $-.1561$ ,  $p = .04$ ), was no longer significant when the mediators were entered into the model (direct effect of attachment anxiety =  $.0014$ , *ns*).

Furthermore, the specific indirect effects indicated that outcome expectancy, with a point estimate of  $-.0559$  and 95% bias-corrected bootstrap confidence interval (BC CI) of  $-.1373$  to  $-.0071$ , and perceived social costs with a point estimate of  $-.0997$  and 95% BC CI of  $-.2194$  to  $-.0247$ , were both unique mediators. In other words, expectations that direct confrontation would lead to negative outcomes and social costs fully mediated the link between attachment anxiety and direct strategy endorsement (see Figure 1 for full mediation model). This suggests that as predicted, highly anxious individuals may be reluctant to endorse a direct strategy because they anticipate that directly confronting their partners for information would end poorly and harm the relationship.

In contrast, avoidance predicted endorsement of an avoidance strategy (i.e. choosing not to seek information),  $\beta = .46$ ,  $t(145) = 4.41$ ,  $p < .01$ , and negatively predicted direct strategy endorsement,  $\beta = -.43$ ,  $t(145) = -4.89$ ,  $p < .01$ . In contrast to anxiety, avoidance was associated with the endorsement of two indirect strategies - testing and third party,  $\beta = .38$ ,  $t(145) = 4.68$  and  $\beta = .27$ ,  $t(145) = 2.72$ ,  $ps < .01$  respectively (see Table 1). Avoidance also significantly predicted perceived social costs of direct communication,  $\beta = .28$ ,  $t(145) = 4.00$ ,  $p < .01$  and negatively predicted expected outcomes,  $\beta = -.27$ ,  $t(144) = -2.51$ ,  $p < .02$ . All of these effects remained significant when controlling for self-esteem and neuroticism.

Bootstrapping analyses (see Preacher & Hayes, 2008) were conducted to see if outcome expectancy and perceived social costs mediated the association between attachment avoidance and direct strategy endorsement. We therefore tested a mediation model with direct strategy endorsement entered as the outcome variable, avoidance entered as the predictor variable (with anxiety entered as a covariate), and expected outcomes and social costs as proposed mediators.

Analyses revealed partial mediation as the total effect of attachment avoidance on direct strategy endorsement (total effect =  $-.4192$ ,  $p < .01$ ), remained significant when the mediators were entered into the model (direct effect of attachment avoidance =  $-.2980$ ,  $p < .01$ ). The specific indirect effects indicated that expected outcomes, with a point estimate of  $-.0380$  and 95% BC CI of  $-.1205$  to  $-.0027$ , and perceived social costs with a point estimate of  $-.0782$  and 95% BC CI of  $-.1777$  to  $-.0242$ , were both unique mediators. These results suggest that understandably, highly avoidant individuals' relatively pessimistic expectations may contribute to their tendency to avoid directly communicating with their partners about potentially relationship-threatening topics. The mediation model is depicted in Figure 2.



Table 1  
*Attachment Anxiety and Avoidance Predicting Information Seeking Strategy Endorsement*

Strategy	Anxiety			Avoidance		
	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	$\beta$
Direct	-.16	.08	-.16*	-.43	.09	-.37***
Indirect tactics	.54	.08	.48***	.18	.09	.14
Disguising conversation	.54	.08	.48***	.16	.09	.13
Third party	.43	.09	.43***	.20	.10	.20**
Testing	.34	.07	.35***	.38	.08	.34***
Observation	.49	.09	.43***	-.09	.10	-.07
Surveillance	.40	.07	.43***	.07	.08	.07
Relaxing the target	.11	.11	.09	.13	.13	.09
Self-disclosure	.45	.11	.32***	.16	.13	.10
Avoid topic	.02	.09	.02	.46	.10	.35***
Perceptions of direct strategy	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	$\beta$
Outcome expectancy	-.39	.09	-.32***	-.27	.11	-.19*
Perceived social costs	.34	.06	.40***	.28	.07	.29***

*Note.* Both anxiety and avoidance entered as predictors.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

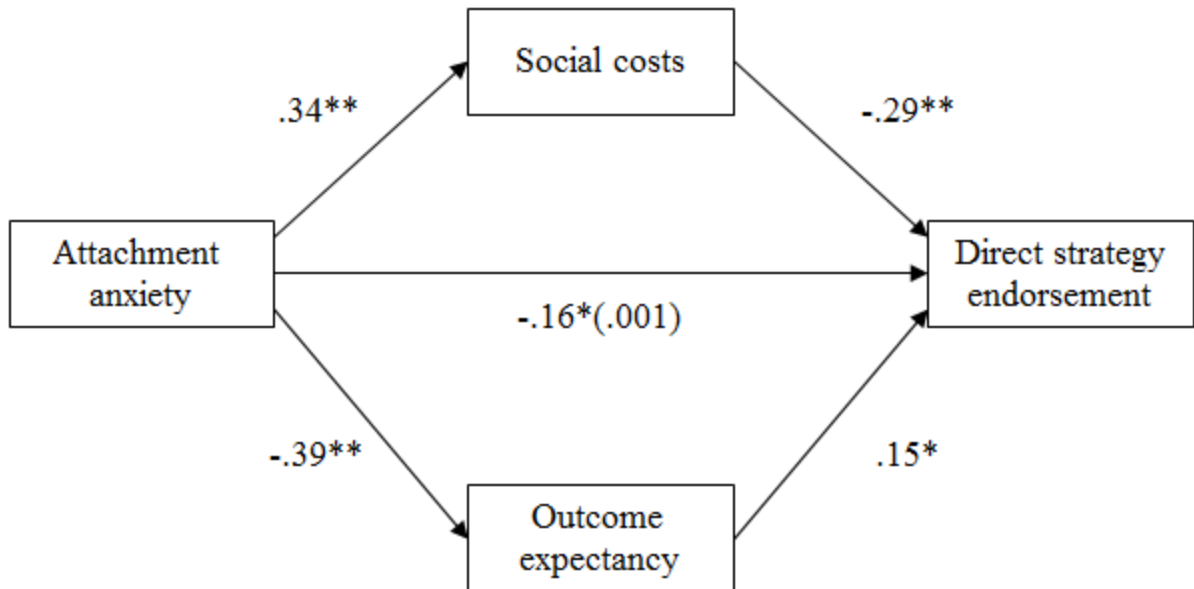
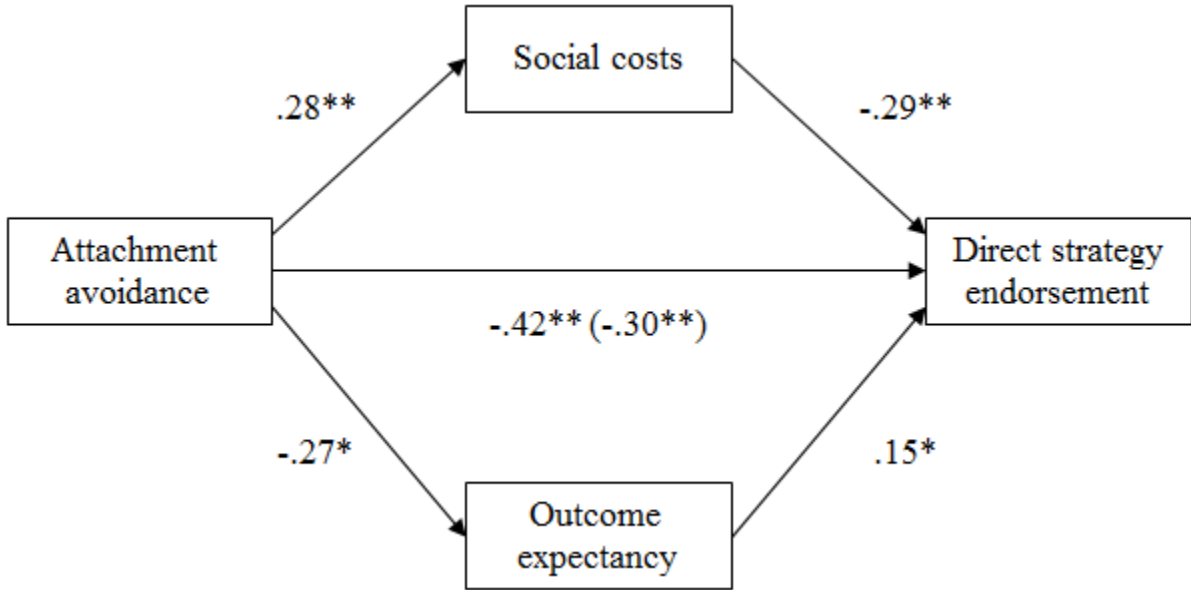


Figure 1. Perceptions of direct strategy mediators of the attachment anxiety – direct strategy endorsement link.

Note. Unstandardized regression coefficients are reported. Value in parentheses represents the direct effect of attachment anxiety on direct strategy endorsement when the mediators were included in the model. Avoidance was included in the model as a covariate.

\* $p < .05$ . \*\* $p < .01$ .



*Figure 2.* Perceptions of direct strategy mediators of the attachment avoidance – direct strategy endorsement link.

*Note.* Unstandardized regression coefficients are reported. Value in parentheses represents the direct effect of attachment avoidance on direct strategy endorsement when the mediators were included in the model. Anxiety was included in the model as a covariate.

\* $p < .05$ . \*\* $p < .01$ .

### Discussion

Overall, the results of Study 1 provide support for the study hypotheses and suggest that in potentially relationship-threatening situations, highly anxious individuals may prefer to avoid directly seeking relationship-relevant information and instead opt for indirect strategies. In response to a possible relationship threat, these individuals tended to endorse a number of indirect information seeking strategies but did not endorse a direct strategy. Highly anxious people also reported relatively pessimistic expectations regarding direct communication with their romantic partners, which fully mediated the negative association between attachment anxiety and direct strategy endorsement. Although causal direction cannot be established using concurrent data, it seems reasonable that these individuals may prefer not to ask their partners for potentially-threatening information if they expect it will unfold negatively or harm the relationship.

As well, results revealed that compared to less avoidant people, more avoidantly attached individuals were more likely to endorse avoiding seeking relationship-relevant information altogether and less likely to endorse directly communicating with their partners. The association between avoidance and direct strategy endorsement was partially mediated by expected outcomes and perceived social costs of using a direct strategy. Avoidance was also associated with the endorsement of two indirect strategies, which may provide more avoidantly attached individuals with a less intimate way of obtaining relationship-relevant information than directly asking their romantic partners.

Study 1 was relatively exploratory in nature and designed to provide a preliminary examination of how attachment relates to information seeking behaviour in response to potential relationship threat. There are therefore some important limitations.

First, participants in the current study were free to imagine *any* hypothetical relationship-threatening situation and thus individuals may have imagined scenarios that ranged considerably in level of threat. For example, some participants may have envisioned relatively minor threats such as a partner being assigned to work on a project with an attractive single colleague whereas others may have pictured very threatening situations such as discovering that same person's clothing in the partner's bedroom. With that in mind, Study 2 sought to put all participants in the same potentially threatening situation in hope that participants would experience relatively similar levels of relationship threat.

In addition, given that participants reported which strategies they *would likely* enact, it is unclear whether participants would actually engage in these preferences given the opportunity in a real life situation. Clearly, thinking about relationship threat may be much different than actually experiencing it. This is likely especially true for highly anxious individuals, who tend to react strongly to relationship threat with jealousy and distress (see Guerrero, 1998). In an effort to increase ecological validity, Study 2 put participants in an actual information seeking situation and asked them to choose a strategy that they expected to enact.

## **Study 2**

Study 2 was an experiment designed to examine how attachment relates to information seeking strategy choice in potentially relationship-threatening circumstances. In Study 2 we wanted to create a realistic, potentially relationship-threatening situation in the laboratory that required participants to choose how to seek relationship-relevant information from various different information seeking options provided to them. Heterosexual couples were recruited to participate in a study supposedly investigating

intimacy promotion and perception in romantic relationships. Upon arrival at the laboratory, each participant was told that their partner had been randomly selected to complete intimacy-promoting activities with an attractive opposite sex (threat condition) or same sex (control condition) confederate and that their task would be to gather as much information as possible in order to estimate how the activities were experienced by their partners. Participants were told that their partner and the confederate would complete a post-activities questionnaire about their experiences that included questions concerning what they enjoyed and what they found was effective. Each participant was told that they would use the information collected about their partner's experience to try to fill out the exact same post-activities questionnaire as if it were their partner responding.

In order to gather information about the partner's experience, participants could choose to perform one of four information seeking tasks: ask the partner directly, ask the confederate, read a post-activities questionnaire filled out by the confederate, or watch a video clip of the activities taking place. While asking the partner for information is a direct strategy, the other three tasks represent indirect strategies. Participants were given the option of three indirect strategies because a direct vs. indirect dichotomous choice may have aroused participant suspicion.

Each couple was told that their questionnaires would be compared in order to assess how accurately the person in the information seeking role inferred their partner's experiences with the intimacy-promoting activities. We told couples that one purpose of the current study was to investigate the accuracy of romantic partners' perceptions in an effort to 1) provide rationale for the information seeking component of the study, and 2)

motivate participants to take their task seriously and choose the information seeking option that they expected to be most effective. This portion of the cover story was intended to encourage participants to choose the strategy that would best allow them to collect the information required to report on their partners' experiences with the intimacy-promoting exercises.

In total, three highly attractive confederates (one male and two females) helped with this study. Because both members of each couple were told that their partner had been randomly assigned to complete activities with the same confederate, one person in each couple was in the threat condition while the other was in the control condition. For example, with a female confederate the female participant was in the threat condition whereas the male participant was in the control condition. The idea of a romantic partner engaging in fun, intimate discussion activities and games with a very attractive opposite sex person (and potential romantic rival) was expected to be relationship-threatening.

### **Hypotheses for Attachment Anxiety**

**I.** In the threat condition, we expected that relative to less anxious people, highly anxious individuals would be more likely to select an indirect strategy (to ask the confederate, to read the confederate's questionnaire, or to watch a video clip) rather than directly ask their partners for the information.

**II.** In the threat condition, we predicted that relative to less anxiously attached individuals, highly anxious individuals would be more likely to anticipate that directly seeking information from their partners would be uncomfortable and anxiety-producing – meaning they would hold overall pessimistic expectations for the exchange.

**III.** In the threat condition, we expected that relative to less anxious individuals, highly anxious people would report a greater desire to perform the indirect strategies due to their heightened interest in attachment-relevant information.

### **Hypotheses for Attachment Avoidance**

**I.** We expected that in the threat condition, relative to less avoidant individuals, highly avoidant individuals would be less likely to select the direct strategy and thus opt for an indirect strategy.

**II.** In the threat condition, we predicted that relative to less avoidant individuals, highly avoidant individuals would anticipate more discomfort associated with directly seeking the information due to their discomfort with intimacy and poorer communication skills.

**III.** In the threat condition, relative to less avoidantly attached people, highly avoidant individuals were expected to report less desire to perform all strategies due to their decreased interest in attachment-relevant information.

## **Method**

### **Participants**

A total of 50 heterosexual couples (50 males and 50 females) from the University of Western Ontario and surrounding area participated in this study. Participants ranged from 18 to 34 years of age ( $M = 21.47$ ,  $SD = 3.14$ ). While 88% of couples were exclusively dating, 12% were engaged or married. Relationship length ranged from 1 – 115 months ( $M = 24.58$ ,  $SD = 28.19$ ). Participants each received \$10 compensation for their participation. Although there were two female confederates, for various reasons one female confederate was only available to assist with running five couples through the



study. Therefore, data from these five couples were excluded from analyses because having the same number of male and female confederates (i.e., one of each) was considered more consistent. In addition, data from one participant was excluded because this person did not follow instructions.

## **Materials**

**Attachment.** Participants completed the Experiences in Close Relationships Scale (Brennan, Clark, & Shaver, 1998) as in Study 1 (anxiety dimension:  $\alpha = .86$ ; avoidant dimension:  $\alpha = .91$ ).

**Information seeking strategy measures.** Participants first completed questionnaires about each information seeking task before choosing one task to complete (see Appendix G). Specifically, they rated how much they wanted to engage in each of the information seeking options available to them by indicating their interest in each strategy as well as how effective each task would be. These two items were rated on a 7-point scale ranging from 1 (*not at all*) to 7 (*very*) and averaged to form an index of desire to complete each task (ask partner:  $\alpha = .73$ ; ask confederate:  $\alpha = .48$ ; read confederate questionnaire  $\alpha = .56$ ; watch video clip:  $\alpha = .69$ ). Higher mean values indicate a greater desire to complete the task. Responses for the three indirect tasks ( $\alpha = .72$ ) were averaged to compute a score representing overall desire to seek the information indirectly.

Participants also rated the extent to which they anticipated each task would be anxiety-provoking, uncomfortable, and intimidating. These items were rated on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) and averaged to compute anticipated discomfort associated with completing each strategy (ask partner:  $\alpha = .85$ ; ask confederate:  $\alpha = .89$ ; read confederate questionnaire  $\alpha = .86$ ; watch video clip:  $\alpha = .79$ ).

Higher mean values indicate greater anticipated discomfort. Again, responses for the three indirect tasks ( $\alpha = .85$ ) were averaged to compute a score representing general discomfort associated with the indirect strategies. Finally, each participant chose one task they expected to perform. Participants' responses were coded as direct or indirect (1 = direct, 0 = indirect).

### **Procedure**

Participants completed the measure of attachment as part of a larger online survey prior to coming into the lab. On the day of the experiment, the research assistant explained the experimental procedure to the participating couple and confederate in a lab room containing props intended to support the cover story (two yoga mats, an exercise step, and a camera). Participants were told that the purpose of the study was to investigate the effectiveness of intimacy-promoting activities and individuals' ability to accurately evaluate how their romantic partners experience such activities.

Specifically, they were told that one person would be randomly selected to complete a number of intimacy-promoting activities with the confederate. After the activities, both the participating partner and the confederate would complete post-activities questionnaires about their experiences (e.g., what they enjoyed, what was effective). They were told that the other member of the couple would take on the role of information seeker and estimate how enjoyable and effective at fostering intimacy the exercises were for their partner. In fact, they would be asked to attempt to fill out the same post-activities questionnaire as their partner, as if they were their partner. To gather information to inform their answers, participants were told that they would be able to complete one of four tasks: ask their partner questions, ask the confederate, read the post-

activities questionnaire that the confederate filled out, or watch a brief video clip of the activities taking place.

Participants were then led to separate rooms where they were each told that their partner would be engaging in the activities with the confederate and thus they would be taking on the role of information seeker. While their partners were supposedly completing the activities, participants completed a filler task. Finally, participants answered the information seeking strategy questionnaires before being fully debriefed (e.g., told no interaction actually took place and that the other participant was a study confederate) and compensated.

### **Results**

Since both members of romantic couples participated in this study, the data had a hierarchical structure with individuals nested within dyads. Data were therefore analyzed using hierarchical linear modeling (HLM; Raudenbush & Bryk, 2002; Kenny, Kashy, & Bolger, 1998), which is the standard data analytic approach taken to deal with the nonindependence of dyadic data (see Bolger, Davis, & Rafaeli, 2003). Nonindependence refers to the fact that two scores from individuals in a romantic relationship will typically be more similar to each other than two scores from individuals not in a romantic relationship (see Kenny, Kashy, & Cook, 2006). For example, an individual's behaviour in a relationship is a function of who she is, who her partner is, and the specific relationship the couple has together. Because of the overlap between partners' experiences and outcomes, independence can only be assumed to exist from dyad to dyad. Note that because a dyad only involves two individuals, there is a random effect for the intercept (meaning there can be random variation in the outcome variable from dyad

to dyad), but no random component for the other effects. This constraint is required for HLM using dyadic data (see Kenny, Kashy, & Cook, 2006).

Prior to analyses, gender and condition were effect coded (-1 = female, 1 = male; -1 = control, 1 = threat), and all continuous predictor variables were grand mean centred. For each outcome variable (desire, discomfort, and strategy choice), main effects were tested by running models with attachment anxiety, avoidance, condition, and gender entered as predictors. Next, 2-way interactions were tested by adding the Attachment Anxiety  $\times$  Experimental Condition, Attachment Avoidance  $\times$  Experimental Condition, Attachment Anxiety  $\times$  Gender, Attachment Avoidance  $\times$  Gender, and Gender  $\times$  Experimental Condition interactions as predictors. Finally, the 3-way interactions of Attachment Anxiety  $\times$  Gender  $\times$  Experimental Condition and Attachment Avoidance  $\times$  Gender  $\times$  Experimental Condition were added as predictors to each model. For each outcome variable, effects for each multilevel model tested are displayed in Table 2.

### **Desire to Complete the Strategies**

Across experimental conditions, desire to complete the direct strategy was quite high ( $M = 5.48$ ,  $SD = 1.09$ ; rated on a scale from 1 – 7), suggesting that participants considered asking their partners for information to be an attractive and effective option. There were no significant main effects for desire to complete the direct strategy (see Table 2). As depicted in Figure 3, the Attachment Anxiety  $\times$  Experimental Condition interaction did emerge,  $b = .33$ ,  $t(72) = 2.49$ ,  $p < .02$ , however the pattern of the interaction was not in the predicted direction. Simple slope analyses revealed that contrary to predictions, highly anxious individuals in the threat condition were significantly *more* interested in directly speaking to their partners than highly anxious

individuals in the control condition,  $b = .62$ ,  $t(62) = 2.04$ ,  $p < .05$ . Comparing less anxious to highly anxious individuals in the threat condition revealed that more anxiously attached individuals were marginally more interested in obtaining information directly from their partners,  $b = .30$ ,  $t(76) = 1.70$ ,  $p = .08$ . In contrast, there was no difference between less anxious and highly anxious individuals in the control condition,  $b = -.32$ ,  $t(76) = -1.59$ ,  $p > .10$ . Further, less anxious individuals did not differ across conditions,  $b = -.46$ ,  $t(61) = -1.54$ ,  $p > .10$ . In contrast, the predicted Attachment Avoidance  $\times$  Experimental Condition interaction was not significant,  $b = -.17$ ,  $t(67) = -1.27$ ,  $p = .21$ , suggesting that highly avoidant individuals' desire to complete the direct strategy did not differ across conditions.

Participants also expressed considerable desire to complete the indirect strategies ( $M = 4.88$ ,  $SD = .87$ ) across both experimental conditions. As seen in Table 2, there were no main effects for this outcome variable. The predicted Attachment Anxiety  $\times$  Experimental Condition interaction was also not significant,  $b = .04$ ,  $t(75) = .40$ ,  $p > .60$ , suggesting that contrary to predictions highly anxious individuals in the threat condition did not report a greater desire to complete the indirect tasks.

A significant Attachment Avoidance  $\times$  Experimental Condition interaction did emerge however for desire to complete the indirect strategies,  $b = -.29$ ,  $t(69) = -2.61$ ,  $p < .02$ . The pattern of the interaction was not consistent with predictions, in that highly avoidant individuals did not differ between conditions,  $b = -.40$ ,  $t(55) = -1.56$ ,  $p > .10$ . Unexpectedly, less avoidant individuals expressed more interest in completing the indirect strategies in the threat condition than in the control condition,  $b = .51$ ,  $t(55) = 2.24$ ,  $p < .03$  (see Figure 4). Although less and highly avoidant individuals did not differ

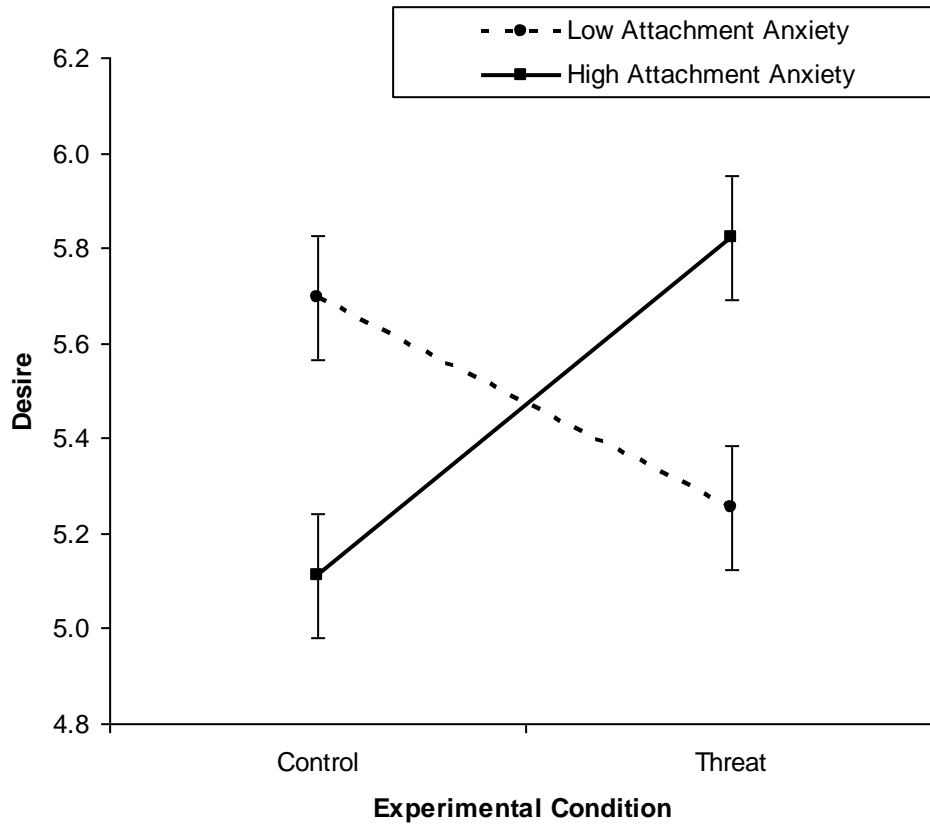
in the threat condition,  $b = -.10$ ,  $t(77) = -.65$ ,  $p > .50$ , highly avoidant individuals in the control condition reported a greater desire to complete the indirect strategies than less avoidant individuals,  $b = .46$ ,  $t(77) = 2.68$ ,  $p < .01$ .

Table 2  
*Predicting Perceptions and Endorsement of Direct vs. Indirect Information Seeking Strategies*

	Desire		Discomfort		Choice
	Direct	Indirect	Direct	Indirect	Odds of direct: indirect
Intercept	5.46	4.89	2.11	2.67	-.56
Attachment anxiety	.03	-.03	.08	.14	-.21
Attachment avoidance	-.22	.14	.20	.24	-.13
Experimental condition	.04	.05	-.02	-.02	-.22
Gender	-.07	-.03	.11	.10	.09
Attachment anxiety × Experimental condition	.33*	.04	-.08	.07	.26
Attachment avoidance × Experimental condition	-.17	-.29*	.01	.05	-.26
Gender × Experimental condition	-.07	-.18	.18	.25*	.64**
Attachment anxiety × Gender	-.21	-.11	-.11	.23	.32
Attachment avoidance × Gender	-.06	-.15	-.01	-.13	-.05
Attachment anxiety × Gender × Experimental condition	.05	-.09	-.09	.02	-.25
Attachment avoidance × Gender × Experimental condition	-.05	.05	.12	.06	.28

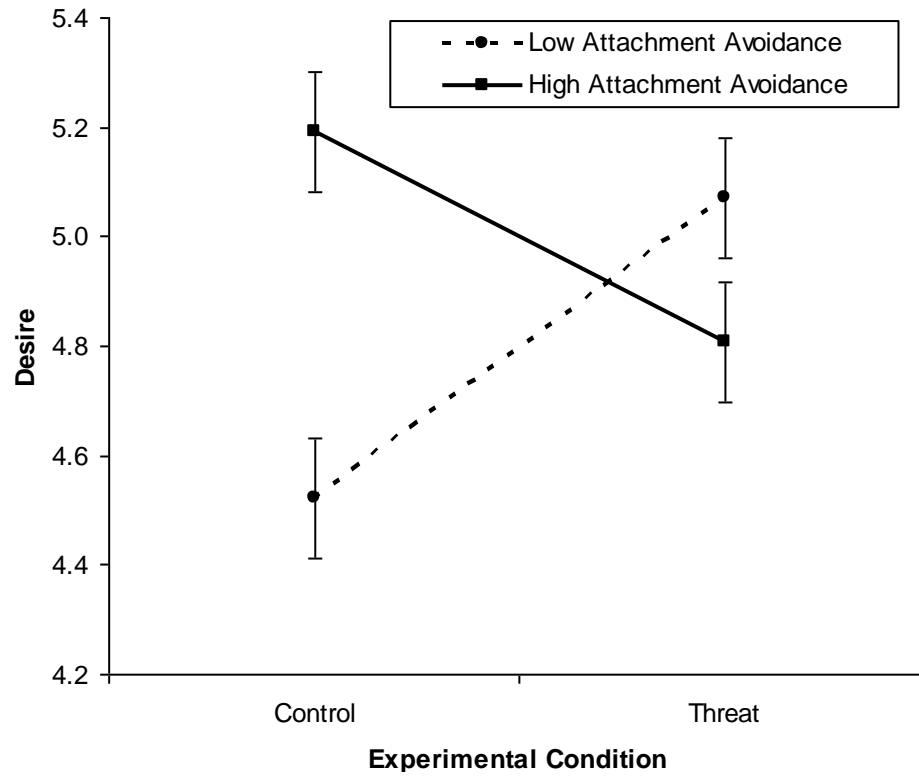
*Note.* Values from the multilevel models can be interpreted as unstandardized regression coefficients.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .



*Figure 3.* Desire to complete the direct strategy as a function of attachment anxiety ( $\pm 1$  *SD*) and experimental condition. Error bars represent standard error.



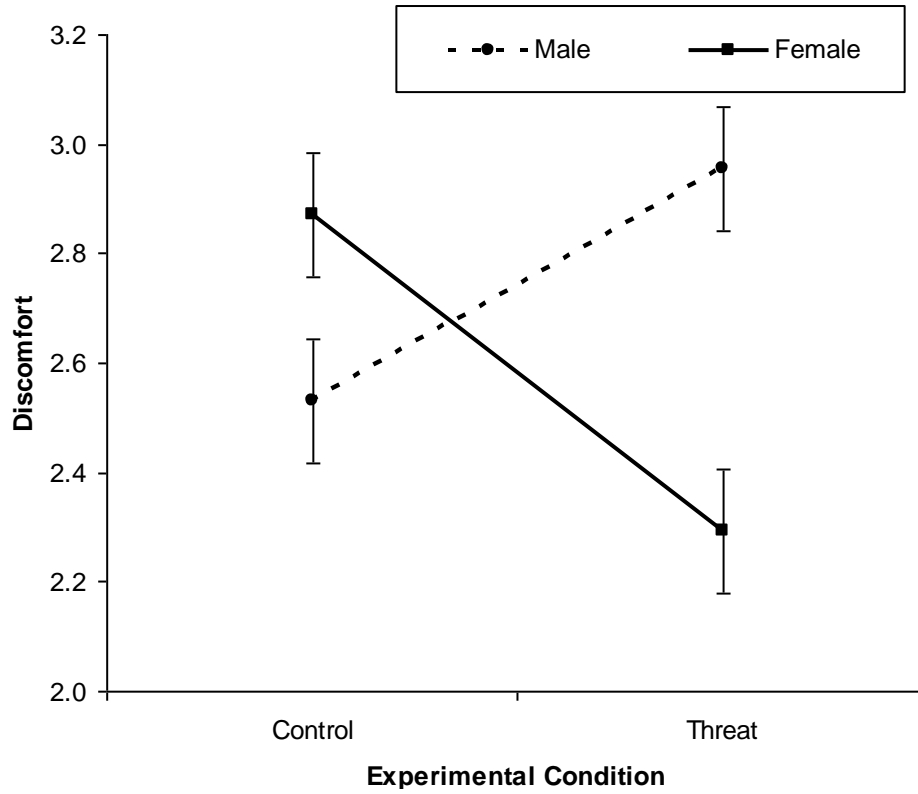


*Figure 4.* Desire to complete the indirect strategies as a function of attachment avoidance ( $\pm 1 SD$ ) and experimental condition. Error bars represent standard error.

### **Discomfort Associated With the Strategies**

In both the threat and control conditions, participants associated the direct strategy with relatively little discomfort ( $M = 2.09$ ,  $SD = 1.21$ ; rated on a scale from 1 – 7), suggesting that on average participants anticipated directly seeking information from their partners would not be unpleasant. There were no significant effects for this outcome variable (see Table 2). In particular, the predicted Attachment Anxiety  $\times$  Experimental Condition and Attachment Avoidance  $\times$  Experimental Condition interactions did not emerge ( $ps > .50$ ),  $b = -.08$ ,  $t(72) = -.54$  and  $b = .01$ ,  $t(65) = .054$ , respectively. Thus it was not the case that insecure individuals in the threat condition expected that directly obtaining information from their partners would be especially uncomfortable.

For the indirect strategies, participants in both experimental conditions also anticipated relatively little discomfort ( $M = 2.65$ ,  $SD = .99$ ). No significant main effects emerged for this outcome variable (see Table 2). Interestingly, there was a Gender  $\times$  Experimental Condition interaction,  $b = .25$ ,  $t(40) = 2.20$ ,  $p < .04$ . Simple slope analyses revealed that in the threat condition, men anticipated more discomfort than women,  $b = .33$ ,  $t(82) = 2.29$ ,  $p < .03$  whereas men and women did not differ in the control condition,  $b = -.14$ ,  $t(82) = -.98$ ,  $p > .30$  (see Figure 5). Women reported marginally less anticipated discomfort in the threat condition than in the control condition,  $b = -.51$ ,  $t(82) = -1.74$ ,  $p = .09$  whereas men did not differ between conditions,  $b = .43$ ,  $t(82) = 1.51$ ,  $p > .10$ .



*Figure 5.* Discomfort associated with the indirect strategies as a function of gender and experimental condition. Error bars represent standard error.

### Strategy Choice

When participants were asked to choose an information seeking strategy to complete, approximately 39.3% chose the direct strategy, 6.7% wanted to read the confederate's questionnaire, and the remaining 53.9% opted to watch the video clip. Therefore no participants selected the option to ask the confederate questions. To calculate the probability that participants in either condition would choose a direct vs. indirect strategy, data were analyzed using HLM for binary outcomes with choice dummy coded (1 = direct, 0 = indirect) and entered as the outcome variable. As seen in Table 2, no significant main effects emerged. Further, the predicted Attachment Anxiety  $\times$  Experimental Condition and Attachment Avoidance  $\times$  Experimental Condition interactions for strategy choice were not significant ( $ps > .30$ ),  $b = .26$ ,  $Z = .92$  and  $b = -.26$ ,  $Z = .90$ , respectively. Therefore, it was not the case that insecure individuals in the threat condition were more likely to choose an indirect strategy over the direct strategy.

There was however a significant Gender  $\times$  Experimental Condition interaction,  $b = .64$ ,  $Z = 2.63$ ,  $p < .01$  revealing that relative to women in the control condition, women in the threat condition were less likely to pick the direct strategy,  $b = -1.67$ ,  $Z = -2.44$ ,  $p < .02$ . Men did not differ between conditions.  $b = .69$ ,  $Z = 1.12$ ,  $p > .20$ . While men and women did not differ in the control condition,  $b = -.95$ ,  $Z = -1.52$ ,  $p > .10$ , women were less likely than men to pick the direct strategy in the threat condition,  $b = 1.41$ ,  $Z = 2.10$ ,  $p < .04$ . A breakdown of strategy choice by gender and experimental condition is depicted in Figure 6.



Figure 6. Information seeking strategy choice by gender and experimental condition.

### Discussion

Overall, results of Study 2 did not provide support for the study hypotheses. Although an Attachment Anxiety  $\times$  Experimental Condition interaction emerged for desire to complete the direct strategy, the pattern of this interaction was opposite to our predictions. Specifically, highly anxious individuals in the threat condition expressed a greater desire to directly obtain information from their partners. In contrast, highly anxious individuals in the threat condition did not report a greater desire to indirectly obtain information about their partner's experiences nor did they tend to choose an indirect strategy to perform. It was also not the case that more anxiously attached individuals in the threat condition anticipated the direct strategy would be particularly uncomfortable.

Why was the pattern of the interaction between attachment anxiety and experimental condition opposite to our predictions? One possibility is that the greater desire of highly anxious individuals to be with their partners in the face of a possible relationship threat represented a motivation for proximity seeking, a typical response of anxiously attached individuals in threatening contexts (see Mikulincer & Shaver, 2003, 2007). It could be that highly anxious individuals in the threat condition felt insecure and responded by wanting to be close to their partners.

Contrary to predictions for attachment avoidance, highly avoidant individuals did not tend to choose an indirect strategy to perform or anticipate that the direct strategy would cause considerable discomfort. Furthermore, highly avoidant individuals did not express less desire to perform all of the information seeking options available to them. In fact, the pattern of results for the Attachment Avoidance  $\times$  Experimental Condition

interaction revealed that relative to less avoidant people, highly avoidant individuals actually expressed a greater desire to complete the indirect strategies in the control condition. One possible explanation for this result is that more avoidantly attached individuals may generally come to prefer indirect strategies because they tend to have poorer communication skills and be less comfortable with the intimate nature of direct communication.

Unexpectedly, in the threat condition women anticipated the indirect strategies would be less uncomfortable than men did. Consistent with this result, women in the threat condition were also more likely to pick an indirect strategy than men. Anecdotally, in the threat condition the male participants appeared more threatened by the attractive confederate than the female participants. For example, many male participants were visibly bothered, with one participant going so far as to introduce himself to the confederate – a gesture which suggested he was marking his territory. Perhaps the male confederate was considered more attractive than the female confederate and therefore more relationship-threatening. If this was the case, it may explain why male participants were especially likely to expect that the indirect strategies (which involved interaction or exposure to the confederate) would be awkward or anxiety-provoking. To help rule out the possibility that gender differences may be attributable to the specific confederates used, we ideally could have recruited more confederates (e.g., 5 males and 5 females) and done pilot testing to confirm that the male and female confederates were roughly equally attractive.

Taken together, the results of Study 2 suggest a potential problem with its experimental design: it may have largely focused participants on threat (related to their

partners' close interaction with a highly attractive confederate) rather than information seeking. Although we outlined the study as being dual purpose, investigating intimacy-promoting activities as well as how accurately people can perceive intimacy experienced by their romantic partners, participants may have been primarily concerned with the supposed activities rather than the best way to gather information to complete their portion of the study. Therefore, responses to the information seeking measures may have been predominantly influenced by participants' reaction to threat rather than how they typically prefer to go about seeking relationship-relevant information. This may partially explain why the findings of Study 1 and 2 appear to be inconsistent.

As well, the fact that almost 54% of participants elected to watch the video clip when the direct strategy was intended to be the most efficient and effective approach suggests a potential issue with the way the information seeking strategies were operationalized. We intended to provide individuals with three task options that approximated indirect information seeking strategies. Asking the confederate questions and reading their post-activities questionnaire were intended to represent a third party strategy whereas the video clip was intended to be the most indirect and represent unobtrusive observation. It is possible that participants chose to watch the video because they expected it would be a relatively novel or entertaining experience rather than because they thought it would be the most effective option. They also may have opted to watch the video knowing that they could ask their partners about their experiences following the conclusion of the study. Again, it appears that participant focus may have been less on quality information seeking and more on other factors such as novelty or threat.



### **General Discussion**

The results of Study 1 largely provide support for our hypotheses, in that highly anxious individuals endorsed a number of indirect strategies but did not endorse a direct strategy when asked how they would gather information about a potential relationship threat. Further, highly anxious individuals' tendency to associate a direct strategy with negative outcomes fully mediated the link between attachment anxiety and direct strategy endorsement. These findings suggest that when in potentially relationship-threatening situations, highly anxious individuals indeed prefer to seek information indirectly rather than confronting their partners because they anticipate a direct approach would harm the relationship.

In Study 2, we attempted to create a potentially relationship-threatening situation in the laboratory which required participants to choose an information seeking strategy to gather relationship-relevant information. While attachment anxiety was associated with a decreased desire to obtain potentially relationship-threatening information directly from a romantic partner in Study 1, in Study 2 highly anxious individuals expressed a *greater* desire to confront their partners under such circumstances. Also in contrast to Study 1, highly anxious individuals did not prefer to avoid a direct strategy or report that a direct strategy would be especially uncomfortable.

### **Potential Explanations for Conflicting Results**

Although the results of Study 2 appear to be inconsistent with Study 1, there are a few important differences between the two studies that may help explain why conflicting results were obtained for attachment anxiety. First, while the wording of the hypothetical scenario used in Study 1 implied that participants' romantic partners had deliberately

done something to threaten the relationship, in Study 2 the partner was supposedly randomly chosen to complete activities with the attractive confederate. Thus while participants in Study 2 did appear to be threatened by the manipulation, they were aware that their partners were put into the situation by the experimenter. This means that although we sought to create a laboratory analog of Study 1, our second study created a slightly different information seeking situation than intended. To imply more responsibility on the part of the partner, each participant in Study 2 could have been told that their partner had expressed great interest in completing the activities with the confederate and would therefore be allowed to volunteer for that role in the experiment.

Perhaps highly anxious individuals prefer to avoid confronting their partners under more extreme cases of relationship threat (e.g., when the partner has freely chosen to threaten the relationship) but feel more comfortable obtaining information from their partners under less threatening conditions like those created in Study 2. As an example, Ryan may respond differently to learning of Michelle's work-related contact with a highly attractive co-worker than to her communication with a very handsome stranger because in the former case the pair's contact is obligatory.

Second, in Study 1 the scenario given to participants likely implied a much more secretive situation than in Study 2. Specifically, participants in Study 1 were asked to imagine "discovering" something their partner did or said to threaten the relationship, which suggests coming across a potential threat without the partner's knowledge. In contrast, in Study 2 *both* partners knew about the potential relationship threat (i.e., that one individual had completed activities with a highly attractive opposite sex confederate).

Again, these slightly different information seeking situations may help explain our inconsistent results.

It could be that highly anxious individuals seek information differently depending on whether their romantic partners know they have come across a possible threat. Specifically, highly anxious individuals may prefer to seek information indirectly when their partners are unaware that they have discovered something potentially threatening. For example, imagine that Ryan is highly anxious and happens to be alone when he discovers the phone number in Michelle's pocket. He may decide to investigate the matter indirectly by engaging in intrusive behaviour rather than bringing it up directly with his partner. By indirectly seeking information about a potential threat uncovered in secret, Ryan could remain below Michelle's radar and avoid what he expects to be a negative confrontation.

In contrast, highly anxious individuals may prefer a direct approach when their partners are aware that the potentially threatening issue has been uncovered. Highly anxious individuals may feel more comfortable directly asking their partners for information when a potential threat is out in the open because their interest in the matter or distress can be framed as a product of the current situation rather than their deep-rooted insecurities. Further, a partner's awareness may get the highly anxious individual around having to broach the subject independently and "out of the blue" – an act which could alienate the partner. For example, if Ryan were to discover the phone number while Michelle was at home, he may choose to confront her immediately with the pair of jeans in hand rather than take the time to play detective.

While the situation surrounding the discovery of a potential threat may determine whether highly anxious individuals seek information indirectly or directly, secure individuals may be more likely to opt for a direct strategy regardless of their partners' knowledge about the matter. That is to say, if Ryan is secure in his relationship he may decide to ask Michelle directly about the phone number regardless of whether or not she is aware that he has come across it.

Furthermore, Study 1 asked individuals how they *would* act in a hypothetical relationship-threatening situation whereas in Study 2 participants selected an information seeking strategy they expected to actually perform. One possible explanation for the incompatible findings in Study 1 and 2 is that highly anxious individuals' behaviour may deviate from their stated preferences when they actually find themselves in potentially relationship-threatening situations.

In the heat of the moment, the heightened arousal, anxiety, and distress that often accompany relationship threat may motivate these individuals to seek information directly despite their desire to avoid what they expect will be a dramatic, negative confrontation with their partners. In fact, highly anxious individuals' strong motivation to reduce their feelings of insecurity (Mikulincer, 1998) may push them to seek information straight from their partners because a direct approach typically allows for more immediate, effective deactivation of the attachment system (Mikulincer & Shaver, 2003). Thus although highly anxious individuals may *prefer* not to take a direct approach, they may be driven by distress and insecurity to directly confront their partners in potentially relationship-threatening situations.

It seems unlikely that a lack of self-reported preference and behaviour correspondence can completely explain our inconsistent findings for attachment anxiety. All considered, our results suggest that the conditions influencing highly anxious individuals' preference to seek potentially relationship-threatening information indirectly or directly are in fact quite complex. The degree of partner volition associated with a potential threat may affect how these individuals choose to gather information, as they may respond more indirectly to freely chosen transgressions than to prescribed actions. As well, the nature of discovery may influence search directness, in that highly anxious individuals may prefer to indirectly seek information uncovered in secret but opt to approach their partners when the potential threat is out in the open. Because it seems reasonable that such contextual variables affect highly anxious individuals' information seeking behaviour, it is implausible that our conflicting results can be entirely explained by a tendency for these individuals to say one thing but do another.

### **Future Directions**

To begin to explore the potential boundary conditions shaping when highly anxious individuals tend to engage in direct versus indirect information seeking, a daily diary study could require participants to report their information seeking behaviours over a brief period of time (e.g., 14 days). Each day during the diary period, participants could describe the circumstances surrounding any relationship-relevant information seeking including the nature of the threat (e.g., intentionality) and its discovery (e.g., in secret or in front of the partner), indicate the strategies used, and rate their satisfaction with the outcome reached. Such a design could begin to flesh out the specific conditions that

influence how directly highly anxious individuals seek relationship-relevant information and whether their negative expectations for direct confrontation are realized.

To provide insight into why highly anxious individuals may have relatively pessimistic expectations for direct information seeking, future research should also examine how highly anxious individuals typically approach their partners for more information in potentially relationship-threatening situations. As an example, imagine that highly anxious participants in Study 2 were actually given the opportunity to directly obtain information from their partners and were unobtrusively videotaped in the process. In the threat condition, would these individuals be more visibly distressed or behave more negatively toward their partners as they sought information? Based on previous research suggesting that highly anxious individuals are particularly vigilant toward what their romantic partners are thinking and feeling when they perceive a potential relationship threat (Cassidy & Berlin, 1994; Simpson et al., 2011), do these individuals seek and therefore acquire more threatening information when directly questioning their partners? It could be that highly anxious individuals fail to endorse a direct information seeking approach because such interactions do in fact tend to be incredibly stressful, unpleasant, or relationship-damaging for these individuals.

It would also be fascinating to examine how romantic couples' information seeking behaviour changes over time because strategy choice may change as a function of relationship experience, quality (e.g., satisfaction or commitment), or specific relationship events (e.g., infidelity). Highly anxious individuals may come to avoid directly seeking potentially threatening information from their partners if it tends to result

in reciprocal negative, hostile communication that lowers relationship satisfaction (see Gottman, 1998 for a review).

In addition, while the current studies examined actor effects (i.e., how a person's attachment orientation may influence her behaviour), partner effects (e.g., how a person's attachment orientation influences her romantic partner's behaviour) are also of interest. Specifically, although the information seeker's approach sets the tone for the interaction, the responding partner's reaction may be crucial in determining the course and outcome of the exchange. Individuals can choose to respond warmly and openly to their romantic partners' desire for information, or alternatively they can respond by being harsh and rejecting. It is therefore reasonable to expect that over time individuals' attachment orientations come to influence their partners' information seeking behaviour. For example, if a highly avoidant individual repeatedly dismisses a partner's direct requests for information, the partner may feel forced to adopt more indirect strategies to gather desired knowledge. In contrast, a secure partner's regular use of direct communication may eventually persuade an insecure partner to begin to risk a more direct information seeking approach as well.

### **Concluding Remarks**

Importantly, this research is innovative in that no known research to date has systematically assessed the information seeking strategies employed in established romantic relationships, or the potential links between attachment and information seeking behaviour. It is valuable because information seeking is crucial to resolve uncertainty in romantic relationships, which is generally associated with decreased liking and attraction as well as heightened feelings of jealousy and negative emotion (Planalp & Honeycutt,

1985). In contrast, successfully seeking information in relationships can foster feelings of intimacy, togetherness, and accomplishment and ultimately lead to more positive perceptions of the relationship (Knobloch & Solomon, 2002).

While the two studies presented here offer conflicting results, they provide ample opportunity and direction for future research examining the boundary conditions that may govern how insecure individuals negotiate information seeking in their romantic relationships. Results of this program of research are expected to add substantially to the knowledge base regarding attachment and interpersonal communication, and direct future research into communication-based interventions to improve relationship quality.



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## Appendix A

## Measure of Attachment (ECR; Brennan, Clark, &amp; Shaver, 1998)

*Instructions.*

The following statements concern how you feel in romantic relationships. We are interested in how you generally experience relationships, not just in what is happening in a current relationship. Respond to each statement by indicating how much you agree or disagree with it.

1	2	3	4	5	6	7
<i>strongly disagree</i>			<i>somewhat agree</i>			<i>strongly agree</i>

1. I prefer not to show a partner how I feel deep down.
2. I worry about being abandoned.
3. I am very comfortable being close to romantic partners.
4. I worry a lot about my relationships.
5. Just when my partner starts to get close to me I find myself pulling away.
6. I worry that romantic partners won't care about me as much as I care about them.
7. I get uncomfortable when a romantic partner wants to be very close.
8. I worry a fair amount about losing my partner.
9. I don't feel comfortable opening up to romantic partners.
10. I often wish that my partner's feelings for me were as strong as my feelings for him/her.
11. I want to get close to my partner, but I keep pulling back.
12. I often want to merge completely with romantic partners, and this sometimes scares them away.
13. I am nervous when partners get too close to me.
14. I worry about being alone.
15. I feel comfortable sharing my private thoughts and feelings with my partner.
16. My desire to be very close sometimes scares people away.
17. I try to avoid getting too close to my partner.
18. I need a lot of reassurance that I am loved by my partner.
19. I find it relatively easy to get close to my partner.
20. Sometimes I feel that I force my partners to show more feeling, more commitment.
21. I find it difficult to allow myself to depend on romantic partners.
22. I do not often worry about being abandoned.
23. I prefer not to be too close to romantic partners.
24. If I can't get my partner to show interest in me, I get upset or angry.
25. I tell my partner just about everything.
26. I find that my partner(s) don't want to get as close as I would like.
27. I usually discuss my problems and concerns with my partner.
28. When I'm not involved in a relationship, I feel somewhat anxious and insecure.
29. I feel comfortable depending on romantic partners.



30. I get frustrated when my partner is not around as much as I would like.
31. I don't mind asking romantic partners for comfort, advice, or help.
32. I get frustrated if romantic partners are not available when I need them.
33. It helps to turn to my romantic partner in times of need.
34. When romantic partners disapprove of me, I feel really bad about myself.
35. I turn to my partner for many things, including comfort and reassurance.
36. I resent it when my partner spends time away from me.

## Appendix B

## Measure of Self-Esteem (Rosenberg, 1965)

*Instructions.*

Please indicate the answer that best represents how you feel RIGHT NOW:

1	2	3	4	5	6	7
<i>strongly disagree</i>			<i>somewhat agree</i>			<i>strongly agree</i>

1. I take a positive attitude toward myself.
2. On the whole, I am satisfied with myself.
3. All in all, I am inclined to think that I am a failure.
4. I am able to do things as well as most other people.
5. I feel that I do not have much to be proud of.
6. I feel that I'm a person of worth, at least on an equal basis with others.
7. At times I think I am no good at all.
8. I wish I could have more respect for myself.
9. I feel that I have a number of good qualities.
10. I certainly feel useless at times.

## Appendix C

Measure of Neuroticism (<http://ipip.ori.org/>)*Instructions.*

Indicate how well each of the following items describes you.

1	2	3	4	5	6	7
<i>not at all</i>			<i>somewhat</i>			<i>completely</i>
<i>characteristic</i>			<i>characteristic</i>			<i>characteristic</i>

1. Often feel blue.
2. Fear for the worst.
3. Dislike myself.
4. Am often in a bad mood.
5. Get stressed out easily.
6. Feel comfortable with myself.
7. Am relaxed most of the time.
8. Seldom feel blue.
9. Am not easily bothered by things.
10. Don't worry about things that have already happened.

## Appendix D

Study 1 Information Seeking Strategy Preference Measure  
(Miller, 1996; Berger & Kellerman, 1994; Fowler & Afifi, 2011)

How would you go about seeking this information...

1	2	3	4	5	6	7
<i>strongly disagree</i>			<i>somewhat agree</i>			<i>strongly agree</i>
1. I would check with someone else before speaking to my partner.						
2. I would monitor my partner's actions more closely and think about what they might mean in relation to the topic.						
3. I would go directly to my partner and ask for information about the matter.						
4. I would joke about the topic with my partner to see what kind of response I would get.						
5. I would ask my partner specific, to-the-point questions to get the information I wanted.						
6. I would tell my partner something similar to what I wanted to know, only about myself in hope that he or she would respond by telling me the information about him or her.						
7. I would look for the "answers" in the behaviours of my partner or others.						
8. I would not "beat around the bush" when asking my partner for information about the matter.						
9. I would actually go out of my way to avoid information about this issue.						
10. I would consciously make mental notes about what my partner tells others about the topic.						
11. I would ask my partner questions in such a way that they wouldn't seem like questions.						
12. I would do one or two things to get on my partner's nerves in order to see how he or she would react.						
13. Through my nonverbal behaviour, I would hint to my partner that I would like to know this information.						
14. I would let my partner know indirectly that I would like to know the information.						
15. I would encourage my partner to talk about the topic without letting him/her know that I was seeking the information.						
16. I would try to relax my partner in hope that they would be more willing to provide me with the information on his/her own.						
17. I would ask somebody who I knew was acquainted with my partner's feelings on the subject rather than ask my partner.						
18. I would make a vague reference to the topic and wait for my partner to continue discussing it.						
19. I would identify what I didn't know and ask my partner for the information.						

20. I'd find out the information by keeping my eyes and ears open to what was going on around me.
21. I would try my partner's patience in the matter, to see how he or she would respond.
22. I would indicate my curiosity about the topic without directly asking my partner for the information.
23. I wouldn't ask for the information in a traditional way, but if any relevant information came my way I'd be sure to pay attention to it.
24. I would ignore a rule or guideline related to the topic to see how my partner would react.
25. I would "mess up" on something related to the topic to see how my partner would respond.
26. I would find another source other than my partner who could tell me the same information.
27. I would pay close attention to how my partner acts toward me and try to relate these actions to the topic.
28. I would actually prefer not to know the information.

## Appendix E

Measure of Outcome Expectancy for Direct Information Seeking (Fowler & Afifi, 2011)

*Instructions.*

The following questions ask you to think about the possible results of discussing what you perceive as a possible threat to your relationship with your partner. The possible threat you would like to know more information about will be referred to as “the issue” for ease of reading.

1. Talking to my partner directly about this issue would produce \_\_\_\_\_.

-3	-2	-1	0	1	2	3
A lot more negatives than positives			About as many negatives as positives			A lot more positives than negatives

2. Asking my partner what she/he thinks about this issue would produce \_\_\_\_\_.

-3	-2	-1	0	1	2	3
A lot more negatives than positives			About as many negatives as positives			A lot more positives than negatives

3. Approaching my partner to ask about this issue would produce \_\_\_\_\_.

-3	-2	-1	0	1	2	3
A lot more negatives than positives			About as many negatives as positives			A lot more positives than negatives

## Appendix F

## Measure of Perceived Social Costs for Direct Information Seeking (Miller, 1996)

*Instructions.*

The following questions also concern how you would go about gathering information in this situation. Please answer honestly and thoughtfully.

- | 1                            | 2 | 3 | 4                         | 5 | 6 | 7                         |
|------------------------------|---|---|---------------------------|---|---|---------------------------|
|                              |   |   |                           |   |   |                           |
| <i>strongly<br/>disagree</i> |   |   | <i>somewhat<br/>agree</i> |   |   | <i>strongly<br/>agree</i> |
1. I'd have little to lose in confronting my partner for this information.
  2. By asking my partner for this information, I would be violating social norms.
  3. If I were to seek this information directly from my partner, I would make myself and my partner uncomfortable.
  4. The costs of directly asking my partner for this information would outweigh any benefits derived from obtaining it.
  5. I would not be embarrassed to ask my partner for this information.

## Appendix G

## Study 2 Information Seeking Strategy Measures

Again, we are interested in how accurate individuals are at assessing how effective and enjoyable intimacy-promoting activities are for their romantic partners. The ability to accurately judge this information could have a number of implications for people's romantic relationships (e.g., how in tune partners are emotionally).

Your partner, as well as the other participant who engaged in the activities with your partner, will be filling out a post-activities questionnaire regarding their experience engaging in the activities. For example, they will be asked how enjoyable they found the exercises, if they worked well together, if they felt the activities were effective at increasing feelings of intimacy, etc. You will be filling out the same questionnaire about your partner's experience, doing your best to estimate your partner's answers.

In order collect information to inform your assessment of your partner's experience with the activities, you will be given the opportunity to complete four tasks:

1. Ask your partner questions
2. Ask the other participant questions
3. Read the post-activities questionnaire filled out by the other participant (who completed the activities with your partner)
4. Watch a video clip of your partner engaging in the activities

Before you complete any of these information gathering tasks, we are interested in your perceptions of each task:

How interested are you in engaging in this information seeking option?

1	2	3	4	5	6	7
<i>not at all interested</i>			<i>somewhat interested</i>			<i>very interested</i>

This task would be...

1	2	3	4	5	6	7
<i>strongly disagree</i>			<i>somewhat agree</i>			<i>strongly agree</i>

1. Effective at providing accurate information



2. Enjoyable
  3. Easy to complete
  4. Uncomfortable
  5. Intimidating
  6. Anxiety-provoking
- 

Because this study needs to be kept to a reasonable length, you will be limited to only ONE option to gather information on which to base your judgments of how the activities influenced your partner. Below, please select the task you would prefer. You will perform this task next.

5. Ask your partner questions
6. Ask the other participant questions
7. Read the post-activities questionnaire filled out by the other participant (who completed the activities with your partner)
8. Watch a video clip of your partner engaging in the activities

## Appendix H

## Study 1 Ethics Approval



## Department of Psychology

## Use of Human Subjects - Ethics Approval Notice

<b>Review Number</b>	11 08 04	<b>Approval Date</b>	11 08 17
<b>Principal Investigator</b>	Lorne Campbell/Jennifer Pink	<b>End Date</b>	11 12 31
<b>Protocol Title</b>	How people seek information in romantic relationships		
<b>Sponsor</b>	n/a		

This is to notify you that The University of Western Ontario Department of Psychology Research Ethics Board (PREB) has granted expedited ethics approval to the above named research study on the date noted above.

The PREB is a sub-REB of The University of Western Ontario's Research Ethics Board for Non-Medical Research Involving Human Subjects (NMREB) which is organized and operates according to the Tri-Council Policy Statement and the applicable laws and regulations of Ontario. (See Office of Research Ethics web site: <http://www.uwo.ca/research/ethics/>)

This approval shall remain valid until end date noted above assuming timely and acceptable responses to the University's periodic requests for surveillance and monitoring information.

During the course of the research, no deviations from, or changes to, the protocol or consent form may be initiated without prior written approval from the PREB except when necessary to eliminate immediate hazards to the subject or when the change(s) involve only logistical or administrative aspects of the study (e.g. change of research assistant, telephone number etc). Subjects must receive a copy of the information/consent documentation.

Investigators must promptly also report to the PREB:

- a) changes increasing the risk to the participant(s) and/or affecting significantly the conduct of the study;
- b) all adverse and unexpected experiences or events that are both serious and unexpected;
- c) new information that may adversely affect the safety of the subjects or the conduct of the study.

If these changes/adverse events require a change to the information/consent documentation, and/or recruitment advertisement, the newly revised information/consent documentation, and/or advertisement, must be submitted to the PREB for approval.

Members of the PREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussion related to, nor vote on, such studies when they are presented to the PREB.

Clive Seligman Ph.D.

Chair, Psychology Expedited Research Ethics Board (PREB)

The other members of the 2010-2011 PREB are: Mike Atkinson (Introductory Psychology Coordinator), David Dozois, Vicki Esses, Riley Hinson Albert Katz (Department Chair), and Tom O'Neill (Graduate Student Representative)

CC: UWO Office of Research Ethics

*This is an official document. Please retain the original in your files*

## Appendix I

## Study 2 Ethics Approval



## Department of Psychology

## Use of Human Subjects - Ethics Approval Notice

<b>Review Number</b>	11 10 11	<b>Approval Date</b>	11 10 20
<b>Principal Investigator</b>	Lorne Campbell/Jennifer Pink	<b>End Date</b>	12 04 30
<b>Protocol Title</b>	Intimacy perception in romantic relationships		
<b>Sponsor</b>	n/a		

This is to notify you that The University of Western Ontario Department of Psychology Research Ethics Board (PREB) has granted expedited ethics approval to the above named research study on the date noted above.

The PREB is a sub-REB of The University of Western Ontario's Research Ethics Board for Non-Medical Research Involving Human Subjects (NMREB) which is organized and operates according to the Tri-Council Policy Statement and the applicable laws and regulations of Ontario. (See Office of Research Ethics web site: <http://www.uwo.ca/research/ethics/>)

This approval shall remain valid until end date noted above assuming timely and acceptable responses to the University's periodic requests for surveillance and monitoring information.

During the course of the research, no deviations from, or changes to, the protocol or consent form may be initiated without prior written approval from the PREB except when necessary to eliminate immediate hazards to the subject or when the change(s) involve only logistical or administrative aspects of the study (e.g. change of research assistant, telephone number etc). Subjects must receive a copy of the information/consent documentation.

Investigators must promptly also report to the PREB:

- a) changes increasing the risk to the participant(s) and/or affecting significantly the conduct of the study;
- b) all adverse and unexpected experiences or events that are both serious and unexpected;
- c) new information that may adversely affect the safety of the subjects or the conduct of the study.

If these changes/adverse events require a change to the information/consent documentation, and/or recruitment advertisement, the newly revised information/consent documentation, and/or advertisement, must be submitted to the PREB for approval.

Members of the PREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussion related to, nor vote on, such studies when they are presented to the PREB.

Clive Seligman Ph.D.

Chair, Psychology Expedited Research Ethics Board (PREB)

The other members of the 2011-2012 PREB are: Mike Atkinson (Introductory Psychology Coordinator), Rick Goffin, Riley Hinson Albert Katz (Department Chair), Steve Lupker, and TBA (Graduate Student Representative)

CC: UWO Office of Research Ethics

*This is an official document. Please retain the original in your files*

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**CURRICULUM VITAE**


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**Jennifer C. Pink**

Department of Psychology  
University of Western Ontario

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**RESEARCH INTERESTS**


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Romantic relationships; Attachment; Mental health; Communication; Sexuality

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**EDUCATION**


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- 2010-2012            Master of Science, Social Psychology  
University of Western Ontario
- 2006-2010           Bachelor of Science (Honours), Psychology  
University of Waterloo  
Degree Honours: Dean's Honours List  
Thesis: *The effect of intersectional invisibility on the formation of impressions of social groups*, supervised by Dr. Richard Eibach

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**AWARDS AND SCHOLARSHIPS**


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- 2012-2016            SSHRC Doctoral Fellowship, \$20 000/year  
2012                    Graduate Thesis Research Award, \$750  
2011-2012            SSHRC Joseph-Armand Bombardier CGS Master's Scholarship,  
\$17 500  
2011-2012            Ontario Graduate Scholarship, \$15 000 (declined)  
2010-2011            Ontario Graduate Scholarship, \$15 000  
2010                    R.H. Walters Award (undergraduate academic prize), \$350  
2006-2008            University of Waterloo - Waterloo County Entrance Scholarship,  
\$4 000  
2006                    University of Waterloo Merit Scholarship, \$1 000

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**MANUSCRIPTS UNDER REVIEW**


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Campbell, L., **Pink, J. C.**, & Stanton, S. C. E. Ideal standards in relationships. Chapter to appear in J. A. Simpson & J. F. Dovidio (Eds.), *Handbook of personality and social psychology: Interpersonal relations and group processes*. Washington, DC: American Psychological Association.

## CONFERENCE PRESENTATIONS

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**Pink, J.C.** & Campbell, L. (2012, January). *Facebook stalking: A discreet way for anxiously attached individuals to monitor their romantic partners*. Poster presented at the 13<sup>th</sup> annual meeting of the Society for Personality and Social Psychology (SPSP) in San Diego, California.

**Pink, J.C.** & Campbell, L. (2012, May). *Facebook stalking: A discreet way for anxiously attached individuals to monitor their romantic partners*. Poster presented at the annual Western-Waterloo Social Psychology Conference in London, Ontario.

**Pink, J.C.** & Campbell, L. (2012, July). *Attachment and sexual initiation rejection in established romantic relationships*. Paper to be presented at the International Association for Relationship Research (IARR) Conference in Chicago, Illinois.

## RESEARCH EXPERIENCE

---

### Research Assistant

2010 Research Assistant, International Tobacco Control Project led by Dr. Geoffrey Fong, University of Waterloo  
 2008-2010 Research Assistant, Social and Health Psychology, University of Waterloo

### Training

2011, July Dyadic Data Analysis Workshop, instructed by Dr. Deborah Kashy and Dr. Rob Ackerman at Michigan State University

### Mentor – Honours Thesis Co-supervisor (in conjunction with Dr. Lorne Campbell)

2011 Sara Hopkins, Adam Koenig  
 2010 Jordan Bayne

## TEACHING EXPERIENCE

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### Teaching Assistant

2011-2012 Statistics for Psychology (tutorial instructor)  
 2011, Winter Human Adjustment and Maladjustment  
 2010, Fall Introduction to Cognition

### Training

2011, June Teaching Assistant Training Program  
 Teaching Support Centre, University of Western Ontario