

From the Cradle to the Workplace: Attachment and the Reported Provision of Need Support

by

Colleen Bezeau

B.A., Simon Fraser University, 2001

M.A., University of Victoria, 2005

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Supervisory Committee

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Supervisory Committee

Dr. Frederick M. E. Grouzet, Department of Psychology
Supervisor

Dr. Robert Gifford, Department of Psychology
Departmental Member

Dr. John T. Meldrum, School of Exercise Science, Physical and Health Education
Outside Member

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Outside Member

Abstract

Leadership research has traditionally focused on the organizational context and is largely dominated by micro-leadership theories that describe specific styles of leadership. The current research advances previous work by introducing two general interpersonal frameworks – attachment theory and self-determination theory – in order to better understand how leaders relate to those around them in the workplace context. In addition, the current series of studies considers leadership not only in the traditional organizational context, but also in the context of other workplace settings wherein there may not be traditional leadership roles. The central research question was that leaders with more secure attachment orientations would provide greater need support to their employees. In other words, when leaders held positive views of themselves and others, they would be inclined to provide employees with choices, a sense of volition, feelings of connectedness, and efficacy about their abilities. This association was expected to be observed in a variety of leadership contexts. In Study 1, using hospitality managers (N = 104), results indicated that fearful and avoidant attachment (insecure attachment) predicted lower levels of reported need support provision in hypothetical scenarios. Results also indicated that the traditional leadership styles that most research includes did not explain any additional variance in need support beyond that accounted for by attachment orientation. In Study 2, using a sample of students (N = 106) and an experimental design, both secure

attachment and positive affect led to higher levels of reported need support provision in hypothetical scenarios. Finally, in Study 3 (N = 154), using a sample of life and business coaches, coaches' preoccupied attachment orientation predicted lower levels of reported need support in hypothetical scenarios. In addition, coaches' preoccupied attachment predicted lower levels of reported empathy provision, whereas coaches' secure attachment predicted higher levels of reported empathy provision. This is the first known research to bring together attachment theory and self-determination theory in a series of three studies with different samples (hotel managers, students and coaches), and multiple research designs (experimental and non-experimental), all focusing on the leadership context. The findings and associated implications are discussed in the context of previous research and future research directions.

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DEDICATION

I am grateful for the support of all my friends and family throughout my graduate school career. I dedicate this dissertation to my son, Julian.

From the Cradle to the Workplace:

Attachment and the Reported Provision of Basic Need Support

For over a century, scholars have investigated the concept of leadership – what is it and how does it inform prediction of employee and organizational outcomes? Numerous leadership theories and definitions abound (Yukl, 2006). However, relatively little research has focused on the developmental antecedents that influence the way leaders relate to others. The current research advances previous work by incorporating both attachment theory (Bowlby, 1977) and self-determination theory (Deci & Ryan, 2000) in the workplace context. These two theories allow us to investigate leadership from a novel perspective, emphasizing the interpersonal nature of the workplace. More specifically, attachment theory offers a developmental perspective on leaders' propensity towards particular ways of interacting with others and self-determination theory provides insight to the process by which leaders provide support to those around them. Together, these two theories allow consideration of how general interpersonal styles relate to the offering of support to others in the workplace. Most research in the field to date focuses on micro-leadership theories, which take fairly narrow approaches to conceptualizing and explaining leader behaviors. The current research aims to step back and focus at a more general theoretical level. The link between attachment theory and self-determination theory was explored across three unique samples (hospitality managers, students and coaches), using different methodologies (experimental and non-experimental designs). First, a conceptualization of leadership is provided, followed by a discussion of attachment theory and self-determination theory. Finally, the application of these theories to the leadership field is considered.

Conceptualizing Leadership

There is no consensus in the field on what constitutes leadership, or which leadership theory, if any, is best able to provide insight to the way leaders act in the workplace. As the field evolves, so too do leadership theories and styles, with some all but disappearing from the literature (e.g., Path-Goal Theory; House & Mitchell, 1974) and others newly appearing on the scene (e.g., Authentic Leadership; Luthans & Avolio, 2003). A notable drawback to such variability is undeniable: Synthesis of findings, particularly in face of discrepant findings, is remarkably challenging. In addition, many criticize the field as comprising a hodgepodge of definitions, ideas and theories which impedes our ability to better understand optimal leader behaviors (e.g., Kroeck, Lowe & Brown, 2004). No matter the leadership style, however, it is most common for research to conceptualize leadership in a traditional organizational sense: one key figure head who is in charge of a number of employees. It is important to consider, however, the ways in which leadership may be conceptualized more generally to fit workplace contexts other than that of traditional organizations.

In organizational contexts, the term manager is frequently used to identify an individual who is in a supervisory position. Although it is possible that some workers with a management title will not have any employees whom work under them, in most cases, managers oversee one or more employees. Are managers who do supervise employees automatically leaders? The current research frames leadership as an integral part of any management position wherein the manager supervises one or more individuals. The quality of the leadership, or how effective a given manager's leadership behaviors may be will certainly vary. Thus, the current research is grounded in the framework that managers who oversee others are in a leadership role, irrespective of how effective their leadership behaviors may or may not be.

Expanding our conceptualization of leadership. Although one often thinks of a leader as a figure head, someone who is the go-to person in any kind of organization, there are other professions in which individuals lead but not in the same sense normally considered. For example, in the coaching profession, coaches lead clients along a pathway to improved satisfaction and positive goal achievement. Although coaches share a unique one-on-one dynamic with clients that differs from the relationship other leaders share with employees, in the coaching profession coaches' work requires them to function nonetheless as leaders – they represent the key individuals to whom others turn for guidance and support. Furthermore, many coaches specialize specifically in leadership and business coaching. They make recommendations and advise clients on how to be better leaders and in so doing essentially model their own leadership style. It's not just about how one coaches; in essence coaches can be leaders who are promoting leadership. Nonetheless, it is important to note that in coach-client dyads, clients ultimately hold the power over relationship as they can choose to terminate at any time and are also the ones issuing the 'paycheque.' Both attachment theory and self-determination theory represent highly relevant and applicable interpersonal frameworks which may serve to enhance our understanding of leadership processes, be it in a more traditional work place context, or in the context of a profession like life and business coaching.

Attachment theory

Bowlby (1977) proposed that humans have an innate drive to form strong affectional bonds with others. Early in life, children attempt to gain comfort and security from their caregivers. Based on the consistency and quality of responses from caregivers, young children develop generalized expectations about the worth of self and the responsiveness of others (Bretherton, 1985). It is believed that these generalized expectations about self and others, often

referred to as working models, guide behavior and feelings in later social relationships across the life-span.

Although Bowlby's theory was developed to understand attachment behaviour and bonds "from the cradle to the grave" (Bowlby, 1979, p.129), research initially focused on infant-caregiver attachments. Ainsworth, Blehar, Waters, and Wall (1978) proposed three different attachment orientations based on the behaviour of infants during laboratory or home observations: Secure, Anxious-Ambivalent, and Avoidant. Children with secure orientations turn to their caregivers for comfort in times of distress and are readily soothed upon seeking comfort. Children with anxious-ambivalent attachments demonstrate inconsistent behaviour towards caregivers, alternating between support-seeking and expressing withdrawal and anger. Finally, children with avoidant attachments tend not seek out their caregivers when upset. Caregivers who are affectionate and supportive tend to have children with secure orientations, those who are inconsistent or unpredictable tend to have children with anxious-ambivalent orientations, and caregivers who are rejecting or unresponsive tend to have children with avoidant orientations (Bowlby, 1973).

Following an initial research emphasis on infant-caregiver relationships, Hazan and Shaver (1987) extended the application of attachment theory from the childhood paradigm to romantic relationships in adulthood. They proposed the same three primary attachment orientations people may have toward their romantic partners: Secure, Anxious-Ambivalent and Avoidant. In adulthood, people with secure attachment are able to trust others and are comfortable developing close relationships, people with anxious-ambivalent attachment have a strong fear of insufficient love from their partner, and people with avoidant attachment demonstrate difficulty becoming close to and trusting in others.

Building on the work of Hazan and Shaver (1987) and others (e.g., Kobak & Sceery, 1988; Main, Kaplan, & Cassidy, 1985), Bartholomew (1990) formulated a four-category model of adult attachment. The shift to four categories from three reflected Bowlby's conception of internal working models as the intersection of two underlying dimensions—positivity of models of the self and positivity of models of hypothetical others. Models of self reflect the extent to which people see themselves as worthy of care and models of other reflect the extent to which people believe in the availability and trustworthiness of significant others. A combination of (a) a person's self-model (positive or negative) and (b) a person's model of others (positive or negative) gives rise to four different attachment patterns, rather than three. These four patterns are termed secure, preoccupied (anxious-ambivalent), fearful and dismissing (see Figure 1).

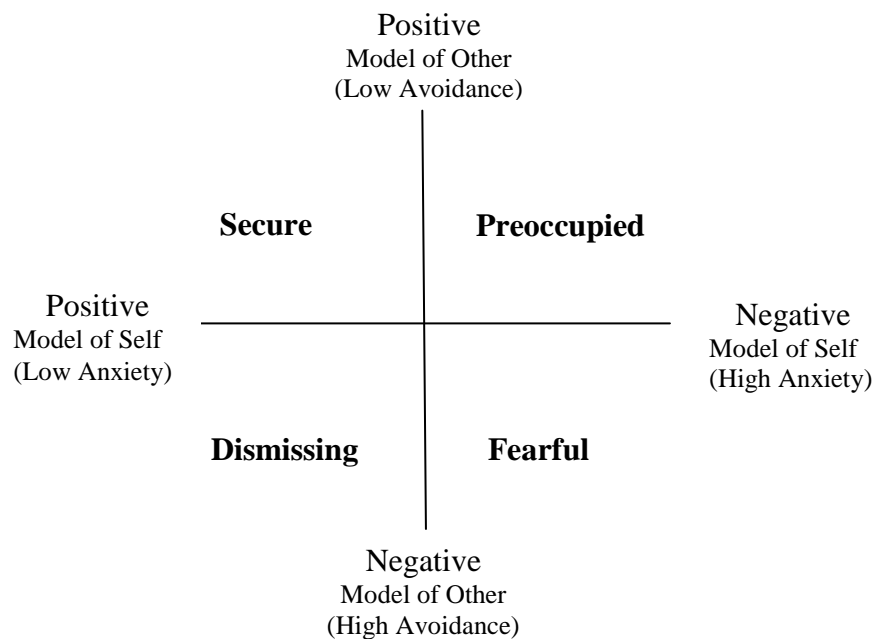


Figure 1. The four-category model of adult attachment

The primary distinction between the three and four category models of attachment is that the four-category model distinguishes between two forms of avoidant attachment (fearful and dismissing attachment patterns). Individuals showing a *secure* attachment pattern enjoy both personal autonomy and satisfying intimate relations. Individuals showing a *preoccupied* pattern are overly focused on intimate relationships and are excessively reliant on others for support and self-esteem. Although people with both forms of avoidant attachment hold negative models of others, individuals with a *fearful* pattern also have a negative self model and thus avoid intimacy due to fear of rejection and see themselves as undeserving of the love and support of others. By contrast, individuals with a *dismissing* pattern have a positive self model and as such are compulsively self-reliant and defensively deny attachment needs.

The two dimensions, model of self and other, are cognitive representations. At the behavioural level, these two dimensions are often referred to as attachment anxiety and attachment avoidance, respectively. *Attachment anxiety* includes rejection and abandonment fears and distinguishes preoccupied and fearful individuals from secure and dismissing individuals. *Attachment avoidance* includes discomfort with closeness and distinguishes dismissing and fearful individuals from secure and preoccupied individuals. The dimensional approach to assessing attachment came to the forefront in the late 1990s when Brennan, Clark, and Shaver (1998) developed the Experiences in Close Relationships Questionnaire. Using techniques based on item response theory, the revised version demonstrates alphas over .90 for the anxiety and avoidance scales across many studies. This particular scale is used widely in attachment research, and even offers normative data. However, the scale was not used in the current studies for a few reasons. First, its length of 36 items was too long to include in a battery of questionnaires for specialized samples. Second, the items are written with respect to intimate

romantic relationships and the goal in the current work was to focus on general interpersonal styles rather than attachment tendencies in romantic relationships. Third, there is no direct measure of secure attachment and the specific focus was on how leaders with secure orientations support their followers. Being low on avoidance and low on anxiety does not necessarily equate with being high on attachment security. Thus, attachment orientation may be discussed in prototype format (reflecting three or four attachment orientations), or in dimensional format (reflecting the two underlying dimensions). In the current research, the former is considered.

Attachment orientation: State vs. trait. Another important consideration in attachment theory research is the way in which attachment is assessed. Traditionally, attachment has been assessed as an individual differences variable. In other words, it is conceptualized at the trait level, and assumed to pervade across situations and different relationships. At the trait level, attachment is considered an entrenched pattern of relating to others that demonstrates only minimal fluctuation. Many traditional assessment methods, whether they are interview-based or self-report, are based on an individual differences model. However, more recent research has also begun to look at attachment as a state variable. It is expected that at any given time, individuals may feel more or less secure, irrespective of a trait tendency. These measures are designed to tap into an individual's self and other schemas that are activated in the here and now. Consideration of attachment at both the trait and state level can offer us a potentially richer picture of its association with other constructs. In the current research, both state and trait attachment are considered.

Self-Determination Theory

Self-determination theory (SDT; Deci & Ryan, 2000) emphasizes that in order to understand what motivates people, one must consider both people's inner resources and the

social context. The theory asserts that there are three basic psychological needs – the needs for autonomy, competence and relatedness. *Autonomy* includes having a sense of choice and initiative in one's actions (Ryan & Connell, 1989; Ryan & Deci, 2004), *competence* refers to feeling effective at optimally challenging tasks (White, 1959) and *relatedness* refers to a sense of feeling connected to and cared for by others (Reis & Patrick, 1996). Fulfillment of all three needs promotes personal well-being and facilitates innate tendencies toward growth and integration (Ryan & Deci, 2000). The theory also purports that the extent to which individuals experience basic need support has important implications for motivation. SDT outlines a continuum of motivation ranging from autonomous to controlled. *Autonomous motivation* includes intrinsic motivation, where individuals act out of inherent interest or derived satisfaction, integrated regulation, where individuals integrate the value of an activity holistically with personal values, goals and needs and identified regulation, individuals internalize the value of an activity (Ryan & Deci, 2000). Volition and choice guide actions in autonomous motivation (Deci & Ryan, 2008). By contrast, *controlled motivation* includes introjected motivation, where people often act in order to maintain self-esteem or avoid feeling guilt and anxiety and external regulation where individuals engage in behaviours due to the perceived consequences (i.e., the achievement of rewards or avoidance of punishment). In controlled motivation, individuals' actions arise out of pressure and expectations from sources external to the self.

SDT emphasizes the role of both the social context and individual differences in predicting the extent to which individuals report basic need satisfaction. *Autonomy support*, a feature of the social context, includes taking another's perspective, providing a sense of choice, responding to questions and thoughts, providing meaningful rationale, and encouraging initiation (Deci, Eghrari, Patrick & Leone, 1994). Typically, basic need support is provided by one

individual to another. For example, when one friend provides support for another's autonomy, the supported individual reports greater fulfillment of all three basic needs (Deci, LaGuardia, Moller, Scheiner, & Ryan, 2006). Research indicates that autonomy support is associated with psychological need fulfillment across a variety of other domains including the work place (e.g., Baard, Deci & Ryan, 2004) and sports and leisure (e.g, Pelletier, Fortier, Vallerand, & Briere, 2001). In addition, there are well-being benefits to the provision of autonomy support: parents who support children's need for autonomy promote healthy development in their children (Joussemet, Landry, & Koestner, 2008) and students with autonomy supportive teachers report greater self-esteem (e.g., Deci, Nezlek, & Sheinman, 1981). In summary, the provision of autonomy support is an interpersonal process, where support is provided by one individual to another, with positive benefits noted across multiple domains.

Although research primarily focuses on support for autonomy, SDT maintains that support for competence and relatedness should also facilitate optimal outcomes. Notably, to date there is little research which assesses the support of competence and relatedness needs. A recent experimental study employing a simulation Boggle game found that participants in the competence and relatedness support conditions reported greater intrinsic motivation for the game (Sheldon & Filak, 2008). In addition, across all experimental conditions, perceptions of greater competence and relatedness support predicted more positive affect and less negative affect. Another recent study found that general life perceptions of autonomy, competence, and relatedness support were positively associated with intrinsic academic motivation (Faye & Sharpe, 2008). These studies highlight a recent trend in the literature to the consideration of support for each of the basic needs, not simply autonomy support. In order to more fully understand the benefits that may arise from support of all three basic needs, researchers must

continue to develop and include measures which assess not only autonomy support, but also competence and relatedness support on a more regular basis.

Empathy. In the current research, the focus is on leaders' tendency to provide need support in the workplace. Whenever possible, studies should include multiple measures of a construct in order to strengthen confidence in the findings. As noted earlier, the current research will include two different ways of assessing attachment –the state and trait level. In order to expand the assessment of need support, empathy was included as an alternate, indirect measure. Batson (1991) defines empathy as an “other-centered” emotion that involves putting ourselves in another’s shoes, or fully imagining another person’s situation or experience. When one considers need support provision, particularly autonomy support, it is clear that empathy is an inherent aspect. First, to be fully autonomy supportive, individuals must be able to take another’s perspective. In addition, being autonomy supportive also includes providing a meaningful rationale for requested tasks. In order to provide a compelling rationale, an individual must be able to anticipate the reaction of the other person. Empathy is a critical pre-requisite to even begin to anticipate another’s reaction. Although autonomy support does involve elements that are not related directly to empathy, such as encouraging initiation and responding to questions, empathy is clearly related to a significant portion of the construct. As a result, empathy was included as an indirect, alternate measure of need support. Although no known research to date has considered both empathy and the provision of basic need support as parallel indicators of support offerings, empathy will be included in the third study with coaches where it is central in working successfully with clients.

Self-determination theory and attachment theory. Research to date in the SDT field has primarily investigated attachment from a within-person perspective. For example, one study

found that satisfaction of all three basic needs predicts attachment security across multiple relationships, with relatedness accounting for the most variance, then autonomy, and then competence (La Guardia et al., 2000). In friendship, research indicates that individuals with secure attachment report providing greater autonomy support to close friends and the corresponding close friends also report receiving greater autonomy support (Deci, La Guardia, Moller, Scheiner, & Ryan, 2006). In romantic relationships, research indicates that attachment security significantly predicts the provision of need support (La Guardia, Ryan, Couchman, & Deci, 2000). Thus, research indicates that secure attachment is associated with better provision of autonomy support. Similar findings are anticipated in the workplace context, particularly because leaders represent an authority position where there is greater expectation for the provision of support by the leader to the follower. Leaders who are securely attached will likely be better able to more sensitively and consistently respond to employees, thus enabling opportunities to support feelings of effectiveness and to demonstrate care for employees. Unlike previous research, in the current study the focus is on attachment from an individual-differences perspective, where leaders' global attachment orientation (across relationships) is considered as a predictor of their ability to provide basic need support to employees.

Application to Leadership

Specific leadership styles. Although the general, overarching goal of the current research is to explicate the relationship between attachment and need support in the workplace, it is worth considering how the traditional leadership styles that drive much of the research in the field can help inform our understanding of the link between attachment and need support provision.

Selected leadership theories are reviewed, including transformational and transactional leadership (Burns, 1978), ethical leadership (Trevino, Hartman, & Brown, 2000), and authentic

leadership (Luthans & Avolio, 2003). These leadership theories were chosen as a focus for a variety of reasons. First, these theories emphasize the interpersonal dynamic between leaders and followers. Rather than merely considering traits or characteristics, these theories consider the interplay between leaders and followers, painting a dynamic, rather than static image of leadership processes. These theories were also selected as they are currently enjoying “popularity” in the leadership research domain (e.g., Ladkin & Taylor, 2010, Liaw, Chi, & Chuang, 2010; Toor & Ofori, 2009). As a result, they are found in numerous empirical articles and frequently compared and contrasted with one another. The current research is most interested in how the current trend of conceptualizing leadership fits within a framework that draws on both attachment theory and self-determination theory.

Transactional and transformational leadership. Transactional leadership emphasizes negotiated exchanges between the leader and the follower (Burns, 1978). For example, followers may be offered bonus cheques or promotions that are contingent on strong performance. Transactional leadership tends not to focus on the needs or personal development of followers. In contrast, transformational leadership focuses on higher-order intrinsic needs rather than short-term benefits. More specifically, transformational leadership involves leaders’ development of a connection with followers which supports mutual increases in intrinsic motivation and morale. Mohandas Gandhi and Terry Fox are figures who exemplified transformational leadership (Northouse, 2007). Burns (1978) states that transformational leadership encourages followers to see beyond their own needs and desires to the collective good of the organization.

Bass (1985) identified a number of factors that define transformational and transactional leadership. Transformational leadership includes high standards of ethical conduct and being held in high regard by followers (idealized influence/charisma), inspiring followers through the

articulation of a clear and compelling vision of the future (inspirational motivation), encouraging followers to critically question ideas and assumptions while supporting creativity and problem solving (intellectual stimulation) and looking past personal needs in order to nurture individual followers (individualized consideration). Other researchers (e.g., Podsakoff, MacKenzie, Moorman, & Fetter, 1990) have noted additional dimensions of transformational leadership including the ability to rally employees together in pursuit of a common goal (acceptance of group goals) and the commanding of excellence and high quality performance from employees (high performance expectations). These six dimensions underscore the multidimensional nature of transformational leadership. Notably, not all researchers agree on the specific dimensions that comprise transformational leadership. In contrast, transactional leadership is more clearly defined. As identified by Bass (1985), transactional leadership outlines behavioural expectations and associated consequences (contingent reward) and makes use of corrective action when inappropriate behaviours occur (active or passive management).

Research indicates that transformational leadership is associated with a number of positive outcomes for followers, including increased motivation, creativity, satisfaction, and team performance (e.g., Bass 1990; Dvir, Eden, Avolio & Shamir 2002; Masi & Cooke, 2000). Despite substantial support for the link between transformational leadership and follower outcomes, relatively little is known about the processes that explain this link. One study found that self-concordance partially explained the relationship between transformational leadership and outcomes such as employee job satisfaction and commitment (Bono & Judge, 2003). Self-concordance reflects the extent to which job tasks or goals align with employees' genuine interest and values. The study indicated that one reason employees under transformational leadership report positive job outcomes is caused by employees' perceptions of their work goals

as inherently interesting. Another study suggests that the extent to which followers find their work meaningful mediates the link between transformational leadership and psychological well-being (Arnold, Turner, Barline, Kelloway, & McKee, 2007). Arnold and colleagues conceptualized meaningful work as finding a purpose in work that goes beyond the extrinsic rewards. Notably, these two studies documented the importance of motivational factors as helping explain the positive association between transformational leadership and employee outcomes. These findings suggest that interventions that provide ways of bolstering more genuine, authentic identifications with a job may be an optimal way of fostering better employee adjustment. In addition to research on follower outcomes, research has documented that transformational leadership is associated with leader extraversion (Bono & Judge, 2004).

Many of the factors that comprise transformational leadership have a clear interpersonal focus. In intellectual stimulation, leaders strive to challenge their employees' assumptions. Encouragement to think creatively and critically requires active involvement of leaders with their followers. In addition, in order to rally employees together in pursuit of a common goal, or to convey high performance expectations, leaders must connect with followers, checking in with them both individually and in a team setting. In addition, leaders must be attuned to followers' individual characteristics in order to adequately support and nurture their needs. Overall, many aspects of transformational leadership heavily emphasize the dynamic relationship between leaders and followers. Transactional leadership is inherently interpersonal as leaders provide ongoing feedback in the form of incentives awarded for optimal employee performance.

Ethical leadership. Corporate scandals in America abound (e.g., Enron), which has led many to question the extent to which leaders are ethical. In light of questionable leadership practices, there is a surging interest in understanding the origins and outcomes of ethical

leadership. Until recently, there was little systematic effort to explicate the link between ethics and leadership in a descriptive and predictive manner (Trevino et al., 2000). According to Brown, Trevino and Harrison (2005) ethical leadership involves appropriate conduct (e.g., honesty, care) and emphasis on ethics through communication and the setting of ethical standards. In other words, ethical leadership means to “walk the talk.” Furthermore, ethical leadership includes reward for followers’ good ethical conduct whereas behavior that falls short of ethical standards is met with discipline. Thus, ethical leadership promotes ethical conduct, as well as models fair decision making (Trevino & Brown, 2006).

Two primary dimensions characterize ethical leadership: moral person and moral manager. The ‘*moral person*’ dimension refers to leaders as trustworthy, fair and principled decision makers who demonstrate concern for others and act ethically across various life domains. The ‘*moral manager*’ dimension refers to leaders’ effort to influence followers’ ethical and unethical behavior through the use of a reward system to increase accountability.

Research on ethical leadership is in the nascent stage. Early findings indicate that followers’ perceptions of ethical leadership are associated with leader satisfaction, job-related effort, and perceived leader effectiveness (Brown, Trevino, & Harrison, 2005). Ethical leadership was moderately correlated with the idealized influence dimension of transformational leadership. However, confirmatory factor analysis found ethical leadership to be nonetheless distinct from idealized influence. This finding is important because it demonstrates that the construct is distinct from idealized influence and can thus potentially explain variance in employee outcomes not accounted for by the idealized influence dimension of transformational leadership.

Many aspects of ethical leadership possess a strong interpersonal focus. For example, ethical leadership involves discussions on ethics and values with employees, requiring leaders to

actively engage with their employees. In addition, the moral manager dimension is explicitly interpersonal in that leaders respond to follower behaviours by rewarding ethical behaviour and reprimanding unethical behavior. Finally, although the moral person dimension may largely be viewed as referencing characteristics of a leader, this dimension may be seen as interpersonal through a social modelling vehicle. Leaders who act in an ethical manner effectively serve as models of appropriate behavior that followers may strive to emulate.

Authentic leadership. Authentic leadership theory (Luthans & Avolio, 2003) represents a blend of positive organizational scholarship, transformational/full-range leadership and ethical leadership. Authentic leadership involves modelling hope, optimism and resiliency, as well as reflecting on ethical issues from multiple perspectives and ensuring decisions are consistent with a leader's own value system. The general construct of authenticity refers to "the unobstructed operation of one's true, or core, self in one's daily enterprise" (Kernis, 2003, p. 13). Thus, in other words, leading in an authentic manner includes behaving in ways that are consistent with one's true self.

Kernis' (2003) conceptualization of authenticity includes four key components: self-awareness, unbiased processing, relational transparency and authentic behavior. Authentic leadership theory details the importance of all four components, but also expands the authentic behavior component to reflect the belief that authentic leaders are guided by positive moral values (Avolio et al., 2004). Thus, authentic leadership includes leaders' awareness of their values, thoughts, feelings and motives and an understanding of their strengths and weaknesses (*Self-Awareness*). In addition, authentic leadership includes a relatively objective perspective of one's positive and negative qualities and attributes and a willingness to seek situations which will enhance one's development rather than merely verifying pre-established views and beliefs

(*Balanced Processing*). Authentic leadership also includes acting in ways which are consonant with one's values, beliefs and preferences (*Internalized Moral Perspective / Authentic Behavior*). Finally, authentic leadership entails acting genuine in their relationships and valuing both openness and truthfulness in relationships (*Relational Orientation*).

Given the recent development of authentic leadership theory, to date most contributions to the field are largely theoretical, outlining a number of propositions and hypotheses for empirical research to explore (e.g., Gardner, Avolio, Luthans, May & Walumbwa, 2005). Recently, Walumbwa and colleagues (2008) developed a measure of authentic leadership, The Authentic Leadership Questionnaire. Findings across their three studies supported the multi-dimensional nature of authentic leadership and indicated positive associations with follower job satisfaction and supervisor rated job performance.

Authentic leadership is interpersonal in that many of the factors which explicitly define the construct are inseparable from the social context. For example, in order to possess a relational orientation, leaders need to act genuine and truthful in their relationships with others. Without surrounding interpersonal relationships, one cannot assess the extent to which leaders exemplify this aspect of authentic leadership. In addition, one critical component of balanced processing includes entertaining others' perspectives that may challenge leaders' personal beliefs. Again, this very component of authentic leadership is contingent on the interpersonal context. Unlike trait perspectives, one simply cannot assess a leader's authentic leadership orientation without the presence of a surrounding social context. Although certain components of authentic leadership may be considered more solitary (such as the recognition of one's own strengths and weaknesses), overall, the construct as defined is inherently interpersonal.

Searching for unity. Each of the aforementioned leadership theories share attributes and are certainly not entirely distinct in their content and focus. Nonetheless, much of the research using these theories tends to focus on how each of the theories independently predict outcome variance (e.g., Walumbwa et al., 2008). Thus, there is an implicit sense that an “optimal” leadership theory exists. Rather than search for the potentially elusive, consideration of leadership theories along with other theoretical frameworks may provide a starting point for unification, leading to a better understanding of how seemingly discrepant findings may be integrated. I believe that the introduction of alternate interpersonal theoretical frameworks, namely attachment theory and self-determination theory, will create a more comprehensive picture of the processes central in facilitating optimal leadership behaviors.

Attachment and leadership. Research drawing on attachment theory traditionally has focused on parent-child, friendship, or romantic partner dyads. The application of attachment theory to the workplace context is relatively recent. Nonetheless, its relevance is clear: leaders’ attachment orientation may guide how they lead and interact with employees, affect their willingness to embrace self-growth opportunities, and can speak to differences that may arise in leaders’ conflict resolution approaches and ability to trust others. Overall, attachment theory presents a rich, developmental context that can enhance our understanding of leadership processes in the workplace.

Research to date that focuses on attachment theory in the leadership context reveals a number of interesting findings: Leaders’ insecure attachment is associated with poor follower well-being (Davidovitz, Mikulincer, Shaver, Izsak, & Popper, 2007) and peers perceive individuals with secure attachment orientations as more emergent leaders (Berson, Dan, & Yammarino, 2006). As Mayseless (2010) notes, a variety of studies that explore leadership

potential from group-focused studies have found that individuals with secure attachment orientations are routinely viewed as either emergent leaders or as more charismatic leaders (e.g., Berson, Dan, & Yammarino, 2006; Tower, 2005). Although this certainly does not preclude individuals with insecure attachment orientations from becoming leaders, it suggests that those around a leader who happen to be securely attached may tend to view that leader as more well-suited to his or her role than leaders who demonstrate insecure attachment orientations. Finally, other research using group data indicates that leaders' avoidant attachment is associated with poor follower mental health and followers view such leaders as emotionally unavailable and disapproving (Davidovitz et al., 2007). The same research also indicated that leaders' anxious attachment interferes with their ability to effectively manage group performance due to a focus on obtaining the acceptance and approval of followers. Taken together, these findings suggest that attachment theory provides a developmental perspective on individual differences in leadership orientations and the potential impact of such leadership differences.

With respect to the leadership styles of interest in the current study, scant research exists that considers leaders' attachment orientation. One study noted that transformational leadership is associated with leaders' secure attachment (Popper, Maysel, & Castelnovo, 2000). No known work has investigated attachment in conjunction with authentic and ethical leadership. However, it is likely that leaders' attachment security will also be positively associated with these two forms of leadership. When individuals have higher levels of attachment security, they are more likely to be able to appraise their own strengths and weaknesses without feeling threatened – a key component of authentic leadership. In addition, they are likely to feel more comfortable acting in accordance with their personal beliefs. In contrast, those with insecure orientations will likely look more to the environment, seeking approval from others before

acting. Such an approach is inherently less authentic. Ethical leadership requires leaders to possess confidence in their perspective of appropriate behaviour and a willingness to discipline employees who violate ethical standards. Again, similar to authentic leadership, leaders with greater attachment security will likely exhibit more ethical leadership strategies given the need to believe in one's own values and beliefs whether or not they are shared by others. Individuals with insecure attachment will be more sensitive to others' appraisal, potentially interfering with their ability to follow through on aspects central to ethical leadership.

It is important to note that all of the research I have summarized focuses on leadership in a traditional sense: a figure head who is in a leadership position with a number of employees under direct supervision. No known research has considered the link between attachment and 'leader' behaviors in workplace contexts where the nature of leading is slightly different, such as is the case for coaches. The current research is novel in its focus on not only organizational workplace settings, but also on alternate workplace settings.

Self-determination theory and leadership. The application of SDT to the work setting has revealed a number of important findings. Within an organizational setting, provision of autonomy support by supervisors is associated with better adjustment, intrinsic motivation, job satisfaction and job performance (e.g., Baard, 2002; Lynch, Plant & Ryan, 2005). With respect to need satisfaction, Ryan and Deci (2000) note that leaders' failure to provide supports for autonomy is predictive of poor psychological well-being and a feeling of alienation. Notably, Deci and colleagues (2001) found cross-cultural support for the link between employees' satisfaction of autonomy at work and work engagement and job well-being. Taken together, these findings underscore the importance of the provision of autonomy support and followers' experience of basic need satisfaction within the work-place context. However, much like

research on attachment and leadership, the research has primarily focused on traditional organizational contexts, rather than also considering broader conceptualizations of leadership. Furthermore, no known work to date has focused on the support of competence and relatedness in the workplace. Recently, Saffrey and Grouzet (2008) theoretically examined leadership theories through the lens of self-determination theory. This non-empirical paper is the only known work that seeks to find a common thread among various leadership theories using a theoretical framework largely external to the leadership field.

The Present Research: Leadership Through a New Theoretical Lens

Overall, the objective of the current research is to draw upon two theoretical frameworks – attachment theory and self-determination theory – in order to enhance understanding of leadership processes and the support leaders provide to followers. The importance of this research program is paramount: In order to increase the extent to which leaders are able to deliver support for followers' needs, greater understanding of the processes which facilitate it is necessary. It is difficult to work with leaders in any workplace setting without a clear understanding of how to best target interventions. One strength of this research is that it is 'theory neutral' in the leadership field – that is, the research seeks to further understanding of leadership processes through the application of two theories that are highly relevant yet distinct from specific leadership theories. This approach allows us to step back from a field overwhelmed by many approaches and examine how a new lens can enrich understanding. The current program of research will include three studies.

The first study explores the link between attachment and the reported provision of need support in hypothetical scenarios by leaders in the hospitality sector, allowing consideration of how managers' attachment orientation may relate to their support of surrounding employees. In

addition to this central question, the first study will also include more traditional leadership styles, as a way for us to juxtapose findings from more general interpersonal frameworks against more micro-oriented leadership theories. Although previous research indicates a link between attachment orientation and leadership strategies such as transformational leadership, one avenue yet to be explored is whether specific leadership strategies or styles actually account for additional variance in leaders' reported provision of basic need support beyond that accounted for by leaders' attachment orientation. What may matter most in the provision of need support to employees is the extent to which leaders demonstrate general models of secure attachment, not the specific leadership style employed. Leaders with secure attachment may be better able to provide consistent support to employees' competence, autonomy, and relatedness even in times of stress. In contrast, leaders with insecure attachment may be less able to respond to employees' needs, focusing instead on discomfort with emotional expression or concern with impression management. General attachment orientation describes an interpersonal style that individuals carry across relationships. Leadership strategies, given their interpersonal focus, may essentially be considered as interpersonal styles as well. Given the scope of attachment theory, leadership strategies may well be subsumed by the interpersonal strategies characteristic of certain attachment orientations. Thus, although leaders' attachment orientation may be associated with tendencies towards certain leadership styles or approaches, ultimately, attachment orientation may be the critical variable in explaining the provision of basic need support – accounting for the most outcome variance. I expect that none of the four previously discussed leadership theories – transformational, transactional, ethical and authentic – will explain additional variance in the provision of basic needs support beyond that accounted for by leaders' attachment orientation.

The second study considers once again the link between attachment orientation and leaders' reported provision of need support. However, it tests the research question using an experimental research design. Through priming, the impact of secure attachment, positive affect, and a neutral prime on the extent to which students' report providing greater need support to others in the workplace context was considered. The opportunity to test the same research question using a different research design compensates for the weaknesses of any particular design. It also allows greater confidence in the findings.

Finally, the third study once again explores the link between attachment and leaders' reported provision of need support. In this study, however, the focus is on coaches. Although coaches are not leaders in the traditional organizational manner, they nonetheless act as leaders, whether guiding clients along a path to their goals, or by directly supporting and teaching managers in the workplace how to be effective leaders. The third study also includes empathy as an alternate measure of basic need support. Although these two constructs are not identical, they overlap; the extent of consistency across related outcomes allows us to have greater confidence in our results. In summary, this research involves three studies, specialized samples, and two research designs to test innovative hypotheses about leaders' attachment orientation and their reported provision of need support .

STUDY 1

The purpose of the first study was to investigate the nature and extent of associations among leaders' attachment orientation, common leadership styles (transactional leadership, transformational leadership, ethical leadership and authentic leadership), and the provision of basic need support to employees. Given the paucity of research exploring leadership through the lens of the proposed theories, it is necessary first and foremost to explore the association among current leadership theories, manager attachment orientation, and the provision of basic need support. The current study will also allow consideration of whether leadership strategies account for any additional variance in basic need support provision beyond that accounted for by managers' attachment orientation. Drawing on previous research discussed above, specific hypotheses are as follows:

- (1) Secure attachment orientation will be positively associated with the reported provision of support for all three basic needs – autonomy, competence, and relatedness – in hypothetical scenarios.
- (2) Insecure attachment orientations will be negatively associated with the reported provision of support for the basic needs in hypothetical scenarios.
- (3) Specific leadership strategies (transformational leadership, transactional leadership, ethical leadership and authentic leadership) will not explain additional variance in managers' reported provision of need support beyond that already accounted for by attachment orientation.

Method

Participants

One hundred and four individuals (63 women and 41 men) employed in leadership roles from North American hotel chains participated in the current study. The managers' ages ranged from 25 to 58 with a mean of 37.09 ($SD = 8.33$). A total of 101 hotel properties were contacted with an e-mail invitation to participate. Recruitment was focused on leading hotel chains in North America. The overwhelming majority of participants came from leading hotel chains. With the exception of a few hotel properties in Seattle, Washington, the participants worked at hotel properties in Canada.

The e-mail invite was first sent to the manager or Director of Human Resources; in instances where the property did not have a contact in this position, the invite was sent to the General Manager. Of these 101 hotel properties, 28 agreed to participate by forwarding the invite to individuals employed in leadership positions at the hotel. The human resources contact made the decision about which employees in the hotel would receive the survey invitation. The e-mail requested it be sent to 'managers' and as noted below, each hotel manager supervised one or more employees. Nine properties directly declined participation and the remaining did not reply, even with follow-up voice-mails.

Managers were employed in a variety of leadership roles, including general managers, directors, managers and assistant managers. The majority of managers occupied their *current* supervisory position for 1-3 years, with 60% of all managers reporting between 4 and 14 years of total supervisory experience in *any* position. Approximately one-third of managers who completed the survey supervised 1-5 employees. This was followed by 15% of managers who supervised 15 or more employees and 12% of managers who supervised 6-10 employees. The

remaining 43% of managers supervised between 11 and 50 employees. In terms of interacting with their employees, 40% of managers reported face-to-face interactions many times a day, 20% a few times a day and 11% once a day. The remaining 29% reported a frequency of less than once per day, ranging from every other day to a few times a month. When asked about *any* kind of interactions with their employees, 49% of managers reported engaging with employees many times a day, 25% a few times a day and 8% once per day. The remaining managers reported interactions ranging from every other day to a few times a month. Participants were told that I was interested in investigating how various leadership behaviors are associated with employee outcomes.

Materials and Procedure

When a hotel property responded to the e-mail invitation to participate, a second e-mail with a link to the on-line survey was delivered to the Human Resources department or General Manager who then forwarded the invite to all eligible participants in the hotel property. The questionnaires were administered using a web-based format that allowed participants to complete the questionnaires at a personally convenient time. Participants provided implied consent via a decision to continue with the study after reading an informed consent form posted on the home page of the web-based survey. Participants' responses were kept anonymous as the e-mail address used to send participants a log-in link was not be linked to their responses. Following the provision of implied consent, the questionnaires were administered in a random order for each participant.

Attachment orientation. Attachment orientation was assessed with two different questionnaires –the Relationship Questionnaire (RQ; Bartholomew & Horowitz, 1991) and the State Adult Attachment Measure (SAAM; Gillath, Hart, Nofle & Stockdal, 2009). The RQ asks

participants to rate brief paragraph descriptions of four attachment patterns (secure, preoccupied, fearful, and dismissing) on a 7-point scale corresponding to the degree to which they feel they resemble each pattern (1 = *not at all like me* to 7 = *very much like me*). Although a coefficient alpha cannot be calculated for the RQ (the paragraph corresponding to each attachment orientation is a “single item”), previous research indicates that the RQ attachment ratings show moderate stability over eight months (Scharfe & Bartholomew, 1994) and evidence convergent validity with interview ratings and various self-report measures (e.g., Griffin & Bartholomew, 1994a, 1994b).

The SAAM is designed to assess individuals' current state of attachment. The SAAM includes 21 items, seven of which target attachment security (e.g., “I feel like I have someone to rely on”), seven which target attachment anxiety (e.g., “I wish someone would tell me they really love me”) and seven which target attachment avoidance (e.g., “I have mixed feelings about being close to other people”). Participants indicated the extent to which they agreed or disagreed with each item on a 7-point scale (1 = *disagree strongly* to 7 = *agree strongly*). Before calculating the internal consistencies of each of the three subscales, I used confirmatory factor analysis (CFA) to verify the factor structure of the measure. Based on first analysis, one item from the avoidance subscale was dropped because of a relatively low factor loading (0.46). This item was removed, and correlations were allowed between two other items. There was a large standardized residual between two of the anxiety items (“I want to share my feelings with someone” and “I want to talk with someone who cares for me about the things that are worrying me”), so the items were allowed to correlate, yielding final fit statistics of $\chi^2 = 241.28$, $df = 166$, $p < .001$, CFI = .94, SRMR = .084, RMSEA = .066 [.047-.084]. Coefficient alphas for each of the three subscales were as follows: .85 for secure, .82 for anxiety and .88 for avoidant.

Basic psychological needs support. A new scenario-based scale was devised to assess leaders' tendency to provide basic need support to employees. The scale included various workplace scenarios, each with four behavioural responses which ranged from highly supportive to highly non-supportive of the basic need addressed in the scenario. Nine scenarios were created, three scenarios corresponding to each of the three basic needs. The scenarios for autonomy support were drawn from the Problems at Work Scale (PAW; Deci, Connell & Ryan, 1989), whereas the scenarios for competence and relatedness support were newly created (Saffrey & Grouzet, 2009) yet designed in the same format. Participants rated each of the four behavioural response options that follow each scenario on a 7-point likert scale. A sample competence-support question is as follows:

- Jacob, a food and beverage manager, notices a recently hired server, Sonya, is wonderful with all aspects of customer service. He sees great potential for her advancement in the chain. Jacob should:
- (1) Check in with Sonya on a regular basis, offering support and encouragement to help her develop to her maximum potential.
 - (2) Let Sonya know that he is pleased with her performance.
 - (3) Try to keep Sonya content (e.g., offering good shifts) so she will stay with the chain in the long-term.
 - (4) Give Sonya space to adjust to her job and see whether in time she expresses desire to advance.

A pilot study was conducted in which undergraduate participants were asked to imagine themselves as leaders in order to determine selection of the top three PAW scenarios and ensure the newly created scenarios for competence and relatedness support demonstrated adequate psychometric properties. More specifically, the within scenario item correlations were examined to ensure that individuals who endorsed response options that are highly supportive of the basic need in question were less likely to endorse response options that were more controlling. Table 1

shows the item correlations for the scenario provided above (the sample scenario above is designed to target competence support):

Table 1

Intercorrelations for items within one PAW scenario.

	High Competence Support	Medium High Competence Support	Medium Low Competence Support	Low Competence Support
High Competence Support	1.00			
Medium high Competence Support	.24	1.00		
Medium Low Competence Support	.09	.02	1.00	
Low Competence Support	-.17	-.01	.10	1.00

In the first column, the magnitude of the correlations decreases; this is what one would expect. In other words, the high competence support item is more highly related to the medium competence support item, than the medium low or low competence support items. Similarly, along the bottom row, the same pattern of correlations appears, in the opposite direction for low competence support. These patterns were examined in each of the nine PAW scenarios.

In addition, the response option item correlations across scenarios within each basic need were examined to determine whether individuals who endorsed items highly supportive of one basic need also endorsed the analogous items in the other two scenarios targeting the same need. Based on the findings, the full nine-item measure was derived to assess the tendency to provide need support. In the current sample of hospitality leaders, the within-scenario item correlations,

once again looking to see that leaders' who endorsed highly supportive options were also less likely to rate the more controlling options highly. There were two scenarios for which the medium-supportive and medium-controlling response options could be switched; however, doing so did not change the findings in any way. As a result, these scenarios were kept in the same format as derived from the pilot study as in a face-valid sense the original ordering was preferred¹.

Leadership styles. A variety of measures to assess leadership strategies were included. The Transformational Leadership Behavior Inventory (TLI; Podsakoff et al., 1990) was used to assess transformational leadership. The TLI required participants to respond on likert-scales ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) and targeted six dimensions: articulating a vision, providing an appropriate model, fostering the acceptance of group goals, high performance expectations, providing individualized support, and intellectual stimulation. Originally 22 items in length, the scale was reduced in length by examining pilot data collected prior to this study. Items were modified to reflect the leader's perspective rather than the follower's perspective. A sample item included "Effective leaders inspire others with their plans for the future."

Transactional Leadership was assessed with three items from the Transactional Leadership Behaviors scale (Podsakoff, Todor, Grover, & Huber, 1984). A sample item included "Leaders should give special recognition to employees when their work is very good." Responses were provided on a 7-point likert scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Before calculating the alpha coefficients for each of these scales, a CFA was

¹ Future studies will also need to check the social desirability of the scale. For example, participants could rate each of the four options within each scenario to assess the extent to which some responses may seem more desirable than others.

run for both transformational and transactional leadership together to verify the factor structure and item loadings. It is customary to assess both transformational and transactional leadership together as these two forms of leadership tend to be related, yet distinct forms of leadership. Many measures include items which target both of these leadership styles. Two of the transformational items, “Paint an interesting picture of the future for the group” and “Inspire others with my plans for the future” evidenced low factor loadings of 0.27 and -0.17 respectively. These items were removed in two sequential analyses, and then additional analyses were run ultimately allowing three of the transformational items to correlate based on large residuals; the correlations were added one at a time until the these final fit statistics were noted: $\chi^2 = 86.61$, $df=61$, $p < .05$, $CFI = 0.97$, $srmr = 0.054$, $RMSEA = .063$ [0.028 – 0.092]. Coefficient alphas for the transformational and transactional leadership scales were .82 and .84 respectively.

Ethical Leadership was assessed with a reduced four-item version of the 10-item Ethical Leadership Scale (Brown et al., 2005) which has 7-point likert response options ranging from 0 (*not at all*) to 6 (*always*). Sample items included “I ask ‘what is the right thing to do?’ when making decisions” and “I define success not just by results but also the way that they are obtained.” The coefficient alpha for the scale was 0.63.

Finally, Authentic Leadership was assessed with a newly designed measure that assessed the four components of authentic leadership: Self-awareness (e.g., “I am aware of when I am not being my true self”), unbiased processing (e.g., “I tend to have difficulty accepting my personal faults, so I try to cast them in a more positive way”), authentic behavior (e.g., “I pretend to enjoy something when in actuality I really don’t”), and relational orientation (e.g., “I work to establish open, trusting relationships with my employees”). A pilot study with undergraduate psychology

students was used to assess the factor structure of this new measure prior to its use in the current study. With the current data, a CFA of all 16 items yielded the following fit statistics: $\chi^2 = 113.62$, $df=84$, $p < .01$, CFI = 0.94, SRMR = 0.082, RMSEA = 0.058 [0.025-0.084]. The coefficient alpha for the overall scale was 0.60.

Results and Discussion

Before running the analyses, the data were screened. First, the data was screened for outliers – both univariate and multivariate. The histograms and scatter plots were examined, and in addition, normality was tested by examining the histograms for all of the key variables (looking for potential skewness and kurtosis). No cases were deleted based on the results.

The descriptive statistics for the leadership, attachment, and need support variables can be found in Table 2 and the raw correlations among variables in Appendix I. Need support was reported as an overall score rather than separately by autonomy, competence, and relatedness support. Two reasons underlie this decision. First, only three items comprise each form of need support as assessed by the Problems At Work scale. Although three items does not necessarily present an issue for reliability, a longer scale is typically better. The second and most significant reason for this decision lies at the construct level. Although these three needs are discussed as if they are distinct, there is in fact substantial overlap in the constructs. The conceptual overlap is present to such an extent that it is almost artificial to discuss each of them in isolation. For example, it is difficult to support an employee's feelings of competence regarding a task without also creating an environment wherein the leader encourages questions and allows for a degree of volition in how to execute a task specifically – the latter of which are autonomy supportive elements. Providing further support for this approach, the bivariate correlations between autonomy, competence, relatedness and overall support were .74, $p < .001$, .82, $p < .001$, and .75,

$p < .001$ respectively. Finally, this approach is more consistent with the literature which almost exclusively reports on overall need support rather than the individual sub-types.

Table 2
Mean Scores of Participants on Need Support, Attachment, and Leadership Styles

	<i>M</i>	<i>SD</i>	α
Overall Need Support	6.62	2.28	.63
RQ Secure	4.72	1.91	--
RQ Preoccupied	2.47	1.49	--
RQ Fearful	2.18	1.21	--
RQ Dismissing	3.74	1.84	--
SAAM Secure	6.18	0.74	.85
SAAM Anxiety	4.37	1.22	.82
SAAM Avoidant	2.52	1.10	.88
Ethical Leadership	6.17	0.60	.63
Authentic Leadership	4.82	0.46	.60
Transactional Leadership	6.02	0.79	.84
Transformational Leadership	5.84	0.55	.82

Note. Scores on the RQ, SAAM and all leadership scales can range from 1 to 7. Scores on the PAW scale can range from -18 to 18; they are weighted index scores based on four 7-point likert scale ratings. $N = 104$.

Three hypotheses were advanced for the first study. First, it was expected that secure attachment would be positively associated with reported overall need support. Second, it was expected that insecure attachment would be negatively associated with reported overall need support. Based on bivariate correlations, the first hypothesis was not supported: no significant associations were found between reported overall need support and attachment security as assessed by either the RQ or the SAAM (see Table 3 and Step 1 in Tables 4 and 5). Thus, the current findings suggest that even when leaders are generally comfortable with intimacy and relying on others in times of need, such a general interpersonal style does not necessarily translate to providing choice, supporting feelings of effectiveness and promoting interpersonal.

Table 3
Intercorrelations among Attachment, Leadership, and Overall Need Support.

	1	2	3	4	5	6	7	8	9	10	11	12
1 RQ Secure												
2 RQ Preoccupied	-.49***											
3 RQ Fearful	-.23	.37***										
4 RQ Dismissing	-.35***	.18	.05									
5 SAAM Secure	0.51***	-.22	-.15	-.21								
6 SAAM Anxiety	.01	.10	.28**	-.21	.04							
7 SAAM Avoidant	-.67***	.53***	.24*	.30**	-.54***	.01						
8 Transformational	.21*	-.18	-.16	-.09	-.33**	-.04	-.26**					
9 Transactional	.13	-.17	-.17	-.06	.21*	.08	-.15	.54***				
10 Ethical	.08	-.08	-.19	.04	.29**	.03	-.14	.67***	.55***			
11 Authentic	.15	-.05	.11	-.07	.11	.18	-.06	.37***	.27**	.38***		
12 Overall Need Support	.14	-.26**	-.31**	-.03	.16	-.06	-.23*	.19	.24*	.24*	-.15	

Note. * $p < .05$; ** $p < .01$; *** $p < .001$.

connectedness in the workplace. Although secure attachment was expected to predict greater reported provision of need support, it is possible that leaders with secure attachment operate in a more neutral way – with the absence of overt negative, or undermining strategies but without the presence of greater support than those individuals who demonstrate less secure attachment

Another explanation is also possible. Although some previous research has found support for the link between secure attachment and the provision of need support in friendships (e.g., Deci et al., 2006), the link was documented within relationships, for relationships that most likely represented actual attachment relationships with close, affectional bonds. The relationship leaders share with employees are not assumed to be attachment relationships; it is merely predicted that a leader's general interpersonal style of relating would influence the way they report interacting with employees. The lack of support for the first hypothesis may reflect that the previously documented benefits secure attachment may offer to providing enhanced need support may only operate in the context of a specific attachment relationship.

In keeping with the second hypothesis, however, insecure attachment was indeed associated with the reported provision of less need support to employees in hypothetical scenarios. This finding held for the fearful pattern measured by the RQ, as well as the general avoidant pattern measured by the SAAM (see Step 1 in Table 4 and Table 5). Thus, leaders who tend to rely less on others and question their own value and worth in general life tended to report providing their employees with less choice, do less to support their feelings of task effectiveness and do less to promote feelings of connectedness to others. Although there is scant research on SDT and attachment theory, these findings mirror those found in the couples literature with respect to caregiving and attachment, in that individuals with more insecure attachment orientations tend to demonstrate less caregiving behaviors towards partners than those without insecure attachment

(e.g., Millings & Walsh, 2009). Of particular relevance is one specific form of caregiving known as ‘cooperation’ wherein partners assist without becoming too controlling or domineering – a construct very similar to autonomy and competence support. Individuals with insecure attachment are much less likely to act ‘cooperatively’ towards romantic partners, much like leaders in the workplace are less likely to report supporting basic needs.

The third hypothesis predicted that specific leadership strategies would not explain any additional variance in leaders’ reported provision of need support beyond that already accounted for by attachment orientation. A series of regression analyses were run to test this hypothesis, with only one leadership style per regression equation. Including one leadership style at a time, rather than including all leadership styles in one regression equation is a more stringent test of the hypothesis. Because of the intercorrelations of the leadership styles, a multicollinearity issue would present if all four leadership styles were entered into one regression; ultimately this would attenuate the coefficients for leadership and make for a less robust test of the hypothesis.

Tables 4 and 5 present the hierarchical regressions. Attachment orientation and gender were entered at Step 1, and leadership style was entered at Step 2. Reported provision of overall need support was the dependent variable. Six hierarchical regressions in total: one for transformational and transactional leadership, one for ethical leadership and one for authentic leadership, repeated for both attachment measures.

Table 4
 Summary of Hierarchical Regression Analyses for Predicting Provision of Overall Need Support
 with RQ Attachment (N = 104).

Variable	<i>B</i>	<i>SE B</i>	β	<i>p</i>
Step 1				
Gender	-0.61	0.44	-0.13	0.173
RQ Secure	-0.01	0.14	-0.01	0.967
RQ Preoccupied	-0.27	0.17	-0.18	0.122
RQ Fearful	-0.43	0.19	-0.23	0.027
RQ Dismissing	0.02	0.12	0.02	0.857
$R^2 = .14, p < .05$				
Step 2				
Gender	-0.48	0.45	-0.10	0.288
RQ Secure	-0.02	0.14	-0.02	0.886
RQ Preoccupied	-0.24	0.17	-0.16	0.170
RQ Fearful	-0.40	0.19	-0.21	0.039
RQ Dismissing	0.02	0.13	0.01	0.890
Transformational	0.15	0.48	0.04	0.758
Transactional	0.42	0.33	0.14	0.206
Change $R^2 = .03, p > .05$				
Step 2				
Gender	-0.55	0.44	-0.12	0.215
RQ Secure	-0.02	0.13	-0.02	0.885
RQ Preoccupied	-0.27	0.17	-0.18	0.118
RQ Fearful	-0.38	0.19	-0.20	0.052
RQ Dismissing	0.01	0.12	0.01	0.957
Ethical	0.67	0.36	0.18	0.062
Change $R^2 = .03, p > .05$				
Step 2				
Gender	-0.66	0.44	-0.14	0.135
RQ Secure	0.00	0.14	0.00	0.996
RQ Preoccupied	-0.27	0.17	-0.17	0.120
RQ Fearful	-0.39	0.19	-0.21	0.048
RQ Dismissing	0.02	0.12	0.02	0.876
Authentic	-0.74	0.78	-0.15	0.125
Change $R^2 = .02, p > .05$				

Table 5
Summary of Hierarchical Regression Analyses for Predicting Provision of Overall Need Support with SAAM Attachment (N = 104).

Variable	<i>B</i>	<i>SE B</i>	β	<i>p</i>
Step 1				
Gender	-0.82	0.46	-0.18	0.078
SAAM Secure	0.04	0.36	0.01	0.907
SAAM Anxiety	-0.17	0.18	-0.09	0.352
SAAM Avoidant	-0.44	0.24	-0.22	0.064
$R^2 = .09, p > .05$				
Step 2				
Gender	-0.68	0.46	-0.15	0.143
SAAM Secure	-0.05	0.36	-0.02	0.885
SAAM Anxiety	-0.18	0.18	-0.10	0.317
SAAM Avoidant	-0.41	0.24	-0.20	0.084
Transformational	0.08	0.49	0.02	0.875
Transactional	0.54	0.33	0.19	0.107
Change $R^2 = .04, p < .05$				
Step 2				
Gender	-0.77	0.46	-0.17	0.093
SAAM Secure	-0.14	0.36	-0.05	0.684
SAAM Anxiety	-0.17	0.18	-0.09	0.341
SAAM Avoidant	-0.45	0.23	-0.22	0.054
Ethical	0.79	0.37	0.21	0.036
Change $R^2 = .04, p < .05$				
Step 2				
Gender	-0.82	0.46	-0.78	0.076
SAAM Secure	0.10	0.35	0.03	0.790
SAAM Anxiety	-0.12	0.18	-0.06	0.531
SAAM Avoidant	-0.44	0.24	-0.22	0.061
Authentic	-0.83	0.488	-0.17	0.090
Change $R^2 = .03, p > .05$				

Based on the findings reported in Tables 4 and 5, it is clear that fearful attachment (as measured by the RQ) significantly predict the reported provision of need support and avoidant attachment (as measured by the SAAM) marginally predicted the reported provision of need support when controlling for the other attachment orientations in Step 1. More specifically, this finding suggests that when leaders possessed higher levels of avoidant attachment, they tended to provide less support for employees' overall needs in hypothetical scenarios. In Step 2, transformational, transactional and authentic leadership did not explain any additional variance in need support beyond that already accounted for by insecure avoidant attachment. These findings are in keeping with the third hypothesis which predicted that specific leadership strategies would not explain any additional variance in need support beyond that already accounted for by attachment. Attachment theory is a broad construct that captures an overall interpersonal style of relating to others. Although the leadership styles detail fairly specific ways in which leaders may relate to employees, there is likely a flavor, or overall quality of the interactions that is ultimately captured by attachment orientation.

One exception to the third hypothesis was ethical leadership which did explain additional variance in need support across both attachment measures, though only marginally in consideration with the RQ attachment orientations. Notably, however, the addition of ethical leadership did not eliminate the significant link between avoidant attachment and need support. The reason that ethical leadership explained additional variance may reflect the nature of the construct. A choice to lead by example and following one's own values presents less focus on the interpersonal dynamic between leader and follower than aspects of the other leadership strategies. In transactional leadership, leaders provide direct feedback based on performance, in authentic leadership there is an emphasis on a open, trusting relationships, and in

transformational leadership leaders provide individualized attention and attempt to simulate followers' creativity. This is not to say that ethical leadership is non-interpersonal; leaders can certainly encourage ethical behavior in their employees through feedback and other reinforcement contingencies. Overall, however, ethical leadership as assessed in the current study has a bit less of an interpersonal focus than the other leadership styles which may suggest why it explained additional outcome variance².

Of the demographic variables gathered to characterize the current sample, one significant association was noted with the main construct variables: Leaders' reported frequency of face-to-face interactions was negatively related to insecure attachment, particularly fearful and dismissing forms of avoidant attachment. In many respects, this is not unexpected because when leaders are more avoidant in their attachment, they may tend to avoid interacting face-to-face with their employees. To ensure that face-to-face interactions was not a mediator of the documented link between attachment and reported need support provision, the regression analyses were re-run with frequency of face-to-face interactions entered in Step 3. In all instances, face-to-face interactions were not significant, and fearful and avoidant attachment remained significant, indicating that it is not a mediator of the link between attachment and the reported provision of need support.

In the current study, the coefficient alphas for some of the scales were somewhat low, falling around the .60 range. This occurred for need support across all three studies and ethical

² The analyses were also run with the leadership styles entered in the first step and attachment in the second step. This approach allowed for consideration of whether attachment orientation explains additional variance in reported basic need support provision beyond leadership style. For the SAAM, the R squared change values for the second step were .04, .05, .06 for Transactional/Transformational, Ethical, and Authentic leadership respectively (all $ps > .05$). For the RQ, the R squared change values for the second step were .09, .09, .10 for Transactional/Transformation, Ethical, and Authentic Leadership respectively (all $ps < .05$).

and authentic leadership. Alpha coefficients are influenced not only by the interrelatedness of the items, but also by the number of items. Furthermore, when calculating an alpha coefficient on a higher order construct, it is likely that it will be lower than an alpha coefficient for a subscale or singly defined construct. Nonetheless, values in the .60 range are low. What is most important is to consider the impact of a low alpha coefficient on the results: A low alpha will attenuate the correlation between two variables. It is likely that the associations that were documented between attachment and reported need support are lower than they might otherwise be if the need support scale demonstrated higher internal consistency. Overall, the effect size of the findings in the current study was in the small range.

STUDY 2

Although Study 1 provided much insight, the descriptive nature of the study did not allow for causal conclusions to be drawn about attachment orientation and the provision of need support. Whenever possible, it is ideal to test research hypotheses using multiple study designs; this compensates for the weaknesses of any specific design and overall provides a more enriched perspective on the research question at hand. The second study used an experimental design, exploring whether there is a causal link between attachment orientation and the provision of need support. This study investigated a causal link between attachment security and reported basic need support using a sample of young adults who were asked to imagine themselves in a leadership role. The specific prediction was that leaders' secure attachment directly leads to greater provision of support for employees' needs compared to positive affect and neutral conditions.

Method

Participants

One hundred and six undergraduate psychology students (89 women and 17 men) at the University of Victoria, in Victoria, BC, Canada, participated in the current study. The participants' ages ranged from 17 to 25 years, with a mean of 19.48 ($SD = 1.72$). Participants were randomly assigned to one of three experimental priming groups: secure, positive affect, and neutral. Thirty-five participants comprised the secure attachment prime group, 35 comprised the positive affect prime group and 36 comprised the neutral prime group.

Materials and Procedure

Both the priming activity and the psychological needs questionnaires were administered using a computer-based format. Participants provided informed consent and were given bonus

course credits in exchange for participation. As a cover for the priming component, participants were told that the purpose of the study was to complete a brief writing task. The priming manipulation comprised of a supraliminal writing-based priming task (further explanatory details on the priming task are outlined below). After the priming task, participants were then asked to imagine themselves in a leadership role and complete a questionnaire on the provision of basic needs to employees.

Priming attachment. There were three different priming scenarios – one for priming attachment security, one for priming positive affect, and one for priming the neutral condition. In the attachment security condition, participants were asked to recall a positive close relationship in which they feel connected to and supported by the other individual. In the positive affect condition, participants were asked to write about thoughts and feelings associated with winning a trip to Hawaii. Finally, in the neutral condition, participants were asked to imagine and describe a walk from their home to the University campus. Each participant was randomly assigned to the condition. As a cover story, participants were simply told that they would begin with a brief writing task followed by some questionnaires. Participants were asked to read the description and then write as much as they could on the topic for two minutes. There was a timer on participants' screen which counted down; they were told once the timer started counting into the negative they could click the 'next' button to advance to the following screen. If participants tried to press the button sooner than this, the screen would not advance. As all participants began the study at approximately the same time, the experimenter was able to monitor that the two-minute writing time frame was followed. It is possible there was variability of approximately 10-20 seconds across participants, but no more than that.

Basic psychological needs support. See Study 1 for a description of the measure. Once again, the item-correlations within each PAW scenario were examined to determine whether students who endorsed highly supportive options were less likely to endorse less supportive options and vice versa. In keeping with the original pilot study, also conducted using undergraduate students, the intercorrelations fell in the expected pattern across all of the nine PAW scenarios. The alpha for the scale was .67.

Results and Discussion

Once again, before running the analyses, the data was screened. There was only one measurable variable in the current study: overall need support. There were no univariate outliers; the histograms both with the entire sample and within each experimental group were also examined. Finally normality was tested by examining the histogram for overall need support (looking for potential skewness and kurtosis). No cases were deleted based on the results.

The descriptive statistics for the attachment and need support variables are presented in Table 6.

Table 6
Mean Scores of Participants Across the Priming Conditions

	Priming Condition					
	Secure (n = 35)		Positive Affect (n=35)		Neutral (n = 36)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Overall Need Support	5.03	2.60	4.42	2.27	3.45	2.81

Note. Scores on the PAW scale can range from -18 to 18 because they are weighted index scores based on four 7-point likert scale ratings. Higher scores indicate greater levels of reported need support provision.

The purpose of Study 2 was to examine the causal effect of attachment orientation on the reported provision of basic need support as assessed in hypothetical scenarios. Multiple regression with contrast coding was used to test whether priming students with attachment security led to higher ratings on the need support questionnaire versus participants who were primed either with positive affect or a neutral prime. In the regression equation, the independent variables of attachment security, positive affect, neutral and no prime were represented as contrast codes with overall need support as the dependent variable. Gender was entered as a control variable.

Table 7
The Effect of Priming Condition on the Provision of Need Support

	<i>B</i>	<i>SE B</i>	β	<i>p</i>
Overall Need Support				
Gender	-0.19	0.69	-0.03	.779
S +PA vs. Neutral	0.42	0.18	0.23	.019
Secure vs. PA	0.30	0.31	0.09	.336

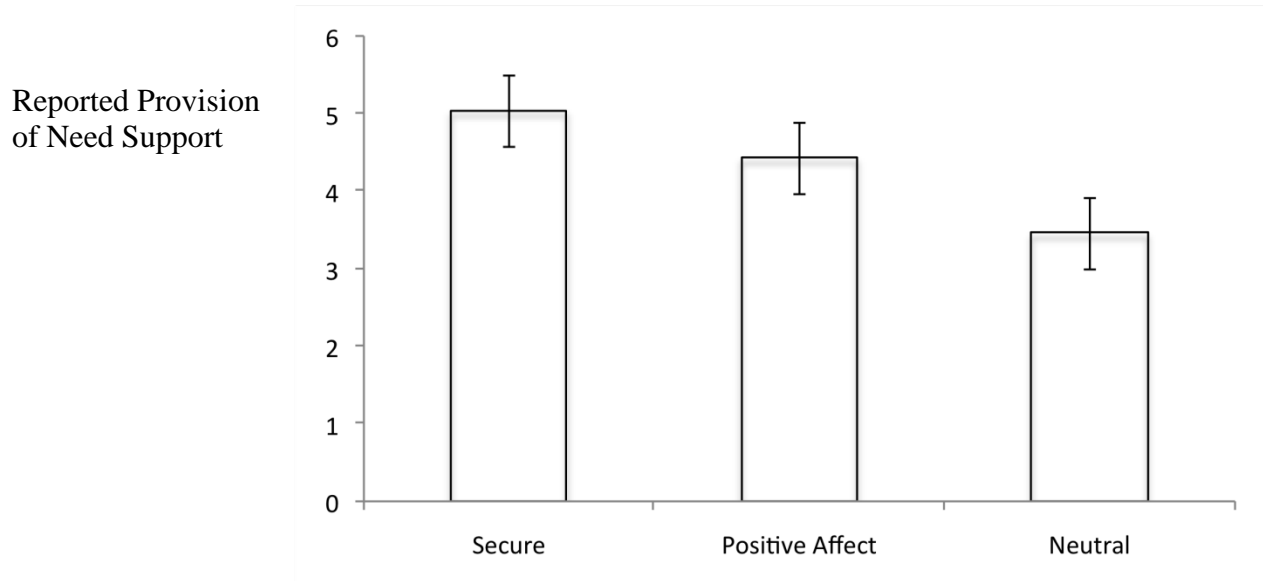


Figure 2. Mean level of overall need support provision across the priming conditions.

The results from the regression equation revealed a significant result for the 'secure plus positive affective versus neutral prime' contrast, but not the other contrast (see Table 7). This finding indicates that students who were primed with either secure attachment or a positive affective prime reported a greater likelihood to support basic needs compared to those participants primed with a neutral prime. Because the 'secure versus positive affect prime' contrast was not significant, there was no difference in the level of need support participants reported providing whether they were primed with attachment security or positive affect. Thus, the findings suggest that both secure attachment and feelings of positive affect lead to the provision of greater need support to employees. Figure 3 notes a trend in the direction where students in the secure priming group provided higher levels of need support compared to those

This finding was not entirely consistent with our hypothesis because it was specifically expected that secure attachment would predict the greatest reported provision of need support to employees. Instead, the results indicated that both secure attachment and positive affect were causal factors in the level of reported need support offered towards employees in hypothetical scenarios. Thus, whenever individuals are currently feeling secure, with a positive view of self and others, or whenever they are feeling happy, they report providing more need support. A variety of possible explanations for this finding are possible. First, the lack of differentiation between secure attachment and positive affect may represent a methodological issue. The positive affect prime requested participants to imagine winning an all expenses paid trip to Hawaii. It is rare that people vacation alone, and most typically we vacation with close others. Thus, the positive affect prime may have conflated both positive affect and secure attachment. Alternatively, although we requested that participants in the secure prime condition write about a relationship consonant with a secure attachment, there is no verification of the extent to which

the relationship truly represented a secure attachment. Thus attachment security may not have been primed. Future research could include a manipulation check immediately following the priming task to determine whether there are significant differences in the level of situational secure attachment and positive affect depending on the priming condition. However, this is not the common practice as such a manipulation check could interfere with the priming effect. Finally, it is possible that both secure attachment and positive affect simply lead to similar levels of reported need support provision. If this is the case, a general state of positive being may be what truly predicts the greatest provision of need support for employees, whether it is more transient such as positive affect, or more entrenched as with a secure attachment orientation. Similar to Study One, the effect size of the results in the current study was in the small range.

STUDY 3

The first two studies explored the link between leader attachment orientation and the provision of basic need support to employees using two different research designs. The third study sought to replicate the findings from the first study in an entirely different workplace context. Instead of selecting a sample in a more traditional workplace environment, the coaching profession was selected. In their workplace, coaches guide and lead clients towards positive goals. The data for this study was collected as part of a larger survey; as a result, there were limitations on the number of measures that could be included. For this reason, the third study only used one measure of attachment – the RQ – rather than both the RQ (trait measure) and SAAM (state measure) of attachment that the first study included. Notably, however, the third study added another dependent variable, empathy, as a second, indirect way to measure need support. The third study aims to further inform the previous findings by examining the same research question in a different, specialized sample. More specifically, the third study explored whether the attachment orientation of coaches predicted the extent to which they were likely to support clients' basic needs and demonstrate greater empathy towards clients.³

As mentioned, the current sample comprised of life and business coaches. There are a number of parallels to a leader / employee relationship in that coaches are the authority figure who ultimately guide clients and clients look to their coaches for feedback and confirmation. In addition, the shared relationship is one in which there is ample opportunity to either provide adequate basic need support or not to do so. Despite these parallels, it is important to note that there are significant ways in which a coach / client sample differs distinctly from a traditional leader / follower relationship found in the workplace. First, the client holds an element of control as they ultimately have hired the coach and can choose at any time to continue with or leave the

coaching process. In contrast, in the workplace, employees can often feel more powerless because they need their job and rely on it for a paycheck. Second, the amount and nature of contact likely varies quite a bit from the workplace. In the coach / client relationship, most clients interact with their coaches only once every week or two for approximately one hour at a time. In addition, the overall length of a coaching experience often only lasts a few months. This kind of limited time interaction is quite different than traditional workplaces where as noted in Study 1, the majority of leaders interact on a daily basis quite frequently with their employees. Finally, the importance of the relationship may also vary. Clients may highly value the relationship with their coach, and consider it to be a close relationship, whereas employees working under a manager in the workplace may not ascribe the same importance to the relationship.

Once again, this study was completed in a web-based format and included a variety of self-report questionnaires. In addition to need support, the current study also assessed the provision of empathy by coaches. Empathy is an alternate, indirect method to assess need support. The confidence in findings is strengthened to the extent that there is similarity across outcomes. The current study tested the following hypotheses:

- 1) Coaches with secure attachment would report greater provision of basic need support.
- 2) Coaches with secure attachment would report expressing higher levels of empathy towards their clients.

Method

Participants

Coaches who specialize in both all areas of coaching were invited to participate in the study. Coaches were approached via a variety of methods. The entire list of coaches registered

with Noomii.com (approximately 500), a coach-client matching service were contacted via e-mail and invited to participate in the study. In addition, coaches in the personal network of Noomii.com employees were contacted. Finally, approximately 600 e-mails were sent individually to coaches registered with various coaching organizations such as the International Coaching Federation and the Co-Active Network. In order to maximize the number of participants, a follow-up reminder e-mail was sent to all of the initial contacts approximately three weeks after the first contact e-mails were sent. The final sample comprised of 154 coaches (114 female, 40 male) and 88% of the sample was Caucasian. Approximately 60% of the coaches were certified with the International Coaching Federation. About one-third of the sample had seen more than 50 clients. The most common hourly charge for coaching services was between \$100 and \$200 (40% of coaches indicated this bracket). The vast majority of coaches that participated described themselves as leadership (68%), business (51%), career (55%), or life (57%) coaches (coaches could select as many sub-types of coaching as applicable).

Materials and Procedure

The questionnaires were administered using a web-based format that allowed participants to complete the questionnaires at a personally convenient time. Participants provided implied consent via a decision to continue with the study after reading an informed consent form. Coaches were assured that their responses would be kept completely confidential and their responses would never be disclosed. The questionnaires were administered in a random order for each participant.

Attachment. See Study 1 for a description of the RQ.

Basic psychological needs support. See Study 1 for a description of the PAW. For the basic need support measure, as in the first two studies the correlations among the four response

options that correspond to each scenario were examined. It is important to note that need support in the current sample was scored differently than in the previous two studies. Given that the full nine-item version had an internal consistency of only .39, it was necessary to re-examine the factor structure. First, upon examining the intercorrelations among each of the individual scenario options within PAW scenarios, there were three instances where the third and fourth ‘controlling’ items should be switched. In other words, the data indicated that what was intended as ‘medium controlling’ was actually ‘high controlling’ and vice versa. Once the order of these items were switched in the weighted calculations, an exploratory factor analysis (principal axis factoring with oblimin rotation) was run. The results of the factor analysis revealed the presence of one major factor (based on the examination of the scree plot). Four items loaded greater than $|.3|$ on this factor. Thus, in a sample of coaches, the data best fit a measure with four need support items. The subsequent analyses for need support in this study are presented based on the four-item solution. It is important to note that three of the four scenarios included were autonomy support scenarios, and the fourth was a competence support scenario—a construct which tends to also include aspects of autonomy support. As a result, in discussion of findings for the third study the term autonomy support, rather than overall need support is used.

Empathy. Coaches’ expression of empathy towards clients was assessed with a modified version of the Barrett-Lennard Relationship Inventory - Empathy Scale (1961). Sample items from the 16-item measure include “I usually sense or realize what my clients are feeling.” and “When my clients are hurt or upset, I can recognize their feelings exactly, without becoming upset myself.” Although initially designed as a measure to assess empathy provision from the perspective of the client, the items were slightly modified to fit the coach’s perspective. In order

to minimize self-presentation bias, the 7-point likert response scale about frequency rather than agreement (1= Never; 7 = Always) . The alpha for the scale was .80.

Results and Discussion

Once again, the data was screened for univariate and multivariate outliers. In this study, there were a few cases that presented as multivariate outliers as the scatterplots revealed a few instances where participants deviated notably from the general trend of responses. As a result, the data was examined to see whether these cases were outliers on any other variables; they were not. The analyses were run with and without these three cases and they did not change. As a result, all cases were retained. As usual, the normality of our variables was examined and no issues were noted.

The descriptive statistics for the attachment, need support and empathy variables can be found in Table 8.

Table 8

Descriptive Statistics for Attachment, Need Support, and Empathy.

	<i>M</i>	<i>SD</i>	<i>α</i>
RQ Secure	5.43	1.31	--
RQ Preoccupied	1.79	1.16	--
RQ Fearful	2.21	1.34	--
RQ Dismissing	3.43	1.78	--
Autonomy Support	8.49	2.78	.59
Empathy	5.50	.49	.80

The primary hypothesis was that coaches with more secure attachment orientations would report providing greater need support to hypothetical employees. The results of the regression analysis are presented in Table 9; no significant association for secure attachment was found. However, leaders with a preoccupied attachment orientation were significantly less likely to

report supporting hypothetical employees' autonomy needs compared to leaders with other attachment orientations.

Table 9
The Relations Between Coaches' Attachment and Autonomy Support

	<i>B</i>	<i>SE B</i>	β	<i>p</i>
Gender	-.4.0	.47	-.05	.393
RQ Secure	-.08	.16	-.04	.637
RQ Preoccupied	-.51	.19	-.24	.008
RQ Fearful	.06	.15	-.03	.711
RQ Dismissing	.02	.12	.02	.850

The second hypothesis advanced in Study 3 was that leaders with secure attachment orientations would be more empathic towards their clients. Empathy is another dependent variable that allows one to index the level of responsiveness of coaches to their clients. People can feel supported in many different ways. Autonomy support assesses the extent to which we feel we have a sense of choice and initiatives in our actions. As noted in the introduction, provision of autonomy support includes taking another's perspective, providing a sense of choice, responding to questions and thoughts, providing meaningful rationale, and encouraging initiation (Deci, Eghrari, Patrick & Leone, 1994). Empathy assesses the extent to which an individual can help others feel understood and validated. Clearly, elements of autonomy support overlap partially, although not completely with empathy. In keeping with this expectation, the correlation between empathy and autonomy support was .27, $p < .01$. Nonetheless, the inclusion of both empathy and need support was helpful in providing insight to two different ways in which coaches can provide support to their clients.

As noted in Table 10, leaders' secure attachment was marginally associated with greater empathy provision. In addition, similar to the finding for autonomy support, coaches with

preoccupied attachment orientations were less likely to demonstrate empathy towards their clients. There was also a notable gender difference, wherein male coaches tended to report being less empathic than their female coaching counterparts. In keeping with the first two studies, the effect size of the results in this sample of coaches was in the small range. The low level of reliability for the need support scale (i.e., .59) may explain this small effect size.

Table 10
The Relations Between Coaches' Attachment and Empathy

	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>p</i>
Gender	-.18	.09	-.16	.051
RQ Secure	.06	.03	.16	.071
RQ Preoccupied	-.07	.04	-.18	.051
RQ Fearful	.03	.03	.08	.378
RQ Dismissing	.03	.02	.09	.276

STUDIES 1, 2, AND 3

Before seeking to draw conclusions across the three studies, it is important to recognize that the need support conceptualization used in Study 3 differs from the first two studies which makes direct comparisons impossible. As a result, series of secondary analyses was run. First, the analyses for the first two studies were re-run using the same four-item solution to score need support. This approach allowed comparison of what each of the studies share in common, beyond simply addressing how each of the studies differ. The alphas for the four-item autonomy support index in Study 1 and 2 were .54 and .59 respectively.

When using the four-item autonomy support index, the findings in Study 1 for the RQ remained the same. In other words, hotel leaders with fearful attachment orientations tended to report providing less need support to employees in hypothetical scenarios. The findings for the SAAM, however, changed slightly. In the nine-item version, avoidant attachment was a significant predictor of lower need support provision. Using the four-item version, the effect size of this finding dropped ($\beta = .19$). Although the effect was no longer significant, the effect size is around .2 which is still notable. In the second study, the findings remained the same as for when the nine-item need support measure was used as the DV. In other words, both secure attachment and positive affect priming led to the provision of greater need support. These secondary analyses allow comparisons of the findings across the three samples as the dependent variable is scored in the same way. However, before turning to a discussion of the results across studies, one more additional set of analyses was conducted.

The results were also examined for when managers, students and coaches were high on reported need support provision, irrespective of their scores on the rest of the variables. In each PAW scenario, participants rated four different items that ranged from highly supportive of

needs to highly controlling. Attachment orientation could influence the extent to which leaders support basic needs, whether they are controlling or not. In the traditional weighted calculation approach used in the other analyses, index scores were created to essentially capture being more supportive than controlling. It is also interesting to consider the results for high need support, relative to other responses. In the current study, this involved taking only the 'high' support response option from the scenarios. However, before the factor analyses were on the nine 'high support' items, the scores were ipsatized. In the previous calculations for the PAW, it was not necessary to ipsatize the data as the index scores were calculated as relative scores based on all four of the response options.

The factor analyses of the individual ipsatized PAW items revealed that once again a four-factor solution was the best fit in order to allow for comparisons across the three studies. The same four items in the brief 4-item autonomy support version were used in the ipsatized high autonomy support version. Because three of the four items were autonomy support scenarios, and the fourth competence support scenario also involved an autonomy support component, the ipsatized version is referred to as 'high autonomy support' rather than 'overall need support' or 'autonomy support.' The alphas for the four item ipsatized scales were .74, .69, .63 and for Studies 1, 2, and 3 respectively.

In Study 1, the findings using the ipsatized high autonomy support variable were identical for RQ fearful attachment: leaders who were more fearful tended to support employees' basic needs less. However, in the ipsatized version, SAAM avoidant attachment was no longer a significant predictor of reported basic need support ($\beta = .15$). For Study 2, secure and positive affect no longer created high autonomy support provision. For both contrasts, the effect size was .15 or smaller. Thus, neither secure attachment nor positive affect led to greater reported need

support provision in hypothetical scenarios. Finally, in the third study, the findings used the ipsatized high autonomy support variable remained identical to the non-ipsatized version: coaches with more preoccupied attachment orientations tended to provide less support to their clients. The findings related to our central research question about the link between attachment and basic need support provision are summarized in Table 11.

There are both consistencies and differences across the different methods used to score the overall need support variable. Nonetheless, examining the data from these multiple scoring perspectives provides a much richer, fuller picture.

Table 11
Summary of Predictors of Reported Basic Need Support Across Studies and PAW Versions.

Need Support Scoring	Study 1		Study 2		Study 3	
	Predictor	β	IV	β	Predictor	β
Overall Support (9 Item PAW)	RQ Fearful	-.23*	Positive Affect/ Secure	.23*	--	
	SAAM Avoidant	-.22 ⁺				
Autonomy Support (4 Item PAW)	RQ Fearful	-.23*	Positive Affect/ Secure	.18*	RQ Preoccupied	-.24**
	SAAM Avoidant	-.19 ⁺				
High Autonomy Support (4 Item Ipsatized PAW)	RQ Fearful	-.29**	Positive Affect/ Secure	.14 ^{ns}	RQ Preoccupied	-.18*

Note. * $p < .05$. ** $p < .01$ ⁺ $p < .10$.

DISCUSSION

The series of three studies conducted explored the link between attachment orientation and the tendency to provide need support across three different leader populations (hotel managers, students, and coaches) and two different research designs. Although these studies all addressed the same primary research question, they had important and notable similarities and differences, including secondary research questions unique to each study. As a result, in order to integrate the findings, one must consider both what the studies share in common and how the studies differ. This discussion is organized around central themes as a guide to interpreting and reviewing the findings. After a brief summary, the findings are discussed relation to the context of leadership research, followed by a consideration of priming research and a discussion of empathy. Finally, the findings across studies are synthesized regarding the link between attachment and need support by exploring measurement issues, the role of secure attachment, and state versus trait factors.

Summary of Findings

As noted, the central goal of the current research was to assess the relationship between attachment theory and self-determination theory. More specifically, it was expected that leaders with more secure attachment orientations would report providing greater overall need support to employees. Leaders who are securely attached should be better able to more sensitively and consistently respond to employees as they are skilled at regulating their own emotions than those insecurely attached. This could translate to secure leaders' tendency to support feelings of effectiveness and to demonstrate care for employees better than leaders with other attachment styles.

In the first study, results indicated that managers with a situational avoidant attachment orientation reported significantly less overall need support towards employees in hypothetical scenarios. Similarly, managers' stable, global fearful attachment orientation was associated with the reported provision of overall need support. It makes sense that leaders who have more avoidant attachment orientations would be less likely to support clients' basic needs: these individuals tend to be conflict avoidant, and see little benefit in relying on others for support. This view of the world likely colors the level of support avoidant leaders provide to their employees around them; if support-seeking is not valued, leaders may well be less likely to offer it towards their employees.

In the second study, students' secure attachment and positive affect caused greater reported need support towards employees in hypothetical scenarios. Importantly, no significant difference was found between the secure attachment and positive affect priming groups in terms of the level of need support offered towards employees. These findings are discussed further below.

Finally, in the third study, coaches with more preoccupied attachment orientations tended to report offering less autonomy support in hypothetical scenarios. Leaders in the coaching profession in particular are likely to experience heightened emotional reactions from their followers. Individuals with preoccupied attachment in particular are highly reliant on others for both support and regulation of their own emotions. In situations where the emotional intensity is heightened, it is not surprising that coaches with more preoccupied orientations are less able to respond in a way that supports basic needs as their resources are likely drained by trying to manage their own reaction to the surrounding emotional climate.

With these major findings in mind, the three studies are now considered. There are a number of notable ways in which the three studies are unique: the studies involved a variety of populations and a combination of research designs. In addition, each study included additional variables allowing for the testing hypotheses that went beyond the central research question regarding a link between leaders' attachment orientation and the provision of need support to employees based on hypothetical scenarios. First, the unique aspects of each study are explored, and then the findings of three studies are examined in relation to one another.

Leadership

In the first study, not only the link between attachment orientation and need support provision was considered, but also the role of specific leadership styles. More specifically, the study explored whether leaders' specific leadership styles – ethical, authentic, transformational and transactional – also accounted for the tendency to provide need support to employees. To date, little research in the leadership field has focused more broadly on leaders' general interpersonal patterns of relating to others. As stated above, both managers' fearful attachment and state avoidant attachment predicted lower levels of reported need support towards employees in hypothetical scenarios. Individuals with a fearful attachment orientation have negative models of both self and other. It makes sense that these individuals are less able to respond sensitively to employees—their default is to avoid conflict and uncomfortable situations, and they struggle to regulate their own affect in times of distress, making it challenging to adequately support employees in all situations.

Notably, with the exception of ethical leadership, none of the specific leadership theories explained any additional variance in reported need support. This finding is significant because it suggests that a more general interpersonal style may explain how well leaders support

employees' sense of autonomy, competence and connectedness, rather than the nuances of a specific leadership style. Thus, the results suggest that when it comes to leaders providing need support to their followers, leaders' general prototypical patterns of relating with others, particularly when it is an avoidant attachment orientation, are predictive of reported need support provision.

This finding has important implications at both the research level and intervention level. At the research level, it suggests that a more broad, overarching theory such as attachment theory, can capture the variance in leaders' support behaviors extensively enough that focusing on more micro-leadership theories adds little additional insight. Much of the leadership field is focused on a seemingly elusive search for the 'best' leadership theory, one that can capture and explain the most variance in leader behaviors. However, in this quest, many of these theories become narrowly focused. Instead, it makes sense that a broader, interpersonal theory that considers how people relate to others in a general sense offers a powerful explanatory framework. It is important to note that the specific hypothesis about the link between secure attachment and need support provision was not generally supported. However, there was also little indication of a link between any of the leadership styles and reported need support provision. It may be that attachment theory, and specific leadership styles are significant and consistent indicators of other leadership behaviors, or even employee outcomes such as satisfaction, workplace engagement, and organizational commitment. Thus, it is important to remember that the lack of consistent associations between attachment theory, leadership theories and need support provision in no way precludes the potential importance of these theoretical frameworks from explaining many other relevant and important indicators of work-place well-being.

That specific leadership theories offered little additional insight to reported need support has implications as well for training programs and interventions targeting managers and leaders in the workplace. Time spent ‘training’ leaders to be more aware of and skilled at leading in accordance with certain leadership styles may not be a productive strategy. Rather, helping leaders identify their own interpersonal style and gain understanding of how it influences their workplace interactions may be a better focus. Although there are certainly other indexes of leader effectiveness besides reported support of basic needs, it is without question that the extent to which employees feel supported by their managers or leaders will have a significant impact on work place productivity and satisfaction. Much research supports this fact. For example, Ryan and Deci (2000) found that employees of leaders who fail to provide autonomy support feel more alienated and have lower psychological well-being. In addition, Deci et al. (2001) noted that across multiple cultures, employees were more engaged in their jobs and more satisfied when they perceived greater autonomy support from their supervisors. The current research considered attachment as an explanatory variable for why some leaders report that they provide more or less need support than others. The current research provided an indication that leaders with more fearful or preoccupied attachment may say that they provide less need support provision according to hypothetical scenarios. However, given the importance of promoting healthy work place environments, it is important for future research to consider other factors that may predict leaders’ reported provision of need support as well which can help inform training programs in a well-rounded manner.

Priming

The second study was unique in its design: It was an experimental priming study. In addition, this study only considered secure attachment, whereas the other studies also considered

the insecure attachment orientations. It was a deliberate decision not to include the insecure attachment orientations in the current priming study. Although there is a plethora of research that employs negative mood induction exercises, or distressing performance feedback, when one primes an insecure attachment orientation, it is not clear just exactly what is being primed. Most priming studies employ supraliminal priming tasks as a mood induction. To say that a simple positive mood induction task following the task is sufficient to counteract any effects of the insecure prime may be too simplistic. There are variations in the quality and nature of insecure attachment relationships; inadvertently, someone may be describing an abusive relationship or extremely toxic and unhealthy one, be it current or past. Having someone spend time sharing such personal information is already somewhat intrusive, but most importantly, we have no control over how the individual may react to thinking and writing about an insecure attachment bond. As a result, from an ethical stand-point, an insecure priming condition was not included in this research. It is worth noting that the vast majority of priming research in the field solely primes secure attachment. E-mail correspondence with Dr. Phil Shaver, one of the leading attachment researchers, also revealed the same viewpoint: for ethical reasons, it is preferred to avoid inducing insecure attachment in participants.

As noted above, both secure attachment and positive affect predicted greater need support provision based on hypothetical scenarios. The finding for positive affect is not altogether surprising; it mirrors previous research that has found managers who have higher levels of positive affect offer greater emotional support to others in the workplace (e.g., Togel, Anand, & Kilduff, 2007). The secure attachment finding may be interpreted in a number of ways. First, it may be because there is actually no difference in the level of reported need support whether an individual is securely attached or in a positive mood state. Alternatively, the lack of difference

between the two groups may lie at the priming level: it is not clear whether or not secure attachment was primed. Although participants were asked to write about a close relationship, that does not necessarily mean that the relationship participants wrote about was actually an attachment relationship, or second, that the relationship was truly a relationship in which the individual feels securely attached. It is possible that a participant may not share any close relationships that are characterized by a secure attachment bond.

Although this specific priming approach has been used in alternate studies (e.g., Gillath et al., 2009) and successfully noted differences between positive affect and secure priming groups on a dependent variable, every population is different. More research is simply needed in order to determine the causal role of attachment in need support provision. A mix of both supraliminal and subliminal priming designs would help, along with different priming strategies in each design. For example, future research could have participants complete an Attachment Networks Questionnaire to assess more directly with whom they specifically share a secure attachment bond. Then participants could be asked to write about that specific relationship, or for example, be shown a subliminal prime with the person's name or the role of the person (e.g., father) presented.

Empathy

The third study added a second dependent variable, exploring not only whether leaders' attachment relates to their reported provision of need support, but also looking at whether leaders' attachment orientation relates to the level of reported empathy. To truly help others feel connected, efficacious, and volitional in their actions, some degree of identifying with another's perspective is necessary (Deci et al., 1994). Thus, as would be expected, both empathy and need support provision were positively correlated.

As discussed above, leaders with preoccupied attachment orientations provided lower levels of reported need support in hypothetical scenarios. With respect to empathy, coaches who had preoccupied attachment orientations tended to report less empathy towards their clients. In addition, coaches who had secure attachment orientations were more empathic. These findings for coaches' empathy provision make sense both on a theoretical level and in light of previous research. When someone around us is distressed, it tends to heighten our own distress, and there is an associated need to regulate our affective responses. Individuals with secure attachment orientations are better able to cope with distress-encounters, given their positive model of self: They can manage stressful situations with optimism, control, and self-efficacy (Mikulincer & Florian, 2001), and are less focused on self-worth issues (e.g., Mikulincer, 1998). This frees up greater resources that can be directed into empathic understanding. By contrast, individuals with a preoccupied attachment orientation lack the positive model of self that is necessary in order to achieve such regulation – by definition, individuals with preoccupied attachment orientations rely on others for regulation and support of their distress and needs. As a result, it is not surprising that leaders with preoccupied attachment orientations are less empathically responsive to their clients.

The current findings with this coaching sample are indeed consistent with previous research investigating the link between adult attachment and empathy provision (e.g., Joireman, Needham, & Cummings, 2002; Mikulincer et al., 2001). More specifically, previous findings corroborate the current findings: individuals with secure attachments tend to be more empathic, whereas those with anxious attachments tend to be less empathic.

Measuring Provision of Need Support

Having explored the unique contributions of each of the three studies, I now turn to a discussion of our central research question – the link between attachment theory and self-determination theory – in light of the findings across our three studies. In the third study, the basic need support measure as scored in the first two studies did not fit the data well in a population of coaches.

The vast majority of measures that are used in psychological research are created and validated using populations of undergraduate university students, the majority of whom are psychology students. This approach is understandable on many levels, as it affords researchers access to large samples of easy-to-obtain data. The primary drawback presents itself most profoundly when researchers then attempt to use these same measures in ‘real world’ populations. Creating a measure that best fits a pattern of responses by undergraduate students does not mean that data from individuals in alternate populations will fit the same scoring. This issue presented itself in the current research. The PAW, a scenario-based measure, was used to assess the tendency to provide need support. The autonomy support items from the original measure were validated on an undergraduate student population and the newer competence and relatedness support items were also validated during pilot testing with undergraduate students. Although the structure of the measure held with hotel leaders and students, it did not hold up well at all in a sample of coaches. As a result, it was necessary to look specifically at the items within individual scenarios, as well as overall scenarios included in order to score the measure in a way that was reliable for the coaching population. It is interesting to note that in the brief four-item version, be it the ipsatized or non-ipsatized version, three of the four items were autonomy-support items. The fourth was a competence-support item. Previous research has only focused

on the assessment of autonomy support when considering the provision of basic need support. One of the strengths of the current research was the creation of new scenarios to target the competence and relatedness forms of need support. It is interesting to note that depending on the population, these scenarios may in fact add little to our understanding; it seems that out of the three basic needs, providing support for autonomy is the most critical.

In order to compare the findings from the first two studies with the third, need support in the first two studies needed to be scored in the same way. Otherwise, any comparison would essentially be an ‘apples to oranges’ contrast. Both the brief 4-item PAW scoring approach and the 4-item ipsatized scoring approach allow us to do that. Both of these scoring approaches utilized the same four items: three autonomy support items and one competence support item. As all items, including the competence support scenario, tap into autonomy support, the term autonomy support rather than overall need support is used.

Attachment Security: Lack of a Link?

The juxtaposition of the findings from the three studies reveals some consistencies. First, in both a hospitality population and a coaching population, no evidence was found that leaders’ secure attachment orientation was linked to greater reported need support provision in hypothetical scenarios. This finding stands in contrast to the research by Deci et al. (2006) where they found that individuals with secure attachment reported providing greater autonomy support to friends (and friends also reported receiving greater autonomy support). However, there is one striking difference between the current research and Deci et al.’s – close friendships represent actual attachment relationships in many cases, whereas leaders do not tend to share close, affectional bonds with their employees. The relationships in a workplace are not reciprocal in the same way that friendships need to be in order to be sustainable. As a result, it may be that in the

workplace, there isn't the same link that may potentially exist with close relationships. In order to fully test this possibility, additional research is necessary using romantic relationship dyads or other relationships which are characterized by a strong affectional bond and mutual reciprocity. In addition, Deci et al.'s research used self-report likert measures for both attachment orientation and the reported provision of need support. Because of within-method variance issues, it would be expected to see higher associations between the variables. Further replication using the PAW to assess need support provision in relationships with close affectional bonds could shed additional light on the link between attachment security and need support provision.

Measurement and sampling issues aside, it is possible that the lack of support for the hypothesis that leaders' attachment security would predict greater reported provision of need support to employees may lie at the theoretical level. More specifically, the lack of support for our hypothesis may simply reflect the fact that no clear link exists between attachment security and need support, particularly in the work domain. Rather, it may be something else that predicts need support rather than one's prototypical pattern of relating to others.

The Role of 'State'

In the current research, attachment was considered from both from a state perspective and a trait perspective. Although an individual's prototypical pattern of relating to others may be quite entrenched (at a trait level), there is still likely some variability in how it manifests both across relationships and at any given point. State measures assess an individual's experience in the here and now, and are influenced by immediate factors. In addition to attachment, in the second study another state variable was included: positive affect which was induced by a priming task. Consideration of the findings from the three studies reveals that both positive affect and a state measure of avoidant attachment were linked to need support provision in hypothetical

scenarios. Thus, what influences leaders' tendency to provide need support to employees may lie with a more state, or transient factor, rather than a stable one. When leaders were happy, they reported providing more need support; when they felt insecure, they were less supportive. How leaders respond at any given moment in the work day may be influenced most by their current state. Given the unpredictable nature of a work day, and the associated stress that may accompany it, it is certainly possible that the way a leader is feeling at a particular moment may guide the level of supportiveness they provide to their surrounding employees.

One particular situational factor that may have influenced the results of Study 1 is the economic climate at the time of data collection. The hotel industry was hit extremely hard by the down-turn in the economy during 2008 and onwards. The increased stress and pressure inherent with a struggle to meet the bottom line and cut budgets could have significantly influenced the extent to which leaders' attachment systems were activated, and may in part explain why the predicted link between leader attachment security and reported need support provision was not found. Additional research during a more positive economic time will help shed some light on the extent to which this factor may have influenced the results of Study 1.

It is important to note that Study 3 did not include a situational or state measure of attachment. The reason for this was due to time constraints on participant time as the data for Study 3 was collected as part of a much larger survey. When the overall need support and autonomy support findings are considered, there is a link for avoidant attachment in Study 1, and positive affect in Study 2. Since a state or situational measure was not included in Study 3 it is hard to make a conclusion across all three studies regarding the role of state factors. However, in Study 1, as can be seen from Table 3, RQ Preoccupied (trait) and SAAM Anxiety (state) were correlated .10. Although the RQ measure is certainly a trait measure, one can potentially look to

the RQ as an indicator of what the SAAM anxiety rating might have been if it had been included. However, given the relatively low correlation between the two, ultimately it is not clear without the actual inclusion of a state attachment measure. In summary, when looking across the series of three studies, it is clear that a more transient interpersonal style or affective state may well predict how supportive leaders were of employees' basic needs.

The Role of Trait

The findings in Study 1 and Study 3 for the trait-level measure of attachment show that fearful attachment in a hospitality sample predicted lower levels of reported need support provision and preoccupied attachment in a coaching sample predicted lower levels of reported need support provision. Although both of these are insecure attachment styles, it is clear that the same pattern of trait attachment does not predict the reported need support in hypothetical scenarios. The reason for this may lie specifically with the nature of the population. As noted above, in coaching sessions, it is likely that clients express a fair amount of emotion. This is not altogether surprising, as most individuals seek coaching for assistance and support in areas in which they are struggling. Be it relationships, work, weight-loss, and so forth, there is undoubtedly a bubbling of emotion just below the surface and routinely expressed in sessions. Preoccupied individuals have a negative model of self, but a positive model of other. This means that they typically turn to others for regulation of their own distress. In a coaching setting, however, when presented with a client's distress, there is nowhere for the coach to turn in order to manage that emotion. As a result, the coach is left to manage the clients' distress themselves. For preoccupied individuals, this is typically not their approach to handling stressful situations. As a result, it is not surprising that they provide less support to clients as their resources are taxed by simply trying to manage the expressed emotion.

By contrast, in a hospitality setting, it is much less likely to see a routine outpouring of emotion by followers as would occur in coaching sessions. Rather, what leaders must often deal with in a hotel-context is conflict issues. Individuals with fearful attachment orientations are known to be conflict avoidant. With negative models of both self and other, they prefer to avoid engagement in any kind of conflict setting. As a leader, however, part of the job specifically involves handling various bumps along the way in both work issues and co-worker relationships. In this context then, it is easy to see how a fearful attachment orientation has more impact on reported need support provision.

When the mean level of preoccupied attachment in Studies 1 and 3 is examined, it is clear that hotel leaders overall had a higher mean level than coaches, $t(256) = 4.86, p < .001$. Despite the lower mean level in Study 3, preoccupied attachment was significantly linked to lower autonomy support provision. One alternate explanation for this finding may be that some coaches were more extreme on preoccupied attachment, thus driving the significant association.

In summary, what appears as an inconsistent finding across these two studies may actually simply represent the differences in population. Whether attachment is or is not related to need support merely depends on the nature of the workplace context. In some settings, higher levels of certain insecure attachment orientations will predict poorer need support provision, and in other settings different insecure attachment orientations will predict poorer need support provision.

Gender Imbalance

The first study comprised of 63 women and 41 men, our second had 89 women and 17 men, and our third study had 114 women and 40 men. A clear trend across all of our studies is an imbalance in the female to male ratio of the samples. It is important to consider the ways in

which the findings may be influenced by this discrepancy. Although gender was controlled for in the analyses, there is no escaping the fact that the proportion of men in the samples was low compared to women. In the attachment literature, men tend to score higher on dismissing attachment, and women score higher on preoccupied attachment (Bartholomew & Horowitz, 1991). In the third study, where preoccupied attachment was noted to be associated with less autonomy support provision and lower empathy provision, it is important to consider that this finding may not hold for men, at least to the same degree. In addition, it is equally likely that the role of dismissing attachment may be relevant to the provision of need support for men in leadership roles and it simply was not possible to detect this given the relatively low numbers of male leaders who participated.

There is much less research on the reported provision of need support as most often perceived need support is assessed so it is difficult to look to previous research on gender differences. One previous study in the workplace that used the original version of the PAW (which focused entirely on autonomy support), did not report the gender breakdown of their sample, nor correspondingly whether there were any gender differences noted in the variables (Deci, Connell, & Ryan, 1989). However, in one study looking at reported provision of need support in friendship dyads, women dyad friends tended to report providing greater need support compared to male dyad friends (Deci et al., 2006). This also has important implications in the workplace: if men tend to provide lower levels of need support, particularly to other men, these individuals may not thrive in the work environment to the same extent as they might if they were working under a female leader.

Strengths and Limitations

The current study includes a number of notable strengths. It is the first known study to expand the measurement of need support to include not only autonomy support, but also competence and relatedness support. The development of new scenarios for the PAW that capture these different forms of need support allows for a more comprehensive testing of need support as outlined by self-determination theory. In addition, the PAW is structured as a measure in which participants project themselves into a scenario – this format may help to reduce common method variance issues that occur with likert-rating measures. This measure also employed a number of strategies that function to reduce common method variance including counterbalancing of scenario presentation (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). Notably, this study is novel in its blending of two major theoretical frameworks – attachment theory and self-determination theory – to better understand what contributes to leaders' tendency to act in more supportive ways towards their employees. The merging of theoretical frameworks presents an important and rich source of research hypotheses and findings. Drawing on three different populations, two specialized samples, and two research designs, the series of three studies in the current research offer an initial, yet broad consideration of the link between attachment theory and self-determination theory.

Despite the strengths of the current research, there are also limitations. Although there were associations between reported need support and attachment, the results were not quite as consistent as would be expected based on prior research. It is somewhat unclear as to whether attachment theory simply is not the best predictor of reported need support provision in the work place as assessed by hypothetical scenarios, or whether the inconsistencies in our findings reflect measurement issues. Further development and testing of the PAW, including validation studies,

is necessary. In addition, in all three studies the provision of need support was reported from the leaders' perspective. Although the intention was to include the follower perspective in one study, a sufficient number of participants was not obtained. Confidence in findings is further strengthened to the extent that the findings are corroborated when using multiple viewpoints. Finally, for the priming study, as noted above, further studies are necessary in order to ascertain whether the secure prime is in effect priming secure attachment, more than simply positive affect.

Future Research Directions

The current research provided some indication that state, or transient factors such as mood may be particularly relevant to the level of need support leaders report providing or would provide. Future research may also want to include assessment of workplace stress, daily mood fluctuations, and even leaders' own sense of need support fulfillment. By tracking these variables over time, it is possible to obtain a profile of how leaders respond to their employees and explore whether state fluctuations impact the level of need support that is provided to employees.

Ideally, future research will include the perspective of not only the leader, but also the follower. In order to successfully recruit dyads, particularly in the coaching population, an alternate strategy will be necessary. If the coaching population is to be used again, two possible avenues for approaching the research exist: (1) begin by recruiting the clients, and then inviting the coaches, and (2) structure the research design as longitudinal where both coaches and clients are recruited from the very starting point of their relationship together. Alternatively, there may be more success in recruiting dyads in a workplace with a hierarchical structure where employees can be more or less told they are taking part by upper management.

Concluding Comments

The current research is the first known to unite attachment theory and self-determination theory in the workplace context. Drawing on three different populations, and two research designs, the results across the studies indicate that the expected association between leaders' secure attachment orientation and reported provision of need support is not as clear as anticipated. The most important finding is that there clearly is a link between attachment theory and self-determination theory in the workplace context. There is some indication that individuals with more insecure styles struggle more with supporting employees' needs, with the exact relationships depending on the nature of the position. Notably, there is also indication that transient states, such as positive affect, may play a key role in the responsiveness of leaders to employee needs. Without question the current series of studies provides an important starting point to better understanding the precursors which give rise to the optimal support of employee needs.

Footnote

³ Initially it was our intention to explore this research question using dyadic data, including not only the perspective of the 'leader' (the coach), but also the follower (the client). When the on-line web survey was created, I specifically had the system built to ensure complete anonymity for both coaches in clients. Coaches were invited at the end of their survey to list the name and e-mail address for up to 10 of their clients. They were assured that this information was not recorded, and no one would ever know the identity of their clients. Coaches were also given the opportunity if they preferred to send an e-mail to their clients from their personal e-mail account, and then if any clients expressed interest, return to the web survey and enter the contact information (a necessary step to ensure a linking code could be assigned in order to match a client's responses with a coach's responses). Despite the effort made to construct a system that would safeguard the confidential relationship that coaches share with their clients, a mere 15 coaches out of over 140 chose to invite clients. Of the clients who responded, there were only five unique coach-client pairs, making dyadic analysis impossible.

An important question to consider is why the coaches were so reluctant to invite their clients. I received a number of e-mails from coaches (approximately eight) who were adamant that they could not share their clients' information with anyone as it is confidential. Despite having a professional web survey site, and the University of Victoria as the institution behind the survey, coaches were seemingly still sceptical about completing the confidential web form. When the alternate method was suggested to these coaches via an e-mail response, more than one responded that they simply would not contact their clients to ask them to take part. Many coaches as well noted that they did not understand why clients would have any interest in taking part and as a result felt that inviting the clients would be of no benefit (despite the opportunity

for clients to win an i-pad in exchange for their time completing the survey). Another factor that likely played a key role was coaches' concern about being 'rated.' Although I assured coaches that their responses were anonymous – in other words I can't personally identify them, so there was no personal accountability for positive or negative client experiences – it seems that much like other professions there was some hesitation or reluctance due to an evaluative component. In organizations, it is likely easier to obtain dyadic data as the individuals in the leadership roles and their followers can be more directly told that they are participating via the company head, whereas in this case, each coach makes his or her personal decision. Finally, it is worth noting that almost all of the research to date in the coaching field that involves the client perspective has been conducted through group treatment approaches, rather than one-on-one coaching, which makes it much easier to recruit the client population. In addition, in the therapy research field, the number of clients in dyadic therapist-client studies tends to be low by traditional research standards, with 15-30 dyads typically the norm.

References

- Ainsworth, M., Blehar, M., Waters, E., & Wall, S. (1978). *Patterns of attachment*. Hillsdale, NJ: Erlbaum.
- Avolio, B. J., & Bass, B. M. (2004). *Multifactor leadership questionnaire*. Manual and Sampler Set, 3rd ed. Redwood City: Mind Garden, Inc.
- Baard, P. (2002). Intrinsic need satisfaction in organizations: A motivation basis of success in for-profit and not-for-profit settings. In E. L. Deci and R. M. Ryan (Eds.), *Handbook of Self-Determination Research* (pp. 255-275). Rochester, NY: University of Rochester Press.
- Baard, P. P., Deci, E. L., Ryan, R. M. (2004). Intrinsic need satisfaction: A motivational basis of performance and well-being in two work settings. *Journal of Applied Social Psychology*, 34, 2045-2068.
- Bartholomew, K. (1990). Avoidance of intimacy: An attachment perspective. *Journal of Social and Personal Relationships*, 7, 147-178.
- Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four category model. *Journal of Personality and Social Psychology*, 61, 226-244.
- Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York: Free Press.
- Berson, Y., Dan, O., Yammarino, F. J. (2006). Attachment style and individual differences in leadership perceptions and emergence. *Journal of Social Psychology*, 146, 165-182.
- Bowlby, J. (1973). *Attachment and loss: Vol. 2. Separation*. New York: Basic Books.
- Bowlby, J. (1979). *The making and breaking of affectional bonds*. London: Tavistock.
- Bowlby, J. (1980). *Attachment and loss: Vol 3. Loss*. New York: Basic Books.
- Black, A. E., & Deci, E. L. (2000) The effect of instructors' autonomy support and students' autonomous motivation on learning organic chemistry: A self-determination theory perspective. *Science Education*, 84, 740-756.
- Bostic, T. J., Rubio, D. M., & Hood, M. (2000). A validation of the subjective vitality scale using structural equation modeling. *Social Indicators Research*, 52, 313-324.
- Brayfield, A. H., & Rothe, H. F. (1951). An index of job satisfaction. *Journal of Applied Psychology*, 35, 307-311.
- Brethereton, I. (1985). Attachment theory: Retrospect and prospect. In I. Brethereton & E. Waters (Eds.), *Growing points of attachment theory and research*. Monographs of the Society for Research in Child Development, 50 (1 & 2), 3-35.

- Brown, M. E., Trevino, L. K., & Harrison, D. A. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes*, 97, 117-134.
- Burns, J. M. (1978). *Leadership*. New York: Harper & Row.
- Davidovitz, R., Mikulincer, M., Shaver, P. R., Izsak, R., & Popper, M. (2007). Leaders as attachment figures: Leaders' attachment orientations predict leadership-related mental representations and followers' performance and mental health. *Journal of Personality and Social Psychology*, 93, 632-650.
- Deci, E. L., Connell, J. P., & Ryan, R. . (1989). Self-determination in a work organization. *Journal of Applied Psychology*, 74, 580-590.
- Deci, E. L., Eghrari, H., Patrick, B. C., & Leone, D. R. (1994). Facilitating internalization: The self-determination perspective. *Journal of Personality*, 62, 19-142.
- Deci, E. L., & Ryan, R. M. (2008). Facilitating optimal motivation and psychological well-being across life's domains. *Canadian Psychology*, 49, 14-23.
- Deci, E. L., Schwartz, A. J., Sheinman, L. & Ryan, R. M. (1981). An instrument to assess adults' orientation toward control versus autonomy with children: Reflections on intrinsic motivation and perceived competence. *Journal of Educational Psychology*, 73, 642-650.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49, 71-75.
- Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D., Oishi, S., & Biswas-Diener, R. (2009). New measures of well-being: Flourishing and positive and negative feelings. *Social Indicators Research*, 39, 247-266.
- Faye, C., & Sharpe, D. (2008). Academic motivation in university: The role of basic psychological needs and identity formation. *Canadian Journal of Behavioural Science*, 40, 189-199.
- Fraley, R.C., Waller, N.G., & Brennan, K.G. (2000). An item response theory analysis of self-report measures of adult attachment. *Journal of Personality and Social Psychology*, 78, 350-365.
- Gardner, W. L., Avolio, B. J., Luthans, F., May, D. R., & Walumbwa, F. (2005). "Can you see the real me?" A self-based model of authentic leader and follower development. *Leadership Quarterly*, 16, 343-372.
- Gillath, O., Hart, J., Nofhle, E. E., & Stockdale, G. D. (2009). Development and validation of a state adult attachment measure (SAAM). *Journal of Research in Personality*, 43, 362-373.
- Griffin, D. W., & Bartholomew, K. (1994). The metaphysics of measurement: The case of adult attachment. In K. Bartholomew & D. Perlman (Eds.), *Advances In Personal*

- Relationships Vol. 5: Attachment Processes in Adulthood* (pp. 17-52), London: Jessica Kingsley Publishers.
- Joireman, J. A., Needham, T. L., Cummings, A. (2002). Relationships between the dimensions of attachment and empathy. *North American Journal of Psychology*, 4, 63-80.
- Jowett, S., & Clark-Carter, D. (2006). Perceptions of empathic accuracy and assumed similarity in the coach-athlete relationship. *British Journal of Social Psychology*, 45, 617-637.
- Hazan, C., & Shaver, P. R. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52, 511-524.
- House, R.J., & Mitchell, T.R. (1974). Path-goal theory of leadership. *Contemporary Business*, 3, 81-98.
- Kernis, M. H. (2003). Toward a conceptualization of optimal self-esteem. *Psychological Inquiry*, 14, 1-26.
- Kobak, R. R., & Sceery, A. (1988). Attachment in late adolescence: Working models, affect regulation, and representations of self and others. *Child Development*, 59, 135-146.
- Kroeck, K. G., Lowe, K. B., & Brown, K. W. (2004). The assessment of leadership. In J. Antonakis, A. T. Cianciolo, R.J. Strenberg (Eds.), *The nature of leadership* (pp.71-97). Thousand Oaks, CA: Sage Publications.
- La Guardia, J. G., Ryan, R. M., Couchman, C. E., & Deci, E. L. (2000). Within person variation in security of attachment: A self-determination theory perspective on attachment, need fulfillment, and well-being. *Journal of Personality and Social Psychology*, 79, 367-384.
- Luthans, F., & Avolio, B. J. (2003). Authentic leadership development. In K. S. Cameron, J. E. Dutton, & R. E. Quinn (Eds.), *Positive organizational scholarship* (pp. 241–258). San Francisco: Berrett-Koehler.
- Lynch, M. F., Plant, R. W., & Ryan, R. M. (2005). Psychological needs and threat to safety: Implications for staff and patients in a psychiatric hospital for youth. *Professional Psychology: Research and Practice*, 36, 415-425.
- MacKinnon, D.P., & Lockwood, C. (2001). *Distribution of products tests for the mediated effect*. Unpublished manuscript.
- Main, M., Kaplan, N., & Cassidy, J. (1985). Security in infancy, childhood and adulthood: A move to the level of representation. *Monographs of the Society for Research in Child Development*, 50 (1 & 2), 66-104.
- Mayseless, O. (2010). Attachment and the leader follower relationship. *Journal of Social and Personal Relationships*, 27, 271-280.

- Meeker, W.O., Cornwell, L. W., & Aroian, L. A. (1981). *Selected tables in mathematical statistics, Vol. VII: The product of two normally distributed random variables*. Providence, RI: American Mathematical Society.
- Meyer, J. P., & Allen, N. J. (1997). *Commitment in the workplace: Theory, research, and application*. Thousand Oaks, CA: Sage Publications.
- Mikulincer, M., & Florian, V. (2001). Attachment style and affect regulation: Implications for coping with stress and mental health. In G.Fletcher & M.Clark (Eds.), *Blackwell handbook of social psychology: Interpersonal processes* (pp. 537–557). Oxford, England: Blackwell.
- Mikulincer, M. (1998). Adult attachment style and affect regulation: Strategic variations in self-appraisals. *Journal of Personality and Social Psychology*, 75, 420–435.
- Mikulincer, M., Hirschberger, G., Nachmias, O., & Gillath, O. (2001). The affective component of secure base schema: Affective priming with representations of attachment security. *Journal of Personality and Social Psychology*, 81, 305-321.
- Mikulincer, M., Gillath, O., Halevy, v., Avihou, N., Avidan, S., & Eshkoli, N. (2001). Attachment theory and reactions to others' needs: Evidence that activation of the sense of attachment security promotes empathic responses. *Journal of Personality and Social Psychology*, 81, 1205-1224.
- Millings, A. & Walsh, J. (2009). A dyadic exploration of attachment and caregiving in long term couples. *Personal Relationships*, 16, 437-453.
- Northouse, P. G. (2007). *Leadership theory and practice (4th ed.)*. Thousand Oaks, CA: Sage Publications.
- Pelletier, L. G., Dion, C., Slovenic-D'Angelo, M., & Reid, R. (2004). Why do you regulate what you eat? Relationships between forms of regulation, eating behaviors, sustained dietary behavior change, and psychological adjustment. *Motivation and Emotion*, 28, 245-277.
- Pelletier, L. G., Fortier, M. S., Vallerand, R. J., & Briere, N. M. (2001). Associations among perceived autonomy support, forms of self-regulation, and persistence: A prospective study. *Motivation and Emotion*, 25, 279-306.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88, 879-903.
- Podsakoff, P. M., Mackenzie, S. B., Moorman, R. H., & Fetter, R. (1990). Transformational leader behaviours and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviours. *Leadership Quarterly*, 1, 107-122.

- Podsakoff, P. M., Todor, W. D., Grover, R. A., & Huber, V. L. (1984). *Organizational Behavior & Human Performance*, 34, 21-63.
- Popper, M., Maysseles, O., & Castelnovo, O. (2000). Transformational leadership and Attachment. *Leadership Quarterly*, 11, 267-289.
- Reis, H. T., & Patrick, B. C. (1996). Attachment and intimacy: Component processes. In E. T. Higgins and A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 523-563). New York: Guilford Press.
- Ryan, R. M. (1982). Control and information in the intrapersonal sphere: An extension of cognitive evaluation theory. *Journal of Personality and Social Psychology*, 43, 450-461.
- Ryan, R. M., & Connell, J. P. (1989). Perceived locus of causality and internalization: Examining reasons for acting in two domains. *Journal of Personality and Social Psychology*, 57, 749-761.
- Ryan, R. M., & Deci, E. L. (2004). Autonomy is no illusion: Self-determination theory and the empirical study of authenticity, awareness and will. In J. Greeberg, L. Sander, & T. Pyszczynski (Eds.), *Handbook of experimental existential psychology* (pp.449-479). New York: Guilford Press.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68-78.
- Ryan, R. M., & Frederick, C. M. (1997). On energy, personality and health: Subjective vitality as a dynamic reflection of well-being. *Journal of Personality*, 65, 529-565.
- Ryan, R. M., Rigby, S., & King, K. (1993). Two types of religious internalization and their relations to religious orientations and mental health. *Journal of Personality and Social Psychology*, 65, 586-596.
- Ryff, C. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57, 1069-1081.
- Saffrey, C., & Grouzet, F.M.E. (in preparation). Leadership and followers' motivation and well-being: A self-determination theory approach [tentative title]. Unpublished manuscript, University of Victoria, Victoria, BC.
- Saffrey, C., & Grouzet, F. M. E. (data, 2009). *Assessing leaders' provision of basic need support*. Unpublished data, University of Victoria, Victoria, BC.
- Scharfe, E., & Bartholomew, K. (1998). Do you remember?: Reconstructive memory for adult attachment patterns. *Personal Relationships*, 5, 219-234.

- Sheldon, K. M., & Vilak, V. (2008). Manipulating autonomy, competence, and relatedness support in a game-learning context: New evidence that all three needs matter. *British Journal of Social Psychology*, *47*, 267-283.
- Togel, G., Anand, N., & Kilduff, M. (2007). Emotion helpers: The role of high positive affectivity and high self-monitoring managers. *Personnel Psychology*, *60*, 337-365.
- Trevino, L. K. & Brown, M. E. (2007). Ethical leadership: A developing construct. In D.L. Nelson & C. L. Cooper (Eds.) *Positive organizational behaviour* (pp. 101-116). Thousand Oaks: Sage.
- Trevino, L. K., Hartman, L. P., & Brown, M. (2000). 'Moral persona and more manager: How executives develop a reputation for ethical leadership. *California Management Review*, *42*, 128-142.
- Walumbwa, F. O., Avolio, B. J., Gardner, W. L., Wernsing, T. S., & Peterson, S. J. (2008). Authentic leadership: Development and validation of a theory-based measure. *Journal of Management*, *34*, 89-126.
- Watson, D., Clark, L. A., & Tellegen, A (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, *54*, 1063-1070.
- White, R. W. (1959). Motivation reconsidered: The concept of competence. *Psychological Review*, *66*, 297-333.
- Yukl, G. (2006). *Leadership in organizations* (6th ed.). Englewood Cliffs, NJ: Prentice Hall.

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Appendix A: Study 1 Informed Consent Form

You are invited to participate in a study entitled “The Leadership Behaviors Survey” that is being conducted by Colleen Bezeau, PhD candidate in the Department of Psychology (University of Victoria, BC, Canada), and Dr. Frederick Grouzet (Department of Psychology, University of Victoria, BC, Canada). You may contact them if you have further questions via email at peplab@uvic.ca.

Purpose and Objectives: The general purpose of this research is to enhance our knowledge of how leadership processes may affect employee / organizational outcomes. More specifically, we are interested in the various approaches to leadership and how leaders’ general interpersonal styles of relating to others shape interactions with employees.

Importance of Research: Research of this type is important as it can inform training and intervention programming designed to enhance leadership effectiveness. The more we know about various leadership approaches and interpersonal styles of leaders, the more we can effectively understand the factors involved in the creation of optimal work environments for employees and companies.

What is Involved: If you agree to voluntarily participate in this research, you will be asked to complete questionnaires on leadership styles and general ways of relating to others. The study will take less than 30 minutes to complete. You are not required to complete the study in one sitting as the web-system will save your progress for you each time you log-in. You may complete the questionnaires anywhere you have access to log in to the web-system.

Benefits: There is no inconvenience (expecting time to respond to the questionnaire items) nor risk associated to the participation. However, you can benefit from participating in this research, contributing to the advancement of our understanding of the components involved in leadership processes which foster optimal employee and organizational functioning. You may also personally benefit through reflection on the study content following completion of participation.

Compensation: As a way to compensate for your time, you will enter a draw for \$100. For this draw, you will need to provide your name and contact information, but this information will not in any way be linked to your personal log-in and questionnaire responses. If you agree to participate in this study, this form of compensation to you must not be coercive. It is unethical to provide undue compensation or inducements to research participants. If you would not participate if the compensation was not offered, then you should decline.

Voluntary Participation: Your participation in this research must be completely voluntary. If you do decide to participate, you may withdraw at any time without any consequences or any explanation. If you do withdraw from the study, it will be impossible to remove your data from the database. This is because your responses are stored in a separate file from your log-in information and there is absolutely no way to link the log-in information to the data file. You will still be eligible for the lottery draw whether or not you complete the study in its entirety.

Anonymity and Confidentiality: In terms of protecting your anonymity, we will not know what personal log-in identity that you choose and as a result have no way of linking your identity to your personal responses.

Your confidentiality and the confidentiality of the data will be protected by a password-protected data file. When study findings are sent to you, individual email addresses will be suppressed so that others will not know whether or not you participated.

Data Use: The electronic data will be stored in password protected format. Again, this data file includes absolutely no identifying participant information. It is anticipated that the results of this study will be shared with others in the following ways: directly to participants after the study is complete and data is analyzed, in an executive summary to your organization, in a published research article, in a dissertation presentation and in presentations at scholarly meetings. The data may be used in similar future studies conducted by Dr. Grouzet but will be still used confidentially and in an anonymously format.

In addition, you may verify the ethical approval of this study, or raise any concerns you might have, by contacting the Human Research Ethics Office at the University of Victoria (250.472.4545 or ethics@uvic.ca).

By completing and submitting the questionnaire, **YOUR FREE AND INFORMED CONSENT IS IMPLIED** and indicates that you understand the above conditions of participation in this study and that you have had the opportunity to have your questions answered by the researchers.

Please print a copy of this letter for your reference.

Appendix B: E-mail Letter to Hotel Properties / Managers

My name is Colleen Bezeau and I am a graduate student in Psychology at the University of Victoria. I am conducting research on leadership in hotel organizations in collaboration with Dr. Frederick Grouzet (fgrouzet@uvic.ca).

I am wondering if you would consider forwarding an email invitation to participate in a web survey to eligible individuals in your hotel property. Anyone employed in a leadership role (e.g., manager, director, general manager, etc.) may participate.

Leaders will be asked to complete a brief anonymous web-based survey at a personally convenient time. There is no coordination involved on your part aside from forwarding the invitation. All responses are anonymous and no identifying property information is collected at any time.

This research will enhance our understanding of the leadership processes which foster optimal employee and hotel functioning. Leaders will have the opportunity to win one of four \$100 cash prizes as a thank you for participating. In addition, we would be happy to provide you with a summary of the results when we are finished collecting data.

If you are willing to forward an email invitation to eligible participants in your hotel, please let me know by responding to this email. I will then forward you an announcement email to send out to your staff. Please do not hesitate to contact me if you have any questions.

Many Thanks,
Colleen Bezeau (PhD Candidate)
Leadership Behaviours Survey
Department of Psychology
University of Victoria

Appendix C: Email Letter to be forwarded

My name is Colleen Bezeau and I am a graduate student in Psychology at the University of Victoria. As part of my PhD, I am conducting research on leadership in organizations in collaboration with Dr. Frederick Grouzet (fgrouzet@uvic.ca).

We hope that you will help us better understand the leadership processes that promote employee well-being and satisfaction by participating in this study. Participation will take less than 30 minutes.

You can complete the study on-line, anytime.

As a thank you for participating, you can submit your name for a lottery draw to win one of four \$100 cash prizes.

If you choose to participate, you will be asked to submit your work email address and then you will automatically receive by email an access link. **YOUR RESPONSES WILL BE COMPLETELY ANONYMOUS AND WILL NOT BE LINKED WITH THE EMAIL ADDRESS YOU PROVIDE.**

We hope that you will participate! A summary of the study findings will be available to you once we finish collecting data.

To get started, click on the following link or cut and paste the entire link into your browser window: <https://web.uvic.ca/~fgrouzet/research/leader/>

Please do not hesitate to contact me if you have any questions.

Many Thanks,
Colleen Bezeau (PhD Candidate)
Leadership Behaviours Survey
Department of Psychology
University of Victoria

Appendix D: Relationship Questionnaire

Reference:

Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four category model. *Journal of Personality and Social Psychology*, 61, 226-244.

Web Link:

<http://www.sfu.ca/psyc/faculty/bartholomew/rq.htm>

Following are descriptions of four general relationship styles that people often report. Please read each description and rate each of them according to the extent to which you think each description corresponds to your general relationship style.

(1) SECURE. It is easy for me to become emotionally close to others. I am comfortable depending on them and having them depend on me. I don't worry about being alone or having others not accept me.

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

(2) PREOCCUPIED. I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them.

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

(3) DISMISSING. I am comfortable without close emotional relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.

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

(4) FEARFUL. difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others.

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

Appendix E: State Adult Attachment Scale

Reference:

Gillath, O., Hart, J., Nofhle, E. E., & Stockdale, G. D. (2009). Development and validation of a state adult attachment measure (SAAM). *Journal of Research in Personality*, 43, 362-373.
Web Link: <http://web.ku.edu/~gillab/resources.html>

The following statements concern how you feel right now. Please respond to each statement by indicating how much you agree or disagree with it as it reflects your current feelings. Please select the rating that best indicates how you feel at the moment.

[The following items were presented in random order; see response scale at the bottom of the page]

Secure Attachment

- I feel loved.
- I feel like I have someone to rely on.
- I feel secure and close to other people.
- If something went wrong right now I feel like I could depend on someone.
- I feel like others care about me.
- I feel relaxed knowing that close others are there for me right now.
- I feel I can trust the people who are close to me.

Anxious Attachment

- I feel a strong need to be unconditionally loved right now.
- I really need to feel loved right now.
- I want to share my feelings with someone.
- I want to talk with someone who cares for me about the things that are worrying me.
- I wish someone close could see me now.
- I wish someone would tell me they really love me.
- I really need someone's emotional support.

Avoidant Attachment

- If someone tried to get close to me, I would try to keep my distance.
- The idea of being emotionally close to someone makes me nervous.
- I'm afraid someone will want to get too close to me.
- I feel alone and yet don't feel like getting close to others.
- I have mixed feelings about being close to other people.
- I would be uncomfortable having a good friend or a relationship partner close to me.
- I feel like I am loved by others but I really don't care.

Response Scale:

1	2	3	4	5	6	7
Disagree			Neither			Agree
Strongly			Agree or			Strongly
			Disagree			

Appendix F: Problems at Work Scale - Modified

Available upon request. Contact fgrouzet@uvic.ca

Saffrey, C., & Grouzet, F. M. E. (data, 2009). *Assessing leaders' provision of basic need support*.
Unpublished data, University of Victoria, Victoria, BC.

Appendix G: Transformational Leadership Behavior Inventory, Transactional Leadership Behaviors Scale, Ethical Leadership Scale and Authentic Leadership Scale.

Listed below are a variety of statements that involve leaders' perceptions about their self in their work role. Please respond to the statements according to how you believe you act or feel as a leader. There are no right or wrong responses so please answer honestly. I...

[All items from all leadership scales were mixed together and presented in randomized order; see response scale below for each item]

1	2	3	4	5	6	7
Never	Very Rarely	Rarely	Occasionally	Frequently	Very Frequently	Always

Transformational Leadership Behavior Inventory

Reference:

Podsakoff, P. M., Mackenzie, S. B., Moorman, R. H., & Fetter, R. (1990). Transformational leader behaviours and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviours. *Leadership Quarterly*, 1, 107-122.

Items:

- Paint an interesting picture of the future for the group.
- Inspire others with my plans for the future.
- Lead by "doing" rather than simply by "telling."
- Lead by example.
- Foster collaboration among work groups.
- Develop a team attitude and spirit among my employees.
- Show employees that I have high expectations.
- Insist on only the best performance.
- Show respect for employees' personal feelings.
- Treat employees without considering their personal feelings.
- Seek ideas that force employees to rethink some of their own previously unquestioned ideas.
- Stimulate employees to think about old problems in new ways.

Transactional Leadership Behaviors Scale

Reference:

Podsakoff, P. M., Todor, W. D., Grover, R. A., & Huber, V. L. (1984). *Organizational Behavior & Human Performance*, 34, 21-63.

Items:

- Give employees special recognition when their work is very good.
- Commend employees when they do a better than average job.
- Personally compliment employees when they do outstanding work.

Appendix G Cont'd: Transformational Leadership Behavior Inventory, Transactional Leadership Behaviors Scale, Ethical Leadership Scale and Authentic Leadership Scale.

Ethical Leadership Scale

Reference:

Brown, M. E., Trevino, L. K., & Harrison, D. A. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes*, 97, 117-134.

Items:

Conduct my life in an ethical manner.

Define success not just by results but also the way that they are obtained.

Set an example of how to do things the right way in terms of ethics

Ask "what is the right thing to do?" when making decisions.

Authentic Leadership Scale

Available upon request. Contact fgrouzet@uvic.ca

Saffrey, C., & Grouzet, F. M. E. (data, 2009). *The Authentic Leadership Scale*. Unpublished measure, University of Victoria, Victoria, BC.

Appendix H: Demographic Variables

The following demographic questions were posed to all participants. The response scales are noted below each question.

Gender

[1 = Female]

[2 = Male]

Age

Ethnicity

How many employees do you supervise?

[1-5]

[6-10]

[11-15]

[16-20]

[21-25]

[26-30]

[31-35]

[36-40]

[41-45]

[46-50]

[over 50]

How long have you occupied your current supervisory position?

[<6 months]

[< 1 year]

[1-3 years]

[4-6 years]

[7-9 years]

[10-14 years]

[15-19 years]

[20-24 years]

[25-29 years]

[> 30 years]

How long have you worked (any position) in a supervisory role?

[<6 months]

[< 1 year]

[1-3 years]

[4-6 years]

[7-9 years]

- [10-14 years]
- [15-19 years]
- [20-24 years]
- [25-29 years]
- [> 30 years]

What is your current title?

- [1= General Manager]
- [2=Director]
- [3=Manager]
- [4=Assistant Manager]
- [5=Other]
- [6=Prefer not to say]

How frequently do you have meaningful face-to-face interactions with your employees?

- [1=Few times a Month]
- [2= Once a week]
- [3= A couple days a week]
- [4=Every other day]
- [5= Once a Day]
- [6= A Few Times A Day]
- [7=Many Times A Day]

How frequently do you have any kind of meaningful interactions (e.g., e-mail, face-to-face, etc.) with the employees you supervise?

- [1=Few times a Month]
- [2= Once a week]
- [3= A couple days a week]
- [4=Every other day]
- [5= Once a Day]
- [6= A Few Times A Day]
- [7=Many Times A Day]

Appendix I: Study 1 Debriefing

LEADERSHIP BEHAVIORS SURVEY RESULTS

The Purpose of the Survey

In the Leadership Behaviors Survey, we were interested in better understanding the factors that predict how well leaders support their employees in the workplace context. More specifically, we considered how both leadership styles and general interpersonal styles predict leaders' provision of support to employees.

Most leadership research focuses on specific leadership theories. We were interested in whether a leader's more general, interpersonal style in day-to-day life may actually better predict how they engage with employees.

Who Completed the Survey?

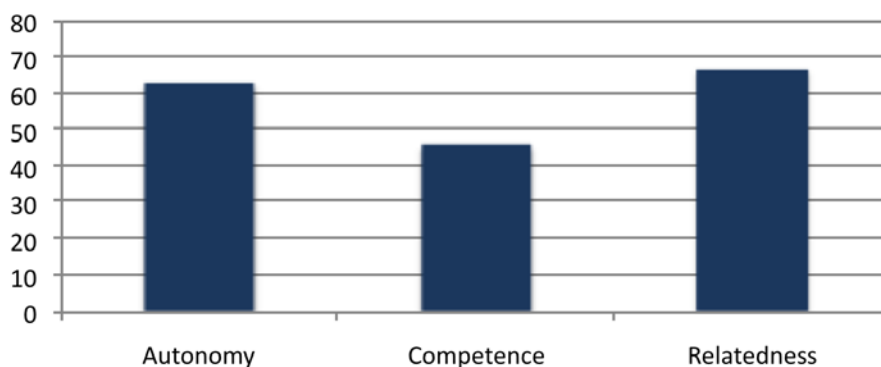
- A total of 104 leaders from a variety of leading North American hotel chains (e.g., Fairmont Hotels & Resorts, Westin Hotels & Resorts, Hilton, etc.) completed the survey.
- The majority of leaders occupied their *current* position for 1-3 years, with 60% of all leaders reporting between 4 and 14 years of total supervisory experience in *any* position.
- Approximately one third of all leaders who completed the survey supervise 1-5 employees. Fifteen percent supervise 15 or more and 12% supervise 6-10 employees. The remaining 43% supervise between 11 and 50 employees.

Supporting Employees

As a leader, there are a variety of ways in which you can help your employees feel supported. We assessed three main types of support in this survey:

- Autonomy Support: Taking employees' perspective, providing a sense of choice, responding to questions and thoughts, providing meaningful rationale, and encouraging initiation
- Competence Support: helping employees feel effective at optimally challenging tasks
- Relatedness Support: promoting a sense of feeling connected to and cared for by others

What we found (bars represent % of all leaders):



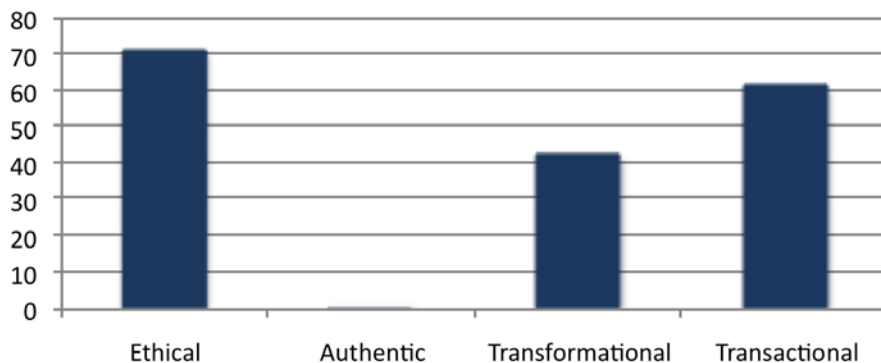
Thus, we found that 60-70% of leaders supported clients' autonomy and relatedness needs yet less than half were supportive of employees' competence needs.

Leadership Style

When you look around at your colleagues, it's easy to see that there are many different styles and approaches to leadership. In this survey, we assessed four styles of leadership:

- **Ethical:** appropriate conduct (e.g., honesty) and emphasis on ethics through communication and the setting of ethical standards, "walk the talk."
- **Transformational:** inspiring with a vision of the future, encouraging employees to critically question ideas and assumptions, looking past your own needs in order to nurture employees
- **Transactional:** Using rewards and reinforcement; for example, offering bonus cheques or promotions that are contingent on strong performance.
- **Authentic:** awareness of personal values, thoughts, feelings, having a relatively objective perspective of one's positive and negative qualities, acting in ways which are consonant with one's values or beliefs, and acting genuine in relationships

What we found (bars represent % of all leaders):



Thus, we found that on the most common forms of leadership were ethical and transactional. Slightly less than 50% of leaders were transformational. Of significant note is that only 1% of leaders engaged in authentic leadership.

When we considered how leadership style relates to providing support to employees, we found that leaders who are more ethical, transactional and transformational tend to provide greater

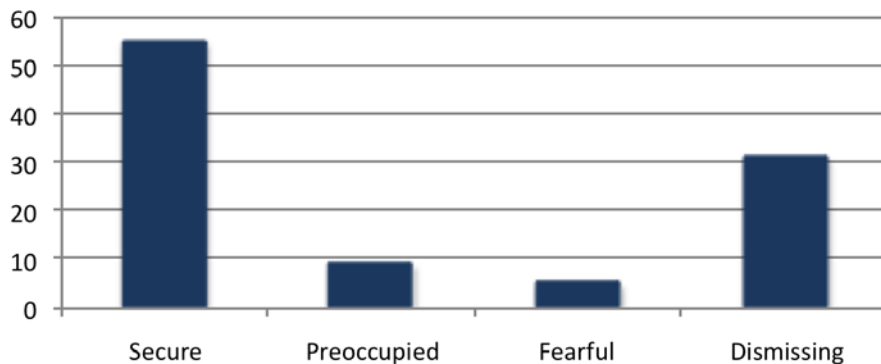
support to their employees. There was no link between authentic leadership and need support – likely a good thing since so few leaders demonstrated this style!

Relationship Style

Although the relationships that we share with particular others are unique, in our day to day life we have prototypical patterns of relating to others. We assessed the extent to which leaders found each of the four interpersonal styles self-characterizing:

- Secure: Able to trust others, enjoy personal autonomy and satisfying intimate relations.
- Preoccupied: Overly focused on intimate relationships, excessively reliant on others for support and self-esteem
- Fearful: Hold a negative self model, avoid intimacy due to fear of rejection, see the self as undeserving of the love and support of others
- Dismissing: Hold a positive self model, are compulsively self-reliant and defensively deny attachment needs

What we found (bars represent % of all leaders):



Thus, we found that over 50% of leaders identified as predominantly securely attached. Approximately 30% of leaders reported a dismissing style, with less than 10% reporting fearful and preoccupied styles.

When we considered how relationship styles relate to providing support to employees, we found that leaders who described themselves as more preoccupied or fearful tended to support their employees' needs less.

Putting it All Together

In this survey, we considered your support of employees' needs, your leadership style, and your general relationship style. Our expectation was that your general relationship style, not your leadership style, would be the BEST predictor of how well you support your employees.

We tested this expectation and found some support: Leaders with a 'fearful' general relationship style are less supportive of their employees' needs irrespective of leadership style. In other words, what matters most is a general relationship style, not a specific style or form of leadership when it comes to supporting your employees' psychological needs. In this sense, the impact you have on the employees you supervise is driven in part by your prototypical interpersonal style of relating to others in general.

Thank you again for your time and assistance in making this research possible!

Appendix J: Study 2 Informed Consent

The study is being conducted by Colleen Bezeau (PhD candidate) and Dr. Frederick Grouzet (Department of Psychology, University of Victoria, BC, Canada).

Purpose and Objectives:

The general purpose of this research is to enhance our knowledge of the individual differences involved in social relations and making social decisions. Research of this type is important as it can help us better understand the key factors which contribute to individual differences in social behaviors, relationships and well-being.

What is Involved:

You will be asked to recall and describe a social interaction. You will then be asked to complete some questionnaires on social behaviors and general ways of relating to others. The study will take less than 30 minutes to complete.

Benefits:

There is no inconvenience (except time to participate) nor risk associated to the participation. However, you can benefit from participating in this research, contributing to the advancement of our understanding of the individual differences that exist in social behaviors and decision-making. You may also personally benefit through reflection on the study content following completion of participation.

Compensation:

As a way to compensate for your time, you will be awarded 1 bonus credit through the research participation system. If you agree to participate in this study, this form of compensation to you must not be coercive. It is unethical to provide undue compensation or inducements to research participants. If you would not participate if the compensation was not offered, then you should decline.

Voluntary Participation:

Your participation in this research must be completely voluntary. If you do decide to participate, you may withdraw at any time without any consequences or any explanation. If you do withdraw from the study, you will still be eligible for bonus credit.

Anonymity and Confidentiality:

Your personal experience narrative and your responses will be kept confidential and the data will be anonymized before analysis. It is anticipated that a summary of the results of this study will be shared with others in published research articles, thesis/dissertation presentation and presentations at scholarly meetings. The data may be used in similar future studies conducted by Dr. Grouzet but will be still used confidentially and in an anonymously format. In the case that you are participating in multiple research projects conducted by Dr. Grouzet, your survey responses may be linked to provide a richer data set for analysis.

In addition, you may verify the ethical approval of this study, or raise any concerns you might have, by contacting the Human Research Ethics Office at the University of Victoria (250.472.4545 or ethics@uvic.ca).

By clicking on START, YOUR FREE AND INFORMED CONSENT IS IMPLIED and indicates that you understand the above conditions of participation in this survey and that you have had the opportunity to have your questions answered by the researchers.

Appendix K: Priming Script

Available upon request. Contact fgrouzet@uvic.ca

Saffrey, C., & Grouzet, F. M. E. (2009). *Priming Script*, Unpublished measure. University of Victoria, Victoria, BC.

Appendix L: Study 2 Debriefing

In this study, you began by writing briefly on a topic for 2 minutes. You wrote on one of three topics: a close relationship, winning a trip to Hawaii, or walking to campus. Each participant randomly received one of the topics.

The close relationship topic was intended to induce a feeling of secure attachment – experiencing a close affectional bond where you feel comfortable relying on others for support and having them rely upon you. The winning a trip to Hawaii topic was intended to make you feel happy, and the walking to school topic was intended to be neutral. The writing task is what we call a ‘priming’ task where we try to induce a certain feeling by having you think about a specific kind of event.

We hypothesized that the writing task topic (the independent variable) would influence your responses on the subsequent questionnaire (provision of need support to employees– the dependent variable). More specifically, we expected that participants who wrote on a close, supportive relationship would report greater provision of support to employees (in terms of promoting feelings of connectedness, competence, and autonomy) in the work-place scenarios questionnaire. In other words, we expected secure attachment priming to lead to greater provision of basic need support.

If you have any questions or concerns, please do not hesitate to contact us at peplab@uvic.ca
Thank you for participating!

Appendix M: Study 3 Informed Consent for Coaches

The study is being conducted by Colleen Bezeau (PhD candidate) and Dr. Frederick Grouzet (Department of Psychology, University of Victoria, BC, Canada). If you have further questions you may contact them by using the '[Contact Us](#)' tool (top menu bar).

Purpose and Objectives: The general purpose of this research is to enhance our knowledge of successful coaching experiences. More specifically, we are interested in how both coaches' unique approaches during sessions and interpersonal styles of relating affect clients' adjustment and satisfaction with the coaching experience.

Importance of Research: Research of this type is important as it can inform training programming designed to enhance coaching effectiveness. The more we know about various coaching approaches and interpersonal styles of coaches, the more we can effectively understand the factors involved in the creating positive coaching experiences for clients.

What is Involved: If you agree to voluntarily participate in this research, you will be asked to complete questionnaires on general styles and ways of relating to others and your satisfaction with the coaching experience. The survey will take less than 30 minutes to complete. You may complete the questionnaires anywhere you have access to log in to the web-system.

Benefits: There is no inconvenience (except time to respond to the questionnaires) nor risk associated to the participation. However, you can benefit from participating in this research, contributing to the advancement of our understanding of the components involved the factors and processes which promote optimal follower well-being and satisfaction. You may also personally benefit through reflection on the survey content following completion of participation.

Compensation: As a way to compensate for your time, coaches may enter a draw for a \$100 gift card from Amazon.com. If you win at the lottery draw, you will be asked to provide your name and contact information, but this information will not in any way be linked to your questionnaire responses. If you agree to participate in this study, this form of compensation to you must not be coercive. It is unethical to provide undue compensation or inducements to research participants. If you would not participate if the compensation was not offered, then you should decline.

Voluntary Participation: Your participation in this research must be completely voluntary. If you do decide to participate, you may withdraw at any time without any consequences or any explanation. However, it is impossible to remove your answers from the database because your personal information (e.g., email address) is not directly attached to the responses database, so that it is not possible to identify the responses associated with your email address.

Anonymity and Confidentiality: We know that you care how information about you is collected, used and safeguarded. Your responses to questionnaires for this survey will be used, anonymously and confidentially, in ongoing research by Dr. Grouzet. Although we used your e-mail address to send you the personalized link, this information is NOT associated with any of survey responses while analyzing data. The matching of responses for coaches and clients is

done through a computer program and does not involve human intervention. The final data set that is used for analysis is completely anonymized.

We do NOT release participants' e-mail addresses or responses to any third party. To ensure the security of your personal information, the email address is separated from your questionnaire responses and the email address is replaced with a unique identifier that is not linked to the email address. The responses are removed from the server and kept separately on a disk. Your email address will be recorded on a secure and local server that only the principal investigator (and server administrators) may have access to and only if a technical problem occurs.

Use of Data We Collect: Only people directly involved in this project (Dr. Grouzet and his research team) will have access to the anonymized data, which will be stored in password-protected computer files. Data may be used for research purposes and summaries of results may be presented in research journals, at conferences and to the campus community. A report will also be prepared for PairCoach and be available on this website.

In addition, you may verify the ethical approval of this research, or raise any concerns you might have, by contacting the Human Research Ethics Office at the University of Victoria (1.250.472.4545 or ethics@uvic.ca).

Index N: E-mail letter to Coaches

Hi [First Name],

Here at the University of Victoria, we are conducting an innovative survey to better understand the coaching profession and the factors that facilitate optimal coaching experiences for clients. In order to gain the insight we're seeking, we need your help!

As a coach, we would love it if you set aside less than 30 minutes to take our brief survey. In exchange for your time, you can enter a draw for a \$100 gift certificate to Amazon.com.

All questions are rating scales and your responses will be analyzed anonymously and kept completely confidential. We are very grateful for your assistance in this important research. At the end of the survey, there is an option for you to request a copy of the findings when they become available.

Simply click on the link below to check out the survey and get started:
<https://web.uvic.ca/~fgrouzet/coaching/index.php/coach/>

Warmly, Colleen Bezeau, Ph.D. Candidate
Frederick Grouzet, Ph.D.
Department of Psychology
University of Victoria, BC, Canada

Appendix O: E-mail letter to Coaches sent by Noomii to their mailing list

Dear Noomii,

We have some exciting news to share with you! Noomii's primary mission is to help match prospective clients with the best possible coach for their specific goals.

In order to achieve this goal, Noomii has partnered with the University of Victoria to conduct innovative research to better understand the psychological factors that lead to the optimal "fit" between a coach and a client.

From this research, we will develop a customized matching questionnaire for our website which will match clients and coaches with each other based on the best psychological fit. Think of it like "E-Harmony" for coaches and clients!

In order to gain the insight we're seeking, we need your help. We need both coaches and their former clients to participate. We would be grateful if you and 3 to 5 of your former clients could set aside 20 to 30 minutes to take our brief survey. In exchange for your time, you can enter a draw for a \$100 gift certificate to Amazon.com (for coaches) or a new Apple iPad (for clients).

All responses will be analyzed anonymously and kept completely confidential.

What you get as a coach:

- a chance to help us develop the "E-harmony for coaches" questionnaire which will match you with your ideal clients
- feedback on what kinds of coaching clients YOU work best with
- entry in a draw to win a \$100 gift certificate from Amazon.com

What your clients get:

- a chance to give YOU feedback to help you find out who your ideal clients are
- entry in a draw to win a NEW Apple iPad!

ALL COACH AND CLIENT DATA IS KEPT STRICTLY PRIVATE AND CONFIDENTIAL BY THE UNIVERSITY OF VICTORIA (CANADA).

We are very grateful for your assistance in this important research. In addition to helping expand the scientific study of the coaching profession, you will also benefit by helping us to develop the world's most advanced coach-client matching system, which will mean more - and better fitting - clients for you!

We will also send all participating coaches a summary report highlighting the findings, which will help you better understand which clients work best with you, and why.

Thank you in advance for your valued support!

Appendix P Cont'd: E-mail letter to Coaches sent by Noomii to their mailing list

Simply click on the link below to check out the survey and get started:

<https://web.uvic.ca/~fgrouzet/coaching/index.php>

Please forward this email to your coaching colleagues. All coaches are welcome to participate in the research.

Regards,

Kurt Shuster
Co-founder & CEO
Noomii.com
1-800-278-1057
kurt@noomii.com

Appendix P: Follow-Up Reminder E-mail Sent to Coaches

Hello,

We recently sent you an e-mail regarding a survey we're conducting at the University of Victoria to better understand the coaching field from both coaches' and clients' perspectives. To ensure that we do not bother you, this is the only reminder e-mail that we will send you.

FOR COACHES WHO HAVE NOT COMPLETED THE SURVEY, if you are interested in doing so, please click on the link at the bottom of this e-mail. You may enter a draw for a \$100 gift certificate as a thank you for participating.

FOR COACHES WHO HAVE COMPLETED THE SURVEY, you may recall at the end of the survey you were given an option to invite clients to share their views on coaching (through a secure system that safeguards the confidential relationship you share with your client by NOT recording any contact info you provide). If you do not wish to invite clients, we respect that decision. If you would like to ask your clients for permission first, feel free to send an e-mail from your personal e-mail account, then return to this e-mail and click on the link below to access the survey. After you enter your e-mail you won't need to complete the survey again; it will load to the client screen where you left off.

The greatest insight comes from both coach and client participation so we greatly appreciate your effort in helping us gain the clients' perspective as well. In addition, if you are interested in collaborating with us on this project, you can e-mail fgrouzet@uvic.ca.

Thank you to everyone in helping make this research project a success!

<https://web.uvic.ca/~fgrouzet/coaching/index.php/coach/>

Warmly, Colleen Bezeau, Ph.D. Candidate
Dr. Frederick Grouzet, Ph.D.
University of Victoria, Canada

Appendix Q: Modified Barrett-Lennard Relationship Inventory - Empathy Scale

Reference:

Barrett-Lennard, G. T. (1961). Dimensions of therapist response as causal factors in therapeutic change. *Psychological Monographs*, 76, 562.

Included in the following questions are a variety of ways that may feel or behave in relation to your clients. Please consider each statement with reference to your interactions with your clients. Make your response according to how strongly you feel each statement is true or not true. Remember, every coach has a different approach. There are no right or wrong answers so please be honest.

I understand how my clients see things.

I may understand my clients' words, but not the way they feel.

I nearly always know exactly what my clients mean.

I look at what my clients do from my own point of view.

I usually sense or realize what my clients are feeling.

My own attitudes toward some of the things my clients do or say prevent me from understanding my clients.

Sometimes I think my clients feel a certain way because that's the way I feel.

I realize what my clients mean even when they have difficulty saying it.

I usually understand the whole of what my clients mean.

I just take no notice of some of the things my clients think or feel.

I appreciate exactly how the things my clients experience feel to them.

At times I think that my clients feel a lot more strongly about a particular thing than they really do.

I do not realize how sensitive my clients are about some of the things we discuss.

I understand my clients.

My response to clients is sometimes automatic so I don't really get through to my clients.

When my clients are hurt or upset, I can recognize their feelings exactly, without becoming upset myself.

Response Scale:

[1=Very Rarely or Never; 2= Rarely; 3= Sometimes; 4= Often; 5= Very Often or Always]

Appendix R: Study 3 Demographic Questions

Participants were asked the following demographic questions:

Gender:

[1 = Female]

[2 = Male]

Age

Ethnicity

In addition, coaches and clients were asked these specific questions:

Coach Items

Are you accredited by the International Coaching Federation?

Approximately how many clients have you coached?

What is your approximate hourly rate?

In what general areas do you offer coaching? Please select all that apply.

Client Items

When did you start coaching?

When did you finish coaching?

On average, how many hours per week did you coach?

On average, how much did your coaching cost per hour?