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**Reconciling the Benefits and Costs of Providing and Seeking Support: The Importance
of Contextual Factors and Attachment Avoidance**

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A thesis submitted in fulfilment of the requirements for the degree of

Doctor of Philosophy in Psychology

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Abstract

The support literature is marked with an interesting paradox. Perceiving partners as supportive has health and relationship benefits, but receiving direct, visible support direct can threaten recipients' coping and efficacy. Furthermore, although seeking direct advice from others elicits greater support, seeking reassurance often triggers greater rejection. Three articles aimed to reconcile the mixed costs and benefits of support provision and support seeking by examining important contextual factors and characteristics of support recipients that should determine whether support provision and support seeking leads to positive outcomes. Chapter Two investigated whether the mixed benefits and costs of visible forms of support depend on recipients' contextual needs. The results demonstrated that during couples' support-relevant discussions, partners' visible support can boost both felt support and confidence about goal success when recipients are highly distressed and need overt comfort, but can be costly to goal-related confidence when recipients are not distressed and do not require overt support. Chapter Three explored how partners' support can also be beneficial when it is responsive to recipients' chronic needs related to attachment-related insecurities. The results across four dyadic studies examining the provision of support during couples' support-relevant discussions and daily life demonstrated that the impact of partners' support on recipients' outcomes is represented by a unique curvilinear pattern for recipients high in attachment avoidance. As partners provided low-to-moderate levels of practical support, highly avoidant recipients exhibited increasing negative outcomes, but as partners' practical support shifted from moderate to high levels, highly avoidant recipients experienced more positive outcomes. Lastly, Chapter Four examined whether the costs of reassurance seeking depend on the context in which it is sought and who is seeking support. Three dyadic studies found that reassurance seeking behaviors do not uniformly elicit rejection from partners when enacted during support-relevant discussions, and actually elicit greater responsive support

when enacted by highly avoidant individuals who tend to minimize dependence in their relationships. Taken together, these studies demonstrate how a contextual framework that takes into account the needs and dispositions of support recipients can reconcile the mixed effects of support provision and support seeking in relationships.

To my parents.

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I want to thank my supervisor Nickola Overall who has been the best mentor, colleague and friend over the years – her support and guidance has made this journey so enjoyable and I have treasured all the laughs along the way. To Jeff Simpson, whose amazing mentorship and encouragement, coupled with entertaining stories, will always be cherished. To my secondary supervisor Chris Sibley for inspiring me to always stay passionate about my research.

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Chapter Two: Contextual Costs and Benefits of Support

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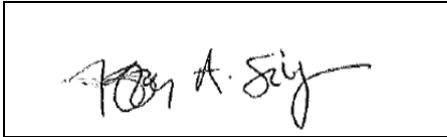
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Certification by Co-Authors

The undersigned hereby certify that:

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- ❖ in cases where the PhD candidate was the lead author of the work that the candidate wrote the text.

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Chapter Three: Attachment Avoidance and Curvilinear Effects of Support.

Grime, Y. U., Overall, N. C., Simpson, J. A., Fletcher, G. O. (2015). "All or Nothing": Attachment Avoidance and the Curvilinear Effects of Partner Support. *Journal of Personality and Social Psychology*, 108(3), 450-475.

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70%


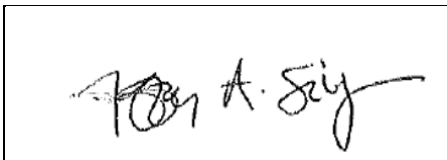

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Chapter Four: Attachment Avoidance and the Benefits of Reassurance Seeking.

Girme, Y. U., Molloy, P. R., & Overall, N. C. (under review at Personality and Social Psychology Bulletin). Repairing Distance and Facilitating Support: Attachment Avoidance and the Positive Impact of Reassurance Seeking.

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Certification by Co-Authors

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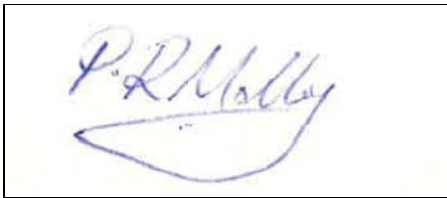

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CHAPTER ONE: INTRODUCTION AND OVERVIEW OF STUDIES

The social support literature is marked with a range of inconsistent findings. On the one hand, it is well-documented that *perceiving* intimate partners are available and supportive predicts better psychological and physical health (Holt-Lunstad, Smith, Baker, Harris & Stephenson, 2015; Uchino, Cacioppo & Kiecolt-Glaser, 1996) and fosters greater relationship closeness and satisfaction (Collins & Feeney, 2003; Sullivan, Pasch, Johnson & Bradbury, 2010; Verhofstadt, Buysse, Ickes, Davis, & Devoldre, 2008). On the other hand, it is increasingly evident that the actual *receipt* of support can backfire. For example, support that is direct and overt – called ‘visible’ support – can exacerbate support recipients’ distress and threaten their efficacy and competence (Bolger, Zuckerman & Kessler, 2000). Accordingly, some research suggests that support might be most effective when it is ‘invisible’ and goes unnoticed by recipients (Bolger et al., 2000; Shrout, Herman & Bolger, 2006).

The major aim of this thesis is to demonstrate how considering important contextual factors can help to reconcile when different types of support can be beneficial or costly. For example, direct or visible support appears to be more beneficial when provided during couples’ discussions about ongoing goals (e.g., Collins & Feeney, 2003; Overall, Fletcher & Simpson, 2010) compared to when delivered as recipients attempt to cope with serious, impending stressors (e.g., Bolger et al., 2000; Bolger & Amarel, 2007). Thus, my first study considers whether the benefits or costs of visible forms of support provided during couples’ discussions about ongoing personal goals depend on whether support recipients need overt and direct evidence of their partners’ care and comfort (Chapter 2).

Important characteristics of support recipients also determine whether support can be beneficial or costly. For example, individuals high in attachment avoidance tend to have histories of rejecting caregiving, and find it difficult to trust and depend on others (Bowlby, 1973; Mikulincer & Shaver, 2003). When avoidant individuals are upset, and could benefit

from their partner's support, they react more negatively by suppressing their attachment-needs and distancing themselves from their partners (Collins & Feeney, 2000; Rholes, Simpson & Oriña, 1999; Rholes, Simpson, Campbell & Grich, 2001; Simpson, Rholes & Nelligan, 1992). However, consistent with a contextual framework, partner support should be more beneficial when the type and level of support provided matches the needs of highly avoidant recipients (see Cutrona et al., 2007). Accordingly, in my second set of studies, I investigate how partner support might be more effective for highly avoidant support recipients when that support meets attachment-related needs and disconfirms negative expectations of unreliable caregivers (Chapter Three).

Finally, I also explore another important, but often overlooked, factor that influences effective support provision—the way in which individuals seek support. When individuals directly seek support by asking for help and advice, partners tend to provide more support (e.g., Collins & Feeney, 2000). However, when individuals seek reassurance and validation that the self is loveable, worthy and truly cared for, this tends to trigger interpersonal rejection rather than support (see Starr & Davila, 2008). However, these costs have emerged within examinations of general self-reported tendencies to seek reassurance (Joiner et al., 1992; Joiner & Metalsky, 1995; 2001; Katz & Beach, 1997), rather than reassurance seeking during support-relevant interactions in which partners may be more responsive. Moreover, as with the effectiveness of support provision, key characteristics of reassurance seekers are likely to alter the costs and benefits associated with this support seeking behavior. In particular, my final set of studies investigates whether reassurance seeking might generate positive outcomes and elicit greater partner support when enacted by individuals who typically minimize dependence in their relationships, such as when reassurance seekers are high in attachment avoidance (Chapter Four).

In the following sections, I provide the foundation of these three research questions by

briefly highlighting: (a) the mixed benefits and costs of partner support, (b) inconsistent findings suggesting that highly avoidant individuals react negatively to partner support but can also benefit from high levels of support, and (c) the mixed benefits and costs of seeking support. My aim is to highlight that one way we can reconcile the range of existing inconsistencies in the literature is to examine the degree to which partner support meets the contextually relevant needs of support recipients and important characteristics that shape these needs, such as recipients' attachment avoidance. I then present the deeper theoretical and empirical foundations of each research question in more detail in the following chapters.

Mixed Benefits and Costs of Support

Having a supportive partner is central to helping people cope with stressful events and major life challenges (Cohen & Wills, 1985; Conger, Rueter & Elder, 1999), thereby protecting individuals from psychological and health problems (Holt-Lunstad et al., 2015; Uchino et al., 1996). A large body of work examining couples' support-relevant discussions about ongoing stressful issues and personal goals demonstrates that perceiving partners as supportive fosters greater coping, positive mood and self-esteem (Collins & Feeney, 2000; Feeney, 2004), and facilitates personal growth by helping recipients achieve their personal goals (Feeney, 2004; Feeney & Collins, 2014; Overall et al., 2010). Moreover, partners' support attempts also demonstrate their love and care for recipients, which produce a host of relationship benefits, including generating closeness, intimacy and relationship satisfaction, and protecting against future relationship conflicts (Cutrona & Suhr, 1992; Feeney & Collins, 2003; Gleason, Iida, Shrouf & Bolger, 2008; Pasch, Bradbury & Sullivan, 1997; Sullivan et al., 2010; Verhofstadt et al., 2008).

However, even well intended support can backfire. For example, the actual receipt of support the week prior to an important exam, or receiving direct support in the moments before delivering a speech, can heighten recipients' depressed mood and anxiety (Bolger &

Amarel, 2007; Bolger et al., 2000; Gleason et al., 2008; Shrout et al., 2006). Similarly, the overprovision of support (i.e., providing more support than is desired) predicts lower relationship satisfaction (Brock & Lawrence, 2009; Cutrona, 1996). These costs of support are theorized to occur because support that is too overt and direct increases the salience of stressors, signals that recipients may be unable to cope on their own, and creates feelings of indebtedness to partners (Bolger et al., 2000, also see Rafaeli & Gleason, 2009 for review). This perspective suggests that support has costs when it is ‘visible’ or perceived as support by recipients (Bolger et al., 2000; Kaul & Lakey, 2003). Accordingly, this body of work has shown that support that is ‘invisible’ (i.e., goes unnoticed by recipients) can be more effective by helping recipients cope with stressors (Bolger et al., 2000; Shrout et al., 2006) while also avoiding damaging recipients’ self-evaluations (Bolger & Amarel, 2007) and boosting their efficacy (Howland & Simpson, 2010).

Chapter Two: Contextual Costs and Benefits of Support. Why has prior research found that visible or perceived support from intimate partners can be both beneficial and costly for recipients? Notably, research highlighting the benefits of perceiving partners as supportive predominately assesses *interpersonal* outcomes (e.g., felt support, closeness and relationship satisfaction) during couples’ *discussions about ongoing issues* (Cutrona & Suhr, 1992; Feeney & Collins, 2003; Overall et al., 2010; Pasch et al., 1997; Sullivan et al., 2010; Verhofstadt et al., 2010). During support-relevant interactions, perceiving partners as supportive and caring provides important diagnostic information about whether partners are responsive to recipients’ needs and are committed to the relationship (Overall, Girme & Simpson, in press), and is thus crucial for relationship wellbeing (Reis et al., 2004). Indeed, not being responsive to recipients’ concerns can communicate a lack of care and regard for the recipient, and lead to recipients negatively evaluating their partners (e.g., Cutrona, Shaffer, Wesner & Gardner, 2007; Feeney & Collins, 2003) and reporting reductions in

relationship satisfaction across time (Feeney & Collins, 2003; 2015; Overall et al., 2010; Sullivan et al., 2010).

Alternatively, research documenting the costs of visible or perceived support (and the benefits of invisible support) predominately focuses on *personal* outcomes (e.g., depressed mood, anxiety and efficacy) when recipients are facing *impending stressors*, such as upcoming exams or delivering a speech (Bolger & Amarel, 2007; Bolger et al., 2000; Shrout et al., 2006). Providing direct support to recipients when they are attempting to deal with immediate stressors is likely to appear to be ‘taking over’ or being controlling and communicate that the recipient cannot cope themselves, thereby threatening recipients’ competence, exacerbating their distress (Bolger et al., 2000; Rafaeli & Gleason, 2009), and interfering with their ability to deal with the task at hand. In contrast, invisible support that involves background helpful behaviors, such as doing household chores, keeping other stressors at bay, and providing advice in subtle or indirect ways, may reduce the burden of stressors. Accordingly, invisible support results in recipients feeling less fatigued, depressed and anxious (Bolger et al., 2000; Shrout et al., 2006) and perceiving that others evaluate the self as more capable and efficacious (Bolger & Amarel, 2007).

Recent work has also examined invisible support during couples’ observed support-relevant discussions (Howland & Simpson, 2010). Invisible support involved adopting a subtle and conversational approach that blurred the distinction between the support provider and recipient and the use of 3rd party examples in order to shift the focus off the support recipient and their issue. Howland and Simpson (2010) found that during discussions about ongoing personal goals, partners’ invisible support provision is associated with reductions in anxiety, depressed mood and greater efficacy compared to more direct and visible forms of support. Although Howland and Simpson examined visible and invisible support during couples’ actual discussions about ongoing issues (rather than studies assessing impending

stressors), this work still highlighted that visible support can have *personal* costs to recipients' feelings of efficacy that can be overcome by indirect and subtle forms of support.

Some research has aimed to reconcile these differences by examining both personal and interpersonal outcomes. Gleason and colleagues (2008), for example, demonstrated that recipients who received visible support experienced lower negative mood on days that they were able to reciprocate support to their partners (also see Gleason, Iida, Bolger & Shrout, 2003). Thus, any threats to recipients' competence and efficacy can be counteracted when recipients have opportunities to reciprocate support to their partners and demonstrate their competence (Gleason et al., 2003; 2008). Similarly, partners' visible support can generate feelings of connectedness to partners and reduce sadness (i.e., interpersonal *and* personal benefits) when recipients perceive their partners as being understanding and responsive to their needs (Maisel & Gable, 2009). In contrast, invisible support (that typically incurs benefits) can exacerbate recipients' sadness and reduce relationship closeness when partners are not understanding, validating or responsive to recipients' needs (Maisel & Gable, 2009). Indeed, even partners' active attempts to provide tangible help and advice can be seen as less responsive and caring when recipients actually desire emotional comfort and reassurance (Cutrona et al., 2007, also see Cutrona & Suhr, 1992). Taken together, this work highlights that support can have costs when partners do not consider recipients' needs, but that the same support behaviors can be effective when it addresses recipients' contextually relevant needs within any given support-transaction.

Chapter Two of this thesis expands on this prior work by examining partners' visible support (direct and overt forms of comfort) and invisible support (subtle and indirect forms of care) during couples' support-relevant discussions about personal goals. In particular, this chapter explores how visible or perceived support can have mixed costs and benefits depending on recipients' contextual needs for direct and overt support from partners. For

example, visible support is likely to have interpersonal *and* personal benefits for recipients who are distressed and upset during the discussion, and thus require their partner's direct comfort. In contrast, visible support might incur personal costs for recipients who are not distressed and therefore do not require their partner to soothe or comfort them.

Attachment Avoidance and Defensive Reactions to Support

Although support recipients' needs can vary depending on the context in which support exchanges are occurring, recipients can also hold chronic concerns and needs that can undermine the benefits of partner support. For example, individuals high in attachment avoidance tend to have experienced rejection by early caregivers, especially during times of need (Bowlby, 1969; 1973; 1980). Thus, highly avoidant individuals find it difficult to trust and depend on their intimate partners, eschew closeness and intimacy and become firmly self-reliant (Mikulincer & Shaver, 2003). When avoidant individuals are stressed or upset, and could benefit from support, they suppress their attachment needs and distance themselves from their partners (Collins & Feeney, 2000; Simpson et al., 1992; Simpson & Rholes, 2012). Even when partners do provide avoidant individuals with support, avoidant individuals underestimate their partners' supportive attempts (Collins & Feeney, 2004; Rholes et al., 2011) and respond to partners' support with hostility and withdrawal to prevent becoming vulnerable to hurt or rejection (Rholes et al., 1999; 2001; Simpson et al., 1992). These negative responses undermine avoidant individuals' ability to cope with stressful experiences, thereby exacerbating psychological and physical health problems over time (Collins & Feeney, 2004; Puig, Englund, Simpson & Collins, 2013; Rholes et al., 2011), and undermining relationship quality (Butzer & Campbell, 2008; Karantzas, Feeney, Goncalves & McCabe, 2014; Tan, Overall & Taylor, 2012).

However, contrary to the research demonstrating avoidant individuals' steadfast desires for independence and distance in relationships, individuals high in attachment

avoidance do want to be loved and cared for. Unfortunately, avoidant individuals find it difficult to balance their attachment-needs with entrenched fears that depending on others will eventually lead to hurt and rejection (Rholes et al., 1999; 2011; Shaver & Mikulincer, 2002; Simpson et al., 1992). For example, priming studies reveal that highly avoidant individuals hold proximity-related thoughts about attachment figures, especially when cognitive load reduces their ability to suppress their attachment needs (Mikulincer, Birnbaum, Woddis & Nachmias, 2000; Mikulincer, Gillath & Shaver, 2002). Furthermore, when avoidant individuals have better quality interactions and relationship experiences they feel better about themselves (Carvallo & Gabriel, 2006), feel more connected to interaction partners (MacDonald & Borsook, 2010), and desire more relationship closeness (Slotter & Luchies, 2014). These findings suggest that the distancing and hostile reactions to partners' support documented in prior work largely reflect defensive self-protective strategies. Thus, avoidant support recipients might benefit from partner support when partners are able to respond to their attachment-related concerns about unavailable and unreliable caregivers.

Chapter Three: Attachment Avoidance and Curvilinear Effects of Support. How can partners overcome highly avoidant individuals' defenses and provide them with support that they can benefit from? A close examination of the attachment literature suggests that partner support might only trigger avoidant defenses when partners provide *low* levels of support. For example, avoidant support recipients tend to report greater anger and perceive their partners as being more controlling when partners provide low (but not high) levels of support (Collins & Feeney, 2004; Rholes et al., 1999). Low levels of partner support are likely to confirm avoidant recipients' negative expectations that caregivers are unavailable and unreliable, thereby triggering automatic (but destructive) avoidant defenses. In contrast, providing *high* levels of support can help overcome avoidant defenses by provided the needed evidence of partners' availability and reliability. When partners provide high levels of support, recipients

high in attachment avoidance can be calmed during stressful interactions with their partners (Simpson et al., 1992). Rholes and colleagues (2011) also demonstrate that partners' high (but not low) levels of support can help to reduce avoidant recipients' depressive symptoms over time. Supporting this, recent work by Arriaga, Kumashiro, Finkel, VanderDrift and Luchies (2014) found that perceiving partners as more trustworthy and available helps to reduce avoidant insecurities over time.

Taken together, the current constellation of effects suggests that partner support might overcome the defenses of avoidant recipients when partner support is very high. Chapter Three presents four studies that test this idea by examining the *curvilinear* effect of partner support during couples' support-relevant discussions and daily life on support recipients' outcomes. In particular, I tested whether low to moderate levels of partner support triggered highly avoidant recipients concerns about depending on partners that may be unreliable and rejecting, and thus produced the typical self-protective avoidant reactions and negative evaluations of partners (e.g., Collins & Feeney, 2004; Rholes et al., 1999; 2001; Simpson et al., 1992). However, I also predicted that once partners' support reached moderate levels, increasingly greater levels of partner support would provide irrefutable evidence that partners are available and caring, thereby down-regulating avoidant recipients' distress and producing positive outcomes (e.g., Rholes et al., 2011; Simpson et al., 1992).

Mixed Benefits and Costs of Seeking Support

Another important element involved in support transactions is whether individuals communicate to partners that they require support in ways that enable them to obtain desired support. Although seeking support can be a relatively passive process (Conn & Peterson, 1989; Lawrence et al., 2008), individuals can also actively turn to close others for advice, love and support (Barbee & Cunningham, 1995). Directly asking for advice and help or constructively discussing potential solutions with partners can elicit greater partner support

(Collins & Feeney, 2000; Overall et al., 2010). In turn, the partners' caregiving attempts elicited from these support seeking attempts help individuals experience greater positive mood and achieve personal goals over time (Collins & Feeney, 2000; Overall et al., 2010), and individuals' feel more cared for and report greater relationship functioning (Collins & Feeney, 2000; Cutrona et al., 2007; Lawrence et al., 2008). In contrast, seeking support in negative ways by criticizing or blaming partners, whining, or sulking can produce opposite effects (Barbee & Cunningham, 1995; Collins & Feeney, 2000; Overall et al., 2010).

However, even when support-seeking behaviors are not overtly hostile or destructive, they can fail to produce desired outcomes. For example, seeking validation that the self is worthy, capable and loved by others – labelled reassurance seeking – can ironically trigger greater rejection from close others (Coyne, 1976; Joiner et al., 1992; Starr & Davila, 2008). Coyne (1976) argues that seeking constant reassurance about one's low self-worth may elicit desired assurance at first, but continued reassurance seeking can place undue burden on partners to constantly provide reassurance and comfort (Benazon & Coyne, 2000; Lemay & Cannon, 2012), especially when the assurances partners do provide are not accepted or valued. Indeed, prior work demonstrates that individuals' reassurance seeking leads to reassurance-seekers feeling more rejected by close others (Haefffel et al., 2007; Joiner 1999) and close others reporting a greater desire to avoid the reassurance-seeker, negatively evaluating the reassurance seeker, and reporting lower relationship quality (Benazon, 2000; Joiner et al., 1992; Joiner, Alfano & Metalsky, 1993; Katz & Beach, 1997; Lemay & Cannon, 2012). However, this prior work has only examined the effect of individuals' general tendencies to seek reassurance outside of any specific relationship interactions, rather than during relevant relationship interactions in which reassurance seeking is likely to occur and have important interpersonal and personal consequences. Moreover, prior research has not considered the conditions in which reassurance seeking might produce positive effects, such

as reassuring support, including important characteristics of support recipients (reassurance seekers) that modify support interactions.

Chapter Four: Attachment Avoidance and Benefits of Reassurance Seeking. Just as the impact of support provision depends on what recipients need within specific contexts, the impact of reassurance seeking should equally depend on the context in which reassurance is sought. Chapter Four explores this possibility by examining, for the first time, how specific acts of reassurance seeking during couples' support-relevant discussions about personal goals and stressful issues might produce less responsive or more rejecting support from partners. Couples' discussions represent an important context in which reassurance seeking may be more likely to occur and in which the partner's responsiveness or rejection has important consequences. Indeed, as described above, partners' lack of support during important support-relevant discussions lead to greater negative interpersonal evaluations (Cutrona et al., 2007; Feeney & Collins, 2003; Girme, Overall & Simpson, 2013) and poorer goal achievement and relationship wellbeing across time (Feeney, 2004; Feeney & Collins, 2015; Overall et al., 2010; Sullivan et al., 2010). Thus, examining individuals' reassurance seeking during actual discussions can reveal important information about whether reassurance seeking behaviors interfere with partners' ability to provide responsive support, or whether reassurance seeking behaviors may elicit partner support and reinforce reassurance seeking tendencies.

Furthermore, I also examined whether the meaning and impact of reassurance seeking behaviors might also depend on who is seeking support. For example, reassurance seeking tends to produce the most negative outcomes when reassurance-seekers are high in depressive symptoms (Joiner et al., 1992; 1993; Katz & Beach, 1997), or have other individual characteristics that heighten dependence on (and therefore burden) intimate partners, such as low self-esteem or high attachment anxiety, sociotropy and negative feedback seeking

tendencies (Davila, 2001; Katz & Beach, 1997; Joiner et al., 1992; Joiner & Metalsky, 1995; Shaver, Schachner & Mikulincer, 2005). These set of findings might also suggest that the costs of reassurance seeking might be *offset* and elicit *greater* partner support when the individual seeking reassurance typically avoids depending on the partner, such as when individuals seeking reassurance are high in attachment avoidance.

Individuals high in attachment avoidance distrust others' intentions and believe that caregivers are unavailable and rejecting, thus attempt to maintain distance across relationship interactions. For example, highly avoidant individuals report greater distancing during daily life (Bradford, Feeney, & Campbell, 2002; Tidwell, Reis, & Shaver, 1996), more superficial disclosure during routine conversations (Tan et al., 2012; Tucker & Anders, 1998), and are less likely to promote intimacy during sex (Birnbaum, Reis, Mikulincer, Gillath & Orpaz, 2006; Impett, Gordon & Strachman, 2008). Even when avoidant individuals are distressed or upset and could benefit from partners' care and validation, they avoid seeking support or positive feedback and withdraw from their partners (Brennan & Bosson, 1998; Brennan & Morns, 1997; Simpson et al., 1992). Not surprisingly, these defensive strategies mean that *partners* of highly avoidant individuals generally feel less close and intimate in their relationships and report lower sexual and relationship satisfaction (Butzer & Campbell, 2008; Carnelley, Pietromonaco & Jaffe, 1996; Karantzas et al., 2014; Tan et al., 2012).

However, this is not to say that avoidant individuals never seek support or intimacy within their relationships. Although one prior study found that attachment avoidance was associated with lower self-reported reassurance seeking tendencies (Davila, 2001), another study reported null associations (Shaver et al., 2005). Notably, this prior research examined general tendencies to seek reassurance, rather than specific acts of reassurance seeking during relevant support interactions. Indeed, during couples' actual support-relevant discussions (where support seeking is more likely to occur), avoidant individuals do seek support from

their intimate partners, but do so in ways that still protect the self from potential rejection. For example, Collins and Feeney (2000) found that highly avoidant individuals seek support by asking for help or displaying distress in more indirect ways, thus attempting to elicit support from partners without exposing vulnerability and facing the risk of blatant rejection (strategies similar to reassurance seeking). Thus, regardless of how often avoidant individuals might seek support, during support-relevant discussions when avoidant individuals do open up to their partners, it might be a welcomed opportunity to repair the distance and lack of intimacy that partners of avoidant individuals typically contend with in their relationships.

Thus, considering that reassurance seeking typically triggers rejection from close others because of the heightened dependence and burden placed on partners to provide ongoing reassurance and care (Benazon & Coyne, 2000; Lemay & Cannon, 2012), partners may actually provide more responsive support when highly avoidant individuals who typically avoid depending on the partner seek reassurance. Indeed, against the relationship backdrop of distance and a lack of closeness, when avoidant individuals expose their vulnerabilities and seek reassurance about their self-worth and evidence of their partners' commitment it is likely to communicate that they do value and care about their partner. In Chapter Four, I present three studies that explore whether reassurance seeking enacted by highly avoidant individuals during couples' support-relevant discussions might in fact lead to their partners feeling more valued by and close to avoidant individuals, and thus elicit greater responsive care from partners.

Summary

The social support literature contains many inconsistent findings. In order to maximize the health and relationship benefits associated with good support provision this thesis aims to explore how the contextual needs of support recipients and recipients' level of attachment avoidance can shed light on when support can be beneficial or costly. Chapter

Two presents a study examining recipients' distress during couples' actual support-relevant discussions to test whether visible forms of support can incur personal and relationship benefits when recipients are distressed and truly require evidence of their partners care, but threaten recipients' personal outcomes when they are not distressed and do not need overt comfort. Chapter Three then examines the importance of contextual needs by assessing the support that is most beneficial for individuals high in attachment avoidance. Taking a novel approach, I apply curvilinear models to data from four dyadic studies to assess whether low-to-moderate levels of partner support triggers avoidant recipients' defenses, but moderate-to-high levels of partner support provide the explicit evidence of availability that is required to overcome avoidant recipients' negative expectations about unreliable caregivers and thus enhance the effectiveness of support. Chapter Four turns to the role of support recipients' reassurance seeking in determining the provision of support. Three studies provide the first test of whether reassurance seeking behaviors during actual relationship interactions produces rejection or partner support, and examines whether reassurance seeking might actually elicit greater partner support when enacted by highly avoidant individuals who typically minimize dependence in their relationship.

CHAPTER TWO: CONTEXTUAL COSTS AND BENEFITS OF SUPPORT

An interesting paradox in the support literature is that the perceived availability of social support has benefits, such as buffering people from psychological distress and illness (e.g., Holt-Lunstad et al., 2015; Uchino et al., 1996), but the receipt of visible or direct support can have costs, such as increasing distress and threatening recipients' efficacy (e.g., Bolger et al., 2000; Bolger & Amarel, 2007). However, even when support is visible and perceived by recipients during couples' interactions, it can have a host of benefits, including boosting recipients' feelings of being loved and cared for (Collins & Feeney, 2003; Sullivan et al., 2010) and facilitating greater personal goal achievement and relationship quality over time (Feeney, 2004; Overall et al., 2010; Sullivan et al., 2010; Verhofstadt et al., 2008).

In this chapter, I aim to reconcile these inconsistent findings by investigating whether visible or perceived forms of support might have different costs and benefits due to the contextual needs of recipients within a specific support transaction. In particular, I examine whether visible support has costs and benefits depending on whether recipients truly need direct and overt evidence of their partners' care and support. I do this by examining the degree to which support recipients are distressed and upset during discussions with their partners about personal goals they are trying to achieve. I expected that when recipients are distressed, and require direct comfort from partners, greater visible support from partners would be associated with increased feeling of support and boosts in recipients' confidence about their goal pursuit. In contrast, when recipients are not distressed and do not require overt comfort from their partners, greater visible support might threaten recipients' confidence about achieving their personal goal, even if partners are still seen as supportive.

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Girme, Y. U., Overall, N. C., & Simpson, J. A. (2013). When Visibility Matters: Short-term versus Long-term Costs and Benefits of Visible and Invisible Support. *Personality and Social Psychology Bulletin*, 39, 1441-1454.

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Abstract

Sixty-one couples engaged in two video-recorded discussions in which one partner (the support recipient) discussed a personal goal with the other partner (the support provider). The support provider's *visible* and *invisible* support behaviors were coded by independent raters. Measures of perceived support, discussion success, and support recipients' distress during the discussion were gathered. Recipients also reported their goal achievement at 3-month intervals over the following year. Greater visible emotional support was associated with greater perceived support and discussion success for highly distressed recipients, but it was costly for non-distressed recipients who reported lower discussion success. In contrast, greater invisible emotional support was not associated with perceived support or discussion success, but it predicted greater goal achievement across time. These results advance our current understanding of support processes by indicating that the costs and benefits of *visible* support hinge on recipients' needs, whereas *invisible* support shapes recipients' long-term goal achievement.

When Visibility Matters:

Short-term versus Long-term Costs and Benefits of Visible and Invisible Support

Prior research has produced an inconsistent set of findings about the relative benefits versus costs of support. On the one hand, greater observed support delivered by intimate partners during couples' support-relevant exchanges has been shown to build feelings of closeness and support, boost positive mood and self-esteem, and foster greater goal achievement and relationship quality across time (e.g., Collins & Feeney, 2000; Feeney, 2004; Feeney & Collins, 2003; Overall, Fletcher & Simpson, 2010; Sullivan, Pasch, Johnson & Bradbury, 2010). On the other hand, direct or *visible* support behaviors that are perceived by support recipients during daily life have been associated with increased anxiety and depressed mood (e.g., Bolger, Zuckerman, & Kessler, 2000; Gable, Gosnell, Maisel & Strachman, 2012). Indeed, this latter body of work has provided good evidence that partner support is most effective in improving mood when it is *invisible* or goes unnoticed by recipients (e.g., Bolger et al., 2000; Howland & Simpson, 2010; Shrout, Herman & Bolger, 2006). However, no prior research has examined whether invisible support produces benefits for recipients over time.

In the present research, we assessed both visible and invisible support observed during couples' video-recorded discussions of each other's personal goals. Our aim was to reconcile and extend prior research in two novel ways. First, we examined whether the immediate benefits and costs of *visible support* depend on the contextual needs of support recipients. We hypothesized that visible support would be beneficial when recipients were more distressed and needed their partner's comfort, but would be relatively costly when recipients were low in distress and thus did not need direct forms of emotional reassurance. Second, we tracked recipients' goal accomplishment across a 1-year period to provide the first test of whether *invisible support* has long-term personal benefits by facilitating actual goal achievement.

Short-Term Contextual Costs and Benefits of Visible and Invisible Support

Research documenting the costs of visible support and the benefits of invisible support has primarily focused on personal outcomes, such as recipients' mood or perceived efficacy (Bolger et al., 2000; Bolger & Amarel, 2007; Gleason, Iida, Shrout & Bolger, 2008; Shrout et al., 2006). The first set of studies, for example, found that perceiving greater partner support in the week leading up to an important exam or receiving overt support before delivering a speech is associated with relative increases in anxiety and depressed mood (Bolger et al., 2000; Bolger & Amarel, 2007). Such costs likely arise because visible support increases the salience of impending stressors, conveys low confidence in recipients' capability to cope or achieve their goals (Bolger et al., 2000), and may disrupt recipients' focus on the task at hand. In contrast, support that is provided but not perceived by recipients – support that is invisible – appears to aid recipients without undermining their perceived efficacy or ability to deal with current challenges. Accordingly, invisible support has been linked with reductions in anxiety and depressed mood (Bolger et al., 2000; Bolger & Amarel, 2007; Gleason et al., 2008; Shrout et al., 2006).

More recently, Howland and Simpson (2010) have also shown that invisible support within couples' observed discussions about personal goals bolsters mood and self-efficacy. They defined invisible support as adopting a subtle, conversational approach that blurs the distinction between support recipient and provider roles, and using third-party examples to draw the focus away from recipients and their distressing issue. As above, these behaviors should minimize the salience of the recipients' difficulties and reduce self-relevant threat that might accompany more visible support behaviors (as typically assessed during observed support discussions). Indeed, Howland and Simpson (2010) found that recipients felt less anxious and more efficacious when their partner enacted invisible behaviors that were not perceived as support than when delivering more direct and perceived visible support.

In contrast to the focus on personal outcomes, research demonstrating the benefits of visible support has typically focused on interpersonal outcomes. By validating recipients' feelings and conveying positive regard, for example, visible support should help recipients feel cared for, understood, and supported, which in turn should alleviate distress and facilitate coping. Accordingly, observed direct support during couples' discussions of *ongoing* stressors and goals has been repeatedly linked to greater felt support, closeness, and relationship satisfaction (Collins & Feeney, 2000; Cutrona & Suhr, 1992; Feeney & Collins, 2003; Gleason et al., 2008; Overall et al., 2010; Pasch, Bradbury & Sullivan, 1997; Sullivan et al., 2010; Verhofstadt, et al., 2008). Moreover, more visible support and, in particular, the resulting feelings of support, have been linked with increases in positive mood, coping, and self-esteem (Collins & Feeney, 2000; Conger, Rueter & Elder, 1999; Feeney, 2004), more successful goal achievement (Feeney, 2004; Overall et al., 2010), and increases in relationship quality and conflict resolution over time (Feeney & Collins, 2003; Overall et al., 2010; Sullivan et al., 2010).

Prior research attempting to reconcile the costs and benefits of visible support has also distinguished between personal versus interpersonal outcomes. Examining both outcomes, Gleason and colleagues (2008) found that on days when participants received visible partner support, they reported increases in relationship closeness (interpersonal benefits), but also greater negative mood when they did not reciprocate support to their partner (personal costs). This latter effect illustrates that the potential costs of visible support depend on the contextual needs of participants; visible support had costs only when recipients did not reciprocate support, which made their dependent position more salient (also see Gleason, Iida, Bolger & Shrout, 2003). Moreover, perceiving the partner as responsive and supportive may be paramount in many support interactions and trump or override costs to personal mood or efficacy. Accordingly, Maisel and Gable (2009) found that greater visible support

accompanied by perceptions of the partner's greater understanding and validation did not generate more negative mood in support recipients; instead, it produced greater relationship connectedness and security. In addition, intimates felt more sadness and less connectedness on days when their partners provided more invisible support, but were perceived to be less understanding and responsive.

These findings illustrate that the relative costs and benefits of visible support depend on the needs of the recipient in the particular context in which the support transaction is occurring (also see Cutrona, Shaffer, Wesner, & Gardner, 2007; Simpson, Winterheld, Rholes, & Oriña, 2007). Within support-relevant discussions, when individuals are disclosing their thoughts and feelings about ongoing personal goals and stressors, more direct and visible support may be both needed *and* expected. Even in this context, however, recipients are likely to vary in their need for visible support and reassurance. Recipients who are experiencing high levels of distress probably need more direct care and comfort from their partner, and therefore benefit from visible support. Indeed, the absence of visible reassurance might be particularly costly when people are distressed and need comfort. In contrast, visible support may be intrusive and costly for recipients who are not distressed and do not need or want reassurance. In sum, we predicted that the benefits and costs of visible support provided during couples' support discussions would depend on recipients' level of distress, and thus their need for direct comfort, during the discussion.

We tested this contextual prediction by measuring the degree to which partners exhibited *visible* (direct displays of care and reassurance) and *invisible* (subtle and indirect forms of care) support behaviors while couples were discussing important personal goals. We focused on emotional support because it is most beneficial for relationships (Feeney & Collins, 2003; Gleason et al., 2008; Overall et al., 2010; Sullivan et al., 2010) and the most relevant response to recipients' emotional distress (Cutrona, et al., 2007; Feeney, 2004). At

the end of each couple's discussions, we asked recipients how much distress they experienced during the discussion and gathered ratings of how supportive the partner had been during the discussion and how successful the discussion was in facilitating the recipient's goal progress.

Consistent with prior research, we predicted that visible emotional support would provide interpersonal benefits, such that recipients would feel more supported by their partners. Considering the contextual needs of the recipient, however, we expected that these benefits would be particularly relevant to recipients who were distressed and needed care, reassurance, and affection from their partner. Moreover, by acknowledging and being responsive to recipient distress, we also predicted that greater visible emotional support would benefit the personal outcomes of distressed recipients, who should report that the discussion was more successful in facilitating their goal achievement. However, we also thought that visible emotional support would result in personal costs for individuals who were less distressed and did not need direct care and comfort, which should result in non-distressed recipients viewing their discussions as less successful in helping them achieve their goals.

In contrast to direct and visible displays, invisible emotional support is more subtle and indirect. It is conveyed by adopting an equal and more conversational tone, disguising affectionate contact, and indirectly reassuring recipients that they can cope by considering how others' have overcome similar challenges (Howland & Simpson, 2010). If these behaviors constitute 'invisible' support as originally conceptualized, the presence of these behaviors should go unnoticed and should be unrelated to recipients' perceptions of support, regardless of their level of distress. Invisible support might also have little impact on perceptions of goal progress following discussions because, unlike the boosts in mood and efficacy linked to responsive invisible support, perceptions of discussion success depend on recipients evaluating the discussion and their partner's invisible behavior as being effective

with regard to their goal. However, as we discuss next, even though it may not be perceived as supportive or helpful when it is delivered, invisible support may work ‘under the radar’ to facilitate long-term goal achievement.

Long-Term Costs and Benefits of Visible and Invisible Support

Prior theoretical arguments indicate that, compared to visible support, invisible support should be more effective at enhancing recipients’ efficacy and ability to achieve personal goals by bypassing threats to their competence or capability (e.g., Bolger et al., 2000; Bolger & Amarel, 2007; Shrout et al., 2006). Indeed, (visible) support that threatens recipients’ self-esteem is associated with more negative self-evaluations in regard to the stressor (Fisher, Nadler & Whitcher-Alagna, 1982), and low self-esteem individuals tend to be more defensive when receiving (visible) support, probably because they lack confidence in their abilities or feel indebted (Newsom & Schulz, 1998). In contrast, support communications designed to avoid conveying the recipient is unable to complete challenging tasks are most beneficial in reducing negative mood (Bolger & Amarel, 2007). In addition, Bolger and Amarel (2007) found that invisible support buffered negative mood because it was associated with more positive perceptions of the degree to which others’ evaluated the self as competent and efficacious. Howland and Simpson (2010) also found that invisible practical (but not emotional) support was associated with greater self-efficacy.

Although not providing solid evidence that emotional invisible support bolsters self-efficacy, these prior findings and the theorized function of invisible support suggest that invisible support should be less likely to interfere with recipients’ feelings of goal-related competence. More positive beliefs in one’s ability motivate persistence when inevitable setbacks and challenges occur, and the sustained goal strivings that result contributes to greater goal success (Bandura, 1994; Bandura & Locke, 2003). Instead of building self-efficacy, visible emotional support may reinforce the belief that help is required from the

partner. Knowing that others are there to help can also reduce goal-related efforts, perhaps because recipients perceive less is needed to achieve their goals (Fitzsimons & Finkel, 2011). Invisible support, in contrast, might increase the degree to which individuals take responsibility for their own goal achievement and for managing any goal-related distress or challenges they encounter. We tested these possibilities by examining whether invisible support delivered during couples' goal-related discussions was more successful than visible support in facilitating recipients' achievement of that goal during the following year.

Current Research

The current research examined the short-term versus long-term effects of visible and invisible support provided by partners during laboratory-based interactions in which support recipients discussed with their partners an important personal self-improvement goal. We assessed the type of emotional support provided by partners (support providers) when individuals discussed their own personal goal (support recipients). Independent coders rated visible (e.g., overt reassurance) and invisible (e.g., subtle, conversational forms of comfort) forms of emotional support. Following each discussion, support recipients rated their levels of distress during the discussion, their perceptions of support received from their partners, and how successful the discussion was in helping them achieve their goals. Recipients also reported their actual goal achievement at 3-month intervals over the following year.

Our first objective was to examine whether the immediate or short-term costs and benefits of visible support depended on the contextual needs of the support recipient. For highly distressed individuals who need more visible reassurance and comforting, we predicted that greater visible emotional support would be beneficial, leading to more positive post-discussion perceptions of support and success in propelling positive change in the targeted goal. For support recipients low in distress and not in need of direct emotional comfort, however, we expected that greater visible support would be costly, leading to lower

discussion success. Given the subtle and indirect nature of invisible support, along with the fact that these behaviors should go unnoticed by recipients (i.e., be invisible), we also expected that invisible support would have little or no impact on recipients' immediate perceptions of either support or discussion success.

Our second objective was to provide the first test of whether invisible support, despite being unnoticed in the short-term, has long-term benefits. We reasoned that if invisible support avoids threatening goal-related confidence and efficacy and it fosters greater responsibility for recipients' own goal attainment, invisible support might predict greater goal achievement over time. Thus, we examined whether invisible and visible support delivered during couples' goal-related discussions predicted the degree to which recipients were successful at achieving their goal over the following year.

Method

Participants

Sixty-one heterosexual couples responded to campus advertisements at a New Zealand University and were paid NZ\$40 for participating. Couples were relatively young ($M = 23.38$, $SD = 5.37$), but were involved in long-term ($M = 33.67$ months, $SD = 33.89$) and fairly serious relationships (30% serious, 49% cohabiting, 15% married). This sample was used by Overall et al. (2010, Study 2), but the hypotheses, coding, and outcomes associated with visible and invisible support tested here are completely novel and have never been reported before.

Materials and Procedure

Partners first completed the Perceived Relationship Quality Components inventory (PRQC; Fletcher, Simpson, & Thomas, 2000). Items tapping satisfaction, commitment, intimacy, trust, passion, love, and romance (e.g., "How satisfied are you with your relationship?"; 1 = *not at all*, 7 = *extremely*) were averaged to provide an overall index of

perceived relationship quality ($\alpha = .84$).

Participants then identified and ranked in order of importance three aspects of themselves they wanted to change or improve, which they were told they might discuss with their partner. After a short warm-up discussion, each couple engaged in two 5-minute video-recorded discussions regarding the most important self-improvement goal of each partner. The order of discussion (whether the female partner's or the male partner's goal was discussed first versus second) was counterbalanced across couples. We refer to the person whose goal was discussed as the "support recipient", and their partner who could be supportive as the "support provider". Following each discussion, support recipients and support providers reported their perceptions of the discussion.

Distress. Following each discussion, support recipients reported on how stressful (1 = *not at all stressful*, 7 = *extremely stressful*) and upset they were *during the discussion* (1 = *not at all upset*, 7 = *extremely upset*). These items were averaged ($r = .60$, $p < .001$) to index how much recipients were distressed when discussing their goal with their partner.

Perceived Support. To index how much each recipient perceived that his or her partner was supportive, support recipients also reported how much they felt supported (1 = *not at all supported*, 7 = *extremely supported*) and helped (1 = *did not help me at all*, 7 = *helped me very much*) by their partner, as well as how much they valued (1 = *did not value at all*, 7 = *valued partner very much*) and appreciated (1 = *did not appreciate at all*, 7 = *appreciated partner very much*) their partner's input *during the discussion* ($\alpha = .91$).

Reported Support. Analogous items were used to assess support providers' perceptions of how supportive they were to recipients (e.g., "To what extent did you feel you supported your partner during their discussion", 1 = *did not support at all*, 7 = *extremely supported*). Items were averaged ($\alpha = .83$) to index providers' reported support provision.

Discussion Success. Finally, support recipients and providers both reported how

successful: (1) the discussion was, (2) he/she was, and (3) his/her partner was in bringing about change (or intention to change) in the goal that was discussed (1 = *not at all successful*, 7 = *extremely successful*). Items were averaged to create separate indexes of discussion success perceived by support recipients ($\alpha = .85$) and providers ($\alpha = .85$).

Coding Procedure

Integrating themes in Howland and Simpson's (2010) coding procedure to assess visible and invisible support, we identified three overarching principles that define the nature of *invisible support*: (1) strategically providing support in subtle or indirect ways, (2) de-emphasizing the roles of support provider and support recipient, and (3) reframing the locus of the problem away from the support recipient. Table 2.1 provides detailed descriptions of these principles and describes the role each plays in supporting recipients. As stated in Table 2.1, these principles specify that invisible support behaviors: (1) avoid making the support recipient feel as if they are receiving support, (2) avoid creating feelings of indebtedness or incompetence in the recipient, and (3) shift the recipient's focus away from their problem or difficulty to a broader view of similar shared experiences, which reduce the salience of the recipient's difficulties and foster openness and insight by revealing how others have successfully coped with and solved similar challenges. *Visible support* was conceptualized as the opposite: (1) providing support in direct and overt ways, (2) providing support that emphasizes or makes salient the roles of the support provider and the support recipient based on how the discussion is guided and directed, and (3) focusing on the support recipient and his or her problem, issue, or goal, thereby narrowing the recipient's view and increasing the salience of problems or distress they might be feeling.

These principles were then combined with prior definitions of emotional support and associated behaviors (see Overall et al., 2010) to specify behaviors reflecting visible and invisible emotional support. *Visible Emotional Support* was defined as support that was

Table 2.1. Overarching Principles of Invisible Support

Principle of Invisible Support	Description of Principle	Role
Subtle and indirect nature of support provision	Strategically providing support in subtle, indirect, or round about ways	Avoids making the support recipient feel like they are receiving support
Provider de-emphasizes the roles of support provider and support recipient	Shifting the focus of power and control off the support provider by using more equal and conversation-like interactions	Avoids creating feelings of incompetence and indebtedness by empowering the support recipient in <i>their</i> ability to cope with and overcome the stressor (rather than the support provider's ability to guide the recipient)
Reframing the locus of the problem away from the support recipient	Shifting the support recipient's focus away from the difficulties they are experiencing to a broader shared view of similar experiences and how they can (and have been) successfully coped with by other people	Supports recipient's self-efficacy and sense of control by illustrating how others have successfully coped, overcome challenges, and achieved their goals, thereby allowing the recipient to gain insight into different solutions

motivated to make the support recipient feel better by overtly expressing care and affection and providing reassurance and positive feedback, such as obvious displays of love and affection, using humor to reduce tension, active listening, and providing reassurance, feedback or reinterpretations of the issue while making references to the recipient's problem/issue/goal. *Invisible Emotional Support* was defined by more subtle behaviors that deemphasized recipient versus provider roles and reduced the salience of the recipient's difficulties, such as providing affection by creating subtle physical contact (e.g., maintaining open body posture, fixing the recipient's hair or clothes), using "off-topic" humor, using one's own or another's similar troubles and difficulties to provide reassurance, feedback, or reinterpretations of the problem, and insights about alternative ways of coping with the issue. (A detailed coding schedule, associated procedural information, and exemplar videos demonstrating support behaviors are available from the corresponding authors).

Three coders were trained to understand the underlying principles and then given examples of visible and invisible support behaviors using video exemplars from Howland and Simpson (2010). Once coders were able to reliably identify visible versus invisible support behaviors, they independently rated the videotaped interactions for visible and invisible *emotional* support, taking into account the frequency, quality, and duration of support behaviors displayed (1-2 = *low*, 3-5 = *moderate*, 6-7 = *high*). Coder ratings for visible (ICC [intraclass correlation coefficient] = .89) and invisible (ICC = .88) support were highly consistent and averaged across coders to construct scores for each support type. Because this sample had already been coded by Overall et al. (2010), we were able to validate that our *visible* support rating was strongly associated with prior ratings of emotional ($r = .35, p < .01$) and esteem ($r = .71, p < .01$) support provision. In contrast, *invisible* support was only weakly associated with prior support codes ($r_s = .10$ with emotional support, and $.18$ with esteem support), and the new ratings of *visible* and *invisible* emotional support were also only

weakly associated (see Table 2.3). These relations indicate that: (1) prior support taxonomies predominantly assess visible, direct forms of support, and (2) the invisible support behaviors identified assess a unique set of behaviors that are not strongly related to more direct forms of support.

Goal Achievement over the Following Year

Participants completed a telephone interview at three month intervals during the following year. Participants were reminded of the specific personal goal they discussed with their partner during the laboratory session. They were then asked to verbally rate the degree to which they had discussed the topic with their partner in the past three months (1 = *not discussed at all*, 7 = *discussed a great deal*), the extent to which they demonstrated change (1 = *not changed at all*, 7 = *changed a lot*), and how effective/successful they had been in bringing about desired change (1 = *not at all*, 7 = *extremely*) in the aspect of themselves they wanted to improve during the past three months. The latter two items were averaged (average $r = .83, p < .01$) to index overall goal achievement.

Results

Short-Term Benefits and Costs of Visible and Invisible Support

We first examined the cross-sectional relations between visible and invisible emotional support provision and immediate perceived support and discussion success. Table 2.2 displays descriptive statistics for all measures collected at the initial laboratory session. Recipients' reported low to moderate levels of distress. Consistently, support providers provided moderate levels of visible emotional support, and lower levels of invisible emotional support. Nonetheless, recipients perceived high levels of support, discussion success, and relationship quality, and the support variables had good range and variability.

Table 2.3 displays the correlations across measures at the initial session. Consistent with prior research showing the benefits of observed support in the laboratory, support

Table 2.2. Means and Standard Deviations of Cross-Sectional Measures

	<i>M (SD)</i>	<i>Range (1-7)</i>
<i>Support Provision</i>		
Visible Emotional Support	3.47 (1.19)	1 - 6.67
Invisible Emotional Support	1.95 (0.95)	1 - 5
<i>Discussion Outcomes</i>		
Support Recipients' Distress	2.52 (1.29)	1 - 7
Support Recipients' Perceived Support	5.51 (1.19)	2.25 - 7
Support Recipients' Discussion Success	4.48 (1.21)	1 - 7
Support Providers' Reported Support	4.90 (1.05)	2.25 - 7
Support Providers' Discussion Success	4.36 (1.14)	1 - 7
Relationship Quality (PRQC)	6.09 (0.65)	4.14 - 7

Note. There were no gender differences across measures (all $ps > .05$).

providers' visible emotional support was associated with higher perceived support, whereas invisible emotional support was not associated with any discussion outcomes. However, we predicted that the benefits and costs of visible support should depend on how distressed – and therefore how in need of direct reassurance – recipients were during the discussion. In addition, the provision and perceptions of support were correlated across partners (see Table 2.3), indicating that support behavior and perceptions may, in part, reflect general positivity within the relationship.

To test our predictions, and to account for the statistical dependence inherent in dyadic data, we ran a series of Actor-Partner Interdependence Model (APIM) analyses using the MIXED procedure in SPSS 19 (Kenny, Kashy & Cook, 2006). In particular, we regressed recipients' perceived support on their partners' provision of visible emotional support,

Table 2.3. Correlations for all Measures

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
<i>Support Provision</i>										
1. Support Providers' Visible Emotional Support	.43**									
2. Support Providers' Invisible Emotional Support	.38**	.43**								
3. Support Recipients' Visible Emotional Support	.43**	.19*	.43**							
4. Support Recipients' Invisible Emotional Support	.19*	.40**	.38**	.43**						
<i>Discussion Outcomes</i>										
5. Support Recipients' Distress	-.12	.10	-.14	.06	-.06					
6. Support Recipients' Perceived Support	.32**	.12	.30**	.04	-.32**	.31*				
7. Support Recipients' Discussion Success	.07	.12	.20*	.13	-.03	.53**	.34**			
8. Support Providers' Reported Support	.25**	.16	.13	.02	-.28**	.36**	.26**	.30*		
9. Support Providers' Discussion Success	.22*	.22*	.09*	-.13	-.12	.24**	.39**	.62**	.22	
10. Relationship Quality (PRQC)	.22*	.10	.24**	.05	-.23*	.32**	.17	.34**	.16	.47**

Note. Correlations along the diagonal are associations between variables within partners. * $p < .05$. ** $p < .01$.

recipients' distress, and the interaction between partners' visible emotional support and recipients' distress. We also controlled for the general positivity or supportiveness across the dyad by simultaneously modeling the recipients' provision of visible emotional support to their partner¹. All predictor variables were grand-mean centered prior to the analyses. We pooled the effects across men and women, but included the main and interaction effects of gender to test for differences across men and women. No gender differences were found.

Visible Emotional Support. The results of the analyses testing the impact of visible emotional support on recipients' perceptions of support are presented in the top left section of Table 2.4. As predicted, the more partners provided visible support, the more recipients perceived their partners were supportive during the discussion, but this effect was moderated by how much distress recipients were experiencing. This interaction is shown in Figure 2.1. Individuals low in distress (-1 SD) perceived their partners to be relatively supportive, regardless of whether partners provided high (+1 SD) or low (-1 SD) levels of visible support ($slope = .10, SE = .12, t = -0.82, p = .41$). However, individuals reporting high levels of distress (+1 SD) felt more supported when their partners provided greater visible support ($slope = .45, SE = .17, t = 3.87, p < .001$). Examining perceived support at low versus high levels of support indicated that more distressed recipients felt much less supported when their partners provided less visible support ($slope = -.37, SE = .10, t = -3.64, p < .001$), but felt just as supported as low distress recipients when their partners provided high levels of visible support ($slope = -.05, SE = .12, t = -.38, p = .71$). Thus, the benefits of visible support—and the costs of the absence of support—primarily occurred for recipients who were distressed and, therefore, required more direct forms of emotional reassurance.

¹ We controlled for recipients' own support behavior for three reasons: (1) the provision of visible and invisible support between individuals and their partners was correlated, (2) this association may capture a more general positive relationship environment, and (3) support recipients own visible support provision was related to their perceived support and discussion success. The results were nearly identical without this control.

Table 2.4. Partners' Provision of Visible and Invisible Emotional Support on Recipients' Perceptions of Support and Discussion Success

	Perceived Support Received from Support Provider			Discussion Success in Helping Recipient Achieve Goals		
	<i>B</i>	<i>SE</i>	<i>t</i>	<i>B</i>	<i>SE</i>	<i>t</i>
Visible Emotional Support						
Partners' Visible Support	.22	.09	2.36*	.02	.09	.18
Recipients' Distress	-.18	.08	-2.14*	.19	.09	2.21*
Partners' Visible Support x Distress	.13	.06	2.10*	.22	.06	3.39**
Invisible Emotional Support						
Partners' Invisible Support	.17	.13	1.39	.07	.12	.53
Recipients' Distress	-.26	.08	-3.21**	.09	.09	1.06
Partners' Invisible Support x Distress	.13	.08	1.59	.16	.09	1.84

Note. Analyses controlled for recipients' own levels of support provision. * $p < .05$. ** $p < .01$.

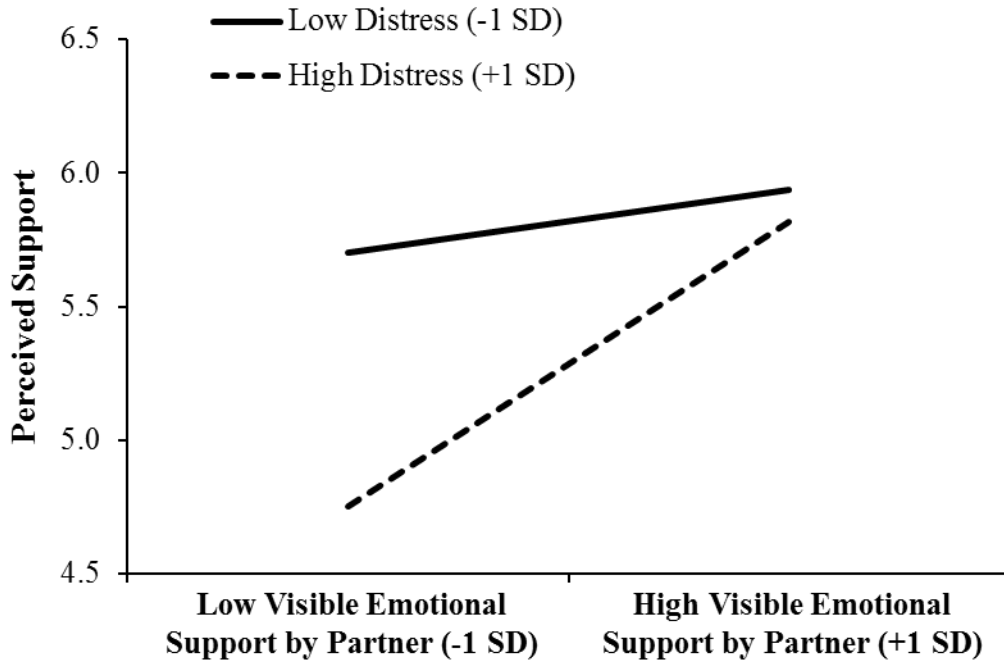


Figure 2.1. Interaction between support recipients' level of distress and visible emotional support provided by their partners on support recipients' perceptions of support received.

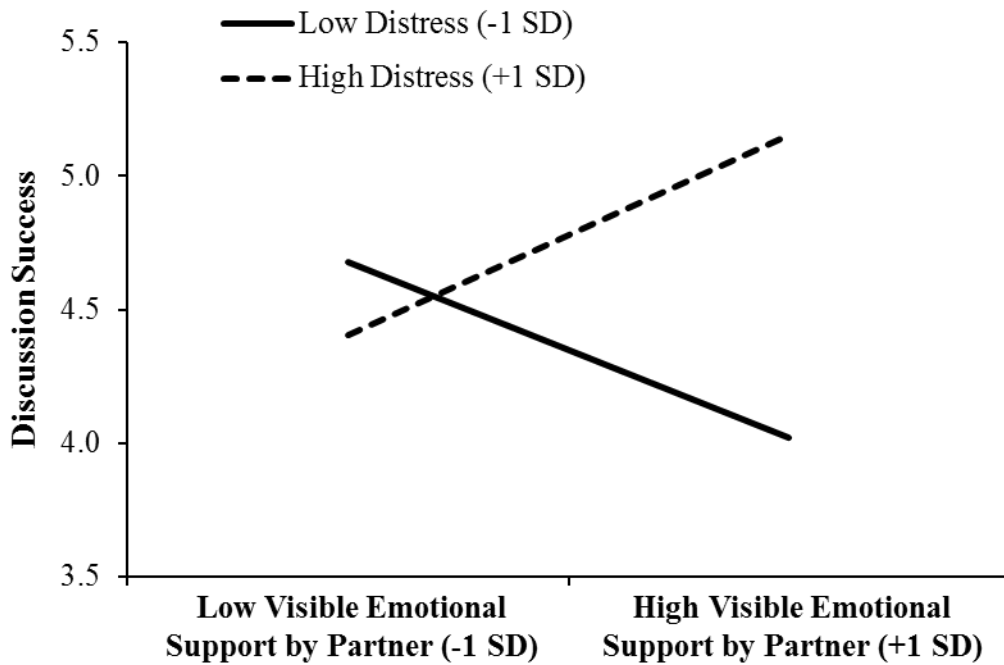


Figure 2.2. Interaction between support recipients' level of distress and visible emotional support provided by the partner on support recipients' perceptions of discussion success.

Analogous models were run predicting recipients' perceptions of discussion success in helping them achieve their goals (see top right of Table 2.4). Although the main effect of visible emotional support was not significant, a significant interaction emerged as predicted. Shown in Figure 2.2, greater visible support was associated with significant increases in perceived success for individuals who were higher in distress ($slope = .32$, $SE = .13$, $t = 2.44$, $p = .02$), but it was associated with significantly lower perceived success for individuals who were lower in distress ($slope = -.28$, $SE = .12$, $t = -2.26$, $p = .03$). This pattern indicates that the costs of visible support occur for people who are less distressed and, thus, do not need direct, visible reassurance. In contrast, visible support had benefits in helping recipients feel they could achieve their goals when they were more distressed and required direct reassurance and comfort.

Although we statistically controlled for overall levels of support across each dyad, we also wanted to ensure that the benefits of visible support for more distressed individuals were not attributable to more global perceptions of positivity. When rerunning the analyses controlling for relationship quality (assessed by the PRQC), the main and interaction effects shown in Table 2.4 and described above remained significant.

Invisible Emotional Support. We next ran identical analyses to test whether invisible emotional support has immediate benefits or costs for recipients. The results are presented in the bottom of Table 2.4. In contrast to visible support, invisible support was not associated with recipients' perceived support or discussion success, regardless of recipients' level of distress. These effects were unaltered when controlling for relationship quality.

Support Providers' Reported Support and Discussion Success. Our primary objectives centered on testing the impact of visible versus invisible support provision on support recipients' outcomes. However, we also assessed support providers' reports of the degree to which they delivered support during each discussion and how successful they felt

the discussion was in helping recipients achieve their goals. This allowed us to test a key tenet that invisible support represents intentional enacted support behaviors by support providers that go unnoticed by support recipients (and thus are ‘invisible’).

APIM analyses revealed that support providers who were rated by coders as providing greater *visible* support reported they provided more support to recipients ($B = .19, SE = .08, t = 2.28, p < .05$) and perceived that the discussion was more helpful in achieving recipients’ personal goals ($B = .19, SE = .09, t = 2.05, p < .05$). More importantly, despite null associations between observer-ratings of invisible support and perceived support and discussion success for support recipients (Table 2.4), partners rated as providing greater *invisible* support also reported providing more support to recipients ($B = .23, SE = .11, t = 2.12, p < .05$) and that the discussion was more successful in helping the recipient achieve his/her goal ($B = .21, SE = .12, t = 1.74, p = .08$). These effects occurred regardless of how much distress the recipient was experiencing (tests of moderation $ps > .05$). This pattern of results indicates that the invisible support behaviors we coded *do* capture intentional supportive acts by the support-providing partner that are *not* perceived or rated as supportive by recipients. This provides direct evidence for the conceptualization of invisible support as support provided by one partner, but not perceived by the recipient.

In sum, these findings reveal that the benefits of visible support depend on the degree to which recipients are distressed. Visible support increased perceived support and success in achieving future goals when recipients were more distressed and, hence, needed direct comfort. In contrast, visible forms of support reduced perceived success in achieving goals when recipients were less distressed and, thus, did not require direct reassurance. In contrast to visible support, invisible support was *not* related to recipients’ immediate perceptions of support and success, even though their partners reported being more supportive when delivering invisible forms of support. Thus, any benefits of invisible support are “working

under the radar” of support recipients. We next tested whether invisible support helped recipients achieve their goal over time.

Long-term Benefits and Potential Costs of Visible and Invisible Support

Our longitudinal analyses tested the degree to which partners’ visible and invisible emotional support predicted recipients’ goal achievement during the following year. Table 2.5 shows descriptive statistics for goal achievement at each 3-month follow-up phase as well as the number of couples assessed at each phase. Six couples ended their relationship before the first follow-up phase, and eight more couples broke up during the next nine-months. The multilevel analyses described below take into account sample attrition by weighting the estimates according to the reliability of each couple (i.e., how many measurements were available for each couple), meaning that we could include all couples on whom data was collected during at least one follow-up ($N = 55$). There were no differences between the couples that dissolved versus those that stayed together in levels of visible or invisible support ($ts = < 1.1, ps > .05$).

Table 2.5. Means (and Standard Deviations) of Longitudinal Measures at each 3-Month Follow-up Phase

	<i>3-month (N = 55)</i>	<i>6-month (N = 51)</i>	<i>9-month (N = 48)</i>	<i>12-month (N = 48)</i>
Discussed Goal	4.14 (1.60)	3.94 (1.81)	3.47 (1.62)	3.14 (1.48)
Goal Achievement	4.25 (1.33)	4.06 (1.42)	4.26 (1.46)	4.27 (1.52)

Our data have a nested structure, with the repeated measures of goal achievement at each 3-month measurement phase nested within each dyad. Thus, we tested our prediction following Kenny et al.’s (2006) recommendations for analyzing repeated measures data.

Table 2.6. Partners' Provision of Visible and Invisible Emotional Support on Support Recipients' Goal Achievement across Time

	Goal Achievement		
	<i>B</i>	<i>SE</i>	<i>t</i>
Visible Emotional Support			
Partners' Visible Support	.04	.10	.36
Recipients' Distress	.05	.09	.55
Partners' Visible Support x Distress	.08	.06	1.26
Invisible Emotional Support			
Partners' Invisible Support	.36	.13	2.81*
Recipients' Distress	-.04	.08	-.53
Partners' Invisible Support x Distress	-.00	.08	-.37

Note. Coefficients control for recipients' own levels of support provision. * $p < .01$

Specifically, we regressed the multiple reports of goal achievement across the following year (level 1) on the partner's visible emotional support, the recipient's distress, and the interaction between these two measures (level 2).² The results, displayed in the top half of Table 2.6, revealed that visible emotional support, the recipient's distress during the discussion, and the interaction between partner's visible emotional support and recipient's

² Because we have repeated assessments of goal achievement, readers might wonder why we did not assess trajectories of goal achievement across time (i.e., whether goal progress increased, reduced, or remained the same at each time-point). We directly assessed whether recipients had progressed at each assessment period (i.e., since the last three month follow-up), but not since the initial phase. Thus, the analytic strategy presented directly assesses the average amount of progress in the discussed personal goal over the course of the year—the pivotal measure of interest. In this case, a slope modeling time or rate of change provides additional information regarding only the consistency of progress at each time-point, taking into account overall amounts of progress. Recipients, on average, reported similar levels of progress at each follow-up ($B = .02$, $t = .39$, $p = .70$), and visible and invisible emotional support did not predict variance in consistency of progress across measurement phases (also see Overall et al., 2009; 2010).

distress did not significantly predict goal achievement across the following year. However, analogue analyses testing the long-term effects of invisible support (see the bottom section of Table 2.6) revealed that greater invisible support predicted higher average levels of goal achievement by the recipient over the subsequent year, regardless of the levels of distress that recipients reported when initially receiving support.

We next ran analyses to rule out three alternative explanations. First, rerunning the analyses statistically controlling for initial relationship quality did not reduce the long-term benefits of invisible support ($B = .35, SE = .13, t = 2.73, p < .01$), highlighting that the long-term benefits of invisible support were not attributable to more global positivity. Although the provision of invisible support was not associated with perceptions of support (see Table 2.4), we also wanted to determine whether the longitudinal effect of invisible support occurred above and beyond the documented boost in goal achievement associated with post-discussion perceptions of support (see Overall et al., 2010). Rerunning the analyses with support recipients' perceived support as an additional predictor revealed that perceptions of greater support independently predicted more goal achievement over the subsequent year ($B = .19, SE = .09, t = 2.08, p = .04$). However, greater invisible support continued to predict greater goal achievement across the year, independent of recipients' perceived support ($B = .34, SE = .12, t = 2.78, p < .01$). These analyses suggest that invisible emotional support and perceptions of support are unrelated support process, each of which operates independently to facilitate recipients' goal success. Finally, most recipients reported that they had ongoing discussions with their partners about their personal goals over time (see Table 2.5). Recipients were more successful at achieving their goal when couples continued to discuss their goal more over time ($B = .21, SE = .04, p < .001$). However, visible and invisible emotional support were not associated with the degree to which couples discussed the targeted goals across time ($B = -.00, SE = .10, p > .05; B = -.04, SE = .12, p > .05$

respectively), and rerunning the longitudinal models controlling for the amount recipients discussed the topic over time with their partner did not diminish the the degree to which invisible support predicted goal achievement over the year ($B = .39, SE = .11, p = .001$).

Discussion

This study investigated the short-term and long-term costs and benefits of receiving visible and invisible support during romantic couples' discussions of each partner's personal goal. We hypothesized that the short-term costs and benefits of receiving visible support on recipients' perceived support and goal progress would depend on support recipients' level of distress. As predicted, *visible emotional support* was associated with perceptions of greater support and discussion success for recipients who felt greater distress during the discussion and, thus, needed more direct reassurance. However, for recipients who experienced less distress and, therefore, did not require direct emotional comfort, greater visible emotional support had more personal costs, as indicated by perceptions that the discussions had been less successful in helping recipients achieve their long-term goals.

In contrast, *invisible emotional support* was not associated with recipients' post-discussion perceptions of support or discussion success, despite the fact that partners who provided more invisible support (as rated by coders) reported they were more supportive and that the discussion facilitated goal progress. This pattern of results provides direct evidence that the invisible support behaviors we assessed constitute invisible support as conceptualized in the prior literature: intentional supportive acts by the support-providing partner that are not perceived as supportive by recipients. More importantly, despite being invisible to recipients, invisible (but not visible) emotional support predicted greater goal achievement across the following year. This is the first demonstration that the provision of invisible support has long-term benefits in relationships, which is a critical and novel test of the proposed benefits of invisible support.

Viewed together, these results suggest that visible and invisible support serve different functions. Visible support appears to be immediately beneficial by reassuring recipients that they are in fact cared for, supported, and will have help to achieve their goals, but these benefits accrue only for recipients who need this type of support (i.e., those who feel distressed during support exchanges). In contrast, invisible support tends to go unnoticed by support recipients, but it plays an important role in facilitating long-term success in achieving recipients' goals. We discuss potential underlying mechanisms for these effects in the following discussion.

Visible Support: Benefits and Costs Depend on the Needs of the Recipient

Consistent with prior research and theorizing, our results illustrate that the personal and interpersonal benefits associated with receiving visible support hinge on the contextual needs of the support recipient (e.g., Cutrona et al., 2007; Maisel & Gable, 2009; Simpson et al., 2007). Visible support is important in communicating care and helping to regulate recipients' distress when they feel upset and need their partners' direct support. Accordingly, recipients who report high levels of distress when discussing their goal with their partner felt more supported and perceived greater success in moving toward their goal when their partners provided direct forms of reassurance. Moreover, the failure to deliver visible support when recipients are distressed has interpersonal costs for recipients. Recipients who were more distressed and received less visible support felt the least supported. The *absence* of visible support may signal that the partner cannot be counted on to be responsive to one's needs, which should take a toll on relationships. For example, perceived lack of support and responsiveness erodes relationship satisfaction over time (Overall et al., 2010; Reis, Clark & Holmes, 2004; Sullivan et al., 2010), undermines security and goal strivings in those who need support (Feeney, 2004; Overall et al., 2010), and can produce strong reactivity to

problematic relationship interactions (Murray, Holmes & Collins, 2006; Sullivan et al., 2010).

The current findings suggest that the benefits of support may outweigh the potential costs of visible support *when recipients are distressed and need their partners*. Visible support should communicate care and regard, even when support recipients are not overly distressed. Indeed, in our study, visible support was associated with greater perceived support, even among less distressed recipients. However, consistent with the previously documented costs of visible support, these interpersonal benefits were accompanied by personal costs when recipients were less distressed and did not necessarily need overt reassurance. In particular, greater visible support given to non-distressed recipients predicted lower perceived discussion success in facilitating recipients' ability to achieve their goals in the future. As suggested by prior research (e.g., Bolger & Amarel, 2007; Howland & Simpson, 2010), this probably occurred because the provision of visible support, in the absence of distress, conveys a lack of confidence that recipients can achieve their goals on their own. Extending that research, the current findings highlight that personal costs occur mainly for recipients who do not need immediate reassurance or support from their partners.

Invisible Support: Unnoticed in the Short-term, but Promoting Goal Achievement in the Long-term

The undermining effect of visible support on recipients' perceived ability to cope and achieve their goals (which we found for less distressed recipients) was the impetus for the theoretical development of invisible support. The degree to which support providers delivered invisible support was not associated with support recipients' perceptions of support or their immediate felt-success in achieving their personal goals, yet it was associated with perceptions of greater support and discussion success reported by support providers. This pattern validates the premise that invisible support behaviors are likely to be provided

strategically, but go ‘under the radar’ and unnoticed by most support recipients. However, contrary to prior research showing that invisible support boosts self-efficacy and buffers negative mood (e.g., Bolger et al., 2000; Bolger & Amarel, 2007; Howland & Simpson, 2010; Shrout et al., 2006), we found that invisible support provision was *not* associated with immediate perceptions of success in facilitating goal progress. The reason for this, we believe, is that perceptions of discussion success involve evaluating how both the self and the partner contribute to goal success. Previously studied outcomes, such as mood and self-efficacy, have not required recipients to evaluate how support interactions lead to these states. Given that invisible support went unnoticed by most of our support recipients, it is not surprising that an evaluation of how the discussion facilitated goal achievement remained unaffected by these support behaviors.

However, consistent with the proposed functions of invisible support, the invisible support behaviors that did go unnoticed by most recipients were precisely those that helped them achieve their goals over time. The more support providers delivered invisible forms of support—such as discussing how others have coped with similar issues, engaging in off-topic or preemptive humor, and expressing subtle displays of affection—the more support recipients reported actual goal achievement across the following 12 months. This outcome is consistent with the premise that invisible support bypasses threats to recipients’ confidence and self-esteem (e.g., Bolger et al., 2000; Bolger & Amarel, 2007) and often bolsters feelings of self-efficacy (Howland & Simpson, 2010), which is critical to sustaining goal strivings and overcoming goal-relevant challenges (Bandura, 1994). Furthermore, the provision of invisible support predicted greater goal achievement, over and above how supportive recipients perceived their partners to be. This provides a powerful illustration that the invisible support behaviors we coded during couples’ discussions work outside and independently of the support recipients’ awareness.

To summarize, this study is the first one to demonstrate that invisible support facilitates actual goal achievement across time. This novel finding provides a critical test of the benefits of invisible support, and bolsters the argument that invisible support is integral to building (or retaining) personal efficacy and competence. In contrast, the provision of visible support was not directly associated with goal achievement across time. Based on prior theory and research, we now discuss the potential psychological mechanisms through which invisible (versus visible) support may operate to facilitate goal achievement.

Boosting Ownership over Personal Goals. By providing subtle forms of support that go unnoticed by support recipients, invisible support may “plant the seed” for recipients to attribute goal-related progress and coping to themselves rather than their partners. The extent to which individuals perceive that *they* can cope with goal-related stressors, barriers, and challenges and effectively pursue their goals is essential for managing goal-related anxiety and increasing the likelihood that they will eventually achieve their goals (Bandura, 1994). In the long-run, therefore, the provision of invisible emotional support may boost recipients’ ownership of their goals and goal-related successes, as well as their mastery over challenges, barriers, and goal-related relapses. In contrast, despite alleviating distress and bolstering felt-support in the short-term, the overt nature of visible emotional support may lead recipients to attribute goal-related coping and achievement at least partly to the support provider, promoting reliance on the support provider and undermining their intrinsic goal-related motivation.

Aiding Emotion Regulation. Similarly, whereas visible *emotional* support (as we measured it) helps to down-regulate recipients’ negative affect, invisible *emotional* support may scaffold recipients’ own emotion regulation. Goal achievement should be augmented by more effective coping or emotion regulation strategies on the part of recipients (e.g., Boekaerts, 2002), such as reappraising challenging situations (Gross & John, 2003). Instead

of directly soothing distress, the provision of invisible support might model effective emotion regulation strategies by providing reappraisals of goal-related problems or strategies (e.g., acknowledging others' shared experiences), which recipients can then choose to adopt as their own. This, in turn, should leave recipients better prepared to cope with negative emotions that may arise when they face new goal-related challenges or other stressors, permitting them to make further progress toward their long-term goals.

Strengths, Caveats and Future Research Directions

A large body of research has examined invisible support by assessing discrepancies in support recipients' and support providers' reports of support (e.g., Bolger et al., 2000; Maisel & Gable, 2009; Shrout et al., 2006). In contrast, we examined specific invisible support behaviors (rated by coders) during support-relevant discussions between romantic partners. This observational approach captures how actual support behaviors influence recipients' goal-related outcomes rather than relying only on partner-reported support provision, and it extends the one other observational study of invisible support (Howland & Simpson, 2010) by revealing what invisible support *looks like* during actual support interactions. Moreover, the pattern arising from these observational data offer good support for the conceptualization of invisible support as support provided by one partner but not perceived by the recipient in that partners who were rated as exhibiting more invisible support perceived themselves as providing more support, but recipients did not perceive greater support from these partners. Thus, the behaviors we identified were indeed 'invisible' to recipients.

We focused on emotional forms of support because emotional support tends to be the most beneficial for relationships, and it is the most relevant response to a partner's distress in the context of personal goal discussions. However, practical forms of support can also be important and may at times be particularly relevant to other needs that support recipients have. For example, practical support might be important for recipients who do not have the

skills or lack the knowledge to accomplish their personal goals. Like our arguments regarding invisible emotional support, invisible practical support may impart goal-related knowledge and strategies in a way that recipients adopt as their own, boosting their intrinsic motivation and goal mastery. Future research should test the mechanisms through which invisible support facilitates recipients' goal achievement over time, and whether differences exist in how emotional and practical invisible support operate.

Our findings demonstrate that the costs and benefits of support depend on the needs of the recipient in the specific context in which the support is occurring. Visible emotional support had benefits if recipients experienced distress while discussing their personal goals – a context of disclosure, reflection, and deliberation in which direct emotional support is needed, expected, and appropriate. However, in other contexts, even when recipients are experiencing high levels of distress, visible emotional support may not be needed or appropriate, and the interpersonal benefits of support could be superseded by personal costs. For example, Bolger and colleagues found that visible emotional support was damaging in the week preceding a stressful exam (Bolger et al., 2000) and detrimental immediately prior to giving an unrehearsed speech (Bolger & Amarel, 2007). In these contexts, the need to minimize distress and quell self-doubts in order to complete the task at hand involves a different set of acute needs that visible support could undermine; the need to feel understood and comforted may be irrelevant until the critical task has been completed. Thus, the balance of personal versus interpersonal need fulfillment, and the relative benefits and costs of visible support, ought to vary across different contexts. Indeed, understanding when visible and invisible support have costs and benefits is critical to enacting effective support provision, and examining the contextual needs of recipients should be a primary component of future investigations.

Considering the wider context is also important. Our sample was drawn from a

university community in a Western and relatively egalitarian country, so whether and how these results generalize to other types of samples and social contexts remains unknown. Indeed, the extent to which individuals express distress and respond to direct versus more subtle forms of support is likely to differ across social and cultural contexts. For example, individuals of Asian descent are less likely to seek support from close others when experiencing stress or difficulties (Taylor et al., 2004), and they benefit more from indirect forms of support that do not make references to personal stressors (Kim, Sherman, & Taylor, 2008). Asian participants, compared to their European counterparts, also experience decreases in cortisol when asked to write a letter conveying indirect support strategies (e.g., write about a group that is close to you) compared to seeking support explicitly (e.g., asking for help from a close group; Taylor, Welch, Kim, & Sherman, 2007). These effects most likely arise because drawing attention to personal goals and stressors threatens cultural expectations about forgoing personal interests for the sake of the collective (Taylor et al., 2004). Thus, visible forms of support that directly focuses on the recipient and his/her stressors may be detrimental for recipients who have collectivist cultural backgrounds, and this may be particularly true when they are distressed. The benefits of invisible support might also be enhanced in these contexts. This example highlights that the potential costs and benefits of visible versus invisible support may vary across different cultural and social contexts, and understanding these contexts should be a major consideration in future research. Finally, our sample also consisted of relatively young couples involved in relationships for an average of 3 years. Although 61% were cohabiting or married, roughly 20% broke up during the following year. These age and relationship demographics may limit the degree to which our findings generalize to a wider range of ages and relationship length. For example, given the difficulty of providing invisible support strategically (especially in a laboratory context), invisible support may be most effectively used by individuals in longer relationships who

know more about how to best guide and aid their partner's long-term goal-related needs. The potential costs of visible support might also be dampened in more long-term and established relationships because recipients' knowledge of their partner's availability may render direct displays of emotional reassurance and affection less necessary. Additional analyses of our data, however, revealed that the effects of invisible support were not modified by individuals' age, relationship length, or relationship status. Nonetheless, given the costs and benefits of different types of support, identifying who needs more visible support, who provides more effective invisible support, and in what contexts, is an important direction for future research.

Conclusion

Prior research presents contradictory evidence regarding the costs and benefits of visible forms of support (e.g., overt displays of care and reassurance), and recent models suggest that invisible forms of support (e.g., subtle, conversational forms of comfort) might produce more benefits for support recipients. The present research advances our current understanding of support processes by illustrating that: (1) the costs of visible forms of emotional support depend on the contextual needs of the recipient, and (2) invisible support has long-term benefits. In our behavioral observation study of romantic couples, we found that greater visible support provision was associated with greater perceived support and discussion success when support recipients were highly distressed during the discussion, but it was costly for less distressed support recipients, who reported lower discussion success. In contrast, greater invisible emotional support was not associated with perceived support or discussion success, but predicted greater goal achievement over time. Together, these results suggest that visible support is most beneficial as an immediate strategy for distressed individuals to feel supported and positive about their goals, whereas invisible support plays an important role in shaping recipients' goal pursuit and accomplishment over time.

CHAPTER CONCLUSION

This chapter explored one way to reconcile the mixed benefits and costs that support from intimate partners can have. In particular, this study examined couples' support-relevant discussions about important personal goals, and explored whether the effect of partners' visible or perceived support (direct comfort and care) depended on how distressed and in need of direct comfort recipients were. The results indicate that visible support can boost both felt support and confidence about goal success when recipients' are distressed and need overt comfort, but can be costly to goal-related confidence when recipients are not distressed and do not require overt support. In contrast, invisible support (indirect and subtle forms of care) that goes unnoticed by recipients during discussions can facilitate greater goal achievement over time. These results illustrate that visible support can have benefits or costs depending on whether it is responsive to recipients' need for direct comfort or care, whereas invisible support might play a more subtle role in facilitating recipients' ownership over their personal growth regardless of their immediate distress. I extend on these ideas in the next chapter by discussing how partners' support can also be beneficial when it is responsive to other chronic needs and concerns of recipients, such as those rooted in attachment-related insecurities.

CHAPTER THREE: ATTACHMENT AVOIDANCE AND CURVILINEAR EFFECTS OF SUPPORT

Another reason why support can have mixed costs and benefits might be because the effectiveness of support depends on who is receiving support. Indeed, as outlined in Chapter Two (Girme et al., 2013) and shown by prior findings (Cutrona et al., 2007; Feeney, 2004; Simpson et al., 2007), whether or not support is effective depends on whether recipients are distressed and in need of comfort. Notably, a key reason that individuals have difficulty coping with stress and thus experience distress during intimate contexts is because of their attachment-related insecurities (Mikulincer & Shaver, 2003). Attachment-related insecurities interfere with individuals' ability to seek and receive support from their partners (e.g., Collins & Feeney, 2000; Simpson et al., 1992), and thus lead to negative psychological and physical health problems (e.g., Puig et al., 2014) and lower relationship satisfaction for both partners (e.g., Butzer & Campbell, 2008). Thus, considering whether the impact of support depends on recipients' insecurities has important theoretical and practical implications.

Attachment avoidance is particularly relevant to support processes. People high in attachment avoidance, who find it difficult to trust and depend on others, typically respond to partners' support with greater anger, hostility and withdrawal (Rholes et al., 1999; Rholes et al., 2001; Simpson et al., 1992). However, even this well-replicated finding exists alongside other inconsistent results. Some studies, for example, have shown that highly avoidant individuals can benefit from support and evaluate their partners more positively when given direct and clear support (Collins & Feeney, 2004; Simpson et al., 1992; Rholes et al., 2011). These inconsistent findings bring attention to a paradox uniquely faced by individuals high in attachment avoidance. On the one hand, avoidant individuals distance themselves from their partners. On the other hand, these defenses operate as self-protective strategies that mask their underlying desire for love and connection (Overall, Girme & Simpson, in press).

This chapter aims to reconcile these discrepant findings by exploring whether *high levels* of support might be effective for highly avoidant recipients by attending to their attachment-related concerns and needs. In particular, avoidant individuals react more negatively when partners provide *low* levels of support (e.g., Collins & Feeney, 2004; Rholes et al., 1999), which may trigger defensive reactions to protect against the neglect and hurt avoidant individuals expect from unreliable caregivers (Bowlby, 1973; also see Shaver & Mikulincer, 2002). In contrast, highly avoidant recipients are able to benefit from support when they receive *high* levels of support from partners (e.g., Simpson et al., 1992; Rholes et al., 2011), perhaps because high levels of partner support provide the much needed evidence of partners' availability that is required to overcome avoidant individuals' negative expectations about unreliable and rejecting caregivers. I test this possibility in four dyadic studies by taking a novel approach and applying curvilinear techniques to model the association between support provision and recipient outcomes. In particular, I test whether the association between partner support and recipient outcomes is curvilinear, and whether this association is moderated by recipients' level of attachment avoidance.

Lastly, this chapter focuses on visible or perceived support rather than invisible support in order to reconcile the existing research focusing on attachment avoidance and the costs and benefits of perceived support. Furthermore, there is no existing evidence linking invisible support to attachment avoidance. Invisible or subtle forms of support could either hinder support outcomes by not providing the explicit evidence of care required to overcome avoidant defenses, or they could avoid triggering any avoidant defenses by being invisible to avoidant recipients. Although testing such hypotheses could be of particular interest, using curvilinear methods are not particularly relevant to invisible support. Indeed, it remains unclear what 'low levels' of invisible support would indicate, and whether 'high levels' of invisible support might start entering the domain of visible support. For these reasons, the

following chapter focuses on reconciling the costs and benefits of perceived or visible forms of support, but the links between invisible support and attachment avoidance are considered later in the General Discussion.

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Abstract

People high in attachment avoidance typically respond more negatively to partner support, but some research suggests they can be calmed by high levels of practical support. In the present research, we attempted to reconcile these inconsistencies by modeling curvilinear associations between romantic partners' support and support recipients' outcomes and testing whether these curvilinear associations were moderated by recipients' degree of attachment avoidance. We examined the effect of partner support during support-relevant discussions (Studies 1-3) and in daily life (Study 4) on support recipients' distress (Studies 1-4), self-efficacy (Studies 2 and 3), perceived partner control/criticism (Studies 2 and 4) and distancing from the partner (Study 4). The results and a meta-analysis across all four studies (N = 298 couples) demonstrated that the curvilinear effect of practical support on recipients' outcomes was moderated by attachment avoidance. Highly avoidant recipients exhibited more negative responses as their partner provided them low-to-moderate levels of practical support, including increasing distress, perceived partner control/criticism and distancing, and decreasing self-efficacy. However, as partners' practical support shifted from moderate to high levels, highly avoidant recipients experienced more positive outcomes, including decreasing distress, perceived partner control/criticism and distancing, and increasing self-efficacy. Less avoidant individuals were resilient and experienced better outcomes regardless of the level of partner support they received. These results demonstrate the utility of curvilinear models in reconciling the costs and benefits of support, and indicate that high levels of practical support can overcome the defenses of highly avoidant individuals by offering undeniable evidence of the partner's availability.

“All or Nothing”: Attachment Avoidance and the Curvilinear Effects of Partner Support

The support literature is marked by a slew of inconsistent findings. Perceiving that others are available when needed fosters coping and well-being, but the actual receipt of support enacted by close others is not uniformly beneficial (e.g., Bolger, Zuckerman, & Kessler, 2000; Kaul & Lakey, 2003; Reinhardt, Boerner & Horowitz, 2006; Uchino & Garvey, 1997; Wethington & Kessler, 1986). One key factor determining whether support is beneficial is who is receiving support. Unfortunately, inconsistent patterns also emerge across studies examining how key individual differences shape reactions to support. For example, people high in attachment avoidance, who strive to avoid dependence, react more defensively when they receive support from their partners (e.g., Rholes, Simpson & Oriña, 1999; Simpson, Rholes, & Nelligan, 1992). On the other hand, some research suggests that very high levels of support can effectively soothe highly avoidant recipients (e.g., Simpson et al., 1992; Simpson, Winterheld, Rholes, & Oriña, 2007). In the present research, we examine whether these inconsistencies can be reconciled by testing how the effects of support vary according to different *levels* of support provision. We do this by modeling curvilinear associations between romantic partners' support and recipients' outcomes and testing whether these curvilinear associations are moderated by recipients' degree of attachment avoidance.

Curvilinear Effects of Partner Support for Recipients High in Avoidance

According to attachment theory (Bowlby, 1969, 1973, 1980), people who have been rebuffed and rejected by their earlier caregivers, especially during times of need, develop attachment avoidance. Highly avoidant individuals believe they cannot trust and depend on close others and so eschew closeness and intimacy and become rigidly self-reliant (Mikulincer & Shaver, 2003). Highly avoidant individuals' deep distrust of others and their associated goal to avoid dependence produces a unique style of regulating distress, involving

suppressing attachment needs and defensively disengaging from the partner (Mikulincer, 1998a; Rholes, Simpson, Campbell, & Grich., 2001; Simpson & Rholes, 2012). Thus, when highly avoidant individuals could benefit from support, they actually seek *less* support and distance themselves from their partners (Collins & Feeney, 2000; Rholes et al., 2001; Simpson et al., 1992). Moreover, when their partners try to provide support, highly avoidant recipients typically evaluate their partner's support more negatively, and withdraw from their partner to reduce dependence and prevent the hurt they expect will occur if they rely on others (Rholes et al., 1999; Rholes et al., 2001; Simpson et al., 1992). These automatic defensive strategies indicate that highly avoidant recipients should typically exhibit negative responses to support.

However, in contrast to the defensive reactions found in the above studies, there is also evidence that the provision of very clear and direct support can have beneficial outcomes for highly avoidant recipients. For example, even though Simpson et al. (1992) found that avoidant recipients sought less support from their partners when they appeared more distressed, they also discovered they were more calmed (as rated by observers) when their partners delivered very high levels of support. Rholes et al. (2011) also found that lower levels of perceived cooperative care from romantic partners predicted increases in depressive symptoms in highly avoidant individuals, whereas higher levels of cooperative support focusing on solving problems with the partner forecasted *reductions* in depressive symptoms across time. These results indicate that when partner support is low, and therefore matches avoidant individuals' negative expectations of their caregivers, avoidant recipients' show heightened distress. In contrast, highly avoidant recipients can find support beneficial when partners contradict their expectations by delivering very high levels of support.

Closer examination of the research focusing on the destructive responses of highly avoidant recipients provides further evidence that avoidant individuals react differently to

different *levels* of partner support. For example, Rholes et al. (1999) found that highly distressed avoidant women were angrier when their partners offered them low levels of support, but not when their partner's support was high. Collins and Feeney (2004) also found that highly avoidant individuals appraised low (but not high) amounts of support more negatively, and they performed more poorly during a speech task when their partners provided low (but not high) levels of support. Thus, although prior research has generally concluded that avoidant individuals react badly within support interactions, the pattern in this body of research indicates that highly avoidant recipients: (1) evaluate their partners more negatively and behave defensively when partners provide relatively *low* levels of support, but (2) can reap the benefits of partner support when receiving *high* levels of support, such as experiencing less distress and performing more competently.

Why would highly avoidant recipients react defensively when receiving low levels of partner support, but respond more positively when receiving high levels of support? Highly avoidant individuals strive to maintain their self-reliance and avoid dependence, but do so in order to protect themselves from the neglect and hurt they expect from unreliable caregivers (Bowlby, 1973; also see Shaver & Mikulincer, 2002). Priming studies, for example, illustrate that their focus on independence is a defensive response rather than a replacement of their attachment needs; concerns about a partner's availability and proximity-related thoughts are just as accessible for individuals high versus low in avoidance, and are even more accessible when additional cognitive load reduces their ability to suppress their attachment needs (e.g., Mikulincer, Birnbaum, Woddis, Nachmias, 2000; Mikulincer, Gillath, & Shaver, 2002). Avoidant individuals also experience increased positive mood and greater self-esteem when told they are accepted by others and that they will be successful in future interpersonal experiences (Carvallo & Gabriel, 2006). Thus, avoidant individuals still desire love and care from their partners (Rholes et al., 1999; Rholes et al., 2011; Shaver & Mikulincer, 2002;

Simpson et al., 1992), but have difficulty balancing these needs with entrenched fears that they cannot rely on their partners, who they often perceive to be less supportive and caring than they actually are (Collins & Feeney, 2004; Rholes et al., 2011). And, because receiving low-to-moderate levels of partner support confirms their expectations that partners cannot be depended on to be good and available caregivers (Collins & Feeney, 2004), low-to-moderate partner support should amplify avoidant recipients' fear of dependence, heightening their distress and interfering with their ability to cope. This threatening context should also trigger the automatic defenses associated with avoidance, including evaluating the partner's support more negatively, viewing the partner as being critical and controlling, and disengaging from them.

In contrast, although highly avoidant individuals should react defensively when low levels of support confirm their expectations that their partners will fail them in times of need, high levels of support may 'break through' these avoidant defenses by sharply contradicting the negative expectations highly avoidant recipients hold and providing undeniable evidence of their partner's availability. Indeed, providing clear and irrefutable evidence of the partner's supportive presence may be the only way in which avoidant recipients can let their guard down and receive help from their partners. This proposition is consistent with recent research showing that avoidant defenses can be ameliorated when partners behave in ways that disconfirm avoidant individuals' negative expectations (Overall, Simpson & Struthers, 2013; Simpson & Overall, 2014). The relative power and importance of the partner actually being available for highly avoidant individuals should reduce their need to engage in strategies designed to protect against the vulnerability of dependence. Thus, very high levels of partner support should counteract any distress and coping interference caused by the deep-seated fear of dependence initially activated within support contexts. Very clear support should also reduce avoidant recipients' negative evaluations of their partner's support and their defensive

psychological and behavioral distancing.

In sum, we predicted that partner support would have a curvilinear association with the responses of highly avoidant recipients. When partners provide increasing levels of support at low-to-moderate levels, highly avoidant recipients should exhibit increasingly negative responses as avoidant recipients' automatic self-protection strategies are progressively activated. However, as partners' support provision increases from moderate to high levels, highly avoidant recipients should receive the benefits of undeniably clear, direct support that contradicts their negative expectations and eliminates the need to protect against the pain that would occur if partners were unavailable.

Effects of Partner Support for Recipients Low in Avoidance

In contrast to highly avoidant people, secure people (i.e., those who are low in attachment avoidance) do not harbor concerns about being dependent or relying on their partners (Mikulincer et al., 2000; Shaver & Mikulincer, 2002). Instead, low avoidant individuals hold positive views of others and believe that caregivers are (and will be) available and responsive when needed (Mikulincer & Shaver, 2003). Possessing trust in the goodwill and responsiveness of their partners, recipients low in avoidance are unlikely to see low levels of support as confirmation that their partners are rejecting, and so should not exhibit the immediate self-protective reactions that highly avoidant recipients display. Rather, secure recipients should respond relatively positively even when partner support is low, most likely because they rely on their more general beliefs that they are cared for and supported.

Prior research examining the links between avoidance and reactions to support does indicate that low avoidant individuals do not react negatively when partner support is at *low* levels. Instead, secure (low avoidant) individuals perceive their partners as more supportive and evaluate their partner's support more positively, regardless of whether they receive low or high support messages (Collins & Feeney, 2004). Low avoidant individuals are also more

calmed during stressful discussions, even when their partners exhibit low levels of instrumental support (Simpson et al., 2007). In addition, during the transition to parenthood, low avoidant parents experience lower levels of depressive symptoms, even when they perceive their partner is providing low levels of proximal care (Rholes et al., 2011). These findings indicate that low avoidant recipients may generally experience more positive outcomes because their trust that they can draw upon support if needed helps them cope, regardless of the levels of support their partners are currently providing.

Ironically, however, because they do not require explicit evidence of their partner's care and availability, the very high levels of support that we predict will be beneficial for highly avoidant recipients might *interfere* with low avoidant recipients' general resilience. Indeed, very direct and visible support can exacerbate anxiety and depressed mood (e.g., Bolger & Amarel, 2007; Bolger et al., 2000; Gleason, Iida, Bolger & Shrout, 2008) as well as reduce recipients' confidence and self-efficacy (Bolger & Amarel, 2007; Howland & Simpson, 2010; Girme, Overall & Simpson, 2013). These costs of support are believed to occur because overt partner support challenges recipients' competence by signaling they are unable to cope on their own (Bolger et al., 2000). Research showing that avoidant individuals respond more positively at very high levels of support indicates that these potential costs may be offset for highly avoidant recipients because clear and direct support provides the evidence of partner availability they need to be willing to depend on their partners. However, because low avoidant recipients are unencumbered by concerns about their partner's reliability and thus do not require as much overt evidence of their partner's support, the coping and efficacy threats that very direct, visible support can have may outweigh the benefits of very high support for low avoidant recipients. If this is true, a reverse curvilinear pattern might be found for low (compared to high) avoidant recipients, one characterized by upswings in negative responses when partner support reaches very high levels.

Partner Support and Attachment Anxiety

Another form of insecure attachment is attachment anxiety. Attachment anxiety develops when people have experienced inconsistent caregiving during times of need, which creates a craving for closeness and intimacy coupled with an intense fear of rejection and relationship loss (Bowlby, 1969, 1973, 1980). Highly anxious individuals' preoccupation with acceptance and sustaining attachment bonds leads them to continually seek reassurance and persistently strive to attain their partner's care and support (Mikulincer & Shaver, 2003). Accordingly, the dependence inherent in support interactions does not threaten highly anxious individuals, and they do not respond in the same defensive, dependence-reducing manner as highly avoidant individuals often do in these contexts. However, anxious individuals are acutely sensitive to signs that their partner is not the committed and caring partner they desire, and so they display more negative emotions when their partners fail to provide sufficient support (Rholes et al., 1999). At low levels of support, therefore, highly anxious individuals may experience more distress and evaluate their partners more negatively. However, rather than negative responses increasing across levels of low-to-moderate support, as when activating avoidant defenses, highly anxious individuals should respond less negatively as the partner provides them increasing levels of support.

Indeed, high levels of partner support might be effective at eliminating highly anxious individuals' unfulfilled desires for love and acceptance. For example, highly anxious individuals feel more cared about and accepted when their partners provide evidence of their regard, such as conveying high levels of affection (e.g., Lemay & Dudley, 2011). But there are also reasons to think that increasing levels of support would not meet highly anxious individuals' insatiable desire for closeness and care, particularly in interactions that create expectations that the partner should provide care, such as when anxious individuals are in the role of the support recipient. Indeed, partner support is often relatively ineffective at soothing

highly anxious support recipients (e.g., Moreira et al., 2003; Simpson et al., 1992), and highly anxious recipients consistently evaluate the partner support they do receive more negatively (e.g., Collins & Feeney, 2004; Gallo & Smith, 2001; Priel & Shamai, 1995). Thus, in contexts in which highly anxious individuals expect high levels of attention, care and support, even very high levels of partner support may not satiate their need for closeness. Moreover, if very high levels of direct, visible support communicate negative evaluations by the partner, such as low competence and efficacy, this may activate the rejection concerns and negative self-evaluations of anxious individuals.

In sum, we did not expect the same curvilinear pattern for highly anxious recipients as we did for highly avoidant recipients. Although highly anxious recipients may respond more negatively to low levels of support, increasing levels of low-to-moderate levels of support should not activate increasingly defensive responses in highly anxious recipients. Moreover, even high levels of partner support may fail to meet the strong desires and expectations that anxious individuals hold in this context, and may even threaten their sense of self and fear of negative evaluations by the partner. Thus, their dual motivation of wanting closeness but being sensitive to any signs of devaluation may mean that the heightened benefits *and* costs of support for anxious individuals cancel each other out. Accordingly, the existing literature has revealed that partner support produces stronger effects for avoidant compared to anxious recipients (e.g., Rholes et al., 1999; Simpson et al., 1992; Simpson et al., 2007).

Summary and Overview of Current Research

Prior research has found that people high in attachment avoidance typically respond more negatively to partner support. However, some studies have shown that highly avoidant recipients can be calmed when they receive very high and clear levels of support from their partners. In the present research, we investigate whether these inconsistencies reflect a curvilinear association between romantic partners' support and the responses of highly

avoidant recipients. In particular, because low levels of partner support confirm their expectations that caregivers are unresponsive and unreliable, we predicted that highly avoidant recipients would protect themselves from the vulnerability of dependence and respond more negatively and defensively as partners provided low-to-moderate levels of support. However, we also predicted that these defensive responses would be ameliorated as moderate-to-high levels of support offer increasingly clear and undeniable evidence of the partner's availability. We did not expect the same curvilinear pattern would emerge for low avoidant (secure) recipients because their steadfast trust that partners will be responsive if needed enables them to be resilient, even in situations when partners provide low levels of support. Instead, because low avoidant recipients are unencumbered by concerns about their partner's availability, very high levels of support might result in the coping and efficacy costs that overt and visible support is known to produce, resulting in upswings in negative responses by low avoidant recipients when partner support reaches very high levels.

As summarized in Table 3.1, we tested our curvilinear prediction in four studies that reflect the most common methods employed by prior research examining the effectiveness of partner support, including assessing the effect of partner support observed within couples' discussions of recipients' personal goals (Studies 1 and 2) and the support that recipients perceived during discussions of significant stressors (Study 3) and daily interactions (Study 4) with their partners. Across these studies, we examined four recipient outcomes that capture (a) the way support effectiveness has often been tested in the support literature, and (b) the types of defensive reactions shown by highly avoidant recipients. Prior research has typically explored the effectiveness of support by assessing recipients' *distress* and *self-efficacy* (Bolger & Amarel, 2007; Collins & Feeney, 2000, 2004; Howland & Simpson, 2010; Simpson et al., 2007). Attachment-based research has also focused on the defensive reactions characteristic of attachment avoidance, including negative evaluations of partners' intentions,

Table 3.1. Method and Measures of each Study

	Study 1	Study 2	Study 3	Study 4
Method	Support during Couples' Discussions of Personal Goals	Support during Couples' Discussions of Personal Goals	Support during Couples' Discussions of a Significant Stressor	Support Experienced during Couples' Daily Interactions
Measures of Partner Support	Observer-rated practical and emotional support provision during discussion	Observer-rated practical and emotional support provision during discussion	Perceived practical and emotional support from partner during discussion	Perceived practical and emotional support from partner each day
Outcomes of Support				
<i>Distress</i>	Distress	Distress	Distress	Depressed Mood
<i>Efficacy</i>	-	Goal-Related Efficacy	Stressor-Related Efficacy	-
<i>Perceived Partner Control and Criticism</i>	-	Perceived Partner Control and Criticism	-	Perceived Partner Control and Criticism
<i>Distancing</i>	-	-	-	Distancing
Alternative Explanations				
<i>Support Need</i>	Desired Change in Goal	Desired Change in Goal	Severity of Stressor	Daily Support Need
<i>Support-Seeking</i>	Observer-rated support-seeking	Observer-rated support-seeking	-	-
<i>Desired Support</i>	-	Desired Practical Support	-	Desired Practical Support
	-	Desired Emotional Support	-	Desired Emotional Support
<i>Emotional Suppression</i>	-	Emotional Suppression	Emotional Suppression	Emotional Suppression

such as *perceiving the partner as controlling and critical* (e.g., Collins & Feeney, 2004), and psychological and behavioral *distancing* from the partner (e.g., Simpson et al., 1992).

In all four studies, we also assessed the two most commonly investigated forms of support: *practical* (e.g., giving advice, helpful information, and guidance) and *emotional* (e.g., listening, offering reassurance, and providing comfort) (see Barbee & Cunningham, 1995; Cutrona & Suhr, 1992; Pasch & Bradbury, 1998). The curvilinear effects we predict will occur for highly avoidant recipients could emerge for both forms of support because high levels of either support could signal the partner availability needed to counteract avoidant individuals' self-protective defensive strategies. However, there is also evidence to suggest that highly avoidant individuals tend to respond better to practical forms of support. Simpson et al. (2007), for instance, found that highly avoidant individuals were rated by observers as being more calmed when their partners provided practical support, but not emotional support. Similarly, Mikulincer and Florian (1997) found that highly avoidant individuals reported decreases in negative affect and fear of an upcoming stressful task when their partners were randomly assigned to provide practical support, but they reported increased negative affect and fear when given emotional support. These prior studies indicate that, even though high levels of emotional support may provide irrefutable evidence of the partner's care, the emotionally-laden and intimacy-inducing nature of emotional support may require too much vulnerability and intimacy for highly avoidant people to lower their self-protective defenses.

As outlined in Table 3.1, across all four studies, we also attempted to rule out four key alternative explanations for the hypothesized effects. First, we measured and statistically controlled for the extent to which recipients: (1) needed support (Studies 1-4), (2) actively sought support (Studies 1 and 2), and (3) desired support (Studies 2 and 4) from their partners. The more recipients need, seek, or desire support, the more responsive their partners should be on average in providing it. For highly avoidant recipients, therefore, the benefits of

greater partner support could occur because highly avoidant individuals are more soothed by support when they truly need or desire it from their partners. Avoidant individuals also tend to suppress threatening emotions and feelings (e.g., Fraley & Shaver, 1997; Mikulincer, 1998a), which could lead them to defensively suppress their distress and report more positive outcomes at high levels of (threatening) partner support. However, if highly avoidant individuals' defenses are activated (rather than terminated) at high levels of partner support, they should exhibit increasing levels of negative partner evaluations and distancing from the partner rather than the decreases in these partner-related responses we predict. Nonetheless, we tested this alternative explanation by measuring and controlling avoidant recipients' tendencies to suppress their thoughts and feelings (Studies 2-4; see Table 3.1).

Finally, we expected that partner support would have a curvilinear effect on the outcomes of highly avoidant recipients in all four studies. However, given the complexity of our moderated curvilinear predictions and the probability that type I and type II errors could emerge in one or more of the studies, we tested the robustness of the predicted curvilinear effect for each recipient outcome (see Table 3.1) and each type of support (practical versus emotional) by conducting a series of meta-analyses across all four studies. We also relied on these meta-analyses to test the robustness of any incidental findings beyond our primary predictions that emerged in any of the studies.

STUDY 1

We first drew upon an existing sample (Overall et al., 2010) that involved long-term romantic couples engaging in two video-recorded discussions in which each individual (as the support recipient) discussed a personal goal with his or her partner (as the support provider). The attachment orientation of each partner was assessed prior to the discussions. Immediately following each discussion, support recipients rated the level of distress they experienced during the discussion. To measure partner support, independent coders rated the

degree to which support providers displayed practical and emotional support (see Table 3.1). We predicted that highly avoidant recipients would react to low-to-moderate levels of partner support more negatively and show increasing levels of distress, but increasing levels of moderate-to-high support would appease avoidant recipients' distress by providing clear and undeniable evidence of their partner's availability (i.e., an inverted U-shape curve).

Method

Participants

Sixty-one heterosexual couples responded to campus advertisements placed across a New Zealand University and were paid NZ\$40 for participating. Couples were involved in serious (15% married, 49% cohabiting, 30% serious dating) and long-term ($M = 2.81$ years, $SD = 2.82$) relationships. The mean age of participants was 23.38 ($SD = 5.37$).³

Procedure

After completing scales assessing attachment avoidance and anxiety, each participant identified and ranked (in order of importance) three aspects of themselves they wanted to change or improve, which they were told they might discuss with their romantic partners. The top-ranked personal goal was then selected for discussion by the experimenter, and both partners rated how much they desired change in their targeted goal. After a short warm-up discussion, each couple engaged in two 5-minute video-recorded discussions about the most important personal goal of each partner. Both partners were instructed to simply discuss the issue as they normally would. Half of the couples discussed the women's goal first, and half discussed the man's goal first. We refer to the partner whose goal was discussed as the "support recipient" and their partner who could be supportive as the "support provider".

³ Analyses of the support interactions presented in Study 1 have been reported by Overall et al. (2010, Study 2) and by Girme, Overall, and Simpson (2013). However, the specific measures, hypotheses, and curvilinear analyses reported here have not been previously examined or reported. No results from the samples used in Studies 2-4 have been previously reported or published.

Materials

Attachment Orientations. Participants completed the Adult Attachment Questionnaire (AAQ; Simpson, Rholes & Phillips, 1996). Eight items assessed attachment avoidance (e.g., “I’m not very comfortable having to depend on romantic partners”) and nine items assessed attachment anxiety (e.g., “I often worry that my romantic partners don’t really love me” 1 = *strongly disagree*, 7 = *strongly agree*). Items were scored and averaged so that higher scores represent higher avoidance (Cronbach’s alpha [α] = .75) and anxiety (α = .83).

Support Need. To assess how much recipients might need support from their partner (see Table 3.1), prior to the support discussions, recipients reported on how much they desired change with regard to their goal (“To what extent do you desire change in this feature of yourself?” 1 = *no desire to change*, 7 = *strong desire to change*).

Distress. Following each discussion, support recipients reported how stressful they found the discussion (1 = *not at all stressful*, 7 = *extremely stressful*) and how upset they were during the discussion (1 = *not at all upset*, 7 = *extremely upset*). These items were averaged ($r = .60$, $p < .01$) to index recipients’ distress during the discussion.

Support Provision. Two coders blind to the study aims and all participant data independently coded the videotaped discussions for the degree to which partners exhibited practical and emotional support behaviors. *Practical support* included offering advice and information, generating solutions, and suggesting actions to produce change. *Emotional support* included expressions of love and concern, providing reassurance and comfort, and communicating understanding and empathy. The specific behaviors targeted are described in Overall et al. (2010), and a detailed scheme is available in supplementary materials.⁴ Coders were instructed to take into account the frequency, intensity, and duration of relevant support behaviors during each discussion (1-2 = low, 3-5 = moderate, 6-7 = high). Coders’ ratings

⁴ Please refer to Appendix 1 for supplementary materials.

were highly consistent and averaged to construct scores for practical (*intraclass correlation coefficient* [ICC] = .91) and emotional (ICC = .95) support.

Support Seeking. Two coders also independently rated how much recipients sought support from their partners. Based upon prior conceptualizations and coding of direct support seeking (Barbee & Cunningham, 1995; Pasch & Bradbury, 1998), coders rated the presence of direct support-seeking behaviors, including recipients' directly seeking help, advice, reassurance, or physical proximity as well as describing the problem, disclosing thoughts and emotions, and discussing potential solutions with their partner. These behaviors signal that recipients desire and are seeking support from their partners. Coders were instructed to take into account the frequency, intensity, and duration of relevant support behaviors during each discussion (1-2 = low, 3-5 = moderate, 6-7 = high). Coders' ratings demonstrated high consistency (ICC = .91), and were averaged to construct an overall support seeking score.

Results

Descriptive statistics are reported in Table 3.2 (first column marked Study 1).⁵ To test whether support provision had curvilinear associations with recipients' distress, and whether any curvilinear associations were moderated by attachment avoidance, we followed the approach outlined by Kenny, Kashy, and Cook (2006) and ran a series of dyadic multilevel models that accounted for the dyadic dependencies in the data using the MIXED procedure in SPSS 20. We first modeled recipients' distress as a function of: (a) the linear effect of their partner's practical support, (b) the quadratic or curvilinear effect of their partner's practical support, (c) recipients' attachment avoidance, and the interactions between recipients' avoidance and (d) the linear and (e) quadratic effect of the partner's practical support. To isolate the effects of avoidance and anxiety, we also included: (f) recipients' attachment anxiety, and the interactions between recipients' anxiety and (g) the linear and (h) quadratic

⁵ The key correlations are described in the text. Full correlation tables for each study are available in supplementary materials (refer to Appendix 1).

Table 3.2. Descriptive Statistics across Measures (Studies 1-4)

	Study 1		Study 2		Study 3		Study 4	
	Mean (SD)	Range	Mean (SD)	Range	Mean (SD)	Range	Mean (SD)	Range
Recipients' Attachment Avoidance	2.95 (0.96)	1.00 – 5.38	2.86 (1.02)	1.00 – 6.00	2.92 (1.23)	1.00 – 6.63	2.90 (0.92)	1.00 – 5.75
Recipients' Attachment Anxiety	2.98 (1.10)	1.00 – 5.67	3.07 (1.05)	1.00 – 7.00	3.11 (1.12)	1.00 – 5.67	3.04 (1.12)	1.00 – 5.89
Partners' Practical Support	3.75 (1.13)	1.00 – 6.50	4.31 (1.13)	2.00 – 7.00	5.23 (1.47)	1.50 – 7.00	3.05 (2.02)	1.00 – 7.00
Partners' Emotional Support	1.80 (1.03)	1.00 – 7.00	3.05 (1.14)	1.00 – 7.00	5.41 (1.41)	1.50 – 7.00	3.96 (2.08)	1.00 – 7.00
Recipients' Distress	2.52 (1.29)	1.00 – 7.00	1.99 (1.49)	1.00 – 7.00	3.59 (1.38)	1.00 – 6.00	1.84 (1.30)	1.00 – 7.00
Recipients' Efficacy	-	-	5.15 (1.09)	1.50 – 7.00	4.45 (1.35)	1.00 – 7.00	-	-
Perceived Partner Control and Criticism	-	-	2.07 (1.37)	1.00 – 7.00	-	-	1.50 (0.98)	1.00 – 7.00
Recipients' Distancing	-	-	-	-	-	-	1.72 (1.12)	1.00 – 7.00
Alternative Explanations								
Recipients' Support Need	5.93 (0.92)	3.00 – 7.00	5.76 (1.22)	1.00 – 7.00	6.03 (0.97)	3.00 – 7.00	2.48 (1.73)	1.00 – 7.00
Recipients' Support-Seeking	3.59 (0.99)	1.00 – 7.00	4.14 (1.09)	1.00 – 7.00	-	-	-	-
Recipients' Desired Practical Support	-	-	5.30 (1.37)	1.00 - 7.00	-	-	2.84 (1.99)	1.00 – 7.00
Recipients' Desired Emotional Support	-	-	5.98 (1.00)	1.00 – 7.00	-	-	3.00 (2.05)	1.00 – 7.00
Recipients' Emotional Suppression	-	-	2.24 (1.45)	1.00 – 7.00	3.10 (1.50)	1.00 – 7.00	2.21 (1.46)	1.00 – 7.00

Note: Alternative explanation measures for each study are described in Table 3.1.

effects of the partner's practical support. An analogous model was run to test the effects of emotional support. All predictor variables were grand-mean centered, and the quadratic effects were calculated by modeling the squared grand-mean centered support scores. We also modeled the main effect and interaction effects of gender (coded -1 women, 1 men) to test for differences between men and women. No significant gender differences emerged ($ts = -.04$ to -1.55 , $ps > .12$) and so we dropped these additional parameters from the models.

The results are presented in Table 3.3. We first focus on the predicted effects for attachment avoidance, and then turn to the effects for attachment anxiety.

Table 3.3. The Effects of Practical and Emotional Support Provided by the Partner and Recipients' Attachment Avoidance and Anxiety on Recipients' Distress (Study 1)

	<i>B</i>	<i>SE</i>	<i>t</i>
Practical Support			
Partners' Practical Support	.04	.09	.47
Partners' Practical Support ²	-.08	.07	-1.17
Recipients' Attachment Avoidance	.45	.15	3.02**
Partners' Practical Support x Attachment Avoidance	-.09	.10	-.94
Partners' Practical Support ² x Attachment Avoidance	-.15	.07	-2.05*
Recipients' Attachment Anxiety	.11	.13	.86
Partners' Practical Support x Attachment Anxiety	.12	.10	1.19
Partners' Practical Support ² x Attachment Anxiety	.19	.08	2.55*
Emotional Support			
Partners' Emotional Support	-.55	.17	-3.27**
Partners' Emotional Support ²	.22	.08	2.79**
Recipients' Attachment Avoidance	.40	.15	2.74**
Partners' Emotional Support x Attachment Avoidance	.27	.18	1.48
Partners' Emotional Support ² x Attachment Avoidance	-.11	.07	-1.58
Recipients' Attachment Anxiety	.27	.12	2.32*
Partners' Emotional Support x Attachment Anxiety	-.19	.17	-1.10
Partners' Emotional Support ² x Attachment Anxiety	.19	.09	2.03*

Note. * $p < .05$. ** $p < .01$. The variables marked with ² are curvilinear variables.

Attachment Avoidance and Curvilinear Effects of Partners' Support

Practical Support. The results testing the effects of practical support are presented in the top section of Table 3.3. No linear or curvilinear associations emerged between partners' practical support and recipients' distress. However, as predicted, the curvilinear association between practical support and recipients' distress was moderated by recipients' attachment avoidance (see the significant Partners' Practical Support² x Attachment Avoidance interaction). This interaction is plotted in Figure 3.1. The values on the x-axis represent the range of practical support provided by partners during the discussions (1 = no practical support, 6.5 = highest levels of practical support), and the values on the y-axis represent the predicted values of distress that fell within the range of distress recipients reported in Study 1. To evaluate the meaning of each curve we: (1) calculated the simple linear and curvilinear effects for recipients high versus low in avoidance (see Table 3.4), and (2) calculated the inflection points for the curves for recipients high versus low in avoidance.⁶

The curvilinear effect of partner support for recipients high in avoidance (+1 SD) is depicted by the solid line in Figure 3.1. As predicted, highly avoidant individuals experienced increasing distress as partner support moved from low to moderate levels (see left side of Figure 3.1). However, at around average levels of support (inflection point = 3.65, .09 SD below the mean), the effect reversed and increasing levels of practical support were associated with a reduction in avoidant individuals' distress (see right side of Figure 3.1). The

⁶ To calculate the inflection curves, we used standard unconstrained optimization techniques (see Aiken & West, 1991; Stewart, 2011) to compose an equation reflecting the moderated curvilinear effect, where x = partners' practical support and z = recipients' attachment avoidance.

$$y(x, z) = B_0 + B_1x + B_2x^2 + B_3z + B_4xz + B_5x^2z$$

We then took the partial derivative with respect to x and solved for $\frac{\partial y}{\partial x} = 0$

$$\frac{\partial y}{\partial x} = B_1 + (2 * B_2x) + B_4z + (2 * B_5xz)$$

Finally, we solved x by substituting values for z (i.e., -1 SD and +1 SD values for z or recipients' attachment avoidance) and re-centered the x values (partners' practical support) against the true mean value. Further information and step-by-step examples of calculating inflection points are contained in supplementary materials (refer to Appendix 1).

simple effects confirmed that this represented a significant simple curvilinear effect (see first row, right side of Table 3.4).⁷ In contrast, the simple effects for recipients low in avoidance (-1 SD; see dashed line in Figure 3.1) revealed that the upswing in distress at very high levels of support was not statistically significant.

Alternative Explanations. We wanted to rule out the possibility that these effects were due to differences in the support needs or support seeking behavior of recipients high versus low in avoidance (see Table 3.1). Level of desired change (or support need) was not associated with recipients' attachment security, recipients' distress, or the degree to which partners provided support ($r_s = -.09$ to $.01$, $p_s > .31$), and statistically controlling for desired change did not alter the significant curvilinear interactions reported in Figure 3.1 ($B = -.14$, $t = -2.01$, $p < .05$). Similarly, although support-seeking was associated with lower distress ($r = -.22$, $p < .02$), statistically controlling for the level of recipients' support-seeking did not substantially alter the curvilinear interaction reported in Figure 3.1 ($B = -.13$, $t = -1.78$, $p < .08$).

Emotional Support. The results for models testing the associations between emotional support and recipients' distress are presented in the lower section of Table 3. Greater emotional support provided by the partner was associated with lower levels of recipients' distress, but a significant curvilinear effect of emotional support indicated that

⁷ A concern with curvilinear associations and moderated curvilinear effects is that curves could be pulled by outliers. However, the predicted curvilinear effect was directly and conceptually replicated across the four studies reported here (see Figures 1 to 8) and, thus, it is extremely unlikely that this pattern was produced by outliers in each study. Nonetheless, we carefully inspected all scatterplots for the effects presented in Figures 1 to 8 across the studies. There was no evidence of outliers influencing any of the results across all four studies. Relevant output is contained in supplementary materials (refer to Appendix 1).

Another potential concern is whether the distribution of partner support is skewed. For example, perhaps high levels of partner support (i.e., when it becomes beneficial for highly avoidant recipients) occurs relatively infrequently, indicating that the down-turn in negative responses might be a rare occurrence. Skew indices and histograms across all four studies are provided in supplementary materials. Practical support was normally distributed, and the distributions were similar across low versus high attachment avoidance groups.

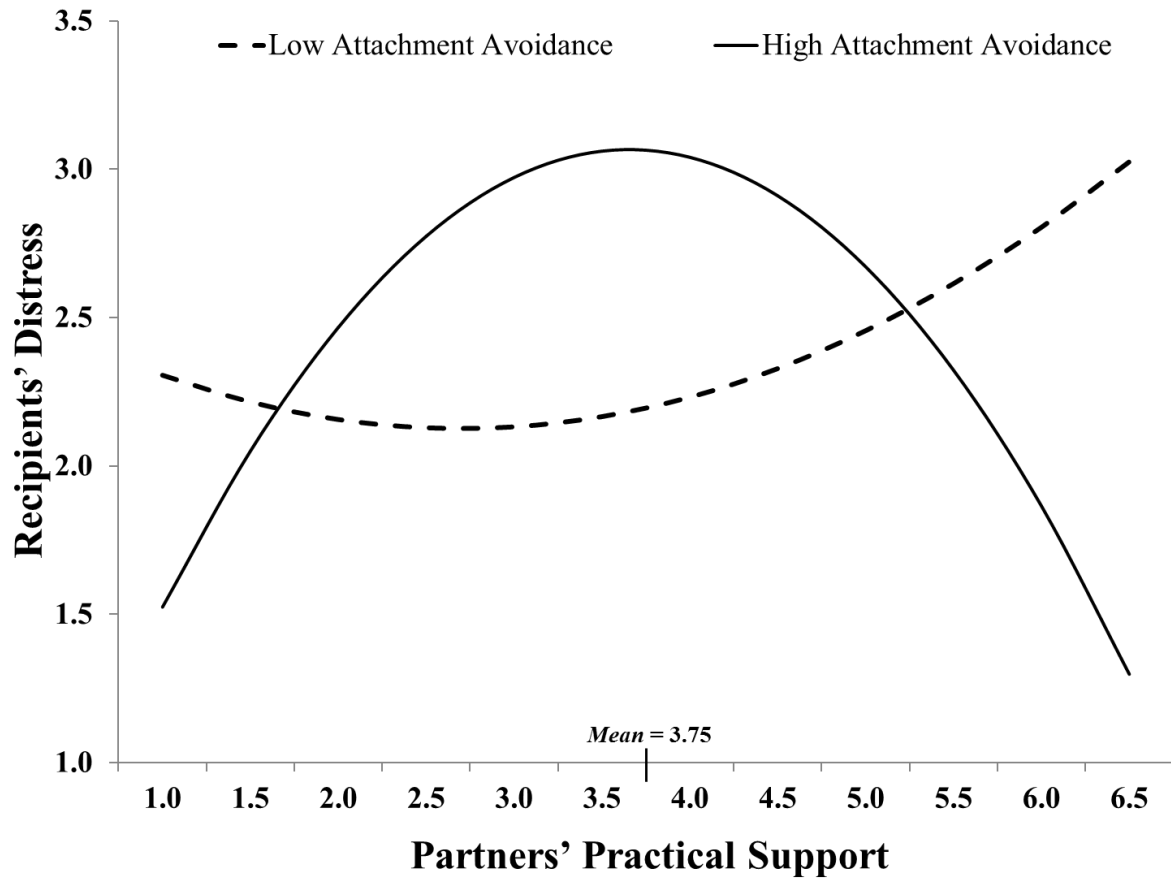


Figure 3.1. The moderating effect of recipients' attachment avoidance on the curvilinear association between practical support exhibited by the partner during discussions of recipients' personal goals and recipients' distress (Study 1).

Note. The values on the x-axis represent the range of practical support provided by partners in Study 1 (1 = no practical support, 6.5 = highest levels of practical support). Low and high attachment avoidance are indexed by 1 SD below and above the mean.

Table 3.4. Simple Linear and Curvilinear Effects of Partners' Practical Support for Recipients Low and High in Attachment Avoidance (Studies 1-4)

	Figure	Low Attachment Avoidance (-1 SD)								High Attachment Avoidance (+1 SD)							
		Linear Effect				Curvilinear Effect				Linear Effect				Curvilinear Effect			
		<i>B</i>	<i>SE</i>	<i>t</i>	<i>r</i>	<i>B</i>	<i>SE</i>	<i>t</i>	<i>r</i>	<i>B</i>	<i>SE</i>	<i>t</i>	<i>r</i>	<i>B</i>	<i>SE</i>	<i>t</i>	<i>r</i>
<i>Distress</i>																	
Study 1	1	.13	.14	.97	.09	.06	.08	.74	.07	-.04	.13	-.34	-.03	-.22	.11	-2.06*	-.20
Study 2	-	.03	.15	.17	.01	-.15	.10	-1.61	-.13	.20	.15	1.36	.11	-.11	.10	-1.05	-.09
Study 3	-	.02	.18	.12	.02	-.08	.10	-.79	-.10	-.14	.25	-.56	-.07	-.18	.11	-1.60	-.20
Study 4 (men only)	6	-.05	.03	-1.41	-.16	.07	.02	4.12*	.43	.07	.03	2.46*	.27	-.04	.01	-2.79*	-.31
<i>Efficacy</i>																	
Study 2	2	.01	.11	.13	.01	-.10	.07	-1.46	-.11	-.22	.10	-2.30*	-.02	.15	.07	2.19*	.17
Study 3	4	.02	.17	.10	.01	-.10	.10	-1.00	-.13	.52	.24	2.20*	.27	.20	.11	1.82†	.22
<i>Perceived Partner Control and Criticism</i>																	
Study 2 (men only)	3	-.12	.20	-.60	-.06	.17	.12	1.50	.16	.18	.19	.96	.10	-.18	.13	-1.39	-.15
Study 4 (men only)	7	.03	.04	.95	.11	.05	.02	2.91*	.31	.04	.03	1.23	.13	-.03	.01	-2.27*	-.24
<i>Distancing</i>																	
Study 4	8	-.01	.02	-.26	-.02	.01	.01	1.15	.10	-.01	.02	-.47	-.04	-.02	.01	-2.13*	-.19

Note. Effect sizes (*r*) were computed using Rosenthal and Rosnow's (2007) formula: $r = \sqrt{(t^2 / t^2 + df)}$. * $p < .05$. † $p < .08$

once emotional support reached very high levels (inflection point = 3.04, 1.2 SD above the mean), the beneficial effect of emotional support halted and began to have the reverse effect. However, this pattern did not differ according to recipients' level of attachment avoidance.

Attachment Anxiety and Curvilinear Effects of Partners' Support

Unexpectedly, two significant interactions between the curvilinear effect of partners' support and recipients' attachment anxiety emerged. Given the number of studies, incidental findings beyond our primary predictions are described in text, and we examine the robustness of these additional effects in a meta-analysis across studies presented at the end of Study 4. Associated figures are available in supplementary materials (see Footnote 2).

A significant interaction between the curvilinear effect of partners' practical support and recipients' attachment anxiety on recipients' distress (see top section of Table 3) revealed that recipients *lower* in attachment anxiety showed the same pattern as recipients *higher* in avoidance (as in the solid line in Figure 3.1). That is, practical support had an increasingly deleterious effect on distress until reaching close to mean levels of support (inflection point = 3.60, .13 SD below the mean), at which point increasing levels of practical support were associated with reductions in distress (simple linear effect: $B = -.09$, $SE = .13$, $t = -.65$, $p = .52$; simple curvilinear effect: $B = -.29$, $SE = .11$, $t = -2.65$, $p = .01$). The simple effects of practical support for recipients high in anxiety were non-significant (linear: $B = .17$, $SE = .15$, $t = 1.13$, $p = .26$; curvilinear: $B = .13$, $SE = .10$, $t = 1.29$, $p = .20$).

A second interaction between the curvilinear effect of partners' emotional support and recipients' attachment anxiety on recipients' distress (see lower section of Table 3) revealed that recipients *lower* in attachment anxiety experienced a linear, but non-significant, decrease in distress as partners provided more emotional support (simple linear effect: $B = -.34$, $SE = .25$, $t = -1.39$, $p = .17$; simple curvilinear effect: $B = .02$, $SE = .12$, $t = .15$, $p = .88$). In contrast, significant simple linear ($B = -.76$, $SE = .26$, $t = -2.94$, $p < .01$) and curvilinear ($B =$

.43, $SE = .14$, $t = 3.12$, $p < .01$) effects for recipients high in attachment anxiety revealed that low-to-moderate levels of partner emotional support had an alleviating effect on anxious individuals' greater distress until reaching just above average levels of support (inflection point = 2.68, .84 SD above the mean), after which highly anxious recipients started to become increasingly distressed by higher levels of emotional support. Thus, particularly high levels of emotional support may exacerbate anxious individuals' heightened distress.

Discussion

In Study 1, individuals (support recipients) discussed a personal goal with their partner (support provider) while being video-recorded. As predicted, attachment avoidance moderated the curvilinear association between the amount of practical support exhibited by the partner (rated by independent coders) and recipients' level of distress experienced during the discussion. Consistent with the documented resistance to support associated with attachment avoidance, the more partners provided low-to-moderate levels of practical support, the more highly avoidant recipients experienced distress. However, consistent with research suggesting that high levels of practical support might yield benefits and actually soothe highly avoidant recipients, once partner support reached average levels, increasing levels of practical support were associated with *reductions* in highly avoidant recipients' distress. In contrast, increasing levels of practical support had non-significant linear and curvilinear associations with the distress experienced by less avoidant recipients.

Partners' emotional support did not show the same pattern. Instead, emotional support had a positive effect on recipients' distress up to moderate levels, after which emotional support started to become costly, consistent with prior research showing that support can have costs (e.g., Bolger et al., 2000; Shrout et al., 2006). This pattern, however, was significant only for recipients high in attachment anxiety, suggesting that anxious individuals who already hold chronic negative self-views may be most susceptible to such threats.

Unexpectedly, recipients low in anxiety also exhibited the same pattern of response to partners' practical support as recipients high in avoidance. We investigate the replicability of these effects in Studies 2-4.

STUDY 2

In Study 2, we broadened our assessment of recipient outcomes by examining a central outcome that prior research has used to assess the effectiveness of support—recipients' self-efficacy (e.g., Bolger & Amarel, 2007; Howland & Simpson, 2010)—and by assessing the negative evaluations of partner support that often accompany attachment avoidance—perceptions of the partner being controlling and critical (e.g., Collins & Feeney, 2004). Similar to Study 1, heterosexual couples involved in long-term relationships engaged in two video-recorded discussions in which each individual (the support recipient) discussed a personal goal with his or her partner (the support provider). Immediately following each discussion, support recipients rated how distressed they felt during the discussion, their feelings of goal-related competence and efficacy, and the extent to which they felt their partner was controlling and critical. Independent coders then rated the degree to which partners provided practical and emotional support. We expected that highly avoidant recipients would react to low-to-moderate levels of partner support with greater distress, reduced goal-related efficacy, and more negative perceptions of the partner as controlling and critical, but we predicted that these negative responses would reverse as partners provided moderate-to-high levels of support that offer unequivocal evidence of their availability.

Method

Participants

One-hundred heterosexual couples responded to campus-wide advertisements at a New Zealand University and were paid NZ\$80 for participating. Couples were involved in serious (13% married, 36% cohabiting, 47% serious dating relationships), long-term ($M =$

3.28 years, $SD = 4.16$) relationships, and were a mean age of 22.64 ($SD = 6.51$) years.

Procedure

After completing measures of attachment avoidance and anxiety, participants identified and ranked (in order of importance) three current personal goals they had been trying to achieve, which they were told they might discuss with their romantic partners. The top-ranked personal goal was selected for discussion, and participants then rated how much they desired change with regard to the targeted goal. After a short warm-up discussion, each couple was video-recorded engaging in two 7-minute discussions about each partner's personal goal. Half of the couples discussed the woman's goal first, and half discussed the man's goal first. As in Study 1, both partners were instructed to discuss the issue as they normally would. We refer to the partner whose goal was discussed as the "support recipient", and their partner who could be supportive as the "support provider".

Materials

Pre-Discussion Measures

Attachment Orientations. Participants completed the AAQ (Simpson, et al., 1996) to assess avoidance ($\alpha = .76$) and anxiety ($\alpha = .78$).

Support Need. To assess support need (see Table 3.1), recipients rated how much they desired change with regard to their personal goal ("To what extent do you desire change in yourself regarding this goal?" 1 = *no desire to change*, 7 = *strong desire to change*).

Post-Discussion Measures

Goal-Related Efficacy. Immediately after each discussion, support recipients rated how much they now felt competent and efficacious with regard to their goal, given the discussion they just had with their partner. Participants rated four items, which were averaged to index goal-related efficacy ($\alpha = .88$): In regard to my goal, I feel "effective and capable", "able to cope with the challenges of my goal", "able to cope with setbacks

associated with my goal”, and “like a competent person” (1 = *not at all*, 7 = *very much*).

Distress. Support recipients completed the same items used in Study 1 to assess how stressful and upset they experienced the discussion to be ($r = .74, p < .001$).

Perceived Partner Control and Criticism. Support recipients also rated the degree to which “My partner took over my goal” and “My partner was critical about how I pursued my goal” (1 = *not at all*, 7 = *very much*), which were averaged to index the extent to which recipients perceived their partner was being controlling and critical ($r = .32, p < .001$).

Desired Support. To assess how much practical and emotional support recipients desired from their partner during the discussion (see Table 3.1), recipients rated four items tapping desired *practical support* (e.g., “I wanted my partner to offer suggestions and advice about how to achieve my goal”, “I wanted my partner to give me guidance and direction about how to pursue my goal”) and six items assessing desired *emotional support* during the discussion (e.g., I wanted my partner to... “reassure and comfort me”, “be warm and affectionate toward me”, 1 = *not at all*, 7 = *very much*). Items were averaged to construct overall measures of desired practical ($\alpha = .88$) and emotional ($\alpha = .89$) support.

Emotional Suppression. To assess the degree to which recipients tried to suppress their thoughts and feelings during the discussion (see Table 3.1), recipients rated 3 items derived from a validated self-report scale of emotional suppression (Gross & John, 2003): “I tried to control or suppress any negative emotions”, “I tried to hide my thoughts and feelings from my partner”, and “I kept my negative emotions to myself” during the discussion (1 = *not at all*, 7 = *very much*). The items were averaged to index emotional suppression ($\alpha = .88$).

Support Provision and Support Seeking. The coding schedules and procedures from Study 1 were also used in Study 2. Two coders blind to the study aims and all participant data independently rated the videotaped discussions for the degree to which partners exhibited practical ($ICC = .89$) and emotional ($ICC = .91$) support. In a separate wave of coding, one

trained coder also rated recipients' direct support-seeking behaviors. For this wave, twenty-five couples were double coded by two other coders to check for reliability ($ICC = .89$).

Results

Descriptive statistics are reported in Table 3.2 (see second column labeled Study 2). We ran dyadic multilevel models as in Study 1 (Kenny et al., 2006), first modeling recipients' *distress* as a function of: (a) the linear effect of their partner's practical support, (b) the quadratic or curvilinear effect of their partner's practical support, (c) recipients' attachment avoidance, and the interactions between recipients' avoidance and (d) the linear and (e) quadratic effect of the partner's practical support. We also simultaneously modelled (f) recipients' attachment anxiety, and the interactions between recipients' anxiety and (g) the linear and (h) quadratic effect of the partner's practical support. We ran equivalent models predicting recipients' goal-related efficacy and perceived partner control/criticism, and for examining the effects of emotional support. All predictor variables were grand-mean centered, and the quadratic effects were calculated by modeling the squared grand-mean centered support scores. We also modeled the main and interaction effects of gender (coded -1 women, 1 men). Across the models, 4 of the 48 effects presented in Table 3.5 significantly differed across men and women (see coefficients in italics), including one of the predicted curvilinear interactions, which we describe below.⁸

⁸ We discuss the gender difference in the predicted curvilinear interaction in the main text, but briefly describe the other three differences highlighted in italics in Table 3.5 here. First, when modeling both practical support ($B = -.26, t = -2.08, p < .04$) and emotional support ($B = -.26, t = -2.06, p = .04$), significant gender differences revealed that avoidant women ($B = .49$ and $.47, ts > 2.48, ps < .02$), but not avoidant men ($B = -.04$ and $-.05, ts < -.27, p > .78$), experienced greater distress during the discussions. In addition, the linear practical support \times attachment anxiety interaction on recipients' efficacy was marginally significant for women ($B = .15, t = 1.77, p = .08$), but not for men ($B = -.12, t = -1.14, p = .26$; gender difference $B = -.13, t = -2.00, p < .05$). Compared to less anxious women, highly anxious women reported lower levels of efficacy when their partners provided higher levels of practical support (+1 SD *slope* = $-.39, t = -2.85, p < .01$), but there were no differences in goal-related efficacy when their partners provided lower levels of practical support (-1 SD *slope* = $-.06, t = -.38, p = .71$). This suggests that the costs of visible practical support on efficacy that can occur are more marked for people high in attachment anxiety (also see Study 1).

Table 3.5. The Effects of Practical and Emotional Support Provided by the Partner and Recipients' Attachment Avoidance and Anxiety on Recipients' Distress, Efficacy and Perceived Control and Criticism by Partner (Study 2)

	Distress			Efficacy			Perceived Partner Control/Criticism		
	<i>B</i>	<i>SE</i>	<i>t</i>	<i>B</i>	<i>SE</i>	<i>t</i>	<i>B</i>	<i>SE</i>	<i>t</i>
Practical Support									
Partners' Practical Support	.11	.10	1.16	-.10	.07	-1.50	.05	.09	.56
Partners' Practical Support ²	-.13	.06	-2.08*	.02	.05	.54	-.01	.06	-.09
Recipients' Attachment Avoidance	.22	.13	1.77	-.22	.09	-2.45*	.08	.12	.67
Partners' Practical Support x Attachment Avoidance	.09	.11	.78	-.12	.07	-1.58	.02	.10	.22
Partners' Practical Support ² x Attachment Avoidance	.02	.08	.31	.12	.05	2.49*	-.04	.06	-.71
Recipients' Attachment Anxiety	.41	.12	3.28**	-.11	.09	-1.23	-.02	.12	-.13
Partners' Practical Support x Attachment Anxiety	.04	.09	.46	.01	.07	.20	.09	.09	1.03
Partners' Practical Support ² x Attachment Anxiety	-.08	.06	-1.28	-.06	.05	-1.31	.03	.06	.50
Emotional Support									
Partners' Emotional Support	-.08	.11	-.73	-.06	.08	-.70	-.15	.10	-1.50
Partners' Emotional Support ²	-.01	.07	-.22	.06	.05	1.23	.06	.06	.88
Recipients' Attachment Avoidance	.21	.12	1.71	-.14	.09	-1.54	-.08	.11	-.75
Partners' Emotional Support x Attachment Avoidance	.17	.11	1.54	-.05	.08	-.61	-.02	.10	-.17
Partners' Emotional Support ² x Attachment Avoidance	.03	.06	.52	.02	.04	.46	.11	.06	1.92
Recipients' Attachment Anxiety	.35	.12	2.94**	-.18	.09	-2.00*	.15	.11	1.37
Partners' Emotional Support x Attachment Anxiety	.02	.10	.22	.07	.08	.87	.13	.10	1.30
Partners' Emotional Support ² x Attachment Anxiety	-.12	.08	-1.40	.02	.07	.38	-.10	.08	-1.20

Note. * $p < .05$. ** $p < .01$. The variables marked with ² are curvilinear variables. Coefficients that significantly differed between men and women are shown in italicizes.

Practical Support. The top section of Table 3.5 presents the results for the effect of practical support on recipients' ratings of distress, goal-related efficacy, and perceived partner control/criticism. Unlike Study 1, the interaction between the curvilinear effect of practical support and attachment avoidance on recipients' distress was not significant. Instead, a main curvilinear effect of practical support emerged. Regardless of recipients' avoidance, greater practical support was associated with increasing distress until practical support reached moderate levels (inflection point: 4.75, .39 SD above the mean), at which point greater partner practical support was associated with reductions in distress.

Consistent with predictions, however, there was a significant curvilinear interaction between practical support and attachment avoidance on recipients' goal-related efficacy, which is plotted in Figure 3.2. The curvilinear effects of partner support for recipients high (+1 SD) in avoidance is shown by the solid line. As practical support from the partner moved from low to close-to-mean levels, highly avoidant recipients reported sharp drops in goal-related efficacy (see left side of Figure 3.2). However, at just over average levels of practical support (inflection point = 5.07, .68 SD above the mean), the effect reversed and increasing levels of practical support were associated with increases in highly avoidant individuals' goal-related efficacy (see right side of Figure 3.2). The simple linear and curvilinear effects confirmed this was a significant curvilinear pattern (see first row under Efficacy, right side of Table 3.4). In contrast, the simple effects indicated that the slight reverse pattern for less avoidant recipients (-1 SD; see the dashed line) was not significant (see left side of Table 3.4).

With regard to perceived partner control/criticism, a significant gender interaction ($B = -.13$, $SE = .06$, $t = -2.12$, $p < .04$) revealed that the curvilinear effect of practical support was moderated by recipients' avoidance for male ($B = -.17$, $SE = .08$, $t = -2.15$, $p < .04$), but not female ($B = .08$, $SE = .09$, $t = .90$, $p = .37$), recipients. The significant interaction for men

is plotted in Figure 3.3. Similar to the pattern shown for recipients' efficacy, as partners provided low-to-moderate levels of practical support, highly avoidant men experienced sharp increases in perceived partner control/criticism (see solid line, left side of Figure 3.3) until support reached average levels (inflection point = 4.83, .46 SD above the mean), at which point increasing levels of practical support were associated with declines in perceived partner control/criticism (see solid line, right side of Figure 3.3). The simple effects revealed this was a significant curvilinear pattern (see first row under Perceived Control Criticism, right side of Table 3.4). In contrast, the simple effects indicated that the reverse pattern for men low in avoidance (see dashed line) was not significant (see Table 3.4).

Alternative Explanations. Recipients' desired change in their goal was not associated with attachment security or recipients' distress, goal-related efficacy, or perceived partner control/criticism ($r_s = .05$ to $.12$, $p_s > .39$). However, the more recipients desired change in their goal, the *less* their partners provided practical support ($r = -.16$, $p < .03$). Statistically controlling for desired change did not alter the significant curvilinear interactions displayed in Figures 3.2 ($B = .13$, $SE = .05$, $t = 2.71$, $p < .01$) and Figure 3.3 (men: $B = -.18$, $SE = .08$, $t = -2.20$, $p = .03$). The degree to which recipients directly sought support was not associated with greater distress ($r = -.12$, $p = .09$) or goal-related efficacy ($r = .07$, $p = .32$), but it was associated with lower perceived control/criticism ($r = -.18$, $p < .05$). Statistically controlling for support seeking did not alter the significant curvilinear interactions shown in Figure 3.2 ($B = .12$, $SE = .05$, $t = 2.54$, $p < .02$) and Figure 3.3 (men: $B = -.17$, $SE = .08$, $t = -2.14$, $p < .04$). Finally, the degree to which recipients reported desiring practical support, the more their partners provided practical support ($r = .15$, $p = .03$), but controlling for desired practical and emotional support did not alter the significant curvilinear interactions reported in Figure 3.2 ($B = .12$, $SE = .05$, $t = 2.52$, $p < .02$) and Figure 3.3 (men: $B = -.16$, $SE = .08$, $t = -2.03$, $p < .05$).

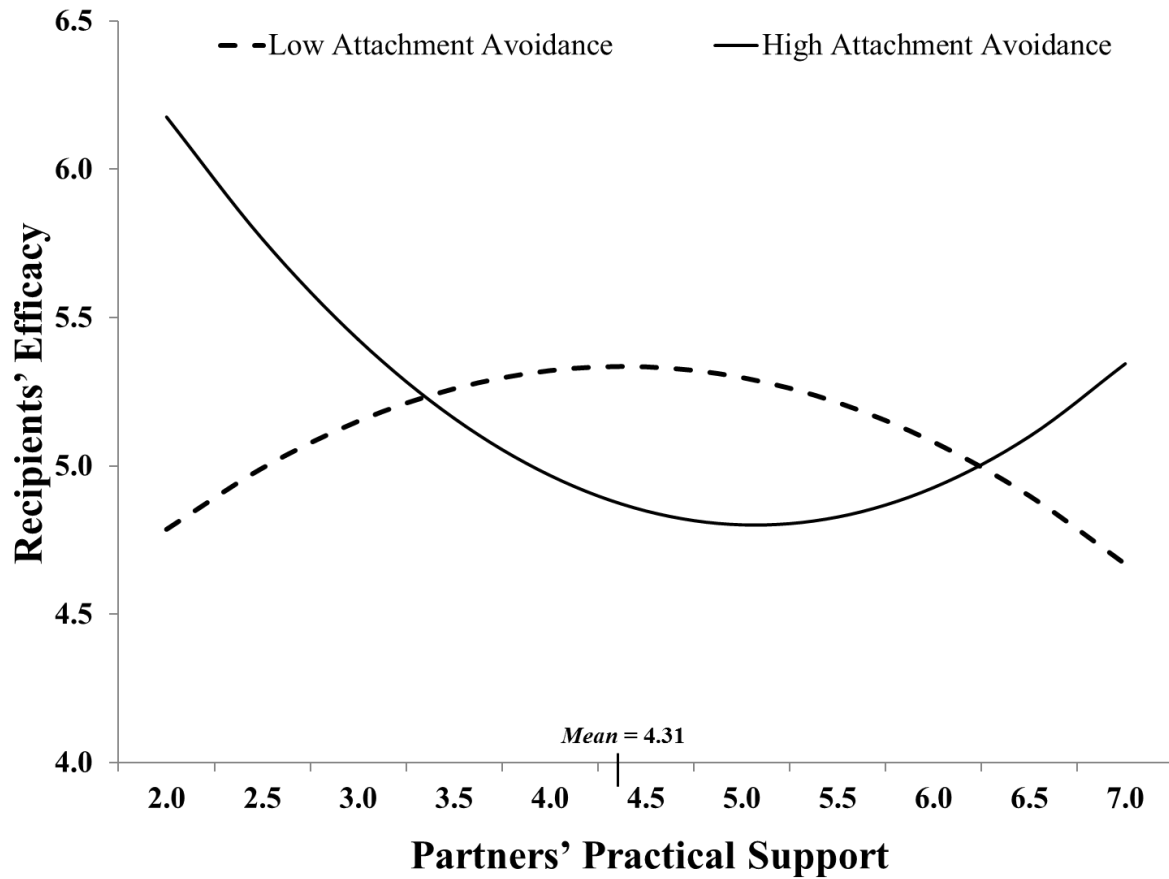


Figure 3.2. The moderating effect of recipients' attachment avoidance on the curvilinear association between practical support exhibited by the partner during discussions of recipients' personal goals and recipients' efficacy (Study 2).

Note. The values on the x-axis represent the range of practical support provided by partners in Study 2 (2 = lowest levels of practical support, 7 = highest levels of practical support). Low and high attachment avoidance are indexed by 1 SD below and above the mean.

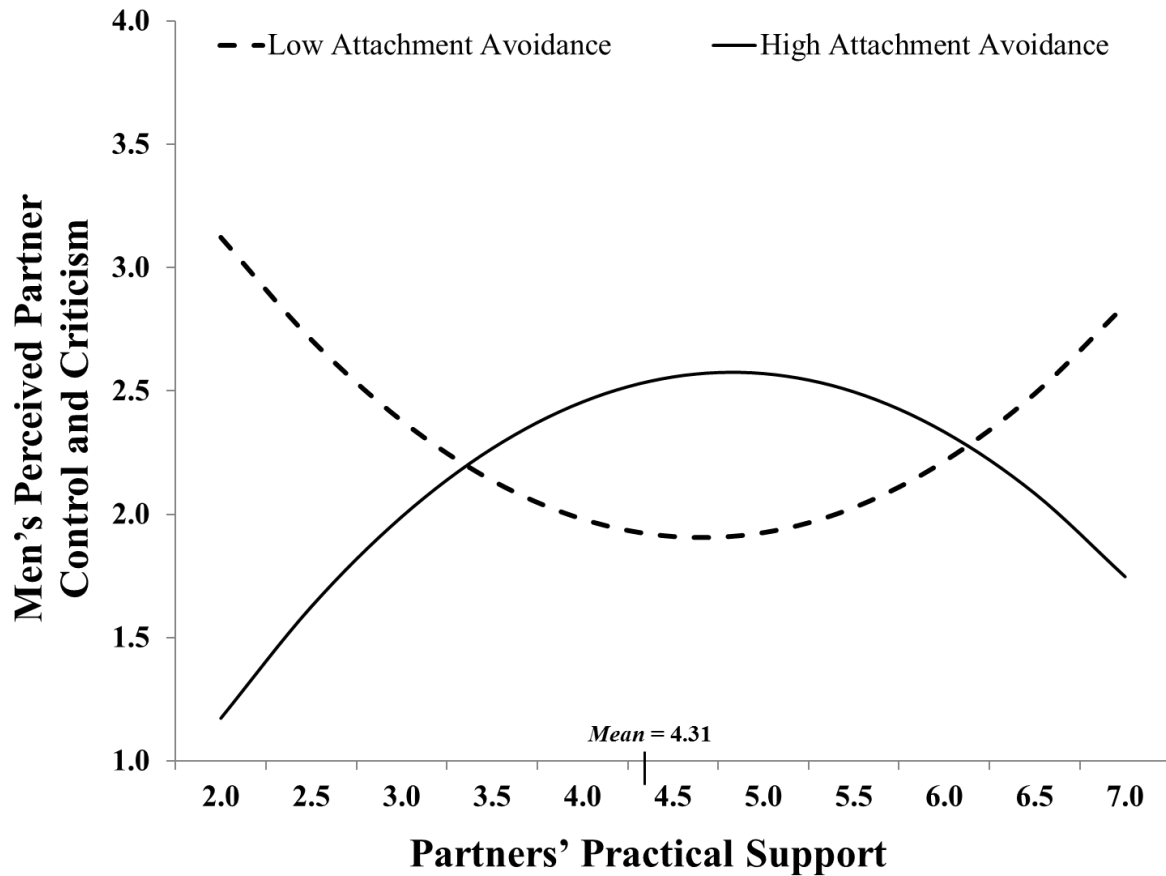


Figure 3.3. The moderating effect of recipients' attachment avoidance on the curvilinear association between practical support exhibited by the partner during discussions of recipients' personal goals and recipients' perceptions of partner control and criticism (Study 2).

Note. The values on the x-axis represent the range of practical support provided by partners in in Study 2 (2 = lowest levels of practical support, 7 = highest levels of practical support). Low and high attachment avoidance are indexed by 1 SD below and above the mean.

In Study 2, we also wanted to discount the potential alternative explanation that the benefits of high levels of partners' practical support in highly avoidant individuals occur because of an *activation* of, rather than pushing through, avoidance defenses. Highly avoidant recipients, for example, could experience more positive outcomes at high levels of partner support because the associated threat produces defensive suppression. However, the links between higher levels of partner support and *reductions* in perceived partner control/criticism offers evidence against this explanation. Moreover, although recipients higher in avoidance reported more attempts at suppressing their thoughts and emotions during the discussion ($r = .20, p < .01$), and greater suppression was associated with greater distress ($r = .49, p < .01$), lower feelings of goal-related efficacy ($r = -.37, p < .01$), and greater perceived partner control/criticism ($r = .29, p < .01$), emotional suppression did not occur as a function of the curvilinear effect of practical support \times avoidance ($B = .02, SE = .07, t = .32, p = .75$). This suggests that the effects shown in Figures 2 and 3 were *not* because higher levels of practical support activate the suppression-based threat-management strategies associated with attachment avoidance. Moreover, statistically controlling for recipients' reported emotional suppression did not alter the curvilinear interactions shown in Figure 3.2 ($B = .12, SE = .05, t = 2.69, p < .01$) and Figure 3.3 (men: $B = -.15, SE = .08, t = -1.95, p = .054$).

Emotional Support. Analogous analyses testing the effects of emotional support provision are presented in the lower section of Table 3.5. No linear or curvilinear effects of partners' emotional support on any of the recipients' outcomes emerged.

Discussion

Study 2 examined the effects of partner support on recipients' distress, goal-related efficacy, and perceived partner control/criticism. Unexpectedly, when examining the effects of practical support on recipients' distress, the inverted U-shape found for highly avoidant recipients in Study 1 emerged across all recipients. However, as predicted, the curvilinear

effects of practical support were moderated by attachment avoidance when examining recipients' goal-related efficacy and (for men) perceived partner control/criticism. When highly avoidant individuals received low-to-average levels of practical support, they experienced reductions in goal-related efficacy and increases in perceived partner control/criticism. Once partners' practical support reached close-to-average levels, however, increasing levels of practical support were associated with highly avoidant recipients reporting increases in goal-related efficacy and reductions in perceived partner control/criticism. The opposite linear and curvilinear simple effects were non-significant for recipients low in attachment avoidance. Partners' emotional support did not show any linear or curvilinear effects, and attachment anxiety did not moderate the effects of partner support.

STUDY 3

In Study 3, we tested whether the predicted curvilinear effects emerged in the context of more stressful life events by asking individuals (support recipients) to discuss their most significant, ongoing stressor with their partner (support providers) rather than the personal goals discussed in Studies 1 and 2. Stressful contexts are particularly important in activating attachment needs and strategies (Mikulincer et al., 2003; Simpson & Rholes, 1994; 2012), and the effects of support may be more threatening or soothing in stressful contexts (e.g., Bolger et al., 2000; Bolger & Amarel, 2007; Mikulincer & Florian, 1997; Simpson et al., 1992). In Study 3, we expanded our assessment of partner support by asking recipients to rate the extent to which their partners provided practical and emotional support during the discussions. Replicating the effects with perceptions of support is important because the costs of support occur when support is visible and perceived by recipients, but these costs can be mitigated when support is invisible to recipients (i.e., support that is reported by providers or observed by coders, but is not perceived by recipients; Bolger et al., 2000; Gleason et al., 2008; Howland & Simpson, 2010; Shrout et al., 2006). Thus, the reactance to low-to-

moderate support should only occur if avoidant recipients perceive their partner's support is low (consistent with their negative caregiving expectations). Similarly, if high levels of partner support down-regulate the defenses of avoidant recipients because it provides clear evidence that the partner is available (contradicting their expectations), the benefits of high support should emerge when avoidant recipients perceive high levels of support. To assess the effects of perceived support, support recipients rated their level of distress during the discussion along with their feelings of stressor-related efficacy and self-worth.

Method

Participants

Sixty-four couples were recruited from advertisements posted in community newspapers and across a university campus in a large New Zealand city. Couples were married (38%), cohabiting (36%), or in serious dating relationships (26%). Mean relationship length was 6.33 years ($SD = 9.68$), and participants were a mean age of 31.11 ($SD = 13.22$) years. Couples were paid NZ\$80 for participating in the session described below.

Procedure

After completing scales assessing their attachment orientations, participants identified and ranked (in order of importance) three current and ongoing stressors they were experiencing, which they were told they might discuss with their romantic partners. The purpose of the study was to examine the effect of support when recipients were facing significant stressors, and so the partner who reported the most significant and stressful issue was selected (as the support recipient) to discuss his or her most significant and ongoing source of stress with the partner (as the support provider). When both partners reported equal stress levels (53.1%), the role of support recipient or provider was randomly assigned. After a short warm-up discussion, each couple engaged in a 7-minute discussion about the support recipients' most significant source of stress. Both partners were told to discuss the issue as

they normally would. Support recipients then reported their distress during the discussion, their feelings of stressor-related efficacy after discussing the issue with their partner, and the degree to which the partner provided practical and emotional support during the discussion.

Materials

Attachment Orientations. Participants completed the AAQ (Simpson, et al., 1996) to assess avoidance ($\alpha = .82$) and anxiety ($\alpha = .82$).

Support Need. To assess recipients' support need (see Table 3.1), prior to the discussion, recipients reported how much their stressor was a significant and ongoing source of stress by answering two questions: "To what extent is this issue a current and significant source of stress?", and "To what extent is this issue ongoing and still needs to be dealt with?" (1 = *not at all*, 7 = *a lot*). The two ratings were averaged to index overall stress severity ($r = .64$, $p < .01$). As shown in Table 3.2, stress severity was very high on average.

Stressor-Related Efficacy. To assess efficacy, immediately after the discussion, support recipients rated how "confident/capable", "happy/hopeful", and "worthwhile/good about yourself" they felt now about the stressful issue discussed (1 = *not at all*, 7 = *very much*). These three items were highly correlated ($\alpha = .91$) and averaged to index positive assessments that recipients could now deal with the stressor.

Distress. Recipients also completed the same items used in Studies 1 and 2 to assess how much stress and upset they experienced during the discussion ($r = .58$, $p < .01$).

Perceptions of Partner Support. To assess perceived support, recipients rated items measuring the partner's practical and emotional support as assessed in Studies 1 and 2. Based on prior self-report assessments of support behaviors (e.g., Cutrona, Hessling & Suhr, 1997; Gleason et al., 2008; Overall et al., 2010; Shrout et al., 2006), two items tapped recipients' perceptions of their partner's *practical* support during the discussion ("My partner offered me help or advice", "My partner offered suggestions") and two items assessed perceptions of

their partner's *emotional* support ("My partner gave me reassurance or comfort", "My partner was understanding and caring"; 1 = *not at all*, 7 = *very much*). To index recipients' perceptions of the practical and emotional support they received from their partner during the discussion, practical and emotional support items were averaged, $r_s .57$ and $.79$, $p_s < .01$, respectively.

Emotional Suppression. Recipients also rated the same 3 items used in Study 2 to assess the degree to which they tried to suppress their thoughts and feelings during the discussion. The three items were averaged to index emotional suppression ($\alpha = .88$).

Results

Descriptive statistics are reported in Table 3.2 (third column marked Study 3). We first regressed recipients' *distress* following the discussion on: (a) the linear effect of perceived practical support by the partner, (b) the quadratic or curvilinear effect of perceived practical support, (c) recipients' attachment avoidance, and the interactions between recipients' avoidance and (d) the linear and (e) quadratic effect of perceived practical support. We also simultaneously modelled (f) recipients' attachment anxiety, and the interactions between recipients' anxiety and (g) the linear and (h) quadratic effect of perceived practical support. We ran equivalent models predicting recipients' stressor-related efficacy and to examine the effects of emotional support. All predictor variables were grand-mean centered, and the quadratic effects were calculated by modeling the squared grand-mean centered support scores. We also modeled the main and interaction effects of recipients' gender (39 women; coded -1 women, 1 men). No gender differences ($t_s = -.00$ to -1.64 , $p_s > .11$) emerged across analyses, so these additional parameters were dropped from the models.

Attachment Avoidance and Curvilinear Effects of Partners' Support

Practical Support. The top section of Table 3.6 presents the results for the effects of perceived practical support on recipients' ratings of distress and stressor-related efficacy.

Table 3.6. The Effects of Practical and Emotional Support Provided by the Partner and Recipients' Attachment Avoidance and Anxiety on Recipients' Distress and Efficacy (Study 3)

	Distress			Efficacy		
	<i>B</i>	<i>SE</i>	<i>t</i>	<i>B</i>	<i>SE</i>	<i>t</i>
Practical Support						
Partners' Practical Support	-.06	.15	-.40	.27	.14	1.92
Partners' Practical Support ²	-.13	.08	-1.61	.05	.08	.66
Recipients' Attachment Avoidance	.16	.21	.74	-.14	.20	-.72
Partners' Practical Support x Attachment Avoidance	-.07	.13	-.51	.21	.12	1.69
Partners' Practical Support ² x Attachment Avoidance	-.04	.06	-.72	.12	.05	2.18*
Recipients' Attachment Anxiety	.51	.23	2.23*	-.02	.22	-.11
Partners' Practical Support x Attachment Anxiety	-.06	.12	-.48	-.27	.12	-2.32*
Partners' Practical Support ² x Attachment Anxiety	-.02	.09	-.18	-.20	.09	-2.35*
Emotional Support						
Partners' Emotional Support	-.10	.16	-.60	.30	.16	1.95
Partners' Emotional Support ²	-.02	.08	-.19	-.02	.07	-.32
Recipients' Attachment Avoidance	.36	.20	1.83	.03	.09	.15
Partners' Emotional Support x Attachment Avoidance	-.24	.13	-1.83	.11	.13	.88
Partners' Emotional Support ² x Attachment Avoidance	-.17	.08	-2.26*	.02	.07	.26
Recipients' Attachment Anxiety	.24	.22	1.12	-.15	.21	-.74
Partners' Emotional Support x Attachment Anxiety	.13	.14	.91	-.39	.14	-2.82**
Partners' Emotional Support ² x Attachment Anxiety	.14	.09	1.59	-.06	.08	-.66

Note. * $p < .05$. ** $p < .01$. The variables marked with ² are curvilinear variables.

Attachment avoidance did not moderate the curvilinear effect of practical support on recipients' distress, but this interaction was significant when predicting recipients' stressor-related efficacy (see Partners' Practical Support² x Attachment Avoidance interaction). The significant interaction for recipients' efficacy is plotted in Figure 3.4. The curvilinear effect of partners' practical support for recipients high (+1 SD) in avoidance is shown by the solid line. As practical support from the partner moved from low to close-to-moderate levels, highly avoidant recipients reported sharp drops in stressor-related efficacy. However, at .90 SDs below average levels of practical support (inflection point = 3.90), the effect reversed and increasing levels of practical support were associated with highly avoidant recipients reporting increasing stressor-related efficacy. The simple effects for recipients high in avoidance confirmed that this curvilinear pattern was significant (see Table 3.4, second row for Efficacy). In contrast, the reverse linear and curvilinear trend for recipients low in avoidance (see dashed line in Figure 3.4) was not significant (see Table 3.4).

Emotional Support. The results for the effects of perceived emotional support are presented in the lower section of Table 3.6. Interestingly, the curvilinear effect of emotional support on recipients' distress was moderated by recipients' attachment avoidance (see Partners' Emotional Support² x Attachment Avoidance interaction). This interaction is plotted in Figure 3.5. Consistent with the effect of practical support on distress in Study 1, recipients high in avoidance (+1 SD; see solid line) reported sharp increases in distress as emotional support from the partner moved from low to close-to-mean levels (see left side of Figure 3.5). However, at just below average levels of emotional support (inflection point = 4.54, .62 SD below the mean), the effect reversed and increasing levels of emotional support were associated with decreases in highly avoidant individuals' distress (see right side of Figure 3.5). The simple linear ($B = -.39$, $SE = .22$, $t = -1.76$, $p = .09$) and curvilinear ($B = -.22$, $SE = .11$, $t = -2.03$, $p < .05$) effects for recipients high in avoidance revealed that this pattern was

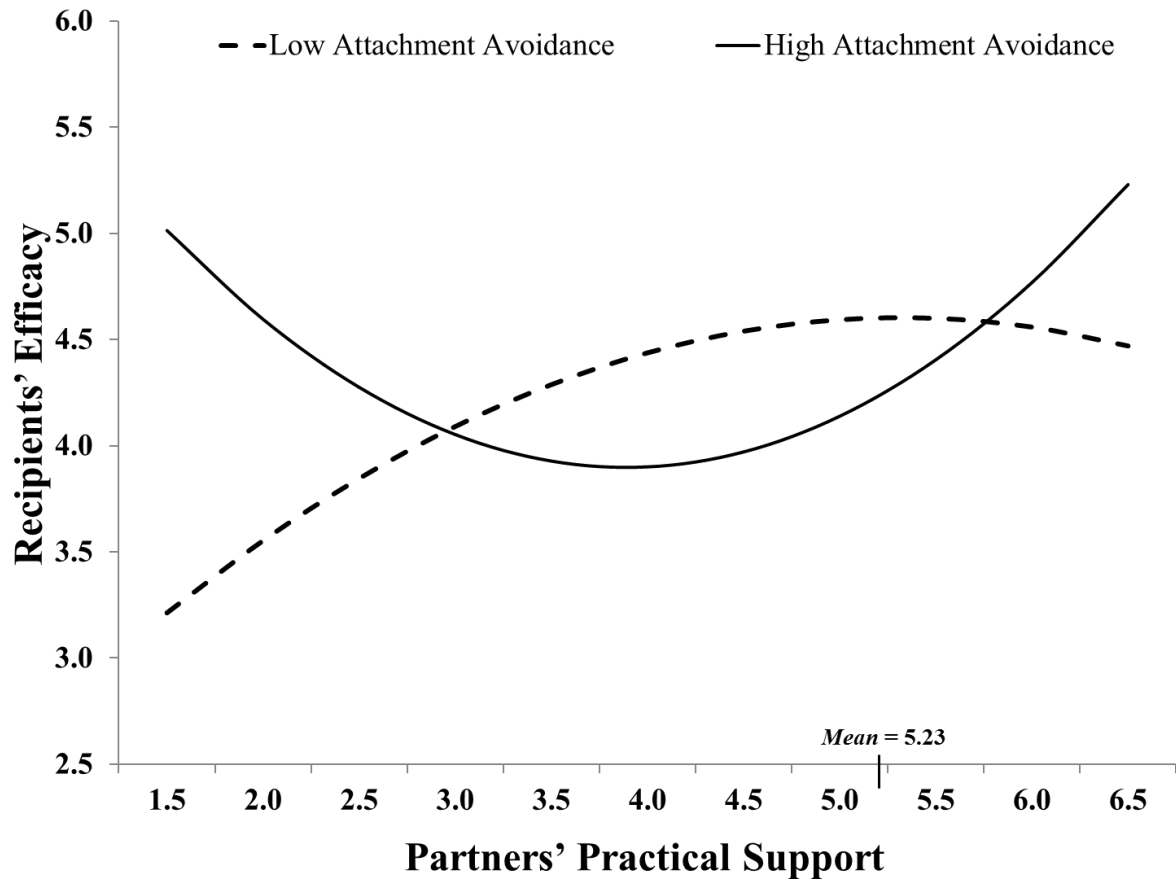


Figure 3.4. The moderating effect of recipients' attachment avoidance on the curvilinear association between perceived practical support by the partner during discussions of recipients' significant stressors and recipients' efficacy (Study 3).

Note. The values on the x-axis represent the range of practical support perceived by recipients in Study 3 (1.5 = lowest levels of practical support, 7 = highest levels of practical support). Low and high attachment avoidance are indexed by 1 SD below and above the mean.

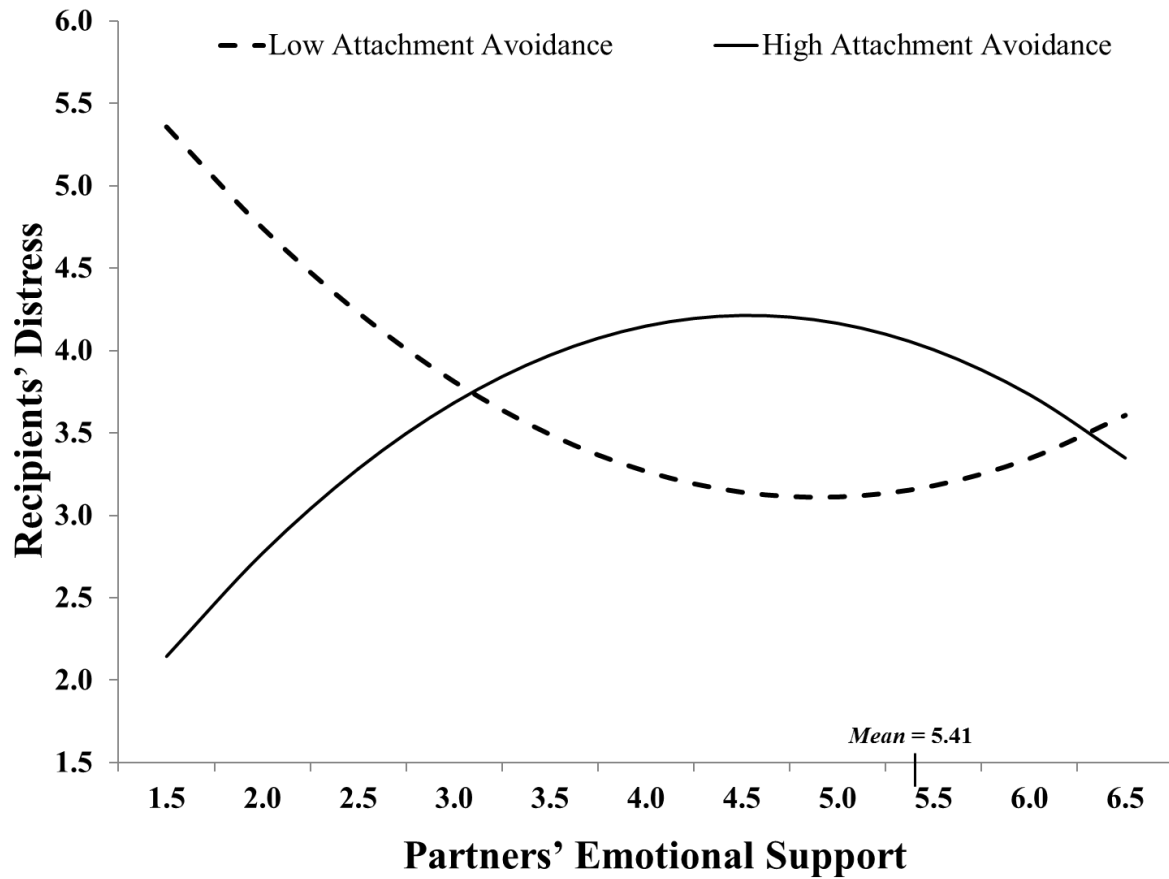


Figure 3.5. The moderating effect of recipients' attachment avoidance on the curvilinear association between perceived emotional support by the partner during discussions of recipients' significant stressors and recipients' distress (Study 3).

Note. The values on the x-axis represent the range of emotional support perceived by recipients in Study 3 (1.5 = lowest levels of emotional support, 7 = highest levels of emotional support). Low and high attachment avoidance are indexed by 1 SD below and above the mean.

significant. In contrast, for recipients low in avoidance (-1 SD; see dashed line in Figure 3.5), perceived emotional support was associated with reductions in distress, but high levels of support (inflection point = 4.90, .36 SD below the mean) ceased having these positive effects. However, as before, the simple linear ($B = .20, SE = .24, t = .85, p = .40$) and curvilinear ($B = .19, SE = .13, t = 1.49, p = .14$) effects for recipients low in avoidance were non-significant.

Alternative Explanations. Higher pre-discussion stress regarding the discussed issue (i.e., recipients' level of support need) predicted greater distress during the discussions ($r = .41, p < .01$), but was not related to stressor-related efficacy ($r = -.14, p = .26$). Statistically controlling for support need did not alter the significant curvilinear effect of practical support reported in Figure 3.4 ($B = .12, SE = .05, t = 2.30, p < .03$), but it did reduce the interaction associated with emotional support (Figure 3.5) to non-significance ($B = -.12, SE = .07, t = -1.68, p = .10$). This might indicate that emotional support was soothing for avoidant individuals when they were experiencing high levels of stress and, therefore, really needed it.

Analyses examining emotional suppression revealed that recipients' suppression of their thoughts and feelings did not occur as a function of the curvilinear effect of either practical support \times avoidance ($B = .01, SE = .07, t = .19, p = .85$) or emotional support \times avoidance ($B = -.08, SE = .09, t = -.89, p = .38$). Thus, the greater efficacy and reduced distress exhibited by highly avoidant recipients when receiving high levels of partner support was *not* because highly avoidant individuals were engaging in defensive threat-management strategies, such as suppressing negative emotions and evaluations. Statistically controlling for recipients' reported emotional suppression also did not alter the curvilinear interactions shown in Figures 4 ($B = .12, SE = .06, t = 2.18, p < .04$) and 5 ($B = -.15, SE = .07, t = -2.06, p < .05$).

Attachment Anxiety and Curvilinear Effects of Partners' Support

Similar to the effect that emerged for recipients' distress in Study 1, attachment

anxiety moderated the curvilinear effects of practical support on recipients' efficacy (see significant and curvilinear interactions in Table 3.6, top right). Plotting the higher-order curvilinear effect revealed that recipients *lower* in attachment anxiety showed the same pattern as recipients *higher* in avoidance (shown by the solid line in Figure 3.4). Thus, practical support had an increasingly deleterious effect on efficacy until reaching just above mean levels of support (inflection point = 4.20, .71 SD above the mean), after which increasing levels of practical support were associated with greater efficacy. The simple linear ($B = .57, SE = .20, t = 2.83, p < .01$) and curvilinear ($B = .28, SE = .10, t = 2.74, p < .01$) effects for low attachment anxiety were significant. In contrast, the simple linear and curvilinear effects of practical support were not significant for high anxiety (simple linear effect: $B = -.03, SE = .18, t = -.17, p = .86$; simple curvilinear effect: $B = -.18, SE = .14, t = -1.24, p = .22$).

In addition, a significant interaction between the linear effect of partners' emotional support and recipients' attachment anxiety on recipients' distress (see bottom right section of Table 3.6) revealed that recipients *lower* in attachment anxiety experienced greater efficacy the more their partners provided emotional support ($slope = .73, SE = .20, t = 3.62, p = .001$). However, perceiving emotional support did nothing to boost highly anxious recipients' self-efficacy ($slope = -.13, SE = .23, t = -.56, p = .58$), suggesting that highly anxious recipients were less positively affected by the emotional support provided by their partners.

Discussion

Study 3 examined the effects of perceived partner support during couples' discussions of significant personal stressors. Unlike Study 1, it was partners' emotional rather than practical support that had a curvilinear effect on the distress of highly avoidant recipients. The more partners provided low-to-average levels of emotional support, the more highly avoidant recipients experienced greater distress, but once partner support reached close-to-

average levels, increasing levels of emotional support were associated with declines in distress. This curvilinear effect became non-significant when controlling for the severity of the stressful issue (and, therefore, the level of support need), which may indicate that very high levels of emotional forms of comfort can calm highly avoidant individuals when they are in very stressful situations and really need support.

Nonetheless, practical support continued to play a role in this more stressful context with regard to recipients' stressor-related efficacy. Similar to Study 2, when highly avoidant individuals received low-to-average levels of practical support, they experienced reductions in stressor-related efficacy, but once partner support reached close-to-average levels, increasing levels of practical support were associated with increases in highly avoidant recipients' stressor-related efficacy. The opposite linear and curvilinear simple effects were non-significant for less avoidant recipients. As in Study 1, recipients low in anxiety also exhibited the same pattern of response to partners' practical support as recipients high in avoidance did. We investigate the replicability of these effects once again in Study 4.

STUDY 4

Study 4 extended Studies 1 to 3 by assessing the daily perceived receipt of practical and emotional support from partners reported each day over a 3-week period. To assess the effects of partner support, we once again used a measure of distress consistent with prior research (daily depressed mood; e.g., Bolger et al., 2000). We also extended our examination of the defensive responses of highly avoidant individuals by assessing their perceptions of their partners as being controlling and critical (as in Study 2) as well as how much they engaged in psychological and behavioral distancing from their partners. Assessing partner support and recipient outcomes repeatedly across days allowed us to: (1) test the links between partner support and recipient outcomes across daily interactions, rather than during laboratory discussions, and (2) test for within-person changes in recipient outcomes as

individuals experienced varying levels of support each day. The resulting within-person analyses tested whether recipients' depressed mood, perceived partner control/criticism, and distancing differed on days when they received lower versus higher levels of support (compared to the typical support they received from their partners), and whether a curvilinear pattern described this within-person variation.

Method

Participants

Seventy-three heterosexual couples who replied to campus-wide advertisements at a New Zealand university were reimbursed \$70NZD for completing the procedures described below. Participants were on average 23.61 years old ($SD = 6.87$) and involved in serious relationships (47% married or cohabitating) that were 3.20 years in length on average ($SD = 3.56$).

Procedure and Materials

During an initial testing session, participants completed the AAQ (Simpson et al., 1996) to assess attachment avoidance ($\alpha = .72$) and anxiety ($\alpha = .84$). They then received instructions regarding a daily online record they were asked to complete every day for the next 21 days. On average, participants completed 19.82 diary entries (94.4%).

Daily Diary Measures

Support Need. Participants rated the extent to which they “had a stressful day today” or “had a personal problem, worry, or difficulty today” (1 = *not at all*, 7 = *very much*). These items were averaged ($r = .68$, $p < .001$) to index overall support need (see Table 3.1).

Support Desired. Two items assessed the degree to which participants desired *practical* support (“I wanted my partner’s advice or help”) and *emotional* support (“I wanted my partner to listen to and comfort me”) that day (1 = *not at all*, 7 = *very much*).

Depressed Mood. Participants also reported how much they felt “hopeless”, “sad”,

and “discouraged” that day (1 = *not at all*, 7 = *very much*). These items were averaged to index daily levels of depressed mood ($\alpha = .87$; see Cranford et al., 2006).

Perceived Partner Control and Criticism. Two items (“I felt controlled by my partner” and “My partner was critical or unpleasant toward me”, 1 = *not at all*, 7 = *very much*) were averaged ($r = .49, p < .001$) to index perceived partner control/criticism each day.

Distancing. Participants reported on how much they felt distant and cold toward their partner (“I felt distant and cold toward my partner”) and withdrew from their partner (“I withdrew from my partner and did my own thing”) that day (1 = *not at all*, 7 = *very much*). These items were averaged ($r = .40, p < .001$) to index the degree to which recipients psychologically and behaviorally distanced themselves from their partner each day.

Perceptions of Partner Support. Based on prior assessments of daily support (e.g., Gleason et al., 2008; Shrout et al., 2006), and similar to the items used in Study 3, participants rated how much they received *practical* support (“My partner helped me or gave me advice”) and *emotional* support (“My partner listened to and comforted me”) from their partner that day (1 = *not at all*, 7 = *very much*).

Emotional Suppression. Recipients also rated the same 3 items used in Studies 2 and 3 to assess the degree to which they attempted to suppress their thoughts and emotions each day, which were averaged to index emotional suppression ($\alpha = .83$). This measure is similar to prior assessments of daily emotional suppression (e.g., Impett et al., 2011).

Results

Descriptive statistics for all measures are shown in Table 3.2 (see last column labelled Study 4). Our data had a nested structure, with multiple daily reports (level 1) nested within each dyad (level 2). Thus, we tested our predictions following the recommendations for analyzing repeated measures dyadic data by Kenny et al. (2006) using the MIXED procedure in SPSS 20. We modeled recipients’ *depressed mood* as a function of: (a) the linear effect of the

partner's practical support, (b) the quadratic or curvilinear effect of the partner's practical support, (c) recipients' attachment avoidance, and the interactions between recipients' avoidance and (d) the linear and (e) quadratic effect of the partner's practical support, and (f) recipients' attachment anxiety, and the interactions between recipients' anxiety and (g) the linear and (h) quadratic effect of the partner's practical support. We ran equivalent models predicting perceived partner control/criticism and recipients' distancing from the partner and to examine the effects of emotional support. The daily level variables were person-centered, and the quadratic support variables were created by squaring the person-centered support scores for each individual for each day. To isolate within-person effects, averages of practical support were included as additional predictors (Raudenbush & Bryk, 2002). We also included the prior day dependent variables to remove the possibility that any effects were due to distress or defensive responses the prior day (e.g., Gleason et al., 2003; Maisel & Gable, 2009). As in Studies 1-3, we also modeled the main effect of gender (coded -1 women, 1 men) and associated interaction terms to test for differences across men and women. Five of the 48 effects shown in Table 3.7 differed across men and women (see italicized coefficients), including two of the predicted curvilinear interactions, which we discuss further below.⁹ We first focus on the effects for attachment avoidance and then turn to attachment anxiety.

Attachment Avoidance and Curvilinear Effects of Partners' Support

Practical Support. The results for practical support are shown in the top half of Table 3.7. Significant linear and curvilinear effects of practical support emerged when predicting

⁹ We discuss the gender differences in the predicted curvilinear interactions in the main text, but briefly describe the other three differences highlighted in italics in Table 3.7 here. First, partners' practical support was associated with greater depressed mood for women ($B = .06$, $SE = .02$, $t = 3.06$, $p = .002$), but not for men ($B = .00$, $SE = .02$, $t = .14$, $p = .89$; gender difference $B = -.03$, $SE = .01$, $t = -1.93$, $p = .054$). Second, in both the practical and emotional support models, attachment anxiety was associated with greater distancing for women ($B = .25$, $SE = .07$, $t = 3.59$, $p = .001$; $B = .23$, $SE = .07$, $t = 3.33$, $p = .001$, respectively), but not for men ($B = .04$, $SE = .08$, $t = .49$, $p = .62$; gender difference $B = -.11$, $SE = .05$, $t = -2.15$, $p = .033$; $B = -.02$, $SE = .08$, $t = -.21$, $p = .84$; gender difference $B = -.12$, $SE = .05$, $t = -2.47$, $p = .015$).

Table 3.7. The Effects of Partners' Practical and Emotional Support and Recipients' Attachment Avoidance and Anxiety on Recipients' Depressed Mood, Perceived Control and Criticism by Partner and Distancing from Partner (Study 4)

	<i>Depressed Mood</i>			<i>Perceived Partner Control/Criticism</i>			<i>Distancing from Partner</i>		
	<i>B</i>	<i>SE</i>	<i>t</i>	<i>B</i>	<i>SE</i>	<i>t</i>	<i>B</i>	<i>SE</i>	<i>t</i>
Practical Support									
Partners' Practical Support	.03	.014	2.10*	.01	.012	.94	-.01	.013	-.53
Partners' Practical Support ²	.01	.007	2.14*	-.00	.006	-.51	-.00	.006	-.67
Recipients' Attachment Avoidance	.04	.080	.48	.08	.054	1.46	.14	.063	2.26*
Partners' Practical Support x Attachment Avoidance	.05	.017	3.22**	.00	.014	.19	-.00	.015	-.12
Partners' Practical Support ² x Attachment Avoidance	-.02	.008	-2.79**	-.02	.007	-2.94**	-.02	.007	-2.25*
Recipients' Attachment Anxiety	.20	.067	2.98**	.08	.046	1.70	.14	.054	2.67**
Partners' Practical Support x Attachment Anxiety	-.02	.014	-1.74	.01	.012	.85	.00	.012	.12
Partners' Practical Support ² x Attachment Anxiety	.01	.007	1.80	-.00	.006	-.27	-.01	.006	-1.25
Emotional Support									
Partners' Emotional Support	.03	.013	2.54*	-.03	.011	-2.46*	-.04	.011	-3.30**
Partners' Emotional Support ²	.00	.006	.71	-.00	.005	-.87	-.00	.005	-.32
Recipients' Attachment Avoidance	.07	.082	.89	.07	.055	1.20	.14	.063	2.14*
Partners' Emotional Support x Attachment Avoidance	.06	.014	4.09*	-.01	.012	-.47	.02	.013	1.79
Partners' Emotional Support ² x Attachment Avoidance	-.01	.006	-1.19	.00	.005	.52	.01	.006	1.19
Recipients' Attachment Anxiety	.22	.070	3.23*	.09	.047	1.81	.11	.055	1.96*
Partners' Emotional Support x Attachment Anxiety	-.04	.012	-3.29**	-.00	.010	-.01	-.04	.010	-4.26**
Partners' Emotional Support ² x Attachment Anxiety	.00	.006	.58	-.00	.005	-.57	.01	.005	2.05*

Note. * $p < .05$. ** $p < .01$. The variables with superscript 2's are curvilinear variables. Coefficients that significantly differed between men and women are shown in italicizes.

recipients' depressed mood. The higher order curvilinear effect revealed that practical support was associated with decreases in recipients' depressed mood until support reached just below average levels (inflection point = 2.01, .51 SD below the mean), at which point increasing partner support was associated with increasing depressed mood.

As predicted, the curvilinear association between partners' practical support and all three recipient outcomes—recipients' depressed mood, perceived partner control and criticism, and distancing from the partner—was significantly moderated by attachment avoidance. However, two significant gender interactions suggested that the curvilinear interactions between practical support and recipients' depressed mood ($B = -.03$, $SE = .01$, $t = -4.49$, $p < .001$) and perceived partner control/criticism ($B = -.02$, $SE = .01$, $t = -2.47$, $p = .01$) occurred for men ($B = -.06$, $SE = .01$, $t = -4.33$, $p < .001$; $B = -.04$, $SE = .01$, $t = -3.01$, $p = .003$, respectively), but not for women ($B = .01$, $SE = .01$, $t = 1.57$, $p = .12$; $B = -.00$, $SE = .01$, $t = -.54$, $p = .59$, respectively). Thus, we present the significant interactions predicting depressed mood and perceived partner control/criticism for men in Figures 6 and 7, and the significant interaction for distancing pooled across men and women in Figure 3.8. For recipients high (+1 SD) in avoidance (see the solid lines in Figures 6, 7, and 8), when partners provided low-to-moderate levels of practical support, highly avoidant men reported increasing levels of depressed mood (Figure 3.6) and perceived partner control/criticism (Figure 3.7), and highly avoidant men and women reported increases in distancing (Figure 3.8). However, when partner support reached close to average levels (inflection points = 4.17, 3.62, and 2.82 respectively), greater practical support was associated with reductions in distress, perceived partner control/criticism, and distancing. Furthermore, the simple effects indicated these were significant curvilinear patterns (see right side of Table 3.4, Study 4).

In contrast, for men low (-1 SD) in avoidance (see the dashed lines in Figures 6-8), low-to-moderate levels of partner practical support were associated with declines in

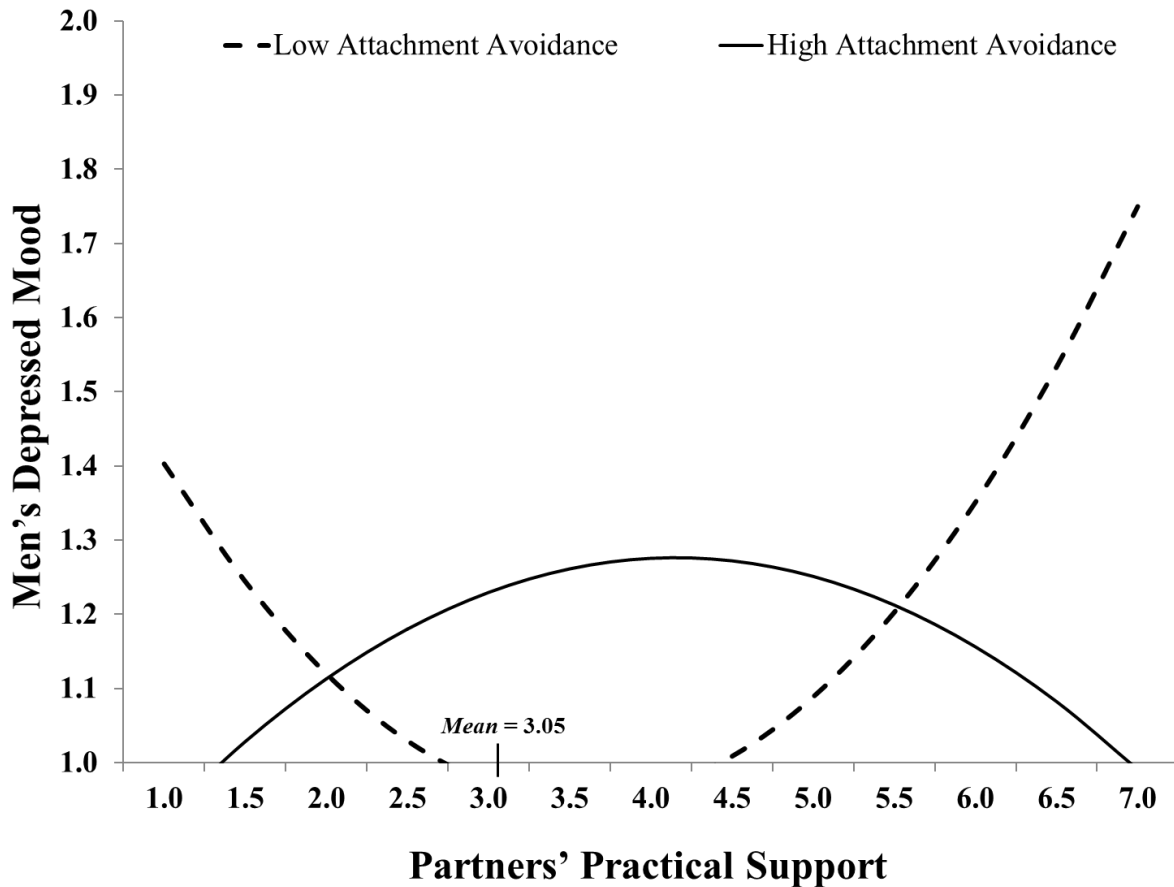


Figure 3.6. The moderating effect of men's attachment avoidance on the curvilinear association between daily levels of perceived practical support by the partner and men's daily depressed mood (Study 4).

Note. The values on the x-axis represent the range of perceived practical support in Study 4 (1 = no partner support, 7 = very high levels of partner support). Only predicted values of depressed mood that fell within the range assessed and reported in Study 4 (1 = *not at all*, 7 = *extremely*) are shown (i.e., predicted values that fell below 1 were not plotted). Low and high attachment avoidance are indexed by 1 SD below and above the mean.

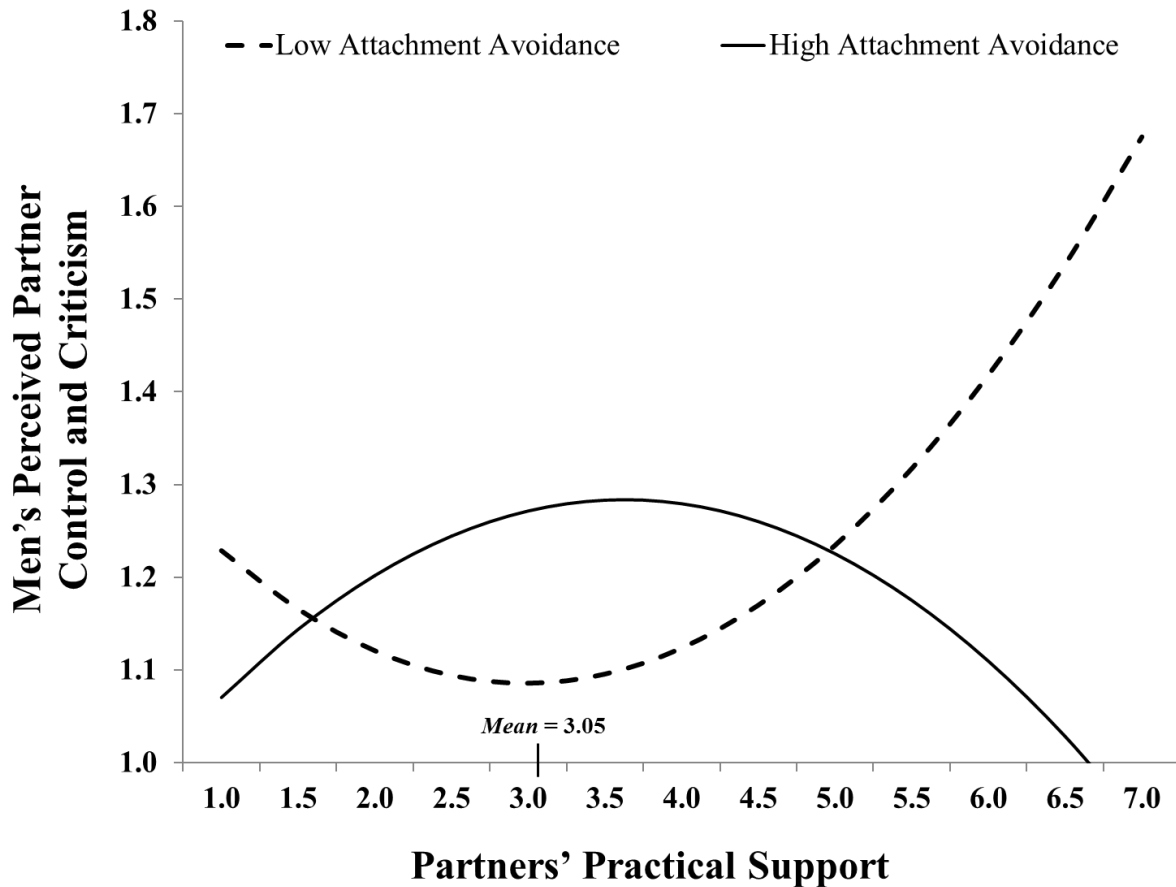


Figure 3.7. The moderating effect of men's attachment avoidance on the curvilinear association between daily levels of perceived practical support by the partner and men's daily perceptions of their partners' control and criticism (Study 4).

Note. The values on the x-axis represent the range of perceived practical support in Study 4 (1 = no partner support, 7 = very high levels of partner support). Only predicted values of perceived partner control and criticism that fell within the range assessed and reported in Study 4 (1 = *not at all*, 7 = *extremely*) are shown (i.e., predicted values that fell below 1 were not plotted). Low and high attachment avoidance are indexed by 1 SD below and above the mean.

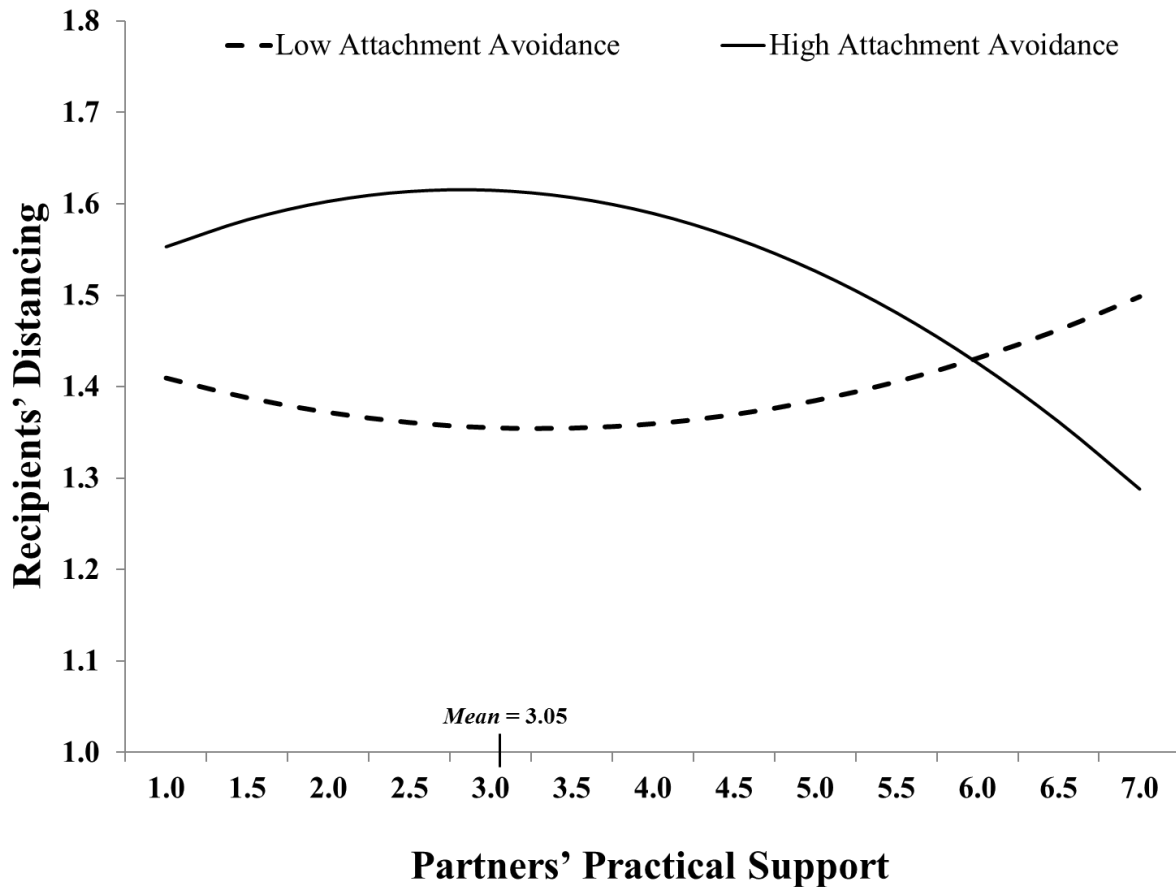


Figure 3.8. The moderating effect of recipients' attachment avoidance on the curvilinear association between daily levels of perceived practical support by the partner and recipients' daily levels of distancing (Study 4).

Note. The values on the x-axis represent the range of perceived practical support in Study 4 (1 = no partner support, 7 = very high levels of partner support). Low and high attachment avoidance are indexed by 1 SD below and above the mean.

depressed mood (Figure 3.6) and very small decreases in perceiving the partner as controlling and critical (Figure 3.7). However, when practical support reached close to average levels (inflection points = 3.58 and 2.99), less avoidant men reported sharp increases in depressed mood and perceived partner control/criticism that day, and these simple effects were significant (see left side of Table 3.4, Study 4). The relatively flat curve for low avoidant recipients predicting distancing was non-significant (see Table 3.4).

Alternative Explanations

The curvilinear effects were not due to differences in recipients': (a) daily stress and worries or (b) the amount of practical and emotional support participants' desired, with the interactions in Figures 6, 7, and 8 remaining significant when controlling for both support needed in response to daily stress ($B = -.05, SE = .01, t = -3.87, p < .001$; $B = -.03, SE = .01, t = -2.73, p = .006$; $B = -.01, SE = .01, t = -1.97, p = .048$, respectively) and desired amount of practical and emotional support ($B = -.05, SE = .01, t = -3.85, p < .001$; $B = -.03, SE = .01, t = -2.80, p = .005$; $B = -.02, SE = .01, t = -2.28, p = .023$, respectively).

The results also discounted the possibility that the positive effects of high levels of practical support for highly avoidant recipients were due to defensive suppression. If avoidant defenses were being activated at high levels of partner support, highly avoidant recipients should exhibit *increasing* levels of distancing from their partner. Instead, as shown in Figure 3.8, moderate-to-high levels of partner support were associated with *decreasing* distancing (along with decreasing distress and perceived control/criticism for men). In addition, although greater avoidance was associated with greater daily suppression ($B = .38, SE = .10, t = 3.91, p < .001$), suppression was *not* a function of the curvilinear interaction between practical support and recipients' avoidance ($B = -.00, SE = .01, t = -.25, p = .80$), and statistically controlling for recipients' reported suppression did not alter the interactions in Figures 6 to 8 ($B = -.06, SE = .01, t = -4.34, p < .001$; $B = -.04, SE = .01, t = -3.11, p = .002$;

$B = -.02$, $SE = .01$, $t = -2.33$, $p = .02$, respectively).

Emotional Support. Next, we ran analogous models examining the effects of emotional support (see bottom half of Table 3.7). Greater emotional support was associated with greater depressed mood, but also with lower levels of perceived control/criticism and distancing from the partner. The links between emotional support and depressed mood are consistent with prior research (e.g., Bolger et al., 2000; Shrout et al., 2006). Furthermore, a significant interaction between partners' linear emotional support and recipients' avoidance revealed that avoidant individuals who received greater emotional support experienced greater depressed mood ($slope = .08$, $SE = .02$, $t = 4.65$, $p < .001$), whereas this cost of support did not emerge for low avoidant recipients ($slope = -.02$, $SE = .02$, $t = -1.15$, $p = .25$).

Attachment Anxiety and Curvilinear Effects of Partners' Support

A significant linear interaction between attachment anxiety and emotional support on depressed mood revealed that highly anxious individuals experienced greater depressed mood regardless of their partner's emotional support ($slope = -.01$, $t = -.55$, $p = .58$), but individuals lower in anxiety experienced *greater* depressed mood the more they perceived emotional support from their partners ($slope = .07$, $t = 4.64$, $p < .001$).

A significant linear and curvilinear interaction also emerged between attachment anxiety and partners' emotional support on distancing. The significant linear interaction for distancing revealed that highly anxious individuals reported greater distancing than less anxious individuals when they perceived lower levels of emotional support from their partners ($slope = .20$, $t = 3.42$, $p = .001$), but not when they perceived higher levels of emotional support ($slope = .02$, $t = .25$, $p = .80$). The additional curvilinear effects confirmed that the negative reaction of highly anxious recipients was compounded at very low levels of support (although only the simple linear effect was significant [$B = -.09$, $SE = .02$, $t = -4.84$, $p < .001$] and the curvilinear effect was not [$B = .01$, $SE = .01$, $t = 1.26$, $p = .21$]). In contrast,

for low anxious individuals, receiving emotional support was associated with slightly greater distancing, until support reached average levels (inflection point = 4.46, .24 SD above the mean), at which point greater emotional support was associated with lower distancing (although the simple linear [$B = .01, SE = .01, t = .89, p = .38$] and curvilinear [$B = -.01, SE = .01, t = -1.84, p < .07$] effects were only marginally significant for this curve). The overall pattern suggests that anxious individuals experience greater distress, regardless of their partners emotional support provision, and a *lack* of emotional support is detrimental for highly anxious individuals, who typically require and desire considerable validation and comfort from their partners.

Discussion

In Study 4, we replicated the curvilinear effect of practical support by examining daily associations between partner support and recipients' distress and defensive responses. Low-to-moderate levels of practical support from the partner were associated with increasing depressed mood (for men), perceived partner control/criticism (for men), and greater distancing. However, once practical support reached above-average levels, increasingly higher levels of practical support were associated with sharp reductions in distress, perceived partner control and criticism, and distancing from the partner. In contrast to Studies 1-3, the reverse curvilinear effects for less avoidant men were significant (with the exception of distancing). Perceiving emotional support from the partner did not produce the same effects.

Meta-Analysis across Studies 1-4

The interaction between the curvilinear effect of practical support and recipients' attachment avoidance was reasonably consistent across the four studies, particularly with regard to recipients' efficacy and defensive reactions that accompany attachment avoidance. However, the predicted moderated curvilinear effect of practical support on recipients' distress emerged only in Study 1 and in Study 4 (for men only), and this effect occurred for

emotional support in Study 3. Two unexpected moderated curvilinear effects of practical support were also found for attachment anxiety when predicting distress in Study 1 and efficacy in Study 3, which suggested that low anxious recipients responded similarly to highly avoidant recipients. To determine whether these inconsistencies were meaningful, we conducted a series of meta-analyses across the four studies to estimate the size and significance of the linear and curvilinear associations between partner support and recipients' distress, self-efficacy, and perceived partner control/criticism (but not distancing because it was assessed only in Study 4).

Results

We conducted three different meta-analyses focusing on the three variables that were assessed repeatedly across studies: (1) *distress* (Studies 1-4),¹⁰ (2) *efficacy* (Studies 1 and 2), and (3) *perceived partner control/criticism* (Studies 2 and 4, men only). We first estimated the effect size of each effect within each sample using Rosenthal and Rosnow's (2007) formula: $r = \sqrt{t^2 / t^2 + df}$. We then followed meta-analytic procedures for estimated weighted r values assuming random component models as outlined by Lipsey and Wilson (2001). The results are reported in Table 3.8, with significant coefficients in bold. We also conducted meta-analyses for the simple linear and curvilinear effects for partners' practical support on distress, efficacy, and partner control/criticism for recipients low versus high in attachment avoidance. The results are displayed in Table 3.9.

Attachment Avoidance and the Curvilinear Effects of Partners' Support

The predicted interaction between the curvilinear effect of practical support and

¹⁰ Although the curvilinear interaction between partner support and avoidance on distress occurred for men (but not for women) in Study 4, no gender differences for distress outcomes emerged in the other studies. The meta-analyses also indicated there were no differences between men and women across the studies when predicting distress (gender \times attachment avoidance \times practical support² interaction mean $r = -.08$, r 95% CI $-.27, .13$, $z = -.73$, $p = .47$; gender \times attachment avoidance \times emotional support² interaction mean $r = .03$, r 95% CI $-.07, .12$, $z = .53$, $p = .60$). Thus, the meta-analysis for distress was conducted by calculating the effects of distress pooled across men and women for each study.

recipients' avoidance was significant and robust across all three recipient outcomes: distress, efficacy, and perceived partner control/criticism. The meta-analysis of simple linear and curvilinear slopes revealed that the curvilinear slope was significant for high attachment avoidance across all outcomes (see Table 3.9, right column, significant effects in bold). The reverse curvilinear effects were not significant for recipients low in avoidance, except when predicting men's perceptions of partner control/criticism (see Table 3.9, left column).

The interaction between the curvilinear effect of emotional support and attachment avoidance was not significant for recipients' distress or efficacy, but was significant for (men's) partner control/criticism, despite this effect being non-significant in Studies 2 and 4. However, the simple effects were not significant for both recipients low (*linear*: mean $r = -.11$, r 95% CI = $-.26, .05$, $z = -1.38$, $p = .17$; *curvilinear*: mean $r = -.10$, r 95% CI = $-.24, .06$, $z = -1.22$, $p = .22$) and high (*linear*: mean $r = -.10$, r 95% CI = $-.25, .06$, $z = -1.22$, $p = .22$; *curvilinear*: mean $r = .11$, r 95% CI = $-.05, .25$, $z = 1.36$, $p = .17$) in avoidance.

Attachment Anxiety and the Curvilinear Effects of Partners' Support

There were no reliable interaction effects between attachment anxiety and the linear or curvilinear effects of practical or emotional support, with one exception: the interaction between the curvilinear effect of practical support and attachment anxiety predicting efficacy. The simple effects suggested a pattern similar to that found in Studies 1 and 3. Recipients *lower in attachment anxiety* responded in a similar way as those *higher in avoidance* by showing declining efficacy when partners provide low-to-moderate levels of practical support, but increasing efficacy as partners provide higher levels of practical support.

Discussion

The meta-analyses across studies revealed a significant and robust moderated curvilinear pattern between partners' practical support and recipients' attachment avoidance on recipients' distress, efficacy, and perceived partner control/criticism (for men). The curve

Table 3.8. Meta-analyses of Effects across Samples

	<i>Distress (Studies 1-4)</i>				<i>Efficacy (Studies 2 & 3)</i>				<i>Perceived Partner Control/Criticism (Men) (Studies 2 & 4)</i>			
	<i>r</i>	95% CI	<i>z</i>	<i>p</i>	<i>r</i>	95% CI	<i>z</i>	<i>p</i>	<i>r</i>	95% CI	<i>z</i>	<i>p</i>
Practical Support												
Partners' Practical Support	.09	-.00, .18	1.88	.06	.04	-.24, .31	.27	.79	.07	-.09, .22	.85	.40
Partners' Practical Support ²	-.06	-.22, .10	-.78	.44	.05	-.08, .18	.79	.43	.01	-.14, .17	.17	.87
Recipients' Attachment Avoidance	.14	.04, .23	2.88	.00	-.16	-.29, -.03	-2.42	.02	.16	.01, .31	2.02	.04
Partners' Practical Support x Attachment Avoidance	.06	-.09, .20	.78	.43	.02	-.23, .26	.14	.89	.10	-.06, .25	1.21	.23
Partners' Practical Support ² x Attachment Avoidance	-.12	-.22, -.02	-2.37	.02	.21	.08, .33	3.19	.00	-.27	-.41, -.12	-3.50	.00
Recipients' Attachment Anxiety	.21	.13, .29	4.73	.00	-.07	-.20, .06	-1.10	.27	.03	-.12, .18	.36	.72
Partners' Practical Support x Attachment Anxiety	-.01	-.10, .08	-.28	.78	-.10	-.30, .10	-.97	.33	.06	-.09, .21	.82	.41
Partners' Practical Support ² x Attachment Anxiety	.07	-.08, .21	.93	.35	-.16	-.28, -.02	-2.30	.02	-.01	-.16, .14	-.12	.91
Emotional Support												
Partners' Emotional Support	-.05	-.25, .15	-.51	.61	.06	-.14, .25	.58	.56	-.13	-.27, .03	-1.63	.10
Partners' Emotional Support ²	.07	-.04, .18	1.32	.19	.06	-.08, .20	.83	.41	.01	-.14, .17	.18	.86
Recipients' Attachment Avoidance	.15	.07, .24	3.39	.00	-.08	-.21, .05	-1.22	.22	-.01	-.16, .15	-.09	.93
Partners' Emotional Support x Attachment Avoidance	.11	-.07, .29	1.19	.24	.00	-.14, .13	-.07	.95	.05	-.10, .20	.66	.51
Partners' Emotional Support ² x Attachment Avoidance	-.09	-.19, .01	-1.77	.08	.04	-.11, .19	.51	.61	.16	.01, .30	2.04	.04
Recipients' Attachment Anxiety	.22	.13, .30	4.90	.00	-.14	-.27, -.01	-2.06	.04	.09	-.06, .24	1.16	.25
Partners' Emotional Support x Attachment Anxiety	-.08	-.21, .07	-1.05	.29	-.12	-.44, .23	-.68	.50	.04	-.11, .19	.55	.58
Partners' Emotional Support ² x Attachment Anxiety	.07	-.06, .19	1.00	.32	.00	-.13, .13	-.02	.99	-.12	-.27, .03	-1.60	.11

Note. The variables marked with ² are curvilinear variables. Significant effects are shown in bold.

Table 3.9. Meta-Analyses of Simple Linear and Curvilinear Effects of Partners' Practical Support for Recipients' Low and High in Attachment Avoidance across Samples

	Low Attachment Avoidance (-1 SD)								High Attachment Avoidance (+1 SD)								
	Linear Effect				Curvilinear Effect				Linear Effect				Curvilinear Effect				
	<i>r</i>	95% CI	<i>z</i>	<i>p</i>	<i>r</i>	95% CI	<i>z</i>	<i>p</i>	<i>r</i>	95% CI	<i>z</i>	<i>p</i>	<i>r</i>	95% CI	<i>z</i>	<i>p</i>	
Distress																	
(Studies 1-4)	-.00	-.10, .10	-.03	.98	.07	-.17, .30	.56	.58	.01	-.12, .14	.17	.87	-.18	-.28, -.08	-3.49	.00	
Efficacy																	
(Studies 2 & 3)	.01	-.12, .14	.15	.88	-.12	-.24, .02	-1.74	.08	.09	-.10, .28	.93	.36	.18	.06, .31	2.79	.01	
Perceived Partner Control/ Criticism (Studies 2 & 4, men)	.02	-.13, .17	.25	.80	.23	.08, .37	3.02	.00	.12	-.04, .26	1.48	.14	-.19	-.33, -.04	-2.48	.01	

Note. Significant effects are shown in bold.

for high attachment avoidance was significant across all three outcomes, whereas the simple effects for low avoidance emerged only for one outcome—perceived partner control/criticism (for men). The results also indicated that partners’ emotional support and recipients’ attachment anxiety did not have the same robust effects.

General Discussion

The methods and results of the current research provide a new way of resolving the inconsistent effects of partner support by illustrating that the associations between practical support provided by intimate partners and important recipient outcomes depend on both the level of support provided and the recipient’s degree of attachment avoidance. Focusing on those effects that our meta-analyses revealed were robust across all four studies, we now discuss the ways in which these novel results reconcile inconsistent findings, advance the existing literature, and have important theoretical, methodological, and practical implications.

Curvilinear Effects of Partner Support for Recipients High in Avoidance

The current studies and meta-analyses provide ground-breaking evidence that the effect of partner support on recipients high in avoidance is best represented by a curvilinear function. Increasing levels of low-to-moderate practical support by partners were associated with growing distress, declining self-efficacy, increasing perceived partner control/criticism, and greater interpersonal distancing by highly avoidant recipients. Once partner support reached average levels, however, increasing levels of practical support had the *reverse* effects for highly avoidant recipients, including reductions in distress, boosts in self-efficacy, and decreases in perceived partner control/criticism and distancing.

Each portion of this curve—the upswing of negative responses and the downswing of these responses—reconciles contradictory patterns in the existing support literature, advances our understanding of when partner support triggers defensive responding in avoidant recipients, and isolates the type of support that can effectively ‘break through’ or overcome

avoidant defenses. Prior research has established that highly avoidant individuals find support interactions particularly difficult because they believe they cannot rely on their partners to be responsive caregivers (see Simpson & Rholes, 2012). The escalating negative responses shown by highly avoidant recipients when receiving low-to-moderate levels of practical support in the current studies is consistent with the negative emotions, evaluations, and distancing typically displayed by highly avoidant individuals when receiving low or poor levels of support (e.g., Collins & Feeney, 2004; Rholes et al., 1999; Rholes et al., 2011). These defensive responses most likely occur because partners' low-to-moderate support increasingly triggers automatic self-protective strategies that help bypass the vulnerability of depending on (what avoidant people expect will be) unreliable caregivers.

The curvilinear effects of partner support, however, clarify that these defensive responses occur when levels of partner support are relatively low, but once practical support reaches average levels, highly avoidant recipients start responding more positively to partner support. If a central goal of avoidant individuals is to avoid dependence and remain self-reliant, why does high levels of support break through rather than exacerbate avoidant defenses? Maintaining independence and self-reliance is a defensive priority arising from deep-seated beliefs that partners cannot be trusted to be responsive caregivers (Bowlby, 1973). Thus, it is not the case that highly avoidant individuals do not want or need care and support; they do. But they also want to protect themselves from the neglect and hurt they expect will occur if they reach for or rely on their partners (Mikulincer et al., 2000, 2002; Shaver & Mikulincer, 2002). For these reasons, the presence of partner support needs to be especially clear and salient in order for avoidant recipients to let go of their fear of dependence and believe that their partners are truly there for them (Rholes et al., 2011; Simpson et al., 1992). The upswing of positive responses displayed by highly avoidant recipients as their partners provide increasing levels of moderate-to-high support confirm that

very high levels of practical support provide enough evidence that their partners are available to lower avoidant recipients' defenses and allow them to benefit from partner support.

The positive effects of high levels of practical support for highly avoidant recipients are consistent with recent demonstrations that partners can down-regulate avoidant defenses when they are sufficiently sensitive to the needs of highly avoidant individuals in specific contexts (Simpson & Overall, 2014). For example, avoidant individuals typically react with anger and withdrawal during conflicts when their partners try to influence them, but these defenses are ameliorated when partners soften their influence attempts by minimizing direct requests and conveying validation and positive regard (Overall et al., 2013). More positive post-conflict partner responses also eliminate the higher risk of dissolution commonly associated with avoidance (Salvatore et al., 2011). There are key differences between this prior work and the current effects, however. The prior studies assessed influence strategies and accommodation central to conflict resolution rather than the (very different) behaviors people enact when attempting to support their partners. The different needs, threats, and associated responses in support versus conflict contexts produce divergent results. Whereas linear associations between conflict strategies, associated reactions, and avoidance tend to be consistent across a range of studies, the remarkable inconsistencies of support effectiveness are underpinned by a mix of benefits and costs that, as shown here, are best captured by a curvilinear function.

Identifying common ingredients across the different responses that appease avoidant defenses in different contexts help clarify why these effects occur. Both conflict and support contexts can confirm or challenge negative expectations of others. When partners are not too heavy-handed when trying to influence highly avoidant targets, they disconfirm expectations of mal-intent and manipulation (Overall et al., 2013; Mikulincer, 1998a). When partners clearly show that they are available to provide help and assistance, they also counteract

expectations of unreliable caregiving. Not only should this help avoidant recipients receive the benefits of support (as the current results show), but consistent evidence that the partner can be trusted to provide support may help avoidant individuals generate more positive expectations and greater attachment security over time. Indeed, Arriaga, Kumashiro, Finkel, VanderDrift and Luchies (2014) recently found that greater trust in the partner (i.e., perceiving that the partner is available and dependable) predicted decreases in attachment avoidance across time. They also documented that it was trust, rather than perceiving the partner as validating their personal goals and efficacy, that predicted reductions in avoidance. These findings are consistent with the notion that overcoming avoidant individuals' defenses involves targeting their negative caregiving expectations (by providing high levels of support that clearly demonstrate availability) rather than reinforcing their defensive self-reliance.

However, not all types of partner support may overcome avoidant defenses. The curvilinear effects for highly avoidant recipients occurred for practical (rather than emotional) support. Research examining attachment and support dynamics has not uniformly assessed or compared both types of support, although prior findings indicate that practical support may be most beneficial for highly avoidant people (Mikulincer & Florian, 1997; Simpson et al., 2007). High levels of emotional and practical support should both provide evidence of the partner's availability, but practical support does so without requiring the reciprocation of emotional disclosure and affection that highly avoidant individuals dislike. Indeed, practical support might give highly avoidant individuals the opportunity to accept and respond to support in more problem-focused and less intimacy-imbued ways, such as by discussing concrete solutions to problems. Emotional support, on the other hand, might require too much emotional vulnerability, disclosure, and intimacy from avoidant individuals.

That said, the relative absence of effects for emotional support also indicates that this type of support did not activate the defenses of highly avoidant recipients, which should be

particularly salient if emotional support is threatening to them. It might be that the contexts we examined—discussions of personal goals (Studies 1 and 2) and daily interactions (Study 4)—typically contain less intense emotions and less salient forms of emotional support. In contrast, prior research documenting the costs of emotional support have involved contexts of high emotional vulnerability, such as when recipients are facing very stressful impending tasks (Bolger et al., 2000; Bolger & Amarel, 2007, Study 2; Gleason et al., 2008; Shrout et al., 2006). Avoidant recipients have also shown more negative reactions to partners' emotional support in the context of preparing for a stressful task (Mikulincer & Florian, 1997). Indeed, in Study 3 which involved couples discussing significant *stressors* (and thus greater relative distress than our other studies, see Table 3.2), the curvilinear effect of support arose with *emotional* rather than with practical forms of support, but controlling for the severity of the stressor (i.e., support need) weakened this effect. This pattern suggests that low-to-moderate emotional support can activate avoidant defenses, and high levels of emotional support can down-regulate those defenses, in stressful contexts where partners' emotional support is truly needed (also see Simpson et al., 1992).

Effects of Partner Support for Recipients Low in Avoidance

Low avoidant individuals experienced lower levels of distress, regardless of whether their partners provided low or high levels of support. Unlike highly avoidant individuals, less avoidant (more secure) individuals have confidence in their partner's love and enter support interactions unencumbered by attachment concerns (Mikulincer & Shaver, 2003). As a result, even when their partners provide relatively low levels of support, secure individuals do not experience greater distress or evaluate their partner's support more negatively (Collins & Feeney, 2004; Rholes et al., 2011; Simpson et al., 2007). Steadfast faith in their partner's love and the belief that their partners will be available if and when needed explains why low

avoidant recipients are not as contingent on the level and type of their partner's supportive behavior (as the outcomes of highly avoidant recipients are).

Ironically, then, it is the myopic focus on the partner's reliability that allows high levels of support to benefit highly avoidant recipients, and it is the lack of such concerns that could potentially generate the costs of enacted support in less avoidant recipients. Although we expected secure recipients to respond more positively in general, based on prior research revealing that direct, visible support can exacerbate distress and undermine self-efficacy, we also thought that secure recipients might experience some coping and efficacy costs at very high levels of support. Low avoidant recipients showed trends consistent with this idea, but the simple effects and meta-analyses did not support a significant curvilinear pattern, with one exception: the effect of practical support on men's perceptions of their partners as being controlling and critical. This specific effect is consistent with a key theoretical explanation for why support can have costs; overt, direct support can be interpreted as intrusive and as the partner 'taking over' (Bolger et al., 2000). This might be particularly true for men given masculine ideals of independence, agency and control, which often restrict men's help-seeking and result in more physiological threat in response to receiving partner support (Addis & Mahalik, 2003; Crockett & Neff, 2013; Cross & Madson, 1997).

Partner Support and Attachment Anxiety

As suspected, attachment avoidance played a relatively stronger and more consistent role in determining recipients' reactions to partner support. Some effects suggested that anxious recipients responded more negatively when partners provided low levels of support, such as lower efficacy (Study 3) or greater distancing (Study 4), which is consistent with anxious individuals' heightened dependence and sensitivity to rejection. Other effects indicated that highly anxious individuals experienced greater distress (Studies 1-2, 4) or lower efficacy (Study 3), regardless of their partner's support. In fact, only three significant

effects emerged in our meta-analyses. First, highly anxious recipients reported greater levels of distress and lower self-efficacy, regardless of their partner's emotional or practical support, highlighting that their relationship concerns and need for reassurance and as well as chronic self-doubt inhibit the degree to which their partners can soothe them. Second, anxiety moderated the curvilinear effects of practical support on recipients' efficacy, but the simple effects revealed that recipients *low* in anxiety demonstrated a similar pattern to those *high* in avoidance. This pattern may reflect that defensive reactions to low levels of support, and soothing of high levels of support, are more likely to arise in dismissing avoidant recipients who are high in avoidance (and thus deeply distrust their partner's caregiving) and low in anxiety (and are thus not continually trying to sustain greater closeness with their partner). Indeed, highly anxious individuals did not respond more positively to high levels of partner support in the way that avoidant recipients did. This pattern is consistent with prior research showing that, despite their longing for support, highly anxious recipients often fail to appreciate or be calmed by the support enacted by their partners (Collins & Feeney, 2004; Gallo & Smith, 2001; Moreira et al., 2003; Priel & Shamai, 1995; Simpson et al., 1992). In sum, there is strong evidence that, during support exchanges when anxious people are likely to desire high levels of attention, care, and reassurance from their partners, even very high levels of partner support may not alleviate their heightened distress or satiate their craving for love and intimacy.

Strengths, Caveats, and Future Research

The moderated curvilinear pattern replicated across four studies using methods adopted by prior research examining support provision (allowing direct comparisons). It also replicated across recipient outcomes that have been focused on in the prior support literature along with outcomes reflective of the defensive responses of highly avoidant people. The ecologically-valid nature of our methods increases confidence that the results reveal the

effects of support as it is spontaneously delivered during couples' support-relevant exchanges. Nonetheless, each study relied on correlational data, so we cannot make any causal conclusions. We did rule out several important alternative explanations (Table 3.1). Not only did we provide good evidence that the results were *not* due to differences in recipients' need or desire for support or their support-seeking behavior, it is also less theoretically plausible that the results reflect avoidant recipients' responses eliciting different levels of support from their partners (rather than levels of partner support affecting recipients' responses). For example, it is difficult to think of a good reason why partners would respond with low-to-moderate levels of support when highly avoidant recipients experience greater distress and low efficacy (see the left side of the curve for recipients high in avoidance), but then respond with high levels of support when they experience less distress and greater efficacy (see the right side of the high avoidance curve).

Our pattern of results also discount the possibility that the benefits of high levels of practical support for highly avoidant recipients arise because they disengage and suppress their thoughts and feelings in threatening contexts. If the positive outcomes for highly avoidant recipients at high levels of practical support were due to suppression, these should be accompanied by more negative partner evaluations and distancing from the partner. Instead, moderate-to-high levels of practical support were associated with decreases in perceived partner critical/controlling and distancing from the partner, which verifies the explanation that higher levels of partner support overcome or bypass avoidant defenses. Furthermore, controlling for recipients' emotional suppression did not alter the results. Nonetheless, replicating these novel curvilinear effects by experimentally manipulating different levels of partner support is a valuable direction for future research.

Despite the meta-analyses providing evidence that the curvilinear effect occurred for all of the recipient outcomes we assessed, the results when predicting recipients' distress

were the least consistent. The inconsistencies could be attributable to the nature and specific functions of practical versus emotional support (see Cutrona, 1996). Advice, guidance and help tend to focus on the issue discussed, rather than the recipients' feelings, and thus practical support more directly targets recipients' feelings of issue-related efficacy and is probably more easily interpreted as controlling or critical. In addition, although recipients' distress has often been used to index the effectiveness of support, some theoretical models suggest that different types of support (e.g., visible versus invisible) may exacerbate or enhance distress by challenging or bolstering recipients' efficacy (e.g., Bolger et al., 2000). Moreover, in contrast to practical support, emotional support more directly targets recipients' distress (Cutrona, 1996; Cutrona et al., 2007; Girme et al., 2013) and, as discussed above, the dynamics between emotional support and distress should be more relevant in stressful contexts in which recipients' heightened distress increases their need for emotional support. The curvilinear interaction between emotional support and distress when couples discussed significant stressors in Study 3 provides evidence that these processes are most likely to emerge when the specific form of support and recipient outcomes match the specific contextual needs of the recipient.

Contextual factors are also likely to be a central reason we found only weak evidence that high levels of support had detrimental outcomes for low avoidant recipients, despite prior research documenting the potential costs of direct, visible support. The most consistent evidence for the costs of visible support has emerged in the context of impending stressors, such as upcoming exams or speeches (e.g., Bolger et al., 2000; Gleason et al., 2008; Shrout et al., 2006). In contrast, when couples are directly discussing support-related issues (as in Studies 1-3), some (or even very high) levels of partner support may be expected or desired (Girme et al., 2013). The expectation and benefits of support in these contexts may outweigh the potential costs of support, which may appear only when support is not desired or support

reaches intrusive or threatening levels. If so, this would make it very difficult to detect significant upswings in negative responses. Nonetheless, the current studies demonstrate the utility of modeling curvilinear effects to capture the mix of costs and benefits of support, which could be valuably applied to contexts in which the costs of support have the potential to outweigh the benefits.

Finally, our curvilinear results indicate that the underlying fear of dependence central to avoidance (1) produces self-protective defensive responses when low partner support confirms that caregivers are unresponsive, but (2) these fears and defenses can be overcome when very high levels of practical support sharply disconfirm negative expectations and provide irrefutable evidence that the partner *is* available. We did not, however, measure whether avoidant recipients were afraid of relying on their partners, whether these fears changed according to their partner's level of support, or whether they 'knew' that their partners were truly available and 'there for them' when they received very high levels of support. These constructs may not be easily assessed. For example, asking avoidant recipients to reflect on their fears of dependence or their partner's actual availability once a support transaction has taken place may be too confronting and retrigger efforts to suppress attachment needs. The recipient outcomes we focused on in this research are not very threatening with regard to these deep attachment themes. More implicit measures might better uncover avoidant individuals' underlying needs and fears (e.g., Mikulincer et al., 2000; 2002), or these mechanisms might be captured via physiological indices of threat during interactions when partner support is actually being delivered (e.g., Diamond, Hicks, & Otter-Henderson, 2006; Mikulincer, 1998b). These are promising directions for future research.

Methodological and Practical Implications

Using curvilinear methods, we attempted to reconcile conflicting findings in the existing support literature. With a few notable exceptions (e.g., the Yerkes-Dodson

curvilinear relation between anxiety and performance; Yerkes & Dodson, 1908), most theories and models in psychology anticipate linear effects. However, as we have shown, the appropriate application of curvilinear techniques can clarify what appear to be confusing sets of linear effects whose real curvilinear pattern is masked by where participants (or their partners) fall on the x-axis. We suspect that there may be several other instances in which the prudent use of curvilinear models will clarify our understanding of seemingly contradictory linear effects. Positive relationship biases, for example, may have salutary effects (e.g., Murray, Holmes & Griffin, 1996) until large discrepancies with reality produce negative outcomes (e.g., Tomlinson et al., 2014). This downturn may occur primarily when couples face relationship difficulties (McNulty, 2010), showing a moderated curvilinear pattern. Similarly, although jealousy is often viewed as uniformly ‘negative’, low-to-moderate levels of a partner’s jealousy and associated mate-guarding tactics may bolster relationship satisfaction by conveying the partner’s commitment (Neal & Lemay, 2013). However, once a partner’s jealous behaviors move from moderate to high, intrusive levels, this should undermine relationship quality (Guerrero, 1998). This downturn, however, may not occur as quickly for highly anxious people because greater partner jealousy provides them needed reassurance of their partner’s commitment (Overall, Girme, Lemay & Hammond, 2014). These are merely two examples among many potential cases in which the application of curvilinear methods could sharpen our thinking about and testing of important psychological models and their outcomes.

These curvilinear patterns also have important practical implications. Therapeutic approaches designed to help people cope with significant stressors, such as chronic illnesses, are increasingly targeting dyadic dynamics given the critical role partners play in facilitating health and well-being (e.g., Regan et al., 2012). Within couple therapy more generally, the degree to which partners foster one another’s general thriving and goal attainment is also

important. When recipients are more avoidant, facilitating clear and undeniable practical support should be paramount. Indeed, understanding the underlying fears that fuel the destructive responses of highly avoidant individuals is the foundation of emotionally focused couples therapy, which encourages partners to respond in ways that ‘override’ their negative expectations (Johnson & Whiffen, 1999). Our results suggest how this might be achieved—by providing high levels of clear, practical support that offers irrefutable evidence that the partner *is* able and willing to be helpful. Determining whether these behaviors enhance beliefs that the partner is reliable and responsive, and therefore build more secure and successful relationships across time, is another valuable direction for future research.

Conclusions

By modeling curvilinear associations, the current studies provide a novel way of conceptualizing and reconciling the contradictory effects of partner support. Highly avoidant recipients exhibited more negative responses as their partners provided them with low-to-moderate levels of practical support, including increasing distress, drops in self-efficacy, and increasing perceived partner control/criticism and distancing. However, as partners’ practical support shifted from moderate to high levels, highly avoidant recipients experienced more positive outcomes, including decreasing distress, increasing self-efficacy, and reduced perceived partner control/criticism and distancing. These results reconcile several inconsistencies in the support literature by demonstrating that practical support can promote both positive and negative outcomes for highly avoidant recipients, depending on the level of support delivered. The results also illustrate the importance of applying curvilinear methods to test the outcomes of significant social behaviors.

CHAPTER CONCLUSION

Whether support has benefits or costs should depend on important characteristics of support recipients and their chronic needs during support-relevant contexts. This chapter provided a novel demonstration of this point by using curvilinear models to examine whether different levels of support can reveal when support can be costly versus beneficial for highly avoidant recipients. The results across four dyadic studies examining the provision of support during couples' support-relevant discussions and daily life demonstrate that the curvilinear effect of practical support on recipients' outcomes was moderated by attachment avoidance. Highly avoidant recipients exhibited more negative responses as their partner provided them low-to-moderate levels of support, including increasing distress, perceived partner control/criticism and distancing, and decreasing self-efficacy. However, as partners' practical support shifted from moderate to high levels, highly avoidant recipients experienced more positive outcomes, including reducing distress and overcoming avoidant defenses.

The results of this chapter demonstrate how the appropriate application of curvilinear techniques can clarify what appear to be confusing sets of linear effects of support provision. By examining the curvilinear effect of support – and thus modeling the upswing of negative responses and the downswing of these defenses by highly avoidant recipients – this research reconciles contradictory patterns in the existing literature and extends understanding of the types of support that are effective for highly avoidant people. Indeed, these results reveal that partners can provide effective support when partners are responsive to recipients' attachment-related needs and provide irrefutable evidence of their availability via high levels of support.

As I explore in the next chapter, being able to effectively seek support from partners is also an important factor that influences partners' support provision. However, just as the effect of support provision depends on who is receiving support, characteristics of the support-seeker can also alter the costs and benefits associated with support seeking behavior.

CHAPTER FOUR: ATTACHMENT AVOIDANCE AND BENEFITS OF REASSURANCE SEEKING

Another important, but often overlooked, factor that influences effective support provision involves how individuals seek support from their partners. Directly seeking advice and support from partners elicits greater partner support (Collins & Feeney, 2000; Overall et al., 2010), but seeking reassurance and validation that the self is worthy, capable and loveable can ironically trigger greater rejection (Joiner et al., 1992; Katz & Beach, 1997). For example, individuals self-reported tendencies to seek reassurance tend to be associated with close others reporting a greater desire to avoid the reassurance-seeker, negatively evaluating the reassurance seeker, and reporting lower relationship quality (Joiner et al., 1992; 1993; Katz & Beach, 1997; Lemay & Cannon, 2012). These costs of reassurance seeking are hypothesized to occur because when individuals seek validation about their self-worth or that they are loved it can place undue burden on partners to constantly provide reassurance and comfort (Benazon & Coyne, 2000; Lemay & Cannon, 2012).

Notably, prior work examining reassurance seeking has only examined general tendencies to seek reassurance outside of specific relationship interactions. However, the impact of reassurance seeking should depend on the context in which it is sought, such as during support-relevant interactions where it is more likely that individuals will seek support from their partners. This chapter explores, for the first time, the effect of individuals' reassurance seeking behaviors on partners' responsive support or rejecting behaviors during actual support-relevant discussions about their personal goals and stressful issues. These discussions provide an important and relevant context in which individuals' are more likely to seek support, and where partners' behavior holds important consequences for both the individuals' coping (e.g., Feeney, 2004; Feeney & Collins, 2015; Overall et al., 2010;

Sullivan et al., 2010) and their relationship wellbeing (e.g., Cutrona et al., 2007; Feeney & Collins, 2003; Girme et al., 2013).

Furthermore, just as the impact of support provision depends on who is receiving support, the meaning and impact of reassurance seeking behaviors should also depend on important characteristics of the support-seeker. Indeed, prior work demonstrates that the costs of reassurance seeking tend to be exaggerated when enacted by individuals who desperately seek dependence, and thus place excessive burden on their partners, such as individuals who have higher depression, greater attachment anxiety or lower self-esteem (Davila, 2001; Joiner et al., 1992; 1993; Joiner & Metalsky, 1995; Katz & Beach, 1997; Shaver, Schachner & Mikulincer, 2005). If greater dependence on partners exacerbates the negative impact of reassurance seeking, then it might also be the case that reassurance seeking might elicit greater partner support when enacted by individuals who typically minimize dependence in their relationship. Thus, this chapter also explores whether reassurance seeking has the desired outcome and elicits greater partner support when enacted by individuals high in attachment avoidance. Indeed, highly avoidant individuals tend to minimize intimacy and dependence across their relationship interactions (e.g., Bradford et al., 2002; Tan et al., 2012), thus their reassurance seeking might lead to their partners feeling more close to and valued by avoidant individuals and provide more responsive support.

The theoretical and statistical analyses reported in the following paper focused on linear rather than the curvilinear approach adopted in Chapter 3 for several reasons. Unlike the mixed avoidance reactions to low versus high partner support that led to a strong curvilinear pattern predicted in Chapter 3, reassurance seeking has been consistently associated with interpersonal rejection. Indeed, no inconsistent patterns exist that might suggest that reassurance seeking by avoidant individuals might have differential effects depending on the level of reassurance seeking. In addition, thinking theoretically about the

possibilities, I also thought it was equally plausible for two very different moderated curvilinear patterns to emerge. Due to the self-reliant nature of avoidant individuals it might be plausible that partners may not react to their reassurance seeking behaviors unless avoidant individuals engage in particularly *high* levels of reassurance seeking. However, the reverse might also be true; partners of avoidant individuals might be hyperaware of avoidant individuals' attempts to seek support and respond immediately to these opportunities to build closeness. Given the lack of strong empirical or theoretical clarity, I considered and tested linear effects. However, given the utility of curvilinear methods, I did test whether there was a curvilinear effect of reassurance seeking on partners' responsive support moderated by individuals' attachment avoidance. As I report in Footnote 13, there was little evidence for curvilinear effects of reassurance seeking.

The research article which follows is the authors' copy of a manuscript submitted to *Personality and Social Psychology Bulletin*. It is currently under review.

Abstract

Prior research suggests reassurance seeking can trigger interpersonal rejection rather than support. In the current research we test whether reassurance seeking during support-relevant exchanges undermines support, but has positive interpersonal effects when enacted by highly avoidant individuals who typically minimize dependence in their relationships. Three dyadic studies ($N = 246$ couples) demonstrated that the interpersonal consequences of reassurance seeking were moderated by attachment avoidance. Greater reassurance seeking led to *partners* feeling less valued and close when individuals were low in attachment avoidance. In contrast, greater reassurance seeking repaired the lack of closeness that partners of individuals high in attachment avoidance typically feel, and these partners, in turn, provided more reassuring support. These results provide the first evidence that specific acts of reassurance seeking during support-relevant interactions do not uniformly lead to interpersonal rejection, and reveal that the interpersonal impact of reassurance seeking depends on important characteristics of the reassurance seeker.

Repairing Distance and Facilitating Support: Attachment Avoidance and the Positive Impact of Reassurance Seeking

Reassurance seeking involves seeking validation that the self is loveable, worthy and truly cared for (Coyne, 1976; Hames, Hagan, & Joiner, 2013; Joiner, Alfano & Metalsky, 1992; Joiner, Metalsky, Gencoz & Gencoz, 2001; Joiner, Katz, & Lew, 1999). Ironically, rather than producing support and reassurance, existing research indicates that reassurance seeking tends to trigger interpersonal rejection (Joiner, 1999; Joiner et al., 1992; Joiner & Metalsky, 1995; 2001; Joiner & Schmidt, 1998; Katz, Beach & Joiner 1998). However, this prior research has (a) solely measured self-reported tendencies to seek reassurance, and (b) predominately operationalized interpersonal rejection as negative relationship evaluations by the targets of reassurance seeking. In the current research, we investigate whether reassurance seeking behaviors enacted during actual interactions trigger rejection or responsive support by romantic partners, and we do so during support exchanges when reassurance seeking is likely to emerge and have important consequences.

We also consider whether reassurance seeking can have benefits. Rather than always leading to rejection, reassurance seeking during support interactions may signal relational closeness and value of partner's input, particularly if reassurance seeking is enacted by individuals who typically avoid dependence and closeness. People who are high in attachment avoidance believe caregivers are unreliable and untrustworthy, so they minimize dependence and create distance in their relationships (Mikulincer & Shaver, 2003). Understandably, this lack of motivation to sustain intimacy leads partners of avoidant individuals to feel less close and more dissatisfied in their relationships (Butzer & Campbell, 2008; Carnelley, Pietromonaco & Jaffe, 1996; Karantzas, Feeney, Goncalves & McCabe, 2014; Tan, Overall & Taylor, 2012). However, reassurance seeking from avoidant individuals may provide evidence to partners that they are valued, repair the lack of closeness their

partners tend to feel, and thus trigger more positive, responsive support attempts. We tested these hypotheses across three studies involving individuals discussing important personal goals and stressful issues with their partner.

Reassurance Seeking and Interpersonal Rejection

The potential negative effects of reassurance seeking are central to interpersonal models of depression (Coyne, 1976). People who suffer depression or have elevated depressive symptoms seek greater reassurance from close others (Davila, 2001; Joiner, 1994; 1999; Joiner et al., 1992; 2001; Joiner, Alfano & Metalsky, 1993; Joiner & Metalsky, 1995; 2001; Lemay & Cannon, 2012; Potthoff, Holahan & Joiner, 1995). Rather than obtaining reassurance and support, however, reassurance seeking can elicit interpersonal rejection, which in turn exacerbates depression (Joiner 1994; Joiner et al., 1992; 1999; Joiner & Schmidt, 1998). Supporting the link between reassurance seeking and rejection, a meta-analysis of 38 studies (N = 6,947) by Starr and Davila (2008) revealed a robust association between higher levels of self-reported reassurance seeking and (1) reassurance seekers feeling less supported and more rejected by close others (Haefffel et al., 2007; Joiner, 1999) and (2) roommates or romantic partners reporting more negative appraisals of reassurance seekers, less willingness to interact with reassurance seekers, and lower relationship satisfaction (Joiner et al., 1992; Joiner & Metalsky, 1995; 2001; Katz & Beach, 1997; Shaver, Schachner & Mikulincer, 2005).

Despite the consistent evidence that reassurance seeking produces less reassuring support and more distancing by targets, prior research has exclusively examined individuals' self-reported tendencies to seek reassurance rather than examining the consequences of reassurance seeking behaviors enacted during actual interactions.¹¹ Consequently, previous

¹¹ The only prior study that has examined actual reassurance seeking behaviors was a validation study by Joiner and Metalsky (2011; Study 2) who illustrated that self-reported reassurance seeking tendencies were associated with observer-rated reassurance seeking

assessments of interpersonal rejection have also been restricted to (a) reassurance seekers' perceptions of others, (b) roommates' negative appraisals and desires to avoid the reassurance seeker, and (c) romantic partners' negative evaluations, felt closeness and relationship satisfaction (Benazon, 2000; Joiner et al., 1992; Joiner & Metalsky 1995; Katz & Beach, 1997; Katz et al., 1998; Lemay & Cannon, 2002; Prinstein, Borelli, Cheah, Simon & Aikins, 2005; Shaver et al., 2005). Thus, although reassurance seeking is linked with more negative evaluations by partners, it is unclear whether reassurance seeking behaviors during relationship interactions actually trigger rejecting responses rather than the responsive support and reassurance desired.

In the current study, we examined the consequences of reassurance seeking behaviors enacted when individuals discussed important personal goals or stressful issues with their partner. These discussions represent an important context in which reassurance seeking may often take place and in which the partner's responsiveness or rejection has important consequences, including more negative interpersonal evaluations (Cutrona, Shaffer, Wesner, & Gardner, 2007; Feeney & Collins, 2003; Girme, Overall & Simpson, 2013) and poorer goal achievement and relationship wellbeing across time (Feeney, 2004; Feeney & Collins, 2015; Overall, Fletcher & Simpson, 2010; Sullivan, Pasch, Johnson & Bradbury, 2010). This method also makes several novel advances by assessing reassurance seeking behaviors during actual interactions rather than self-reported general tendencies, and examining immediate responses to reassurance seeking behaviors that are contextually relevant, including being rejecting or responsive by withholding or providing reassurance and support.

Isolating partner responses as reassurance seeking is enacted offers a clearer picture of the functioning of reassurance seeking, such as whether reassurance seeking (1) pushes

during discussions with same-sex friends. However, Joiner and Metalsky (2011) did not examine whether reassurance seeking behaviors were associated with interpersonal consequences. Thus, how reassuring seeking during behavioral interactions might trigger rejection or support from interaction partners has never been examined.

partners away during interactions and impedes the provision of support or (2) is typically successful in eliciting support within interactions and thus reinforcing for the reassurance seeker. Based on the prior literature, we might expect that reassurance seeking during support-relevant interactions would place an excessive burden on partners to prop up reassurance seeker's self-worth and felt-regard, which may interfere with partners' ability and desire to be supportive. Consistent with this pattern, some studies have found that more negative forms of support seeking, such as sulking and inducing guilt, are associated with lower partner support (Collins & Feeney, 2000; Overall et al., 2010). On the other hand, greater support- and reassurance-seeking should provide diagnostic information that individuals need and value their partner (Overall, Girme & Simpson, in press), which may be positively received by romantic partners who take the opportunity to build closeness and provide reassuring support. For example, when individuals' experience daily stress and anxiety, their intimate partners are more likely to respond to their distress by providing greater support (Iida, Seidman, Shrout, Fujita & Bolger, 2008). However, as we discuss next, whether partners respond positively or negatively to reassurance seeking is likely to depend on characteristics of the reassurance seeker that may alter the partner's receptivity to reassurance seeking.

Do the Effects of Reassurance Seeking depend on Seekers' Attachment Avoidance?

Although not directly tested, the literature examining depression and reassurance seeking indicates that reassurance seeking can trigger rejection because reassurance seeking can place undue burden on partners. For example, some studies have found that the combination of depression and reassurance seeking has particularly negative consequences for seekers' feelings of loneliness and relationship dissatisfaction (Joiner 1999; Prinstein et al., 2005), roommates' avoidance motivations (Joiner et al., 1992; 1993), and partners' relationship evaluations (Benazon, 2000; Katz & Beach, 1997; Lemay & Cannon, 2012). This

may be due to depressed individuals' doubts about the sincerity of others' reassurance, which leads to close others becoming frustrated when the assurances they provide are not accepted or valued (Coyne, 1976) and feeling burdened by the need for ongoing reassurance (Benazon & Coyne, 2000). Indeed, demonstrating that rejection arises when partners think they have to continually prop up their mates, Lemay and Cannon (2012) provided experimental evidence that romantic partners were less accepting and more frustrated with reassurance seekers higher in depressive symptoms, but only if partners felt concerned about regulating their mates' insecurities. Other research has also shown that chronic disclosure of negative emotions renders any given disclosure less diagnostic of actual need and so triggers less support (Forest, Kille, Wood & Holmes, 2014). Thus, reassurance seeking by individuals high in depression might be associated with rejection because the reassurance sought, and associated burden on the partner, is disproportionate to actual need.

In contrast, reassurance seeking enacted by individuals who *avoid* depending on their partners might be welcomed because it provides partners the (perhaps rare) opportunity of enhancing closeness, feeling valued, and being supportive. A key characteristic of reassurance seekers that should generate this context is attachment avoidance. People high in attachment avoidance tend to possess a deep-seated distrust of others and believe that caregivers cannot be depended on in times of need (Bowlby, 1973). As a result, avoidant people suppress their attachment needs and engage in a range of strategies to avoid or minimize dependence and intimacy (Mikulincer & Shaver, 2003). These attempts to sustain distance should leave partners of avoidant individuals hungry for evidence they are valued and more open to opportunities to forge closeness. Against a backdrop of disengagement, therefore, reassurance seeking may indicate to partners that avoidant individuals do require and value their support.

Most prior research has focused on avoidant people's tendency to disengage or resist connection when they are threatened (e.g., Collins & Feeney, 2000; Simpson, Rholes, & Nelligan, 1992), but partners of avoidant individuals have to contend with a distancing orientation across their relationship interactions. Individuals high in avoidance are less engaged and open during daily life (Bradford, Feeney, & Campbell, 2002; Tidwell, Reis, & Shaver, 1996), and exhibit less relationship-oriented disclosure and non-verbal closeness (e.g., touch or eye-contact) during routine conversations (Tan et al., 2012; Tucker & Anders, 1998). Even in very intimate interactions, such as during sex, avoidant individuals are less likely to promote and obtain intimacy (Birnbaum, Reis, Mikulincer, Gillath & Orpaz, 2006; Impett, Gordon & Strachman, 2008). Not surprisingly, these distancing strategies lead to *partners* of highly avoidant individuals feeling less close and reporting lower sexual and relationship satisfaction (Butzer & Campbell, 2008; Carnelley et al., 1996; Karantzas et al., 2014; Tan et al., 2012).

Although such a context of disengagement may make any attempt to seek reassurance more meaningful for partners of avoidant individuals, it may also appear from the prior research that avoidant people will never enact such behaviors. However, avoidant individuals do desire love and care from their partners, they just struggle with balancing these needs with entrenched fears that they cannot rely on their partners (Rholes et al., 2011; Shaver & Mikulincer, 2002). Indeed, avoidant individuals hold proximity-related thoughts of their partner, especially when cognitive load reduces their ability to suppress attachment needs (Mikulincer, Birnbaum, Woddies & Nachmias, 2000; Mikulincer, Gillath & Shaver, 2002). Avoidant individuals are also more willing to rely on their partner when their partners' demonstration of availability overrides their distrusting expectations (Collins & Feeney, 2004; Girme, Overall, Simpson & Fletcher, 2015), and this can generate feelings of connectedness for both interaction partners (MacDonald & Borsook, 2010). When they

perceive high relationship quality, highly avoidant individuals also report a greater desire to be close to their partners when distressed (Slotter & Luchies, 2014).

These findings indicate that there will be times in which avoidant people desire support and reach for their partner. Indeed, although one study found that avoidance was associated with lower self-reported reassurance seeking tendencies (Davila, 2001), another study reported null associations (Shaver et al., 2005). In addition, within couples' support exchanges, avoidant individuals display indirect support seeking that conveys vulnerability but does not focus on the specific problem (behaviors that have similarities with reassurance seeking; Collins & Feeney, 2000). Nonetheless, regardless of whether avoidant people engage in less or more reassurance seeking on average, when they do seek reassurance from their partner during support-relevant discussions, this is likely to repair the lack of closeness partners of avoidant individuals tend to feel, provide evidence that partners are valued, and thus trigger more positive, reassuring support attempts.

Current Research

In three studies, we tested whether individuals' attachment avoidance moderated the degree to which individuals' reassurance seeking during couples' support-relevant discussions produced rejection or responsive support from partners. The studies were designed to extend the current literature in several novel ways by (1) examining the impact of reassurance seeking behavior (rather than general tendencies) on romantic partners' responses (rather than general evaluations) during actual support-relevant interactions (rather than reports devoid of context) and (2) testing whether the negative interpersonal effects of reassurance seeking are reversed when enacted by highly avoidant individuals during couples' support exchanges.

In Study 1, we used an existing sample involving couples' video-recorded discussions of each other's personal goals. Independent coders assessed the degree to which individuals

exhibited reassurance seeking and their partners provided reassuring support. To replicate the effects in a more stressful context, Study 2 used the same methods as Study 1 but examined reassurance seeking when couples discussed significant ongoing personal stressors. Study 3 was designed to (1) replicate the effects using self-reported reassurance seeking and partners' reported (and therefore intended) reassuring support to be more consistent with prior measures (Joiner et al., 1992; 1999; 2001; Katz et al., 1998; Potthoff et al., 1995; Shaver et al., 2005), and (2) test a key reason why reassurance seeking should lead to more positive responses when exhibited by highly avoidant individuals; reassurance seeking by individuals who typically minimize closeness and dependence helps partners feel *more valued by and closer to* highly avoidant individuals. Across the studies, we also assessed and ruled out alternative explanations and predictors, including attachment anxiety, relationship quality and depressive symptoms.

STUDY 1

We first tested our hypothesis in an existing sample of romantic couples that engaged in two video-recorded discussions in which each individual discussed a personal goal with his or her partner. Independent coders rated the degree to which (1) individuals sought reassurance from their partners, and (2) partners provided reassuring support. We predicted that the degree to which reassurance seeking led to the delivery versus withholding of reassuring support would be moderated by seekers' attachment avoidance.

Method

Participants

Sixty-one heterosexual couples responded to campus-wide advertisements and were paid NZ\$40 for participating. The size of this existing sample was based on funding.¹²

¹² This sample has been used previously to examine the effects of partners' support on recipient outcomes, such as perceptions of support and distress (Overall et al., 2010; Girme et al., 2013; 2015). The ways in which individuals' (support recipients') behavior shapes the

Participants were involved in serious (49% cohabiting, 15% married, 30% serious dating relationships), long-term ($M = 2.81$ years, $SD = 2.82$) relationships, and were a mean age of 23.38 years ($SD = 5.37$).

Materials and Procedure

Relationship Quality. The short-form Perceived Relationship Quality Components inventory (Fletcher, Simpson, & Thomas, 2000) assessed participants' satisfaction, commitment, intimacy, trust, passion, love, and romance (e.g., "How satisfied are you with your relationship?"; 1 = *not at all*, 7 = *extremely*). Items were averaged ($\alpha = .84$).

Attachment Orientations. Participants completed the Adult Attachment Questionnaire (Simpson, Rholes & Phillips, 1996). Eight items assessed attachment avoidance (e.g., "I'm not very comfortable having to depend on romantic partners") and nine items assessed attachment anxiety (e.g., "I often worry that my romantic partners don't really love me" 1 = *strongly disagree*, 7 = *strongly agree*). Items were scored and averaged so that higher scores represent higher avoidance ($\alpha = .75$) and anxiety ($\alpha = .83$).

After completing the above measures, participants identified and ranked in order of importance three aspects of themselves they wanted to improve, which they were told they might discuss with their partner. After a short warm-up discussion, each couple engaged in two 5-minute video-recorded discussions regarding the most important personal goal of each partner. The order of discussion (whether the female or the male's goal was discussed first) was counterbalanced across couples.

Coding Procedure

A team of coders blind to the study aims and all participant data independently rated the degree to which (1) individuals discussing their personal goal exhibited reassurance

support provided by the partner has never been examined. Indeed, the primary constructs in this paper have never been investigated before, and the hypotheses, variables, and analyses presented are completely novel and have not been previously reported.

seeking and (2) their partners provided reassuring support.

Reassurance Seeking. We used a new behavioral coding schedule designed to assess reassurance seeking during couples' support-relevant exchanges (Molloy & Overall, 2014). The behaviors coded were based on existing conceptualizations and descriptions of reassurance-seeking (e.g., Hames et al., 2013; Joiner et al., 1992; 1999; 2001), and relevant behaviors contained within existing coding schemes of support seeking (e.g., Barbee & Cunningham, 1995; Overall et al., 2010). In particular, coders rated the extent to which individuals were seeking feedback from partners that confirmed and verified: (1) their self-worth (i.e., that the self is loveable, able, valuable, worthy and attractive), and (2) their partner's commitment (i.e., that the partner loves, cares and supports them, and is committed to their relationship). Examples of verbal expressions of reassurance seeking are shown in Table 4.1. As indicated in Table 4.1, the presence of reassurance seeking is indicated by a tone and delivery that pulls for reassurance and confirmation by the partner and also involves nonverbal behaviors (e.g., eye signals, body posture, facial expressions) that convey a desire for verification and emphasize dependence and the need for reassurance. After extensive training, three coders independently rated the degree to which individuals displayed reassurance seeking when discussing their personal goal with their partner taking into account the frequency, quality, and duration of the indicators of reassurance seeking (1-2 = *low*, 3-5 = *moderate*, 6-7 = *high*). Coders' ratings for individuals' reassurance seeking were highly consistent (ICC [intraclass correlation coefficient] = .89) and were thus averaged.

Partners' Reassuring Support. Given reassurance seeking involves sourcing direct confirmation, validation and support from the partner, ratings of the partners' support focused on (1) the degree to which partners' offered reassurance of the individuals' self-worth and the partner's care and commitment (the components of reassurance-seeking outlined in Table

4.1), as well as (2) how much partners' delivered direct and focused support, indicating that the partner was caring, available and trying to attend to the individual's needs.

First, two trained coders independently rated the degree to which partners (a) communicated respect for and confidence in the recipient's qualities and abilities, and (b) directly expressed the individual was worthy and valued (see Cutrona & Suhr, 1992; Overall et al., 2010). These behaviors are designed to provide direct assurance of the individuals' worth, capabilities, and value, and thus should provide the response sought from the reassurance-seeking behaviors outlined in Table 4.1. Coders' ratings were highly consistent ($ICC = .86$) and averaged to construct overall scores for each support provider.

In a second wave of coding, three additional coders independently rated the degree to which the partner provided direct support and focused on the individual and their problem, issue or goal in order to capture the degree to which the partner was attempting to help and respond to the individuals' concerns, desires and needs (see Girme et al., 2013). Support ratings across the coders were highly consistent ($ICC = .89$) and thus averaged to compute overall scores. The two indices of reassuring support were positively correlated ($r = .40, p < .01$) and were averaged to index partners' support.

Results

Table 4.2 displays descriptive statistics and correlations across all measures. To account for the statistical dependence inherent in dyadic data, we followed the guidelines by Kenny, Kashy and Cook (2006) to run a dyadic analysis using the MIXED procedure in SPSS 20. We regressed *partners'* reassuring support on *individuals'* (1) reassurance-seeking (grand-mean centered), (2) attachment avoidance (grand-mean centered), and (3) the

Table 4.1. Reassurance-Seeking Coded during Couples' Video-Recorded Discussions

Type of Reassurance-Seeking	Examples of Verbal Statements	Verbal Tone and Delivery*
<i>Seeking Reassurance of Self-Worth</i>		
Questioning the degree to which the partner perceives the self as loveable, worthy, valuable, able and/or attractive	<i>“Do you think I can do it?”; “Do you believe that I can find a good job?”; “But do you think I’m sexy?”</i>	Expressed in a manner that appeals for a confirming response
Asking the partner whether the individual is improving in regards to their goal	<i>“Do you think it is improving?”; “Do you think I am getting better?”; “Do you think I am changing?”</i>	Expressed in a manner that appeals for a confirming response
Seeking verification that the self is changing/ making progress in desired ways	<i>“It is changing...”; “I think it’s getting better...”; “I think I’m working toward my fitness already...”</i>	Question-like delivery which pulls for confirmation or agreement
Seeking verification that the self-identified problem or goal is not that bad	<i>“It doesn’t happen often”; “I can still hike 15 miles a day”</i>	Tone pleads for verification and validation
Debasing the self in order to attain reassurance of self-worth and capability	<i>“...but I can’t change it, so it doesn’t matter”; “I don’t have what it takes to achieve this”</i>	Expressed in a way that invites or ensures disconfirmation
<i>Seeking Reassurance of the Partner’s Commitment</i>		
Questioning the degree to which the partner loves, cares and supports the self and/or is committed to the relationship	<i>“Don’t you care about me embarrassing myself?”; “Do you even love me?”</i>	Tone appeals for reassurance that the partner cares and is commitment
Stressing the negative impact the partner or the situation has on the self in order to obtain the partner’s love, care and concern	<i>“I think you feel it is more important than spending time with me”; “I need you and you’re not there and that gets really hard.”</i>	Expressed in a manner that invites or ensures comfort and support from the partner
Asking the partner whether the partner wants change or see the issues as a relationship problem	<i>“Did you put that as something you want to change in me?”; “I know that you think the sexy attitude I lack in our intimate relationship is a problem, you notice that don’t you, in our relationship?”</i>	Delivered in a question-like manner which pulls for partner to deny or refute they desire change

**These verbal behaviors are accompanied by a range of non-verbal behaviors (eye signals, body posture, facial expressions) that signal (a) a desire for verification of positive (and disconfirmation of negative) aspects of the self and the relationship and (b) emphasize a dependence on the partner and need for reassurance.*

Table 4.2. Means, Standard Deviations and Correlations across all Measures (Studies 1 and 2)

	<i>Mean (SD)</i>		<i>1.</i>	<i>2.</i>	<i>3.</i>	<i>4.</i>	<i>5.</i>	<i>6.</i>	<i>7.</i>
	<i>Study 1</i>	<i>Study 2</i>							
Questionnaire Measures									
1. Attachment Avoidance	2.95 (.96)	3.02 (1.19)	-	.18*	-.44**	-.22*	-	.21*	.02
2. Attachment Anxiety	2.98 (1.10)	3.06 (1.14)	.26*	-	-.22*	-.16*	-	.03	.05
3. Relationship Quality	6.09 (0.65)	5.94 (.93)	-.34**	-.32**	-	.45**	-	.02	.16
4. Partners' Relationship Quality	6.09 (0.65)	6.01 (.88)	-.20	-.36**	.65**	-	-	-.12	.20*
5. Depressive Symptoms	-	18.15 (10.66)	.27*	.51**	-.42**	-.44**	-	-	-
Behavioral Observation Ratings									
6. Reassurance Seeking	3.77 (1.60)	1.43 (.63)	.14	-.04	.02	-.02	.07	-	-.06
7. Partners' Reassuring Support	3.43 (.94)	2.81 (1.51)	.05	-.06	.26*	.30**	-.15	.18	-

Note. Possible scores of all variables range from 1-7, with the exception of depressive symptoms, in which possible scores range from 0-60.

Correlations are presented above the diagonal line for Study 1 and below the diagonal line for Study 2. * $p < .05$. ** $p < .01$.

interaction between reassurance-seeking and attachment avoidance¹³. The primary goals of the current research centered on attachment avoidance, but because avoidance and anxiety are positively correlated (see Table 4.1), we followed common practice and controlled for this shared variance by including the main effect of attachment anxiety in the analyses (also see alternative explanation section below).¹⁴ We pooled the effects across men and women, but tested for differences across men and women by including the main and interaction effects of gender. No gender differences were found ($ts < 1.66, ps > .10$).

The results are presented in Table 4.3 (top half of the table). The predicted interaction between attachment avoidance and reassurance seeking was significant and is shown in Figure 4.1. Consistent with the documented costs of self-reported reassurance seeking tendencies, when individuals *low* in attachment avoidance (-1 SD) exhibited high levels of

¹³ It might be possible that the effect of reassurance seeking \times attachment avoidance on partners' support might be better modelled by a curvilinear pattern. For example, due to the self-reliant nature of avoidant individuals it might be plausible that partners may not react to their reassurance seeking behaviors unless avoidant individuals engage in particularly *high* levels of reassurance seeking. However, the reverse might also be true; partners of avoidant individuals might be hyperaware of avoidant individuals' attempts to seek support and respond immediately to these opportunities to build closeness. In order to test these hypotheses, analogous models were run that also included the curvilinear effect of reassurance seeking, and the interaction between the curvilinear effect of reassurance seeking and attachment avoidance (see Chapter Three, Girme et al., 2015 for more information on moderated curvilinear analyses). The results revealed no evidence for a curvilinear reassurance seeking \times attachment avoidance interaction predicting partners' support in Study 1 ($B = -.01, t = -.17, p = .87$) or Study 2 ($B = -.39, t = -.55, p = .59$), but there was a significant interaction predicting partners' felt closeness ($B = -.08, t = -2.10, p = .038$) and reported responsive support ($B = -.08, t = -2.37, p = .019$) in Study 3. The size of the curvilinear interactions in Study 3 however were weaker than the linear interactions, and the curvilinear interactions demonstrated identical results to the linear effects but with a plateauing effect of partners' outcomes at high levels of avoidant individuals' reassurance seeking. Taken together, these supplementary analyses do not provide any evidence that reassurance seeking has curvilinear effects on partners' responsive support for individuals high in attachment avoidance.

¹⁴ Individuals high in attachment anxiety tend to have low self-worth and strive to maintain intimacy with close others. Prior work has found a positive association between attachment anxiety and reassurance seeking (Davila, 2001; Shaver et al., 2005), but our focus here is on moderates of the outcomes of reassurance seeking. We expected that any *beneficial* interpersonal consequences of reassurance seeking would be specific to highly avoidant individuals who typically avoid dependence and maintain relational distance. As reported in text, attachment anxiety did not moderate the effects of reassurance seeking in any of the studies and so we do not consider anxiety in further detail.

Table 4.3. The Effects of Reassurance Seeking and Attachment Avoidance on Partners' Support (Studies 1 and 2)

	<i>B</i>	<i>SE</i>	<i>t</i>	95% CI		<i>r</i>
				<i>Low</i>	<i>High</i>	
Study 1						
Attachment Avoidance	.12	.09	1.25	-.07	.30	.13
Reassurance Seeking	-.01	.06	-.21	-.13	.10	-.02
Reassurance Seeking \times Attachment Avoidance	.17	.06	2.80**	.05	.29	.27
Study 2						
Attachment Avoidance	-.08	.15	-.55	-.38	.22	-.06
Reassurance Seeking	.26	.26	1.01	-.25	.77	.11
Reassurance Seeking \times Attachment Avoidance	.56	.24	2.40*	.10	1.03	.25

Note. Effect sizes (*r*) were computed using Rosenthal and Rosnow's (2007) formula: $r = \sqrt{t^2 / (t^2 + df)}$. CI = confidence interval. ** $p < .01$. * $p < .02$.

reassurance seeking (+1 SD) during couples' support exchanges (see dashed line), partners provided lower levels of reassuring support ($slope = -.17, t = -2.08, p = .04$). However, as predicted, when individuals high in attachment avoidance (+1 SD) exhibited greater reassurance seeking (+1 SD; see solid line), partners provided (marginally) higher levels of support ($slope = .15, t = 1.82, p = .07$).

Alternative Explanations. The results were specific to attachment avoidance.

Attachment anxiety was not associated with partners' support ($B = .06, t = .75, p = .46$) and did not interact with reassurance seeking to predict partners' support ($B = -.04, t = -.63, p =$

.53). Controlling for the relationship quality reported by both partners also did not alter the interaction effect shown in Figure 4.1 ($B = .16$, $t = 2.59$, $p = .01$).

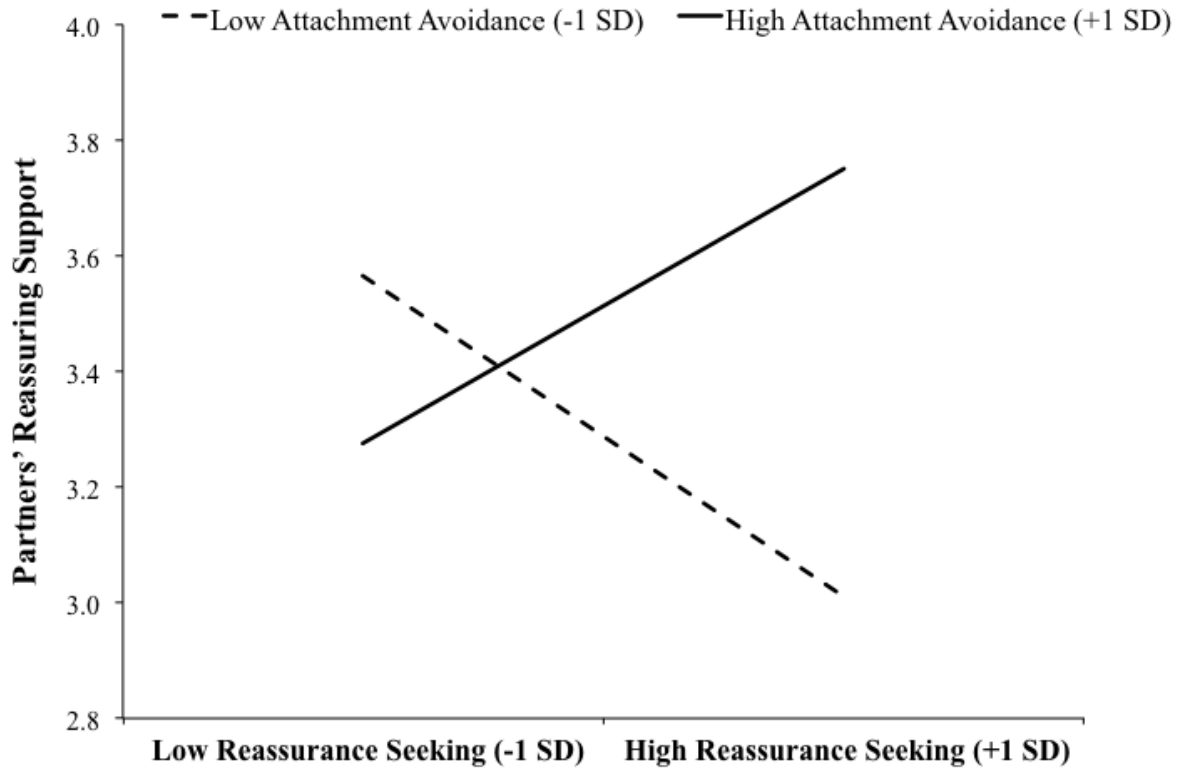


Figure 4.1. The moderating effect of attachment avoidance on the links between individuals' reassurance seeking and partners' reassuring support during support-relevant discussions of personal goals (Study 1).

Discussion

Study 1 represented the first behavioral investigation of the interpersonal effects of reassurance seeking enacted during couples' support-relevant exchanges. Consistent with the documented costs of self-reported reassurance seeking tendencies, when individuals low in attachment avoidance engaged in reassurance seeking, their partners provided less support. In contrast, when individuals high in attachment avoidance engaged in high levels of

reassurance seeking these costs were eliminated, and partners provided (marginally) more reassuring support. These results demonstrate that the interpersonal effects of reassurance seeking during couples' actual interactions hinge on who is seeking reassurance.

STUDY 2

Study 2 was designed to replicate the effects in Study 1 during discussions about significant personal stressors. Discussions about stressful issues are a particularly important context to examine the effects of reassurance seeking behaviors because individuals likely require greater levels of comfort and evidence of their partners' care (Cutrona 1990; 1996; Cutrona et al., 2007). In addition, given the focus of prior research on depression and reassurance seeking, we wanted to ensure that our results were independent of depressive symptoms (see Starr & Davila, 2008).

Method

Participants

Eighty-five couples recruited from advertisements posted in community newspapers and across a university campus were compensated NZ\$80 for participating. Funding was received for the recruitment costs for 80 couples and we continued data collection across the 1.5 years funded. Couples were married (42.4%), cohabiting (36.5%), or in serious dating relationships (20%). Mean relationship length was 7.82 years ($SD = 10.15$), and participants were a mean age of 33.05 ($SD = 13.55$) years.

Materials and Procedure

Relationship Quality and Attachment Orientations. The same scales from Study 1 were used to assess relationship quality ($\alpha = .87$), attachment avoidance ($\alpha = .83$) and attachment anxiety ($\alpha = .81$).

Depressive Symptoms. The 20-item Centre for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977) designed for use with nonclinical samples was used to assess

participants' depressive symptoms experienced during the past week (e.g., "I felt depressed"; 0 = rarely or none of the time [less than 1 day] to 3 = most or all of the time [5-7 days]).

Items were summed ($\alpha = .90$).

After completing these scales, participants identified and ranked in order of importance three current and ongoing personal stressors, which they were told they might discuss with their romantic partners. The partner who reported the most significant and stressful issue was selected to discuss his/her most significant and ongoing source of stress with his/her partner. After a short warm-up discussion, each couple engaged in a 7-minute discussion about the individuals' most significant source of stress.

Coding Procedure

A team of coders blind to the study aims and all participant data independently rated the degree to which (1) individuals discussing their stressful issue exhibited reassurance seeking and (2) their partners provided reassuring support.

Reassurance Seeking. The same coding schedule and procedure outlined in Study 1 (Molloy & Overall, 2014; see Table 4.1) was used to assess reassurance seeking (ICC = .85).

Partners' Reassuring Support. Four trained coders independently rated the degree to which partners (a) provided reassurance and comfort, and (b) expressed love and affection (verbal and non-verbal). We focused on these emotional support behaviors because they provide direct reassurance regarding the partner's care and availability, and because individuals tend to desire more emotional and comforting forms of support during stressful contexts (Cutrona 1990; 1996; Cutrona et al., 2007), including highly avoidant individuals who have been shown to be soothed by emotional support when highly distressed (Girme et al., 2015; Simpson et al., 1992). Coders' ratings for partners' support were highly consistent (ICC = .95) and were averaged across coders.

Results

Table 4.2 displays descriptive statistics and correlations across all measures. We followed the analysis procedure described in Study 1.¹⁵ The results are presented in Table 4.3 (bottom half of the table). The interaction between attachment avoidance and reassurance seeking was significant, and is shown in Figure 4.2. Unlike Study 1, when individuals *low* in attachment avoidance exhibited high levels of reassurance seeking during discussions of *stressful issues*, partners did not provide significantly lower levels of responsive support ($slope = -.41, t = -1.07, p = .29$). However, as predicted, when individuals high in attachment avoidance exhibited greater reassurance seeking, partners provided higher levels of support ($slope = .93, t = 2.48, p = .01$).

Alternative Explanations. The results were specific to attachment avoidance. Neither, attachment anxiety ($B = .03, t = .21, p = .83$) nor the interaction between attachment anxiety and reassurance seeking ($B = .00, t = .18, p = .86$) predicted partners' support. Controlling for the relationship quality reported by both partners also did not alter the interaction effect shown in Figure 4.2 ($B = .58, t = 2.35, p = .02$). Lastly, running analyses included depressive symptoms revealed marginal interaction between depressive symptoms and reassurance seeking ($B = -.04, t = -1.69, p = .096$). Somewhat consistent with prior findings, greater reassurance seeking was associated with higher levels of partner support when individuals were low ($slope = .68, t = 1.97, p = .052$), but not high ($slope = -.17, t = -.45, p = .66$), in depressive symptoms. Nonetheless, controlling for depressive symptoms did not alter the interaction shown in Figure 4.2 ($B = .51, t = 2.17, p = .03$).

Discussion

Replicating Study 1, when highly avoidant individuals engaged in greater reassurance

¹⁵ As in Study 1, there were no gender differences in the main and interaction effects reported in Table 4.3. Although male recipients ($B = .39, t = 2.42, p < .02$) and male recipients high in attachment anxiety ($B = .35, t = 2.43, p < .02$) received more support from their partners, no other gender differences emerged ($ts < 1.25, ps > .22$).

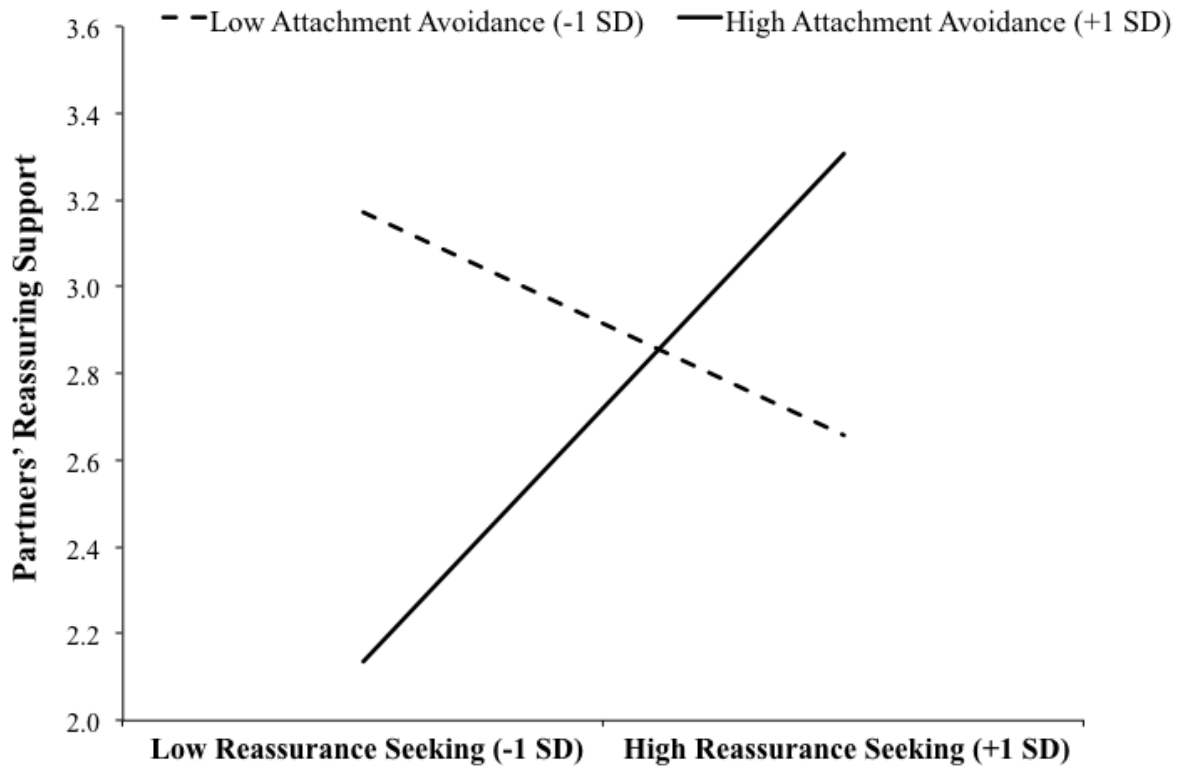


Figure 4.2. The moderating effect of attachment avoidance on the links between individuals' reassurance seeking and partners' reassuring support during support-relevant discussions of ongoing stressful issues (Study 2).

seeking during couples' support exchanges partners responded by providing more support. In contrast, Study 2 did not replicate the costs of reassurance seeking found in Study 1 when individuals were low in attachment avoidance, which suggests that reassurance seeking may not elicit rejection during discussions of significant stressors that require partners to be more caring and attentive.

STUDY 3

Study 3 was designed to (1) replicate the effects found in Study 1 and 2 in a larger sample, (2) assess self-reported reassurance seeking in ways consistent with prior research (e.g., Joiner et al., 1992; 1999; 2001), (3) measure partners' reported support to capture

intended provision of support and reports of interpersonal rejection as captured in prior research, and (4) test a key reason why reassurance seeking leads to positive responses when exhibited by highly avoidant individuals; reassurance seeking helps partners feel *valued by and closer to* highly avoidant individuals.

Although we were confident that in Studies 1 and 2 we assessed reassurance seeking as traditionally conceptualized, in Study 3 we wanted to replicate our findings using existing self-report measures of reassurance seeking to ensure our results were comparable with prior research revealing links between self-reported reassurance seeking and interpersonal rejection (Joiner et al., 1992; 1999; 2001; Katz et al., 1998). Thus, immediately following discussions of personal goals with their partner, *individuals* reported the degree to which they sought reassurance during the discussion using items from established self-report scales.

To assess the reason why reassurance seeking by highly avoidant individuals would elicit support, immediately after couples' discussions *partners* reported how valued and close they felt during the discussion, and the degree to which they provided support during the discussion. We predicted that when highly avoidant individuals reported seeking more reassurance, their partner would feel more valued by and closer to the reassurance seeking and, in turn, report providing greater reassuring support.

Method

Participants

One-hundred heterosexual couples responded to campus-wide advertisements at a city university and were paid NZ\$80 for participating. Sample size was determined according to recommendations outlined by Kenny et al. (2006).¹⁶ Participants were involved in serious

¹⁶ This sample was previously used to examine the effects of partners' support on recipient outcomes, such as distress and efficacy (Girme et al., 2015). The connections between individuals' (support recipients') reassurance seeking and partners' support provision has never been examined, and the hypotheses, variables, analyses tested here are completely novel.

(13% married, 36% cohabiting, 47% serious dating relationships), long-term ($M = 3.28$ years, $SD = 4.16$) relationships, and were a mean age of 22.64 ($SD = 6.51$) years.

Materials and Procedure

Relationship Quality, Attachment Orientations and Depressive Symptoms. The same scales from Studies 1 and 2 were used to assess relationship quality ($\alpha = .78$), attachment avoidance ($\alpha = .76$) and anxiety ($\alpha = .78$), and depressive symptoms ($\alpha = .89$).

After completing these scales, participants identified and ranked (in order of importance) three current personal goals they had been trying to achieve, which they were told they might discuss with their romantic partners. The top-ranked personal goal was selected for discussion, and participants rated how much they desired change with regard to the targeted goal. After a short warm-up discussion, each couple was video-recorded engaging in two 7-minute discussions about each person's personal goal. Half of the couples discussed the woman's goal first, and half discussed the man's goal first.

Reassurance Seeking. Immediately following each discussion, individuals (the person whose goal was discussed) rated how much they sought reassurance during the discussion using two items from the reassurance seeking scale used in prior research (e.g., Joiner et al., 1992; 1999; 2001), which were averaged to index overall reassurance seeking ($r = .55, p < .001$): During the discussion, to what extent... “did you seek reassurance from your partner as to whether they *really* care about you?”, “did you ask your partner how they *truly* felt about you?” (1 = *not at all*, 7 = *very much*).

Partners' Felt Value and Closeness. Immediately after each discussion, partners (who could provide support to individuals whose personal goal was discussed) rated how “accepted/valued” and “close/intimate” they felt during the discussion. These two items were averaged to index partners' felt value and closeness during the discussion ($r = .63, p < .001$).

Partners' Reassuring Support. Immediately after each discussion, partners reported

how much they provided support by rating four items that capture the same elements of support captured in Study 1, including offering reassurance of the individuals' self-worth and the partner's care and availability: "I complimented my partner's goal-related efforts and achievements", "I was understanding about my partner's efforts or difficulties in achieving their goal", "I reassured and comforted my partner", and "I was warm and affectionate toward my partner", 1 = *not at all*, 7 = *very much*). These items were averaged to index partners' reassuring support ($\alpha = .79$).

Results

Table 4.4 displays descriptive statistics and correlations across all measures. We ran identical analyses as described in Studies 1 and 2 to predict (a) partners' felt value/closeness and (b) partners' reported support.¹⁷ The results are displayed in Table 4.5. The interactions between individuals' reassurance seeking and attachment avoidance were significant. First, examining partners' feelings of being valued and close during the discussion (Figure 4.3), greater reassurance seeking reported by individuals low in attachment avoidance was associated with partners feeling less valued and close ($slope = -.17$, $t = -2.09$, $p = .04$). In contrast, partners reported feeling more valued and close when individuals' high in attachment avoidance reported greater reassurance seeking ($slope = .17$, $t = 2.23$, $p < .03$).

The positive interpersonal effects of avoidant individuals reassurance seeking were also evident in the support provided by the partner. When individuals high in attachment avoidance engaged in high levels of reassurance seeking, their partners reported providing greater responsive support (Figure 4.4; $slope = .16$, $t = 2.35$, $p = .02$). In contrast, reassurance seeking by individuals low in avoidance tended to have negative but non-significant effects on partners' support ($slope = -.07$, $t = -1.00$, $p = .32$).

¹⁷ As in Studies 1 and 2, there were no gender differences in the main and interaction effects reported in Table 4.5. Although women high in attachment anxiety received less reassuring support from their partners ($B = -.19$, $t = -2.10$, $p = .04$), no other gender differences emerged ($ts < 1.27$, $ps > .21$).

Table 4.4. Means, Standard Deviations and Correlations for all Measures (Study 3)

	<i>Mean (SD)</i>	<i>1.</i>	<i>2.</i>	<i>3.</i>	<i>4.</i>	<i>5.</i>	<i>6.</i>	<i>7.</i>
Questionnaire Measures								
1. Attachment Avoidance	2.86 (1.02)	-						
2. Attachment Anxiety	3.07 (1.05)	.13	-					
3. Relationship Quality	6.10 (.66)	-.38**	-.02	-				
4. Partners' Relationship Quality	6.10 (.66)	.03	-.15	.32**	-			
5. Depressive Symptoms	14.57 (9.32)	.29**	.33*	-.26**	-.09	-		
Post-Discussion Measures								
6. Reassurance Seeking	2.28 (1.54)	-.03	.04	.07	.02	-.02	-	
7. Partners' Felt Value/Closeness	5.38 (1.24)	-.13	-.14	.22**	.44**	-.22**	.02	-
8. Partners' Reported Reassuring Support	5.61 (1.05)	.01	-.07	.18*	.33**	-.09	.09	.46**

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

Table 4.5. The Effects of Reassurance Seeking and Attachment Avoidance on Partners' Felt Value/Closeness and Support (Study 3)

	Partners' Felt Value /Closeness						Partners' Reassuring Support					
	<i>B</i>	<i>SE</i>	<i>t</i>	95% <i>CI</i>		<i>r</i>	<i>B</i>	<i>SE</i>	<i>t</i>	95% <i>CI</i>		<i>r</i>
				<i>Low</i>	<i>High</i>					<i>Low</i>	<i>High</i>	
Attachment Avoidance	-.07	.08	-.80	-.23	.10	-.06	.09	.07	1.21	-.05	.23	.09
Reassurance Seeking	-.00	.06	-.03	-.11	.11	-.00	.04	.05	.92	-.05	.14	.07
Reassurance Seeking \times Attachment Avoidance	.17	.06	3.01**	.06	.28	.23	.11	.05	2.32*	.02	.21	.18

Note. Effect sizes (*r*) were computed using Rosenthal and Rosnow's (2007) formula: $r = \sqrt{t^2 / t^2 + df}$. CI = confidence interval. * $p < .05$. ** $p < .01$.

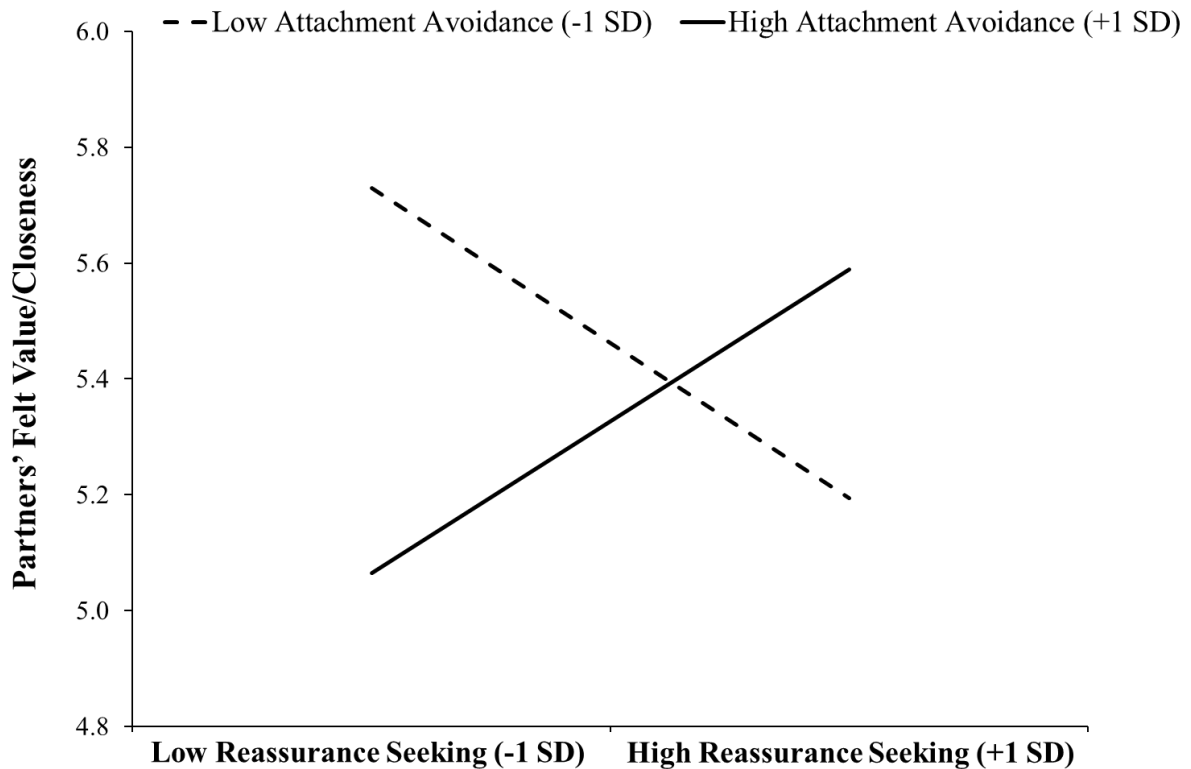


Figure 4.3. The moderating effect of attachment avoidance on the links between individuals' reassurance seeking and partners' reported feelings of being valued and close during support-relevant discussions of personal goals (Study 3).

Finally, we conducted mediation analyses to test whether reassurance seeking by highly avoidant individuals lead to greater partner support because partners felt more valued and close. Partners' felt value/closeness was strongly associated with greater levels of support reported by the partner ($B = .39, t = 7.24, p < .001$). Controlling for partners' felt value/closeness eliminated the significant interaction between individuals' reassurance seeking and attachment avoidance on partner-reported support ($B = .05, t = 1.08, p = .28$). We calculated the indirect effects and associated confidence intervals for recipients high and low in attachment avoidance by using the procedure recommended by Tofighi and MacKinnon

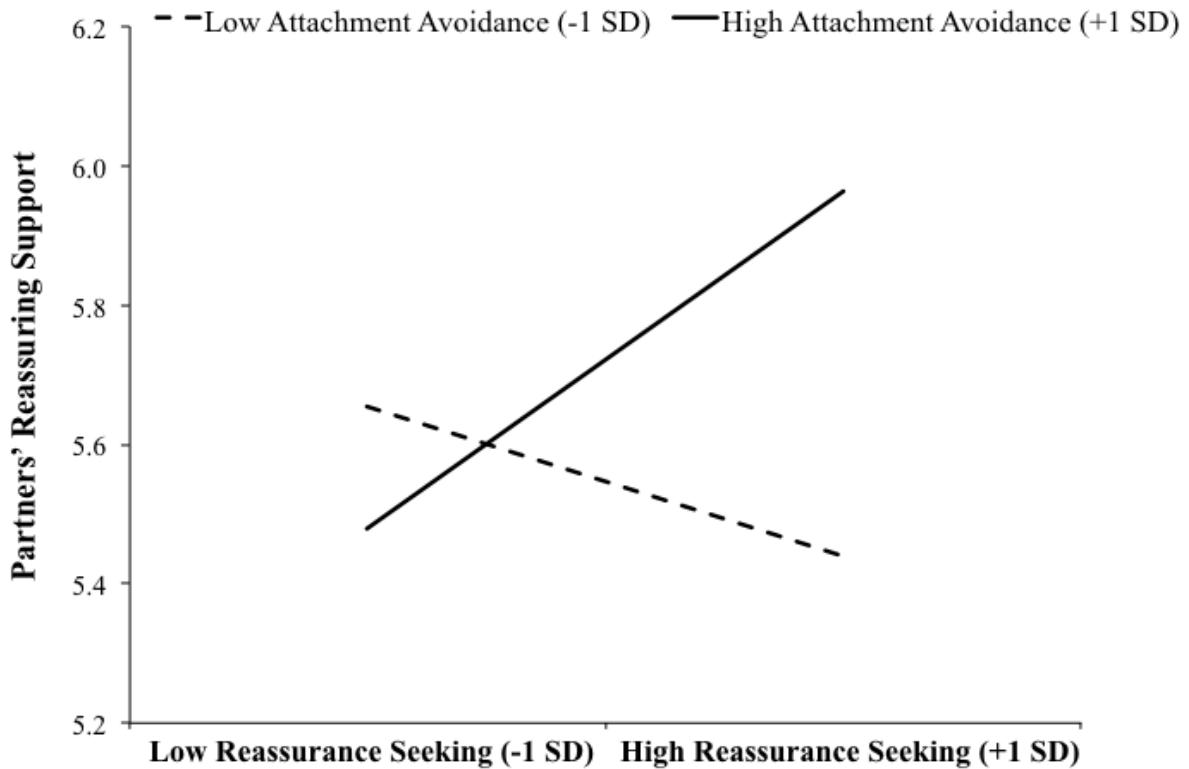


Figure 4.4. The moderating effect of attachment avoidance on the links between individuals' reassurance seeking and partners' reassuring support during support-relevant discussions of personal goals (Study 3).

(2011) using the *RMediation* Package (also see MacKinnon, Fritz, Williams & Lockwood, 2007). The confidence intervals for individuals high in attachment avoidance did not overlap zero (indirect effect = .062, 95% CI = .010, .120), indicating that reassurance seeking by highly avoidant individuals results in partners providing more support because partners felt more valued and close. The same effects did not emerge for low attachment avoidance (indirect effect = -.028, 95% CI = -.084, .026).

Alternative Explanations. The results were specific to attachment avoidance. Neither attachment anxiety ($t_s < 1.24$, $p_s > .22$) nor the interaction between attachment anxiety and

reassurance seeking ($ts < .55$, $ps > .58$) was associated with partners' felt value/closeness or partners' reported responsive support. Controlling for the relationship quality reported by both partners also did not alter the interaction effects shown in Figures 4.3 and 4.4 ($ts > 2.13$, $ps < .035$). Lastly, controlling for individuals' depressive symptoms did not alter the interaction effects shown in Figures 4.3 and 4.4 ($ts > 2.16$, $ps < .03$), and no interactions between depressive symptoms and reassurance seeking on partners' felt value/closeness ($B = .000$, $t = .13$, $p = .90$) or reported support ($B = .002$, $t = .41$, $p = .68$) emerged.

Discussion

The results of Study 3 replicated and extended the findings of Studies 1 and 2. When highly avoidant individuals sought greater reassurance when discussing their personal goals with their partner, their partner felt more valued and close during the discussion and reported providing more reassuring support. Moreover, mediation analyses supported that partners reported providing more support because they felt more valued and close. In contrast, partners felt less valued and close when low avoidant individuals sought more reassurance, but unlike Study 1 and consistent with Study 2, the trends suggesting that reassurance seeking was associated with lower levels of support for low avoidant individuals were not significant.

General Discussion

Prior research has shown that greater self-reported reassurance seeking tendencies are associated with interpersonal rejection, including lower perceived support and greater distancing and negative evaluations by close others. In the current research, we examined for the first time whether reassurance seeking enacted during behavioral interactions with romantic partners generates interpersonal rejection or responsiveness in the form of withholding or providing reassuring support. The results provided some evidence that reassurance seeking can create dissatisfaction in partners, including feeling less valued and close, but these negative evaluations did not robustly translate to poorer support as couples

discussed important personal goals and stressors. Moreover, when individuals high in attachment avoidance enacted more reassurance seeking, their partners felt *more* valued and close, and they provided *more* support. These latter effects reveal that, in certain contexts, reassurance seeking can generate intimacy and elicit reassuring support. We now outline how these results advance understanding of reassurance seeking and attachment processes.

High Attachment Avoidance and the Positive Impact of Reassurance Seeking

Across three dyadic studies, greater reassurance seeking by individuals high in avoidance was associated with *partners* feeling more valued and close within couples' interactions and consequently providing more reassuring support. Highly avoidant individuals tend to minimize closeness and dependence in their relationships (Mikulincer & Shaver, 2003), and thus their partners report lower closeness and satisfaction (e.g., Butzer & Campbell, 2008; Carnelley et al., 1996; Karantzas et al., 2014; Tan et al., 2012). The routine distancing enacted by highly avoidant individuals should create a context in which indicators of relationship engagement and need for the partner are more impactful. Thus, highly avoidant individuals' reassurance seeking offers a powerful signal that avoidant individuals *do* want and value their partners' support, thereby repairing the lack of valuing and closeness that partners of avoidant individuals typically feel and, in turn, encouraging partners to be responsive by providing greater reassuring support. Thus, specific behavioral acts of reassurance seeking by individuals who typically avoid exposing their vulnerabilities or depending on their partner deliver welcome evidence of valuing and closeness.

These results represent the first demonstration that reassurance seeking can have important interpersonal benefits and thus advance understanding of how reassurance seeking shapes relationships. The findings also join a growing body of research showing that the consequences of relationship behavior depend on important contextual factors (see McNulty, 2010) and that certain behaviors can buffer relationships from the negative outcomes

associated with attachment insecurity (Overall & Simpson, 2015). The current results are novel, however, in highlighting when behaviors enacted by insecure individuals can benefit partners. In particular, prior research has focused on what partners do to reduce the defensive reactions of highly avoidant individuals. For example, when partners clearly convey they are available by providing high levels of support, highly avoidant individuals cope better and evaluate their partners more positively (Collins & Feeney, 2004; Girme et al., 2015; Simpson, Winterheld, Rholes & Oriña, 2007). These beneficial outcomes of the partner's behavior may also help the partner to feel closer and more satisfied (MacDonald & Borok, 2010; Overall & Simpson, 2015). The current studies, however, uniquely showcase how the behavior of highly avoidant individuals is important in helping their partners to feel more valued and close, thus triggering the high levels of support highly avoidant individuals can benefit from.

The results also provide important insights into the relationship behavior associated with attachment avoidance. Avoidant individuals tend to minimize dependence and maintain relational distance, but this is a self-protective strategy to prevent the hurt they believe will arise from relying on relationship partners (Bowlby, 1973). Indeed, when they do not have the resources to suppress attachment needs (Mikulincer et al., 2000; 2002) or when their partner's behavior implies they are reliable and available (Girme et al., 2015; Overall & Simpson, 2015; Slotter & Luchies, 2014), avoidant individuals can open up to their partners. Using both observational and self-report measures, the current research also illustrated that highly avoidant individuals sometimes do seek support and validation from their partners (also see Collins & Feeney, 2000). These behaviors may be more likely to emerge in contextually-relevant situations and are unlikely to reflect ongoing or continual support seeking efforts, which is supported by the negative (Davila, 2001) and null (Shaver et al., 2005) associations between attachment avoidance and self-reported reassurance seeking tendencies. However, although examining actual support-relevant exchanges provides the

ability to capture specific instances of reassurance seeking rather than general tendencies, the interpersonal consequences of moments of reassurance seeking may differ from chronic reassurance seeking across time. We consider this possibility in more detail next as we reflect on the effects of reassurance seeking from individuals low in attachment avoidance.

Low Attachment Avoidance and the Potential Costs of Reassurance Seeking

The interpersonal benefits associated with reassurance seeking by highly avoidant individuals provide support for theoretical accounts regarding why reassurance seeking may lead to rejection: Reassurance seeking places an undue burden on close others to prop up reassurance-seekers' self-worth, which results in close others rejecting the reassurance-seeker. Since individuals high in avoidance typically minimize dependence in their relationships, instead of placing burden on the partner for continual support, their reassurance seeking provides much needed evidence that partners are needed and valued. When individuals are low in avoidance and thus partners do not need this evidence, the potential burden of reassurance seeking could arise. Indeed, consistent with prior research linking self-reported reassurance seeking tendencies to more negative relationship evaluations by close others, greater reassurance seeking during couples' support exchanges by individuals low in attachment avoidance was associated with partners feeling less valued by and close to the reassurance seeker (Study 3). These partner reactions do indicate that, when not counteracting low dependence and closeness, reassurance seeking can be burdensome for partners (Benazon & Coyne, 2000; Lemay & Cannon, 2002) and undermine partners' relationship evaluations (e.g., Joiner & Metalsky, 1995; Katz & Beach, 1997).

However, we did not find robust evidence that partners' negative relationship evaluations were accompanied by less supportive responses. Greater reassurance seeking by low avoidant individuals predicted lower partner support in Study 1, but was not significantly associated with partner support in Studies 2 and 3. One reason why reassurance seeking did

not lead to behavioral expressions of interpersonal rejection despite partners feeling less valued and close could be that reassurance seeking during couples' support-relevant discussions conveys an immediate need for comfort that is difficult to ignore. In contrast, the prior research revealing negative interpersonal effects of reassurance seeking has linked self-reported reassurance seeking tendencies that occur chronically across interactions with target-reported distancing and dissatisfaction across time (ranging from a week to 2 years; Joiner et al., 1992; Joiner & Metalsky, 1995; Katz & Beach, 1997; Prinstein et al., 2005; Shaver et al., 2005). Thus, reassurance seeking might immediately elicit reassurance motivations in partners that counteract any demotivation arising from the dissatisfaction partners feel (producing null associations between reassurance seeking and partner support). Nonetheless, partners' reduced feelings of being valued and close may mean that partner dissatisfaction accumulates to produce more rejecting responses across time.

Prior work also suggests that reassurance seeking is more likely to incur interpersonal costs when reassurance seekers are high in depression (e.g., Joiner et al., 1992; 1993; Katz & Beach, 1997). We examined the effect of depressive symptoms in our analyses ruling out alternative explanations. In Study 2, a marginally significant interaction revealed that reassurance seeking during discussions of significant stressors was associated with greater partner support when people were low, but not high, in depressive symptoms. This provides some evidence that reassurance seeking by people with elevated depressed symptoms can produce less positive responses. However, this effect was not replicated in Study 3 during discussions of personal goals, which may indicate that the potential burden of reassurance seeking by people high in depression occurs in more demanding contexts. Indeed, other studies have found that self-reported reassurance seeking by individuals high in depression produces negative outcomes within contexts that exacerbate dependence and intensify need, including stressful personal or interpersonal events (Joiner et al., 1999; 2001; Haffel et al.,

2007) and other individual differences associated with heightened dependence, such as low self-esteem, high sociotropy and negative feedback seeking (Davila, 2001; Katz & Beach, 1997; Joiner et al., 1992; Joiner & Metalsky, 1995; Shaver et al., 2005). As discussed above, it might also be the case that partner rejection emerges over time as the greater burden inherent in these contexts accrues (Joiner & Metalsky, 2001; Joiner & Schmidt, 1998; Katz et al., 1998). Thus, just as our results illustrate that reassurance seeking can have benefits when dependence is typically low, the potential costs of reassurance seeking may be exacerbated when very high levels of dependence become particularly burdensome on partners.

Strengths, Caveats and Future Research

The moderating role of attachment avoidance on the interpersonal effects of reassurance seeking replicated across three dyadic studies that examined reassurance seeking during couples' actual interactions using observer rated (Studies 1 and 2) and self-report (Study 3) assessments during two support-relevant contexts in which reassurance seeking is likely to emerge and partner support has been shown to have important personal and relationship consequences (e.g., Cutrona et al., 2007; Feeney & Collins, 2000; Girme et al., 2013). The findings advance the attachment and reassurance seeking literatures by revealing that the interpersonal costs or benefits of reassurance seeking depend on reassurance seekers' attachment avoidance. The correlational nature of this research, however, means that a reverse causal pathway is also plausible. For example, individuals low in attachment avoidance might seek more reassurance when partners provide low levels of support or feel less close/valued (the only consistent effect for low avoidance). On the other hand, it is much less plausible that highly avoidant individuals would seek greater reassurance when partners are already providing greater reassuring support. Nonetheless, future experimental work would provide valuable additional evidence regarding the interpersonal processes that reassurance seeking triggers.

Our behavioral examination of reassurance seeking and assessment of dyadic processes within couples' actual interactions is a strength. By revealing how partners immediately respond to reassurance seeking, the current research offers valuable insights into the ways partners of avoidant people can capitalize on important interactions to enhance intimacy and prove their responsiveness, which may enhance both couples' satisfaction and security across time. More generally, by showing that reassurance seeking during important support-relevant interactions does not often trigger immediate rejection highlights that immediate partner responses might reinforce reassurance seeking, which could eventually lead to the poorer outcomes prior research suggests is produced by chronic, ongoing reassurance seeking tendencies. These important possibilities require combining the dyadic processes assessed here with assessments of chronic reassurance seeking as assessed in existing self-report measures. We think it likely, given the functioning of attachment avoidance in relationships, that the immediate positive impact of reassurance seeking by highly avoidant individuals will help partners sustain intimacy and closeness over time (also see Overall & Simpson, 2015). Alternatively, ongoing reassurance seeking that is never satiated by partner support might be burdensome for partners, even in contexts in which the seekers avoidance reveals needed evidence of the seekers regard. Although this negative interpersonal cycle might be unlikely to emerge when individuals are high in attachment avoidance, examining the long-term impact of the interpersonal processes associated with reassurance seeking for both partners is an important direction for future research.

Conclusion

The current research investigated whether reassurance seeking behaviors during couples' actual interactions triggered rejection or reassuring support by romantic partners, and whether reassurance seeking might be beneficial when enacted by individuals high in attachment avoidance who tend to minimize dependence in their relationships. Consistent

with prior research showing that self-reported reassurance seeking can lead to negative relationship evaluations, greater reassurance seeking by individuals low in avoidance was associated with partners feeling less valued and close within their interactions. In contrast, greater reassurance seeking by individuals high in attachment avoidance was associated with, *partners* feeling more valued and close and, in turn, *partners* providing more reassuring support. These results provide the first evidence that specific acts of reassurance seeking during support-relevant interactions do not uniformly lead to interpersonal rejection, and reveal that the interpersonal impact of reassurance seeking depends on who is seeking reassurance.

CHAPTER CONCLUSION

Whether individuals' support seeking behaviors effectively elicit partner support or ironically trigger rejection should depend on the context in which support is sought, including important characteristics of the person who is seeking support. This chapter examined, for the first time, how specific acts of reassurance seeking during couples' support-relevant discussions (rather than general reports devoid of context) lead to partners' responsive support or rejection. In particular, I examined whether reassurance seeking can elicit greater partner support when enacted by individuals high in attachment avoidance who typically avoid dependence in their relationships. The results across three dyadic studies demonstrated that when individuals low in attachment avoidance engaged in reassurance seeking, their partners felt less valued and close within the interactions, but this had little effect on partners' actual responsive support provision. In contrast, when individuals high in attachment avoidance engaged in reassurance seeking, partners felt more valued by and close to the avoidant individual, and thus provided more responsive support during the support-relevant discussions.

These results help to reconcile the mixed benefits and costs associated with support seeking behaviors by highlighting how the impact of support seeking behaviors depends on important contextual factors. Indeed, during important support-relevant interactions, reassurance seeking does not uniformly lead to interpersonal rejection, as suggested by prior research exclusively using self-report methods (at least not within couples' interactions when support seeking behaviors are relevant and harder to dismiss). Furthermore, demonstrating that the meaning of support seeking behaviors are altered by who is seeking support, when highly avoidant individuals enacted greater reassurance seeking, their partners welcomed the opportunity to foster intimacy and provided greater responsive support.

CHAPTER FIVE: GENERAL DISCUSSION

Prior research has shown that perceiving partners as supportive can buffer physical and physiological health, but support that is too direct can exacerbate recipients' depressed mood and anxiety (e.g., Uchino et al., 1996; Bolger et al., 2000). Support seeking can also have mixed benefits and costs. Seeking direct help and advice from partners can elicit greater caregiving, but seeking reassurance about the self can trigger greater rejection (e.g., Collins & Feeney, 2000; Joiner et al., 1992). The aim of the research program outlined in this thesis was to reconcile the mixed benefits and costs associated with support provision and support seeking by (1) examining the important role that the needs of support recipients play in determining the impact of support provision (Chapters 2 and 3), and (2) investigating how characteristics of potential support recipients shape the meaning and impact of support seeking (Chapter 4).

In this final chapter, I briefly summarize the important findings of the studies presented in each chapter (summarized in Table 5.1) and draw conclusions about how each investigation sheds light in understanding the mixed costs and benefits of support provision and support seeking. On the basis of the conclusions drawn and the contributions these studies make, I then suggest directions for future research that focus on exploring other elements of support behaviors that may vary in effectiveness depending on important contextual factors. Based on the contextual framework that underpins this thesis, I outline how future research could extend the foundation presented here by exploring how support providers can manage multiple needs of support recipients and be flexible in response to recipients' changing needs. Finally, extending the current demonstration that highly avoidant recipients desire and can benefit from support, I consider support processes when avoidant individuals are in the role of the support provider.

Table 5.1. Summary of Thesis Chapters and Points Highlighting How Context Can Reconcile Inconsistent Effects of Support

Thesis Chapter	Inconsistent Findings Evident in the Support Literature and Associated Research
<i>Chapter 2.</i> Contextual Costs and Benefits of Support	<ul style="list-style-type: none"> • Perceiving partners as supportive can help individuals cope, reduce psychological and physical health problems, and boost relationship quality. However, receiving direct or visible support can also exacerbate recipients' distress and threaten recipients' efficacy. • Chapter Two aimed to reconcile these costs and benefits of support by examining recipients' distress and therefore need for direct comfort and support during couples' discussions about their personal goals. • Results demonstrated that visible support increased recipients' felt support and confidence about their goal pursuit when recipients were distressed and needed evidence of their partners' comfort, but threatened recipients' confidence about their goal pursuit when recipients were not distressed and did not need support.
<i>Chapter 3.</i> Attachment Avoidance and Curvilinear Effects of Support	<ul style="list-style-type: none"> • Support can also have mixed costs and benefits depending on who is receiving support. However, even when examining individual differences inconsistencies arise. For example, individuals high in attachment avoidance tend to react negatively to partners' support, but can also be calmed by high levels of support. • Chapter Three applied curvilinear analytic techniques to examine whether different levels of partner support can reconcile when partners' support can be costly versus beneficial to highly avoidant recipients. • Results illustrated that partners' support had a curvilinear effect on recipients' outcomes, but that this effect was moderated by recipients' attachment avoidance. Partners' low-to-moderate levels of support triggered highly avoidant recipients' distress and defensive reactions. However, once partners' support reached moderate levels, increasingly high levels of support overcame avoidant defenses.
<i>Chapter 4.</i> Attachment Avoidance and Benefits of Reassurance Seeking	<ul style="list-style-type: none"> • Another important element that influences effective support provision involves how individuals seek support from their partners. Although directly asking for support and help elicits desired support from partners, seeking reassurance about whether the self is worthy and loveable ironically elicits rejection. • Chapter Four examined whether reassurance seeking behaviors during couples' support-relevant discussions lead to rejection or support from partners, and whether reassurance seeking might have interpersonal benefits when enacted by individuals high in attachment avoidance who typically minimize dependence in their relationships. • Results illustrated that reassurance seeking during couples' discussions by individuals low in attachment avoidance did not uniformly lead to less responsive support provision. In addition, reassurance seeking from individuals high in avoidance was associated with their partners feeling more valued by and close to avoidant individuals, which lead to those partners providing more responsive support.

Summary of Results

Support that is Sensitive to Recipients' Contextual Needs. Prior work highlights that perceiving partners to be supportive during couples' support-relevant discussions tends to increase felt support, feelings of closeness and relationship satisfaction (Collins & Feeney, 2003; Sullivan et al., 2010; Verhofstadt et al., 2008), but that direct forms of support during daily life or when dealing with impending stressors can exacerbate recipients' personal coping and threaten their efficacy (Bolger et al., 2000; Howland & Simpson, 2010; Shrout et al., 2006). Notably, some research has suggested that partners' support can offset negative mood and negative interpersonal evaluations when recipients perceive partners to be responsive and understanding (Cutrona et al., 2007; Cutrona & Suhr, 1992; Maisel & Gable, 2009). Extending this prior research, Chapter Two explored whether the mixed benefits and costs associated with partner support could be reconciled by examining the contextual needs of recipients (see top section of Table 5.1).

The dyadic behavioral observation study presented indicated that when recipients were highly distressed, and truly needed evidence of comfort and reassurance, partners' visible support helped recipients feel more supported and more confident about their goal pursuit (Chapter Two, Girme et al., 2013). In contrast, consistent with some of the documented costs of direct support (e.g., Bolger et al., 2000), when recipients were not distressed, partners' visible support threatened recipients' confidence about their goal pursuit (Chapter Two, Girme et al., 2013). Indeed, support that is too direct and visible likely highlights to recipients that partners' think they are unable to cope on their own and need help in order to achieve their goals. Thus, my research extends prior research by demonstrating that the mixed benefits and costs of support depend on recipients' contextually-relevant needs, and that the costs of visible support are likely to occur when recipients are not distressed and thus do not need to be soothed or calmed by their partner.

The study presented in Chapter 2 also explored the long-term effects of partner support and revealed that visible forms of support during couples' discussions did not predict actual goal achievement over time, regardless of recipients' distress (Chapter Two, Girme et al., 2013). These findings support prior work showing that perceived support only facilitates recipients' goal achievement over time when recipients feel that partners are supportive and helpful (Overall et al., 2010). This pattern suggests that visible or perceived support might be important for regulating recipients' immediate distress and coping (Cutrona et al., 2007; Girme et al., 2013) or fostering general perceptions of support availability (Kaul & Lakey, 2003; Lakey, 2013) rather than directly facilitating tangible personal accomplishments over time. Although perceived support promotes goal attainment, the direct and potentially beneficial effects of visible support might be counteracted by the potential costs visible support might have in 'taking over' recipients' ability to self-regulate their distress. Thus, although visible support might help to soothe immediate distress, it could also enhance recipients' dependence on relationship partners to help them achieve their goals rather than facilitate recipients' independent coping and goal pursuit. Nonetheless, the overall pattern of results highlight that visible support functions to *immediately* attend to recipients' distress, and that for recipients who are not distressed, visible support can impinge on their efficacy.

Support that Meets the Needs of Highly Avoidant Individuals. Whether support is beneficial or costly also depends on individual characteristics of the support recipient. For example, highly avoidant individuals, who distrust others and tend to minimize dependence in their relationships, tend to react negatively when partners provide support, but they can also be calmed when provided with high levels or practical forms of support (e.g., Collins & Feeney, 2004; Simpson et al., 1992). Chapter Three took a novel approach to understanding the impact of support by employing curvilinear analyses to reconcile these prior inconsistencies and exploring how partners can effectively support individuals high in

attachment avoidance (see middle section of Table 5.1). The four dyadic studies presented in Chapter Three demonstrated that partners' support had a curvilinear association with recipients' outcomes, but that this association depended on (i.e., was moderated by) recipients' level of attachment avoidance. In particular, low-to-moderate levels of partners support were associated with highly avoidant recipients reporting increasing distress, negative evaluations of their partner and distancing, and reductions in self-efficacy. However, once partners' support reached moderate levels, increasingly higher levels of support were associated with positive outcomes for highly avoidant recipients, including reducing distress, negative partner evaluations and distancing, and increases in self-efficacy.

These results advance understanding of support and attachment dynamics in several ways. First, the demonstrated curvilinear pattern provided novel evidence that low levels of support can trigger avoidant defenses, but high levels of support can overcome avoidant defenses. In line with the contextual framework adopted across this thesis, the benefits of very high levels of support for highly avoidant recipients illustrate that partners' support is effective when it is responsive to the more chronic needs of insecure individuals. In particular, increasingly high levels of practical support should provide irrefutable evidence of partners' availability that is needed to disconfirm avoidant individuals' negative expectations of unreliable caregivers.

Second, the results also confirmed that the type of support matters; it was partners' practical support rather than emotional comfort that had significant curvilinear effects for highly avoidant recipients. Supporting my findings, and theoretical accounts that avoidant individuals eschew intimacy and closeness, prior work suggests that avoidant individuals are more likely to be calmed by practical or instrumental forms of support rather than emotional support (Mikulincer & Florian, 1997; Simpson et al., 2007). It might be the case that discussions about how to solve or overcome problems (i.e., practical support) might allow

avoidant individuals to participate in problem-solving and contribute to generating solutions rather than having to reciprocate their partners' demonstration of emotional intimacy and affection (inherent within emotional support) that they find threatening (also see Rholes et al., 2011).

Third, however, three of the four studies involved examining support processes during couples' discussions about personal goals and during their daily life. These contexts likely involve low levels of distress and need for comfort. In contrast, during discussions about particularly stressful issues (Study 3, Chapter Three, Girme et al., 2015), increasingly high levels of emotional support was associated with greater reductions in highly avoidant recipients' distress. This once again demonstrates how important contextual factors, and related recipient needs, are in clarifying what support will be beneficial, and for who. For example, although practical support may be generally more beneficial for highly avoidant recipients, during contexts in which avoidant individuals are particularly distressed and truly need their partners' support, they might be more receptive to reassurance and comfort (also see Simpson et al., 1992).

Taken together, the curvilinear approach taken in these studies were central to reconciling mixed evidence that highly avoidant individuals react negatively to partner support at *low levels*, but can also be comforted by support at *high levels*. Indeed, the curvilinear patterns demonstrated extend both the support and the attachment literatures by demonstrating their utility in reconciling the inconsistent or mixed linear findings in prior research, and reveal how different levels and specific type of support can overcome highly avoidant recipients' defensive reactions. Furthermore, these findings add to a growing body of literature that, contrary to their facade of emotional distance, avoidant individuals feel more positive about their relationships when others demonstrate their availability by being responsive and fostering security (Arriaga et al., 2014; Carvallo & Gabriel, 2006; MacDonald

& Borsook, 2010; Slotter & Luchies, 2014), and behaving in ways that minimize threats to avoidant individuals' independence (e.g., Mikulincer & Florian, 1997; Overall, Simpson & Struthers, 2013; Simpson et al., 2007; also see Overall & Simpson, 2015).

Attachment Avoidance and the Positive Impact of Reassurance Seeking. Whether partners provide responsive support also depends on how individuals are able to effectively seek support from their partners. Unfortunately, prior work has demonstrated that seeking reassurance from close others can ironically trigger rejection from close others (see Starr and Davilla, 2008). Chapter Four examined (1) whether the costs of reassurance seeking may be eliminated during support-relevant contexts where reassurance seeking may be more contextually relevant, and (2) whether reassurance seeking might elicit greater support when enacted by highly avoidant individuals who typically avoid depending on their partners (see bottom section of Table 5.1). The results across three dyadic studies demonstrated that when individuals low in attachment avoidance engaged in greater reassurance seeking behaviors during couples' support-relevant discussions their partners felt less close and valued, but greater reassurance did not uniformly lead to less responsive support provision (Chapter Four, Girme et al., under review).

Reassurance seeking may not have triggered greater rejection during couples' discussions because rejecting individuals' pleas for reassurance and comfort during actual relationship interactions may be difficult and will negatively impact the relationship (Cutrona et al., 2007; Feeney & Collins, 2003; Girme et al., 2013). However, that partners experienced lower feeling of closeness and value does support that ongoing and excessive reassurance seeking tendencies may eventually lead to interpersonal distancing over time (Joiner et al., 1992; Joiner & Metalsky, 1995; Katz & Beach, 1997; Prinstein et al., 2005; Shaver et al., 2005). Nonetheless, these results provide the first demonstration that specific acts of

reassurance seeking during relevant interactions may not produce behavioral indicators of rejection, but may still be harmful for interpersonal evaluations.

The results of the three studies presented in Chapter Four also provided novel evidence that reassurance seeking behaviors can elicit greater responsive support from partners when individuals do not typically place excessive burden on their partners for ongoing comfort and reassurance (Benazon & Coyne, 2000; Lemay & Cannon, 2002). In particular, when individuals high in attachment avoidance engaged in reassurance seeking, their partners felt more valued by and close to avoidant individuals, and thus provided greater levels of responsive support (Chapter Four, Girme et al., under review). Individuals high in attachment avoidance tend to minimize intimacy and dependence in their relationships, which reduce their partners' felt closeness and relationship satisfaction (Butzer & Campbell, 2008; Carnelley et al., 1996; Tan et al., 2012). Thus, avoidant individuals' reassurance seeking creates a welcomed opportunity for partners to feel more intimate and valued by avoidant individuals, thereby promoting more responsive support behavior. Importantly, unlike prior findings suggesting that highly avoidant individuals do not seek support (Brennan & Bosson, 1998; Brennan & Morns, 1997; Simpson et al., 1992), these results extend the attachment literature by demonstrating that avoidant individuals can seek their partners' reassurance and evidence of their care during relevant discussions, which has positive interpersonal outcomes.

A Contextual Framework for Understanding Support Processes:

Themes, Implications for Future Research, and Conclusions

The studies presented across this thesis advance the support and the attachment literatures by demonstrating that the mixed benefits and costs of support provision and support seeking can be better understood by examining important contextual factors. In particular, the results highlight that whether support provision is beneficial or costly depends on whether the support behavior is responsive to important contextual factors, including

recipients' level of distress (Chapter Two) and attachment avoidance (Chapter Three). The results also illustrate that the effects of support seeking vary according to context, including revealing the importance of examining reassurance seeking within couples' support-relevant interactions and how effects of reassurance seeking depend on who is seeking support (Chapter Four).

The importance of these contextual factors in modifying how support provision and seeking shape the outcomes of couples' support interactions reflects a growing body of research showing that the consequences of interpersonal behavior vary according to relevant contextual variables (see McNulty, 2010; McNulty & Fincham, 2012). For example, hostile behavior during conflict interactions can understandably produce negative emotions in targeted partners, but by conveying the nature and seriousness of the problem, can also motivate partners to change in ways that reduce relationship problems and enhance relationship satisfaction (e.g., Overall, Fletcher, Simpson & Sibley, 2009). Similar to the results of this thesis, however, prior research demonstrates that the impact of hostile conflict behaviors depend on contextual factors, including the importance of the problem to be addressed (similar to recipients' support need) as well as characteristics of the targeted individual and characteristics of the person engaging in the hostile behavior (similar to recipients' attachment avoidance).

To provide a brief overview, hostile conflict behavior does not motivate improvement when problems are minor and do not require such a harsh approach (McNulty & Russell, 2010). Hostile conflict behaviors are also not effective at facilitating change when targeted partners are high in depression and do not have the efficacy needed to motivate improvements (Baker & McNulty, 2015). Lastly, hostile behavior enacted by individuals low in self-esteem does not produce responsive improvement attempts from partners, probably because the greater negative relationship behavior typically expressed by low self-esteem

people means that their hostile conflict behavior becomes less diagnostic of problem severity and need for partner change (Jayamaha & Overall, in press). Taken with the results presented across this thesis, these studies illustrate that whether relationship behaviors are beneficial or costly is less contingent on how ‘positive’ or ‘hostile’ the behavior is, and more dependent on important contextual factors and characteristics of the individuals involved. This type of contextual framework suggests that “one size does *not* fit all”, and that relationship partners need to adopt and execute different strategies when trying to regulate individuals’ behaviors or distress depending on factors relevant to any given situation or context.

The research presented demonstrates how applying a contextual framework can similarly advance understanding of support processes in important ways. In the sections that follow, I outline how applying this contextual framework also opens up new and valuable avenues of research. First, extending the results presented here supporting that partners’ support is effective when it is responsive to recipients’ contextual needs, I explore other elements of support behaviors that may also vary in effectiveness depending on important contextual factors (Point I). Perhaps more importantly, since recipients can have several needs and have changing needs across contexts and time, I provide suggestions for how future research could examine how support providers can manage recipients’ opposing needs and be flexible to recipients’ changing needs (Point II). I also explore interesting gender differences that emerged and consider how understanding the support contexts in which gender differences emerge can help clarify how men and women react to support (Point III). A key advancement offered by the current studies is the demonstration that highly avoidant individuals are able to reap the benefits of support provision when partners are responsive to their attachment-related concerns, and that avoidant individuals are able to effectively seek reassurance from their relationship partners within relevant support contexts. Drawing upon on this illustration that avoidant individuals can be open to support and dependent in

relationships, I explore a fruitful direction for future research involving identifying contexts in which highly avoidant individuals may be effective support providers and be receptive to their partners' efforts to seek support from them (Point IV).

I. Visibility of Support: Potential Costs and Benefits of Invisible Support.

Prior research has aimed to reconcile the mixed costs and benefits of support by examining the visibility of support behaviors (Bolger et al., 2000; see Rafaeli & Gleason 2009 for review). This body of literature has suggested that *visible support* that is perceived by recipients can have costs and exacerbate recipients' distress, whereas *invisible support* that goes unnoticed by recipients can offset threats to recipients' efficacy and facilitate coping (Bolger et al., 2000; Bolger & Amarel, 2007; Shrout et al., 2006). However, as the findings of my thesis suggest, visible support can have mixed benefits and costs depending on whether partners are responsive to the contextual needs of the recipient. In particular, visible support can boost recipients' felt support and confidence about their goal pursuit when recipients are distressed and need direct comfort and care, but threaten recipients' coping when recipients are not distressed and do not require overt help (Chapter Two, Girme et al., 2013). Thus, my thesis provided evidence that important elements of support behaviors, such as their visibility, can have different costs and benefits depending on important contextual factors, such as whether recipients need overt care and comfort.

Another important type of support—Invisible support—might also demonstrate mixed benefits and costs depending on important contextual factors. Invisible support has been previously conceptualized as support that is reported to have been delivered by support providers but not perceived to have been given by support recipients (Bolger et al., 2000). During couples' discussions, invisible support involves subtle and indirect forms of comfort and care, shifting the focus off the recipient and their issue to a wider shared experience demonstrating how others have coped with similar problems, and using a more

conversational tone to de-emphasize the support provider and support recipient roles (Girme & Overall, 2012; Howland & Simpson, 2010). Prior research has demonstrated that invisible support has personal benefits for recipients' coping and efficacy by offsetting the typical costs of visible support by avoiding threats to recipients' efficacy and competence (Bolger et al., 2000; Bolger & Amarel, 2007; Shrout et al., 2006; Howland & Simpson, 2010; Rafaeli & Gleason 2009). Furthermore, my thesis extended prior work that has demonstrated that invisible support boosts recipients' efficacy (Bolger & Amarel, 2007; Howland & Simpson, 2010) by providing the first evidence that invisible support facilitates recipients' actual goal achievement over time (Chapter Two, Girme et al., 2013).

However, perceiving partners as being supportive is also central to nurturing relationship closeness and satisfaction (Collins & Feeney, 2003; Cutrona et al., 2007; Gleason et al., 2008; Reis et al., 2004; Sullivan et al., 2010; Verhofstadt et al., 2008) and boosting general feelings of having a supportive network (Kaul & Lakey, 2003; Lakey, 2013; Uchino & Garvey, 1997; Wethington & Kessler, 1986). It is possible then that invisible support could incur relationship costs since it goes unnoticed by support recipients and could signal that partners are not being responsive or helpful. However, no research to date has examined the association between invisible support and relationship outcomes, with one exception: Maisel and Gable (2009) found that recipients felt less close to their partner on days that their partner provided invisible support, but only when recipients perceived their partners as being less responsive. Thus, invisible support may not necessarily have a detrimental effect on relationship wellbeing, and might only incur costs when recipients perceive partners as being less responsive to their needs.

Thus, similar to my findings that visible support can be costly when recipients do not require overt care and comfort (see Chapter Two; Girme et al., 2013), whether invisible support is effective or costly may also depend on recipients' need for evidence of partners'

responsiveness and availability. Notably, as my thesis demonstrates, some individuals might be more susceptible to such indicators of partners' availability due to their chronic insecurities. In particular, the subtle and indirect nature of invisible support might carry costs for individuals high in attachment avoidance who, due to their rejecting past experiences, hold negative expectations that caregivers are unreliable and unavailable (Mikulincer & Shaver, 2004). Highly avoidant individuals require especially high levels of support to provide explicit evidence of their partners' availability and thus overcome their avoidant defenses (Chapter Three, Girme et al., 2015; also see Arriaga et al., 2014; Collins & Feeney, 2004; Rholes et al., 2011). The subtle and indirect nature of invisible support, however, might reinforce avoidant recipients' expectations of unavailable caregivers and reduce feelings of closeness and perceptions of partners' responsiveness. Thus, invisible support might be costly for highly avoidant individuals whose chronic and ongoing need for evidence of their partners' availability may not be met by invisible and subtle forms of comfort and care.

On the other hand, prior research has demonstrated that invisible support has consistent benefits for recipients' coping and personal outcomes because it avoids threatening recipients' efficacy (Bolger & Amarel, 2007; Girme et al., 2013; Howland & Simpson, 2010). These benefits might be particularly favorable for highly avoidant individuals who try to maintain independence and self-reliance (Mikulincer & Shaver, 2004). Although high levels of support can overcome these fears and negative reactions, partners' support can initially activate avoidant individuals' automatic defenses and heighten their distress (Girme et al., 2015). In contrast, invisible support that goes completely unnoticed could avoid triggering avoidant defenses altogether, and instead go "under the radar" of highly avoidant recipients to facilitate their autonomy and efficacy about their coping and goal pursuits.

Taken together, future research should explore other elements of support behaviors, such as their visibility, that might also have mixed benefits and costs depending on important

contextual factors. While my thesis demonstrated that visible support is associated with greater feelings of support, it can also threaten confidence about goal pursuit when recipients are not distressed and do not require overt comfort. In line with these findings, invisible support might also have mixed benefits and costs depending on whether recipients are high in attachment avoidance and are vulnerable to the costs of subtle forms of support. Thus, although invisible support might be particularly helpful for highly avoidant recipients' efficacy and feelings of autonomy by not threatening their independence (Mikulincer & Shaver, 2004; Overall et al., in press), it could reduce feelings of being cared for by not providing the explicit evidence of partners' availability that avoidant recipients require (Arriaga et al., 2014; Girme et al., 2015).

II. Flexibility in Support Provision: Responding to Recipients' Opposing and Changing Needs.

The findings reported in this thesis highlight that the impact of support processes depend on recipients' contextual needs. This contextual framework demonstrates that support behaviors can be beneficial when they meet recipients' immediate needs and desires (Chapter Two, Girme et al., 2013; also see Cutrona et al., 2007; Maisel & Gable, 2009) or are sensitive to recipients' chronic concerns (Chapter Three, Girme et al., 2015; also see Collins & Feeney, 2004; Rholes et al., 2011; Simpson et al., 1992; 2007). However, recipients are likely to have multiple needs at any given time, and recipients needs also change across contexts and over time. In this section I highlight how future research could extend on the current findings by examining how support providers can (1) manage multiple and potentially opposing needs of recipients, and (2) be flexible to recipients' changing needs.

Managing Recipients' Potentially Opposing Needs. The research presented in this thesis primarily focused on how effective support should match recipients' specific needs relevant to the context. However, in many (perhaps all) contexts, support recipients have a

variety of needs that may require very different or opposing types of support. For example, during discussions about personal goals it might be possible for a support recipient to feel distressed (and need visible support) *and* feel competence-based threats about their ability to achieve their goal (and thus need more subtle support). In such a scenario, how might partners deal with these potentially opposing needs? Providing just visible support might help soothe immediate distress (Girme et al., 2013), but can run the risk of threatening the recipients' already low competence by appearing to 'take over' the recipients' goal (Bolger & Amarel, 2007; Howland & Simpson, 2010). In contrast, providing subtle and invisible forms of support might boost the recipients' feelings of efficacy and facilitate goal progress (Girme et al., 2013; Howland & Simpson, 2010), but might fail to soothe the recipients' distress and need for overt comfort (Girme et al., 2013). Thus, the potential costs and benefits of visible versus invisible forms of support highlight important implications for how partners might balance recipients' potentially opposing needs.

Following on from this example, it might be the case that partners have to match potentially opposing needs by providing a *combination* of support behaviors simultaneously (see optimal-matching theory, Cutrona, 1990; also see Morelli, Lee, Arnn & Zaki, 2015). For example, partners might need to combine (a) visible forms of comfort that provide evidence of care with (b) invisible forms of advice that facilitates recipients' own problem solving. Similarly, the *timing* of support behaviors might also be relevant. Partners might (a) first need to down-regulate recipients' distress by providing visible forms of support and comfort, and then once that is accomplished (b) follow with invisible forms of advice and help that can facilitate the recipients' efficacy and confidence about their goal pursuit. Indeed, trying to provide subtle forms of help while the recipient is still distressed may offset any benefits of invisible support and exacerbate recipients' distress by not providing the comfort they require (Cutrona et al., 2007; Girme et al., 2013). Continuing to provide direct, visible support once

recipients are soothed, however, may also then start backfiring and inducing costs (Girme et al., 2013).

Similarly, partners might also need to balance potentially opposing needs of insecure individuals. For example, highly avoidant individuals tend to distrust others and fear dependence in relationships, but deep down they do want to be loved and cared for (Mikulincer et al., 2000; 2002; Shaver & Mikulincer, 2002). These opposing desires often mean that partners' support tends to trigger self-protective defenses, which can be reduced when partners provide irrefutable evidence of their availability by providing high levels of practical support (Chapter 3, Girme et al., 2015). However, providing greater *emotional* support has been shown to trigger avoidant defenses because displays of affection, care and comfort tend to be particularly threatening for highly avoidant individuals (Mikulincer & Florian, 1997; Simpson et al., 2007). How might partners provide emotional comfort and care without threatening avoidant individuals' fears of intimacy? Partners could provide a *combination* of practical and emotional support in order to (a) help avoidant individuals feel more efficacious and less distressed about dealing with important problems and issues (Girme et al., 2015), while also (b) providing evidence of their care and comfort (Simpson et al., 1992). However, simultaneously providing practical and emotional support might mean that avoidant recipients' initial defenses remain activated and that partners' emotional forms of comfort and care are not well received (Mikulincer & Florian, 1997; Simpson et al., 2007). Thus, partners might need to be precise in their *timing* of support provision by (a) first providing highly avoidant recipients with high levels of practical support in order to overcome their automatic defensive reactions in non-emotionally threatening ways (Chapter 3, Girme et al., 2015), and (b) then follow through with emotional support once avoidant recipients' defenses are reduced and can be more receptive to their partners' attempts to be comforting and caring.

Managing Recipients' Changing Needs. Importantly, not only do support providers need to negotiate the divergent and competing needs of support recipients, recipients' needs are likely to vary across contexts or over time. Truly responsive support, therefore, is not only matching current contextual needs but changing or balancing the type or amount of support in response to recipients' changing needs and demands across time. Although prior work has demonstrated how different support providers can be flexible to recipients' current needs, no research I am aware of has examined whether individual support providers can be flexible with their support provision as recipients' needs change over time. A valuable direction for future research, therefore, would be to assess how support providers can be flexible to recipients' changing needs across important contexts, across interactions, and even across time. This may include identifying whether support providers give and withhold support depending on whether it is needed by recipients or not.

How might future research examine such flexibility in partners' support provision in response to important changes in recipients' needs? One context that might be relevant is to examine how partners' support behaviors change in response to important life changes, such as during the transition to parenthood. Couples' transition to parenthood tends to be associated with declines in relationship quality because of the changing demands and increased stress on parents (e.g., Bradbury, Fincham & Beach, 2000; Feeney, Alexander, Noller & Houhaus, 2003). However, current research demonstrates that parents have different needs and demands across different times during the parenthood transition. For example, mothers appreciate practical forms of help around the house and advice about childbirth during pregnancy and immediately post birth (Gjerdingen, Froberg & Fontaine, 1991), but new parents show better adjustment to parenthood and experience better relationship outcomes when they provide each other with emotional support and receive support that helps them re-integrate into social networks post-birth (Wandersman, Wandersman & Kahn,

2006). While this suggests that couples supporting each other in varied ways through this important life transition is important for relationship functioning, no prior studies have tracked whether support providers are able to adapt their support provision from more practical forms of help before and during birth (Gjerdingen et al., 1991) to greater emotional and network orientated support post-birth (Wandersman et al., 2006). Such questions may require repeated assessments of partners' provision of different support behaviors across time from pre-birth to post-birth in order to track whether changes in types of support match within-person changes in support need, thus yielding the best outcomes for couples' relationship wellbeing across the transition to parenthood.

Furthermore, the transition to parenthood tends to be particularly difficult for insecure individuals (Paley et al., 2004; Paley, Cox, Harter, Margand, 2002; Rholes et al., 2011) who find it difficult to regulate their emotions during stressful times (Castellano, Velotti, Crowell & Zavattini, 2014; Pepping & Halford, 2012) and perceive their partners as being less helpful when facing these challenges (Kohn et al., 2012). For example, being a parent entails new responsibilities, and avoidant men tend to be less satisfied during the transition to parenthood when they feel like they contribute a lot to childcare, feel less efficacious about their childrearing, and perceive greater work-family conflict (Fillo, Simpson, Rholes & Kohn, 2015). Prior research suggests that avoidant individuals are more likely to make relationship sacrifices when their partners acknowledge their efforts in the relationship (see Farrell Simpson, Overall & Shallcross, 2015). Such acknowledgement, however, seems particularly important immediately post-birth when avoidant men are likely being asked to make major contributions to their family and during a time in which parents potentially could be feeling particularly low in confidence about their childrearing.

Of course, recipients' needs can also change within a smaller timeframe. For example, recipients might desire different types of support as support interactions progress with their

partners. Prior research gathering repeated assessments across couples' conflict discussions (e.g., every 30-seconds) has used lagged analyses to examine whether specific emotional and behavioral responses influence what takes place in subsequent parts of the interaction (Overall, Girme, Lemay & Hammond, 2014; Overall, Simpson & Struthers, 2013). For example, during couples' conflict discussions, partners' softening behaviors in one 30-second segment predict reductions in highly avoidant individuals' displays of anger and withdrawal in the following 30-second segment (Overall et al., 2013). Future research might employ similar strategies to examine whether support recipients' desired support or support seeking behaviors during a prior segment predicts responsive support by partners in the following segment (controlling for partners' support behaviors in the prior segment). Such models would identify residual changes in partners' support behaviors in response to recipients' changing needs across the discussion, and reveal whether partners who are more successful at adapting their support behavior in response to partners' desired support produce more favorable short-term and long-term outcomes.

Notably, another way to consider the importance of flexibility in partners' support provision is to examine how stable versus variable partners' support provision is across couples' discussions or over time. For example, the results presented in my thesis highlight that visible and overt forms of comfort are associated with greater felt support even when recipients do not need overt care (Chapter Two, Girme et al., 2013; also see Cutrona et al., 2007). At the same time, however, visible support can also threaten non-distressed recipients' efficacy and coping by appearing to 'take over' recipients' goal and coping (Chapter Two, Girme et al., 2013; Bolger et al., 2000; also see Chapter Three, Girme et al., 2015). One way that partners might maximize the interpersonal benefits of visible support and offset personal costs of visible support might be by providing stable levels of emotional support over time that communicate consistent evidence of partners' care and availability, while also avoiding

persistent threats to recipients' efficacy by providing more variable levels of practical support that are provided only when recipients really need tangible help (see Cutrona et al., 2007).

Notably, partners might not always need to be flexible in their support provision. Indeed, the stability of partners' support might be most meaningful for support recipients who need consistent and ongoing evidence of their partners' care in order to overcome their negative expectations. For example, the results of this thesis employed curvilinear models in novel ways to demonstrate that the mixed costs and benefits of support provided to individuals high in attachment avoidance were captured by the downswing and upswing of recipient outcomes, which produced a bell-shaped curve. Specifically, highly avoidant individuals react negatively to low-to-moderate levels support, but can benefit from high levels of practical support that provide explicit evidence of partners' availability during couples' discussions (Chapter Three, Girme et al., 2015). Thus my thesis demonstrated that the appropriate application of curvilinear techniques can be employed in order to clarify what appeared to be confusing sets of linear effects.

Notably, employing curvilinear models may not always be appropriate in order to capture high levels of support behaviors depending on the theoretical question at hand. For example, although the results in Chapter Four (Girme et al., 2015) demonstrate that a single instance of high support during relevant discussions and daily life is enough to reduce momentary distress in highly avoidant individuals, multiple or ongoing supportive attempts by partners are likely required in order to overcome chronic avoidant insecurities. Similar to the points made in my research, Arriaga and colleagues (2014) demonstrate that when highly avoidant individuals perceive their partners as being available they experience reductions in their attachment avoidance over time. However, it remains unclear how the benefits of high levels of support during specific support interactions translate to perceptions of partners' availability over time. However, other types of models may help to answer such questions.

For example, future research might be able to bridge this gap by testing whether partners' *consistently* high levels of support over time and across contexts (i.e., stable levels of support) might produce long-term changes in highly avoidant individuals' insecurity or relationship quality. Such models would use the standard deviations of partners' support as predictors in statistical models in addition to their levels of support (Arriaga, 2001; Arriaga, Reed, Goodfriend & Agnew, 2006; Campbell, Simpson, Boldry & Rubin, 2010; Farmer & Kashdan, 2014; Knopp, Rhoades, Stanley, Owen & Markman, 2014). Examining the variability or stability of partners' support could therefore extend current work in the support literature by demonstrating how partners can optimize the benefits of specific types of support (e.g., recipients' stable need for emotional comfort versus variable need for practical advice and help) as well as address how support interactions within specific contexts might translate to long-term changes in recipients' or relationship outcomes.

Taken together, the findings of this thesis open up novel and exciting new avenues for research. Although it is important for support providers to be responsive to recipients' needs, including their immediate contextual needs (Chapter Two, Girme et al., 2013) and more chronic insecurities (Chapter Three, Girme et al., 2015), recipient's needs are not singular or static in nature. Thus, future research should examine how partners can (1) manage recipients' opposing needs by combining or timing the delivery of different types of support behaviors, and (2) being flexible to recipients' changing needs across important contexts or over time by providing the right type or amount of support, or providing relatively stable or variable support behaviors across time.

III. Gender Differences within Specific Contexts

Across the studies examined in this thesis, I tested for gender differences following standard procedures recommended by Kenny et al. (2006) for analyzing distinguishable dyads. Gender differences are also important to test within support contexts because prior

studies have shown that the effect of providing and receiving support can differ across men and women (Bodenmann et al., 2015; Neff & Karney, 2005) and such differential reactions relate to masculinity-related concerns, such as sustaining independence and agency and demonstrating strength (Addis & Mahalik, 2003; Crockett & Neff, 2012; Cross & Madson, 1997). Although, such gender differences are inconsistent across studies (see Burleson, 2003), they are consistent with other differences in attachment orientations across men and women. For example, men tend to be higher in attachment avoidance (see Schmitt et al., 2003), which may contribute to why the general pattern in the literature indicates that men are less comfortable with receiving support or comfort. However, recent work suggests that even these attachment-related gender differences depend on men and women's life-histories and cultural contexts (see Del Giudice, 2009; 2011; Schmitt et al., 2003). Nonetheless, the range of mixed findings regarding gender, attachment and support highlight why testing gender differences are valuable, particularly if doing so uncovers factors relevant to explain these inconsistencies (an overarching goal of my research program).

In general, across the studies reported in this thesis, very few gender differences emerged. However, in Chapter Three, low avoidant men (but not women) who received high levels of practical support felt more controlled and criticized by their partner, and this gender difference replicated across the two studies that measured this outcome (Chapter Three; Girme et al., 2015). These findings are consistent with other research suggesting that men's ideals of independence and agency restrict their ability to effectively seek and received support (Addis & Mahalik, 2003; Crockett & Neff, 2013; Cross & Madson, 1997). However, as this thesis has demonstrated, support processes are contextual. The gender differences we found occurred when men were coping with important personal goals and daily stressors. In contrast, prior research suggests that in different contexts, such as when men are first-time fathers, men might be more open to support and help from close others (Wandersman,

Wandersman & Kahn, 2006). Moreover, in the same way that men's reaction to support might differ according to their support needs, women may also react differently depending on the support context. For example, when considering threats to women's efficacy and competence, providing high levels of support to women about childcare and parenting could also backfire and seem critical (Ballenski & Cook, 1982; Ngai, Chan & Ip, 2010). In sum, the contextual nature of support demonstrated across this thesis, and the gender differences found in prior research, suggest that examining differential effects across men and women is important, as is considering the different contexts in which these differences may occur.

IV. Attachment Avoidance and Reciprocal Support Processes.

Another type of important recipient need that was examined in this thesis was the ongoing and more chronic needs of insecure individuals, such as those high in attachment avoidance. Table 5.2 presents how this thesis reconciled prior findings and demonstrated ways in which highly avoidant individuals are able to reap benefits of partners' support (see top left section of Table 5.2) and how reassurance seeking by highly avoidant recipients can elicit greater responsive support from partners (see top right section of Table 5.2). Thus, this thesis focused on avoidant individuals in the role of the support *recipient* (see top half of Table 5.2). However, considering that support interactions involve reciprocal interactions, it is also important to examine highly avoidant individuals' role as support *providers*. Thus, the bottom half of Table 5.2 presents how future research might be able to examine contexts in which avoidant individuals can provide beneficial support (see bottom left section of Table 5.2) and how their partners might effectively seek their support (see bottom right section of Table 5.2).

First, as the bottom left section of Table 5.2 summarizes, individuals high in attachment avoidance tend to find it difficult to provide responsive support due to their deactivated attachment and caregiving systems (Mikulincer, 2006). Highly avoidant

Table 5.2. Existing and Potential Future Research Examining Attachment Avoidance and the Reciprocal Roles of Support Recipients and Support Providers

	Reconciling the Costs and Benefits of Support Provision	Reconciling the Costs and Benefits of Support Seeking
Avoidant Individuals as Support Recipients	<ul style="list-style-type: none"> • Prior research has found that low levels of support or emotional support can exacerbate avoidant recipients' distress and trigger defensive reactions. • This thesis demonstrates that high levels of practical support can overcome avoidant defenses by providing irrefutable evidence of partners' availability (Chapter Three). 	<ul style="list-style-type: none"> • Prior research has found that avoidant individuals tend to avoid seeking support from partners, or seek support indirectly by complaining about problems without directly asking for help. This undermines partners' responsive support provision. • This thesis illustrates that when avoidant individuals seek reassurance about their self-worth and partners' love, partners feel more valued and close and thus provide more responsive support (Chapter Four).
Avoidant Individuals as Support Providers	<ul style="list-style-type: none"> • Prior research has found that avoidant individuals get angrier and provide less support when having to support their partners. • Future research might want to explore whether avoidant individuals are more likely to provide support when they feel secure in their relationships. 	<ul style="list-style-type: none"> • There is no research examining how <i>partners</i> of highly avoidant individuals seek support. Some recent research has found that when partners acknowledge highly avoidant individuals' commitment and efforts, that they are more likely to make sacrifices for their relationship. • Future research might want to explore whether similar strategies apply for seeking support, such as highlighting avoidant individuals' abilities to help or provide advice.

individuals tend to distance themselves from distressed individuals and are less likely to want to help others in need (Karantzas, Evans & Foddy, 2010; Mikulincer, Shaver, Gillath & Nitzberg, 2005). Furthermore, during couples' discussions, highly avoidant support providers react with greater anger and are less responsive to their partners (Carnelley et al., 1996; Feeney & Collins, 2001; Rholes et al., 1999; Simpson, Rholes, Orina & Grich, 2002), largely because avoidant individuals lack trust in their relationships (Feeney & Collins, 2001; Karantzas et al., 2014) and dislike others depending on them (Carnelley et al., 1996; Karantzas et al., 2010).

However, individuals' attachment avoidance does not necessarily mean that they will always provide less support. Previous findings have demonstrated that individuals' attachment avoidance has produced null associations with their caregiving behavior (Collins & Feeney, 2000; Karantzas et al., 2014). Although not directly capturing caregiving responses, Slotter and Luchies (2014) found that when highly avoidant individuals perceive high relationship quality, they report a greater desire to be close to their partners. Indeed, the results presented across this thesis also demonstrate that avoidant individuals can respond positively to their partners' support (Chapter Three, Girme et al., 2015), and even approach their partners for reassurance and comfort during relevant interactions (Chapter Four, Girme et al., under review). Although these prior research findings do not provide direct evidence that avoidant individuals can provide effective support to their partners, taken together the results do suggest that avoidant individuals might be willing to be responsive and caring partners when the relationship environment is secure (see bottom left section of Table 5.2). Indeed, priming studies have demonstrated that over and above individuals' attachment avoidance, when individuals are primed with secure attachment figures individuals feel more empathetic and are more willing to help a hypothetical person in distress (Mikulincer et al., 2005).

Second, as summarized in the bottom right section of Table 5.2, *partners* of avoidant individuals are generally unable to elicit the desired support they want from avoidant individuals. For example, prior research has demonstrated that avoidant support providers tend to react with greater hostility and anger (Rholes et al., 1999) and tend to be less responsive and supportive (Feeney & Collins, 2001; Simpson et al., 2002) when their partners display emotional distress and seek comfort. It might be that partners' heightened displays of distress are likely to trigger negative caregiving behaviors from highly avoidant individuals because distressed partners' expressions of hurt and stress demand emotional forms of reassurance and comfort that highly avoidant individuals may not be comfortable with providing.

However, consistent with prior work suggesting that avoidant individuals are more comfortable with practical support interactions (e.g., Girme et al., 2015; Mikulincer & Florian, 1997; Simpson et al., 2007; Rholes et al., 2011), it might be that partners are more successful seeking advice and tangible help from avoidant individuals that do not signal *emotional* dependence on avoidant individuals. Such efforts on the part of the partner seeking support may also require partners to highlight avoidant individuals' abilities to help the partner and that their practical help would be appreciated in the relationship. For example, Farrell and colleagues (2015) demonstrated that when partners of avoidant individuals acknowledged avoidant individuals' efforts and displayed confidence that they were able to be supportive and provide the sacrifice required, avoidant individuals were more willing to make sacrifices for the sake of the relationship. Thus, future research could explore whether directly highlighting the need for practical assistance and guidance might be more effective strategies at seeking support from avoidant individuals.

In sum, guided by the demonstration in this thesis that highly avoidant can benefit from support provision and effectively seek support from their partner, future research should

move past the typical focus of avoidant individuals' lack of support or negative support provision behaviors and consider whether and how (1) individuals' high in attachment avoidance can effectively provide support to their relationship partners and (2) partners of highly avoidant individuals might elicit greater support from avoidant individuals.

Conclusion

The research presented in this thesis demonstrates that the mixed benefits and costs of support provision can be reconciled by examining important contextual factors, including whether recipients' are distressed and need visible forms of comfort and care (Chapter Two, Girme et al., 2013) or are high in attachment avoidance and require high levels of practical support to overcome their defensive reactions (Chapter Three, Girme et al., 2015). This thesis also illustrated that reassurance seeking behaviors do not uniformly elicit rejection from partners when enacted during relevant support contexts, and actually elicit greater responsive support when enacted by highly avoidant individuals who tend to minimize dependence in their relationships (Chapter Four, Girme et al., under review). These studies demonstrate that partners need to be responsive to recipients' needs and that important characteristics of individuals shape the impact and meaning of support processes. Of importance, the contextual framework presented opens up important avenues for future research, including examining how the effectiveness of other types of support behaviors depend on recipients' contextual needs or insecurities, and how support providers might be able to manage and be flexible to recipients' multiple needs that vary across contexts and time. The results of these studies also pave the way for determining how highly avoidant support providers might be able to provide support and be more receptive to their partners' support seeking attempts. In all, the current research, and the potential future research that follows, makes substantial advances in understanding how to maximize personal and relationship wellbeing arising from responsive and adaptive support provision and seeking.

Appendix 1 – Chapter Three Supplementary Materials

“All or Nothing”: Attachment Avoidance and the Curvilinear Effects of Partner Support

Girme, Y. U., Overall, N. C., Simpson, J. A., & Fletcher, G. J. O.

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1. Correlations across Measures for Each Study

This section provides the full correlation tables across measures for cross-sectional dyadic interaction studies (Studies 1-3).

Table SM1.1. Correlations across Measures (Study 1)

	1.	2.	3.	4.	5.	6.
1. Recipients' Attachment Avoidance	-					
2. Recipients' Attachment Anxiety	.18*	-				
3. Partners' Practical Support	.01	.05	-			
4. Partners' Emotional Support	.05	.19*	.15	-		
5. Recipients' Distress	.27**	.32*	.04	-.10	-	
Alternative Explanations						
6. Recipients' Desired Change	.01	-.09	-.03	.01	.01	-
7. Recipients' Support-Seeking	-.05	-.16	-.05	.10	-.22*	.08

Note: $df = 120$. * $p < .05$. ** $p < .01$.

Table SM1.2. Correlations across Measures (Study 2)

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Recipients' Attachment Avoidance	-										
2. Recipients' Attachment Anxiety	.13	-									
3. Partners' Practical Support	-.11	-.06	-								
4. Partners' Emotional Support	-.04	.01	.22**	-							
5. Recipients' Distress	.18*	.25**	.03	-.03	-						
6. Recipients' Goal-Related Efficacy	-.10	-.23**	-.08	-.00	-.40**	-					
7. Perceived Partner Control/Criticism	.04	.04	.03	-.21**	.25**	-.11	-				
<i>Alternative Explanations</i>											
8. Recipients' Desired Change	.10	.05	-.16*	-.07	.12	-.07	.06	-			
9. Recipients' Support-Seeking	-.04	-.09	-.07	-.08	-.12	.07	-.18**	.10	-		
10. Recipients' Desired Practical Support	-.07	.11	.15*	.03	-.10	.23*	-.04	.01	.12	-	
11. Recipient's Desired Emotional Support	-.17*	.06	.07	.04	-.07	.04	-.09	.02	.14	.54**	-
12. Recipients' Emotional Suppression	.20**	.18*	.03	-.03	.49**	-.37**	.29**	.15*	-.18*	-.21**	-.05

Note: $df = 198$. * $p < .05$. ** $p < .01$.

Table SM.3. Correlations across Measures (Study 3)

	1.	2.	3.	4.	5.	6.	7.
1. Recipients' Attachment Avoidance	-						
2. Recipients' Attachment Anxiety	.26*	-					
3. Partners' Practical Support	-.25*	-.00	-				
4. Partners' Emotional Support	-.04	-.23	.52*	-			
5. Recipients' Distress	.14	.40**	.08	-.22	-		
6. Recipients' Stressor-Related Efficacy	-.03	-.30*	.12	.35*	-.29*	-	
<i>Alternative Explanations</i>							
7. Recipients' Support Need	-.20	.08	-.06	-.16	.41**	-.14	-
8. Recipients' Emotional Suppression	.09	.14	-.04	-.27*	.35**	-.15	.24

Note: $df = 62$. * $p < .05$. ** $p < .01$

2. Scatterplots between Partners' Support and Recipients' Outcomes for Low versus High Attachment Groups

We examined the scatterplots between partners' support and recipients' outcomes for groups low versus high on attachment avoidance (and anxiety) to rule out any concerns that the moderated curvilinear associations reported were driven by outliers. The scatterplots, shown in the following pages, demonstrate that there is no evidence of outliers across the four studies and relevant outcomes.

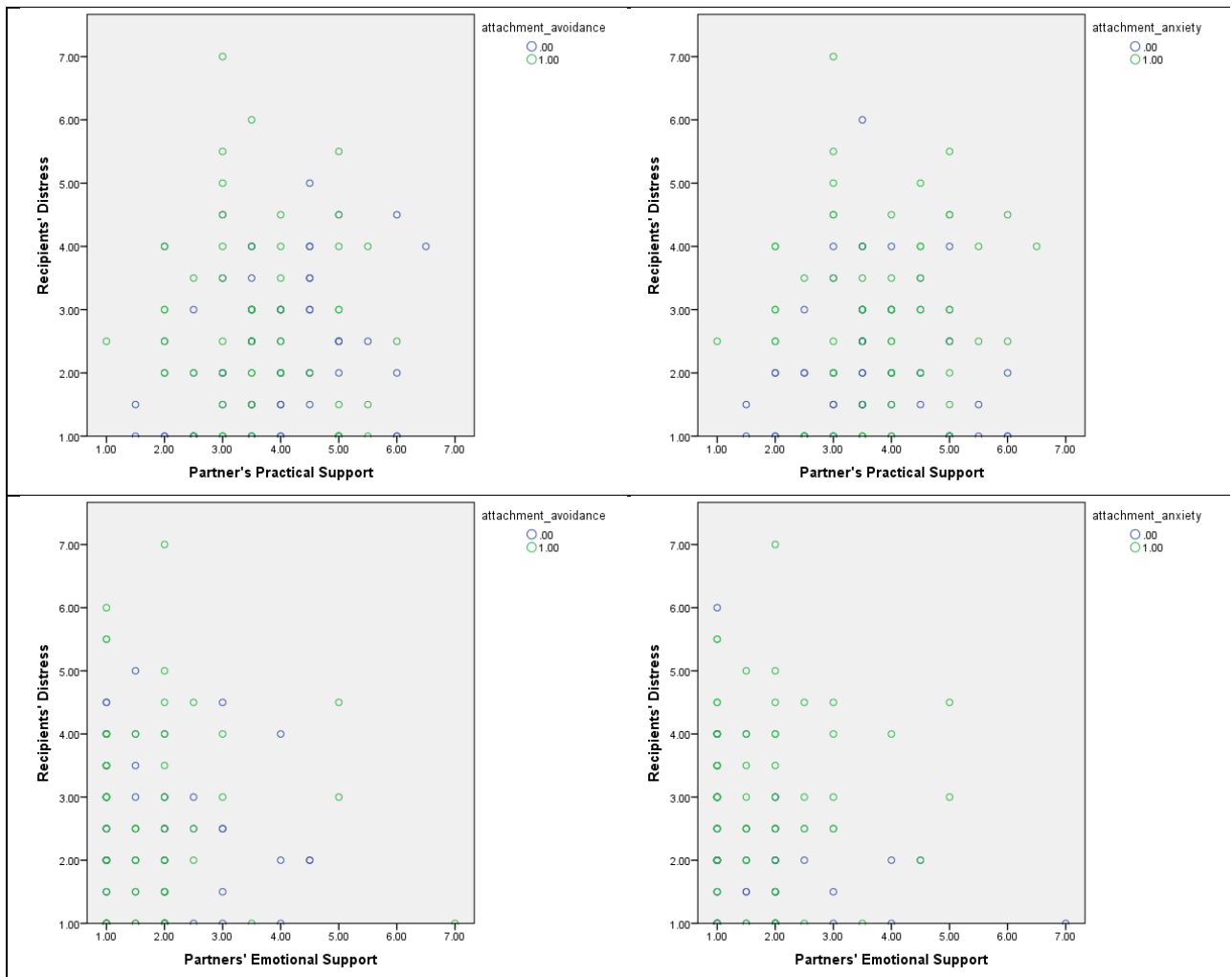
Study 1:

1. **Partners' practical support** and **post-discussion distress** (top figures) for groups low and high in attachment avoidance (top left) and low and high in attachment anxiety (top right)

2. **Partners' emotional support** and **post-discussion distress** (bottom figures) for groups low and high in attachment avoidance (bottom left) and low and high in attachment anxiety (bottom right)

Blue = attachment avoidance and anxiety below the mean (group 0)

Green = attachment avoidance and anxiety above the mean (group 1)



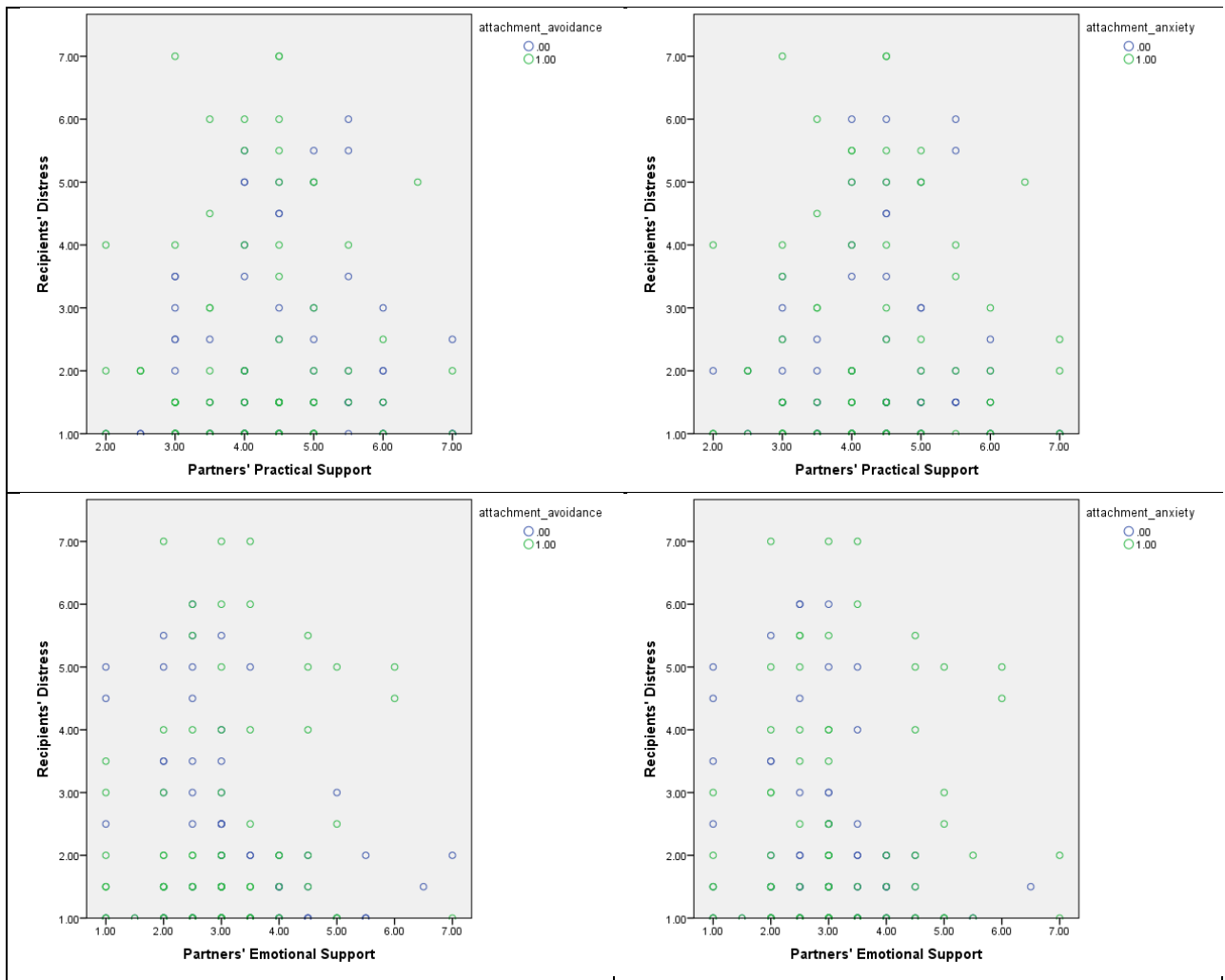
Study 2:

1. **Partners' *practical* support** and **post-discussion distress** (top figures) for groups low and high in attachment avoidance (top left) and low and high in attachment anxiety (top right)

2. **Partners' *emotional* support** and **post-discussion distress** (bottom figures) for groups low and high in attachment avoidance (bottom left) and low and high in attachment anxiety (bottom right)

Blue = attachment avoidance and anxiety below the mean (group 0)

Green = attachment avoidance and anxiety above the mean (group 1)

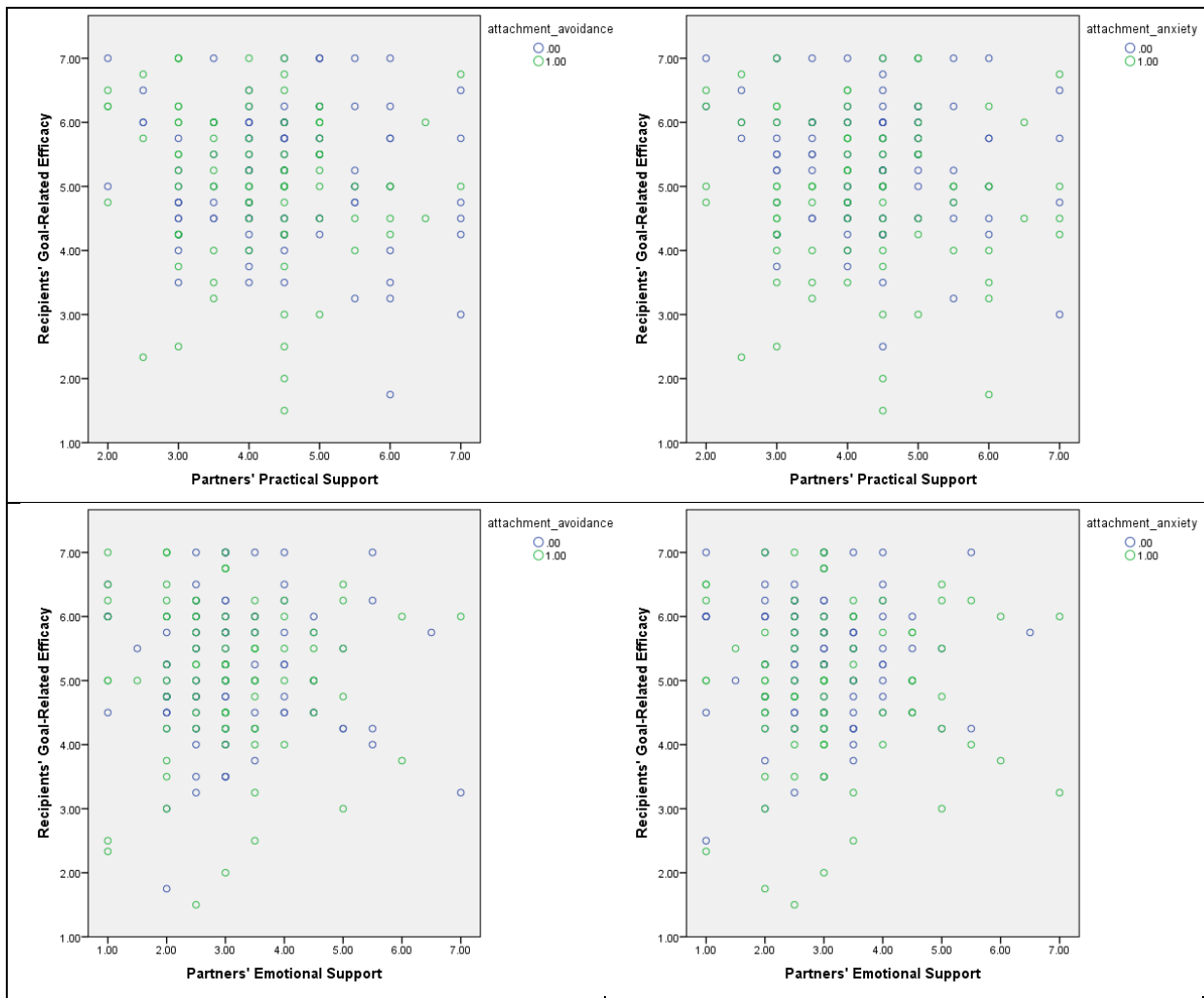


Study 2:

1. **Partners' *practical* support and goal-related efficacy** (top figures) for groups low and high in attachment avoidance (left) and low and high in attachment anxiety (right)
2. **Partners' *emotional* support and goal-related efficacy** (bottom figures) for groups low and high in attachment avoidance (left) and low and high in attachment anxiety (right)

Blue = attachment avoidance and anxiety below the mean (group 0)

Green = attachment avoidance and anxiety above the mean (group 1)



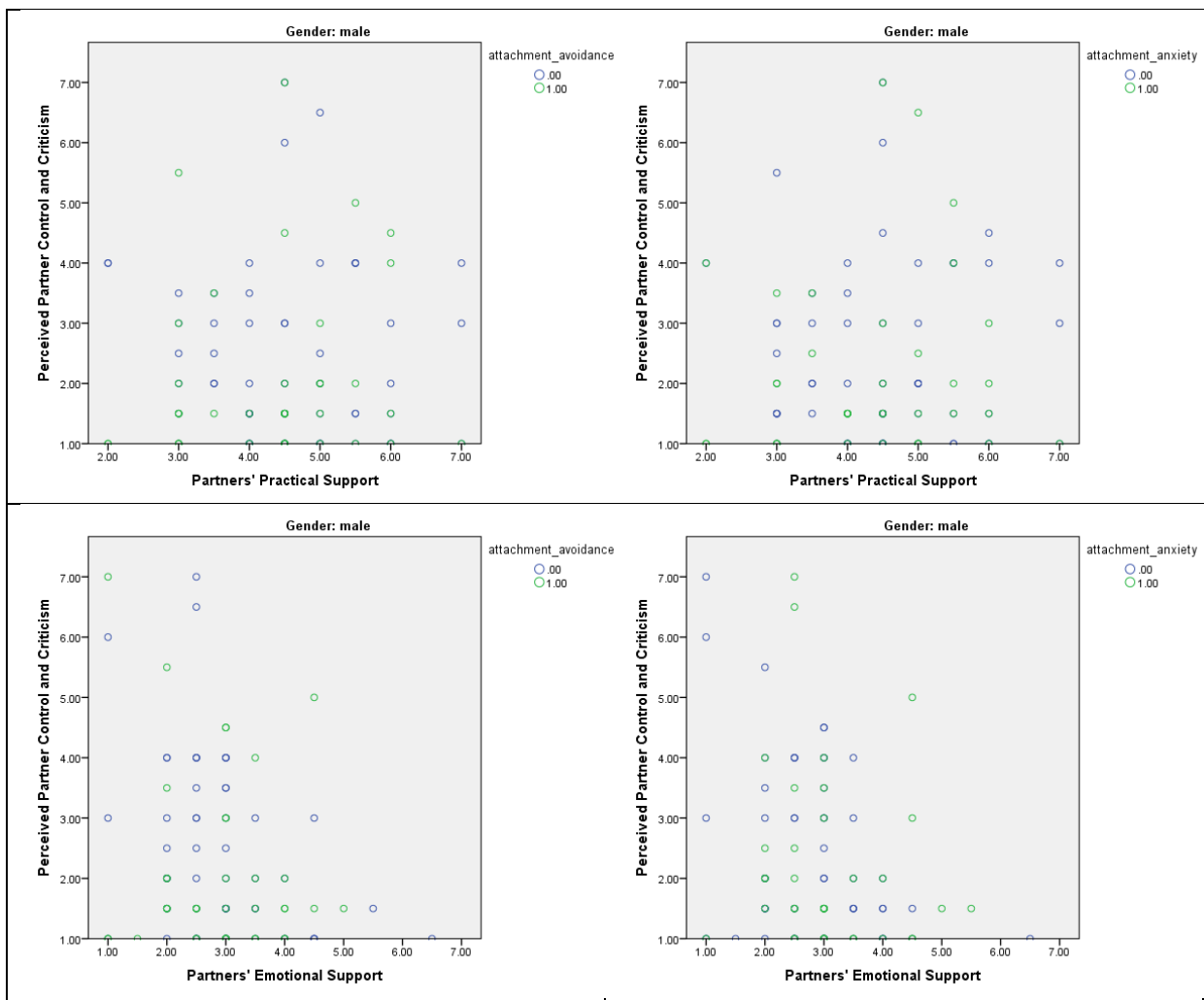
Study 2:

1. **Partners' *practical* support and perceived partner control and criticism** (top figures) for groups low and high in attachment avoidance (left) and low and high in attachment anxiety (right)

2. **Partners' *emotional* support and perceived partner control and criticism** (bottom figures) for groups low and high in attachment avoidance (left) and low and high in attachment anxiety (right)

Blue = attachment avoidance and anxiety below the mean (group 0)

Green = attachment avoidance and anxiety above the mean (group 1)



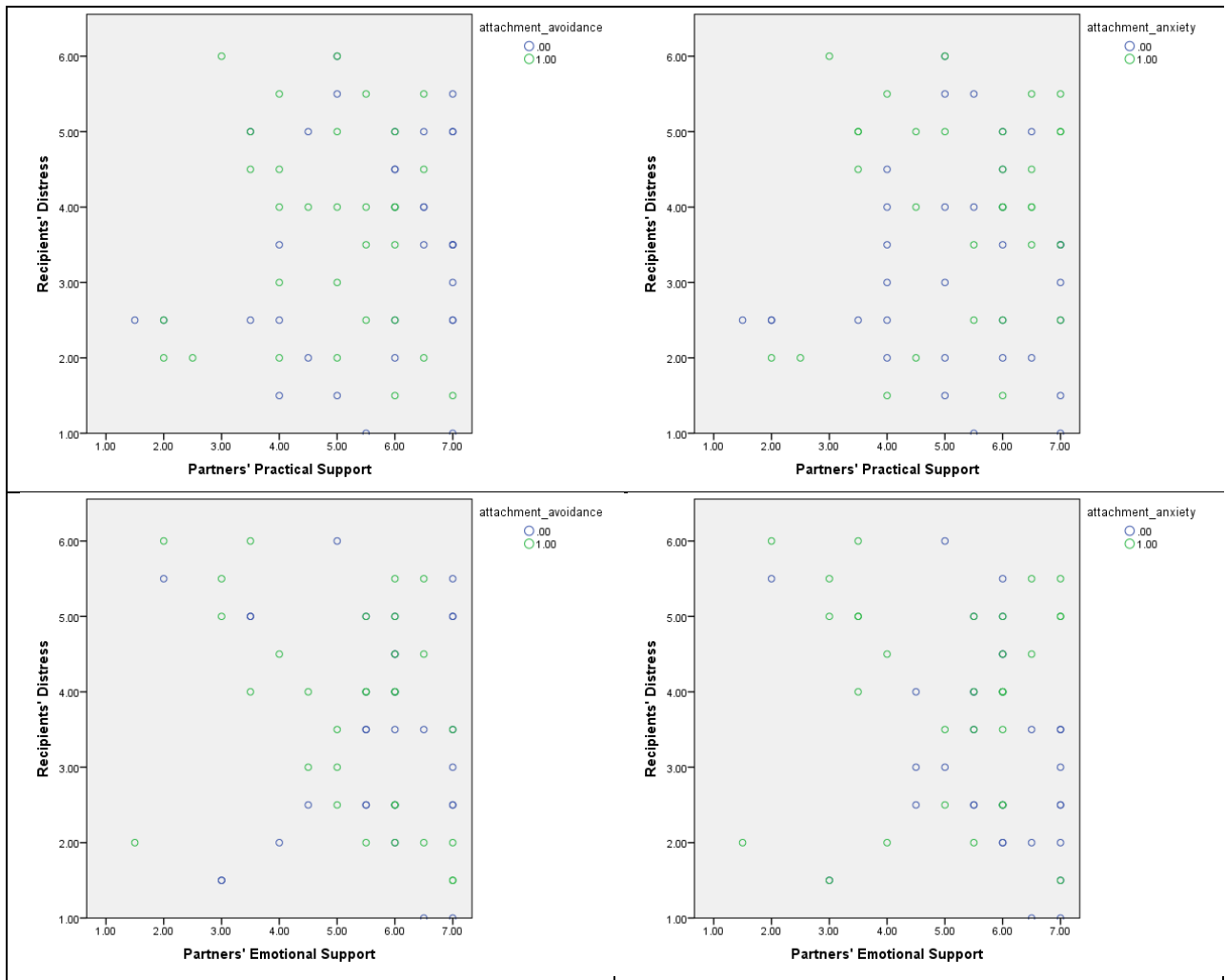
Study 3:

1. **Partners' *practical* support** and **post-discussion distress** (top figures) for groups low and high in attachment avoidance (left) and low and high in attachment anxiety (right)

2. **Partners' *emotional* support** and **post-discussion distress** (bottom figures) for groups low and high in attachment avoidance (left) and low and high in attachment anxiety (right)

Blue = attachment avoidance and anxiety below the mean (group 0)

Green = attachment avoidance and anxiety above the mean (group 1)



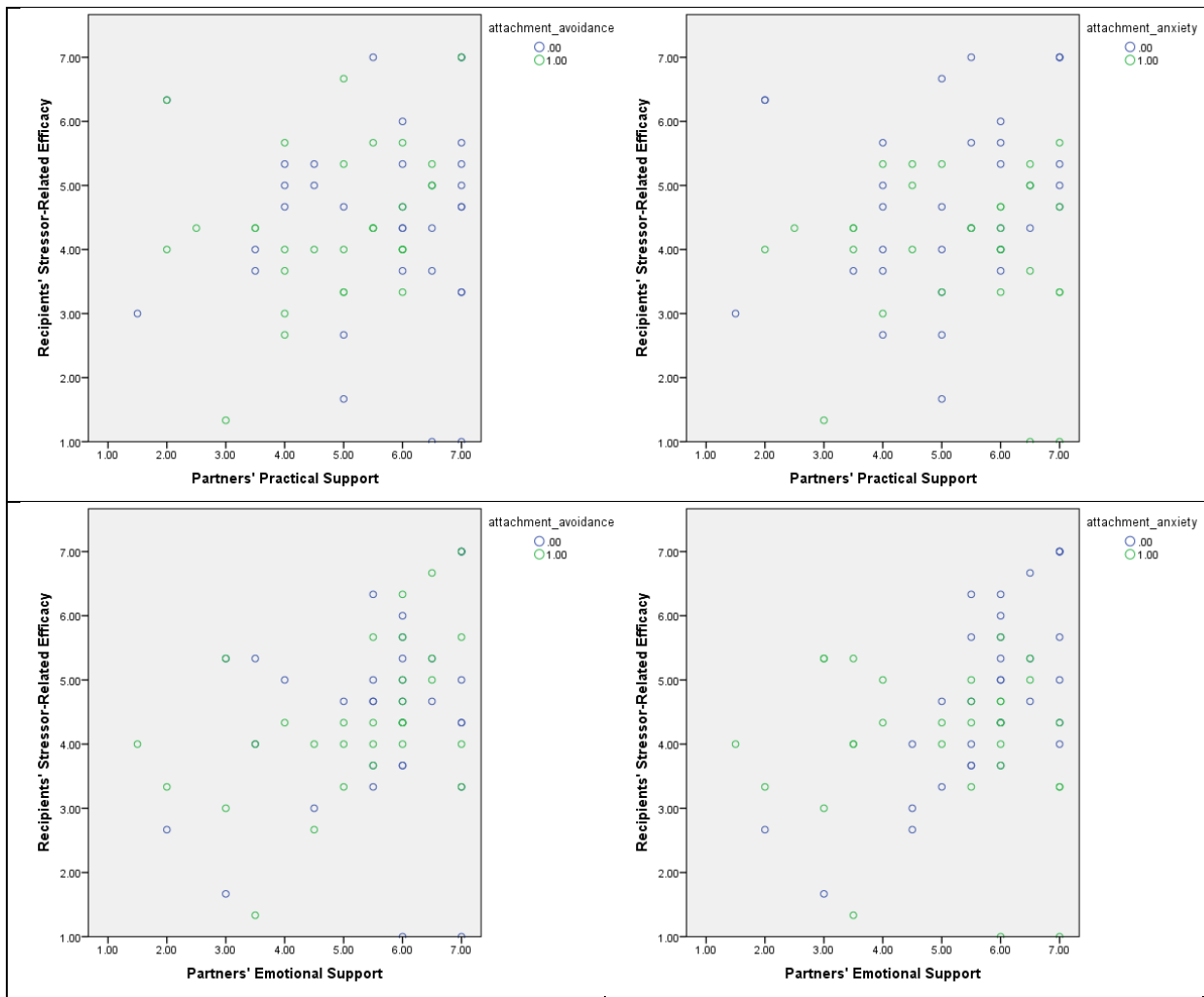
Study 3:

1. **Partners' *practical* support and stressor-related efficacy** (top figures) for groups low and high in attachment avoidance (left) and low and high in attachment anxiety (right)

2. **Partners' *emotional* support and stressor-related efficacy** (bottom figures) for groups low and high in attachment avoidance (left) and low and high in attachment anxiety (right)

Blue = attachment avoidance and anxiety below the mean (group 0)

Green = attachment avoidance and anxiety above the mean (group 1)

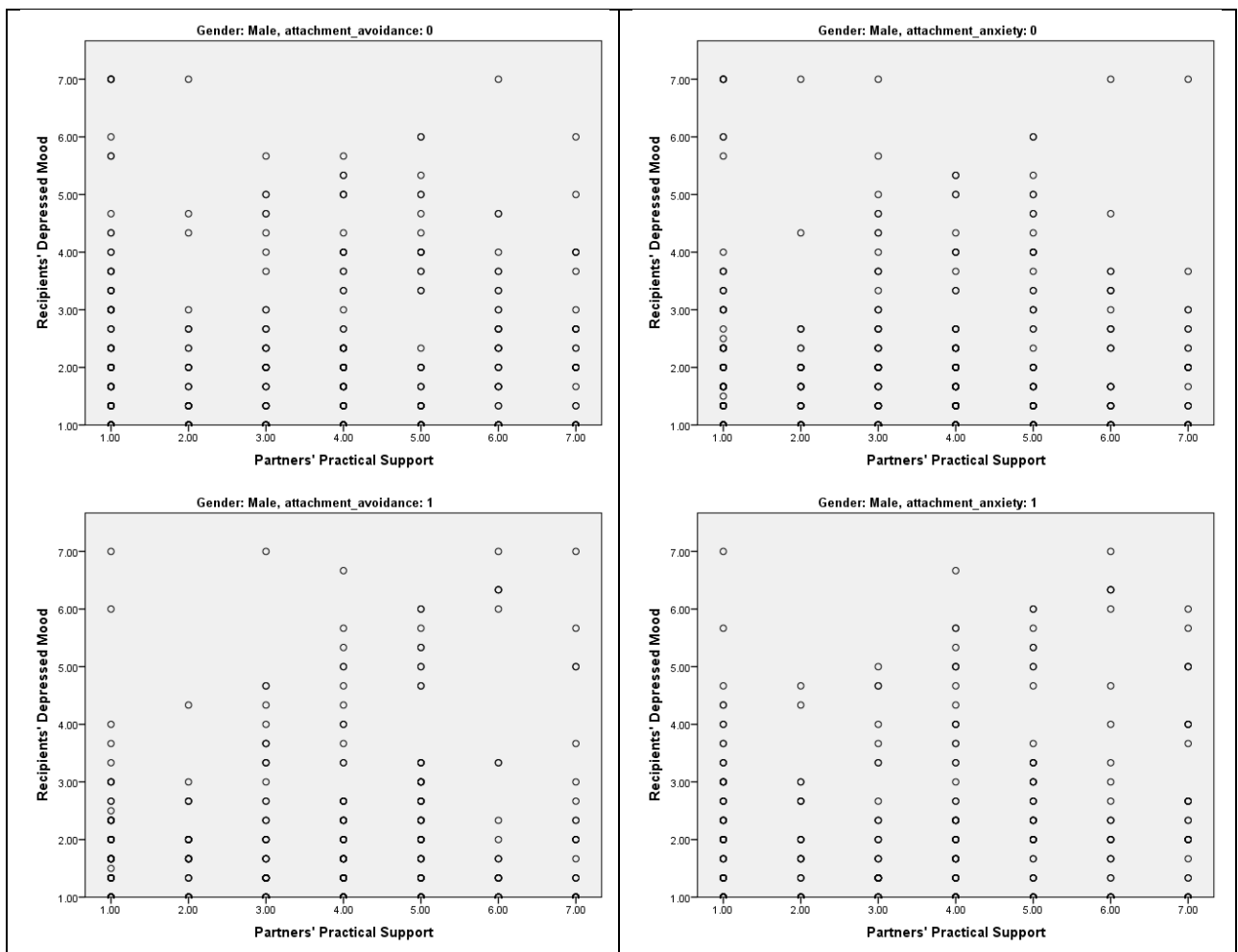


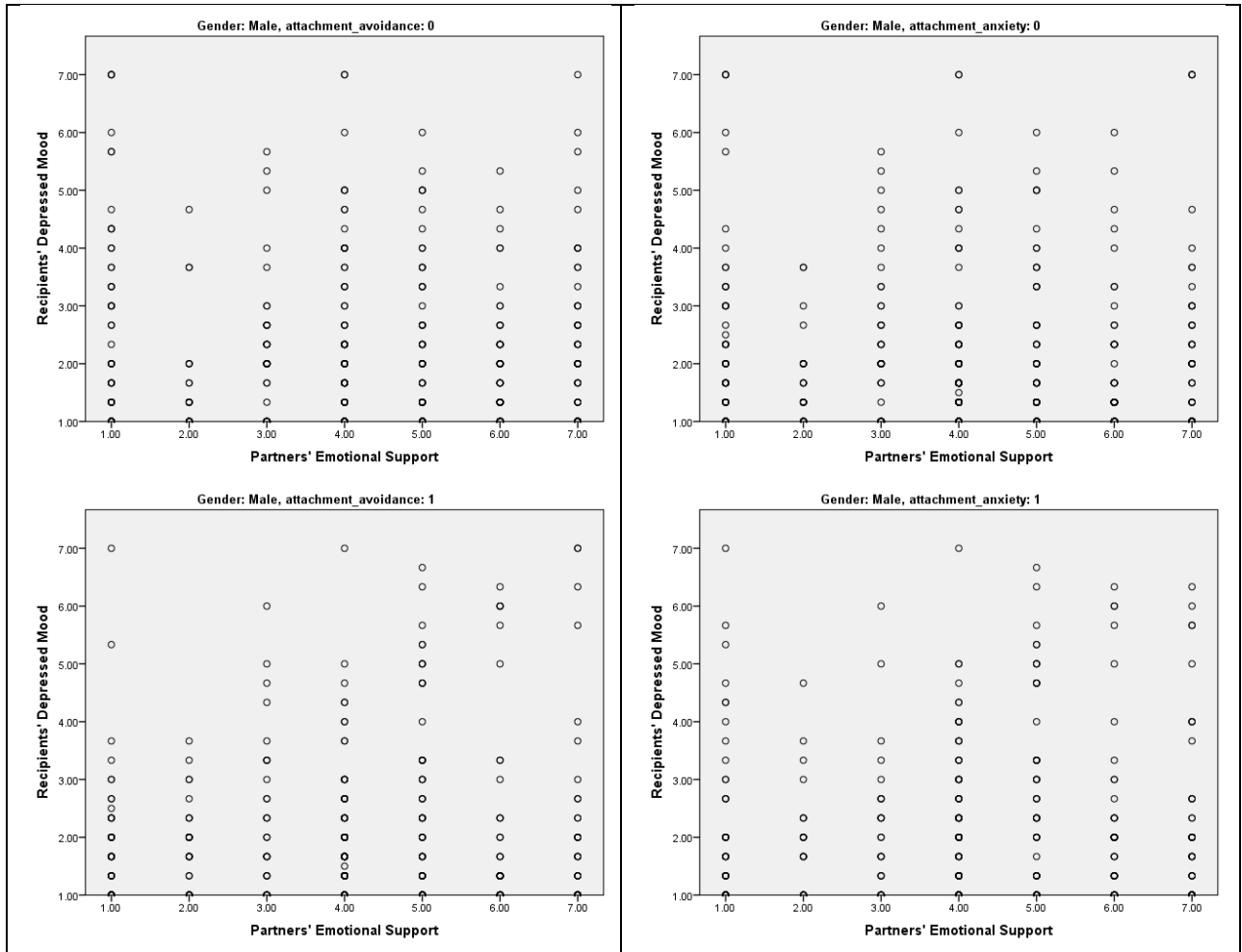
Study 4:

1. **Partners' practical support** and **depressed mood** (top figures) for groups low (group = 0) and high (group = 1) in attachment avoidance (left) and low and high in attachment anxiety (right)
2. **Partners' emotional support** and **depressed mood** (bottom figures) for groups low (group = 0) and high (group = 1) in attachment avoidance (left) and low and high in attachment anxiety (right)

Group 0 = attachment anxiety and avoidance below the mean

Group 1 = attachment anxiety and avoidance above the mean





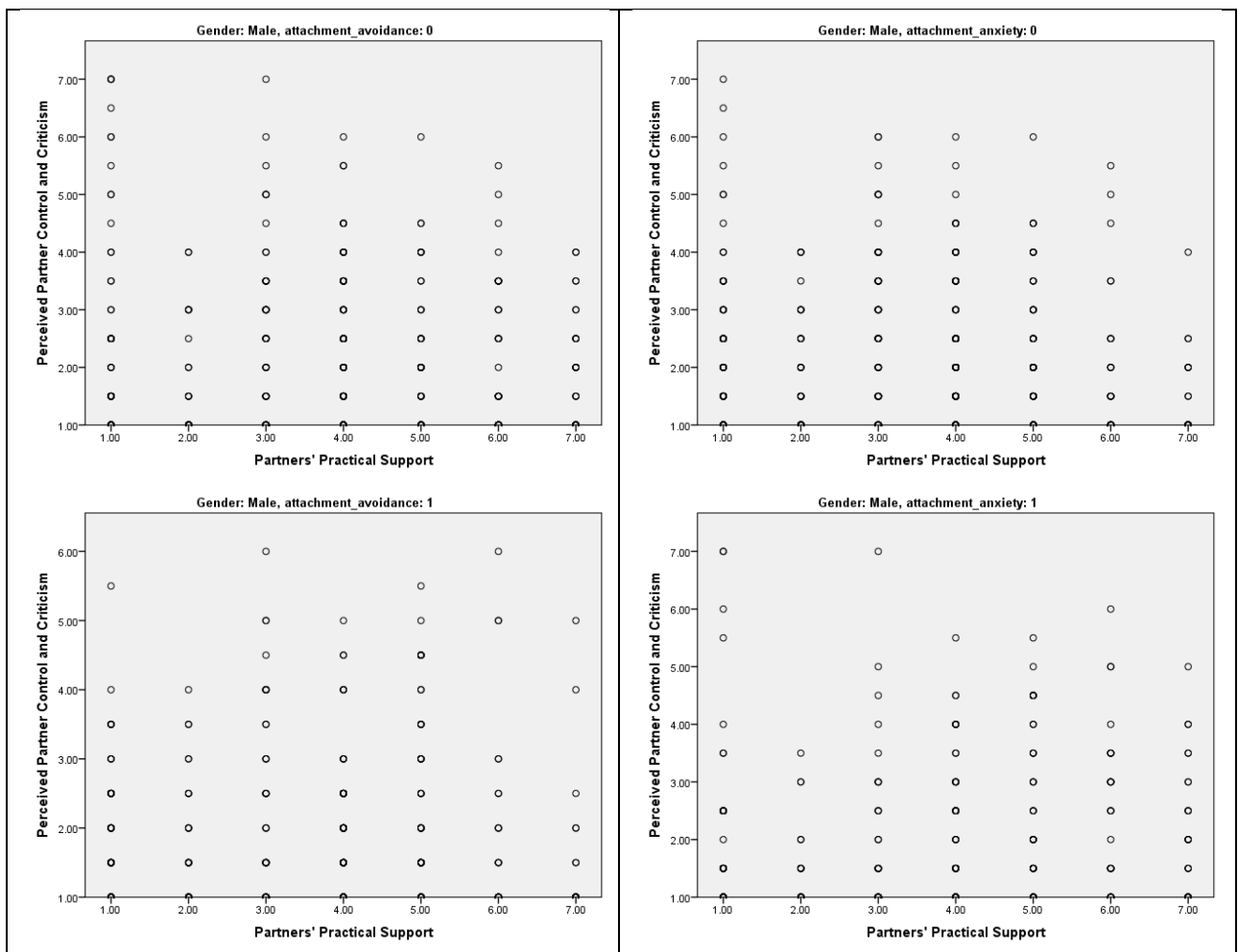
Study 4:

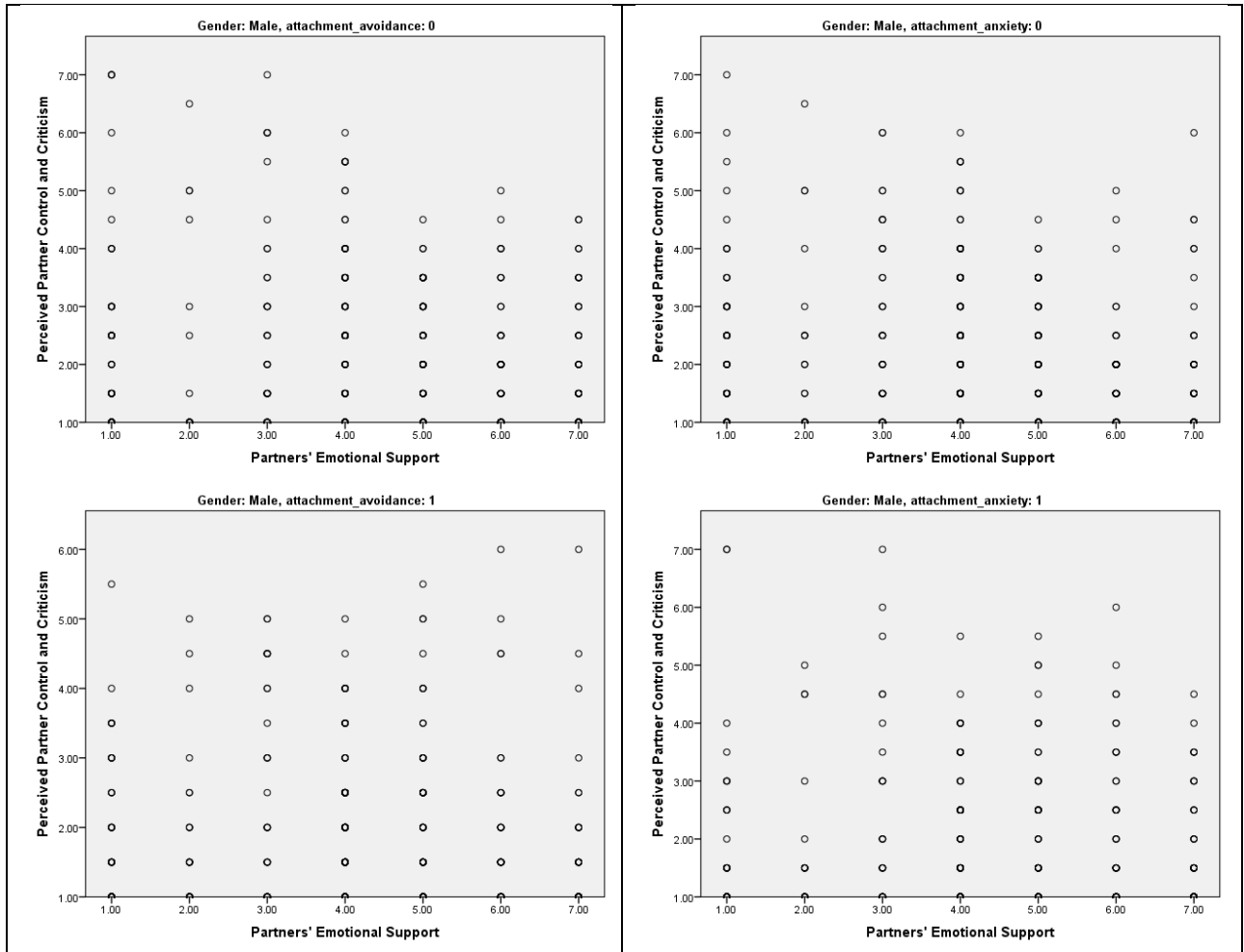
1. **Partners' practical support and perceived partner control and criticism** (top figures) for groups low (group = 0) and high (group = 1) in attachment avoidance (left) and low and high in attachment anxiety (right)

2. **Partners' emotional support and perceived partner control and criticism** (bottom figures) for groups low (group = 0) and high (group = 1) in attachment avoidance (left) and low and high in attachment anxiety (right)

Group 0 = attachment anxiety and avoidance below the mean

Group 1 = attachment anxiety and avoidance above the mean





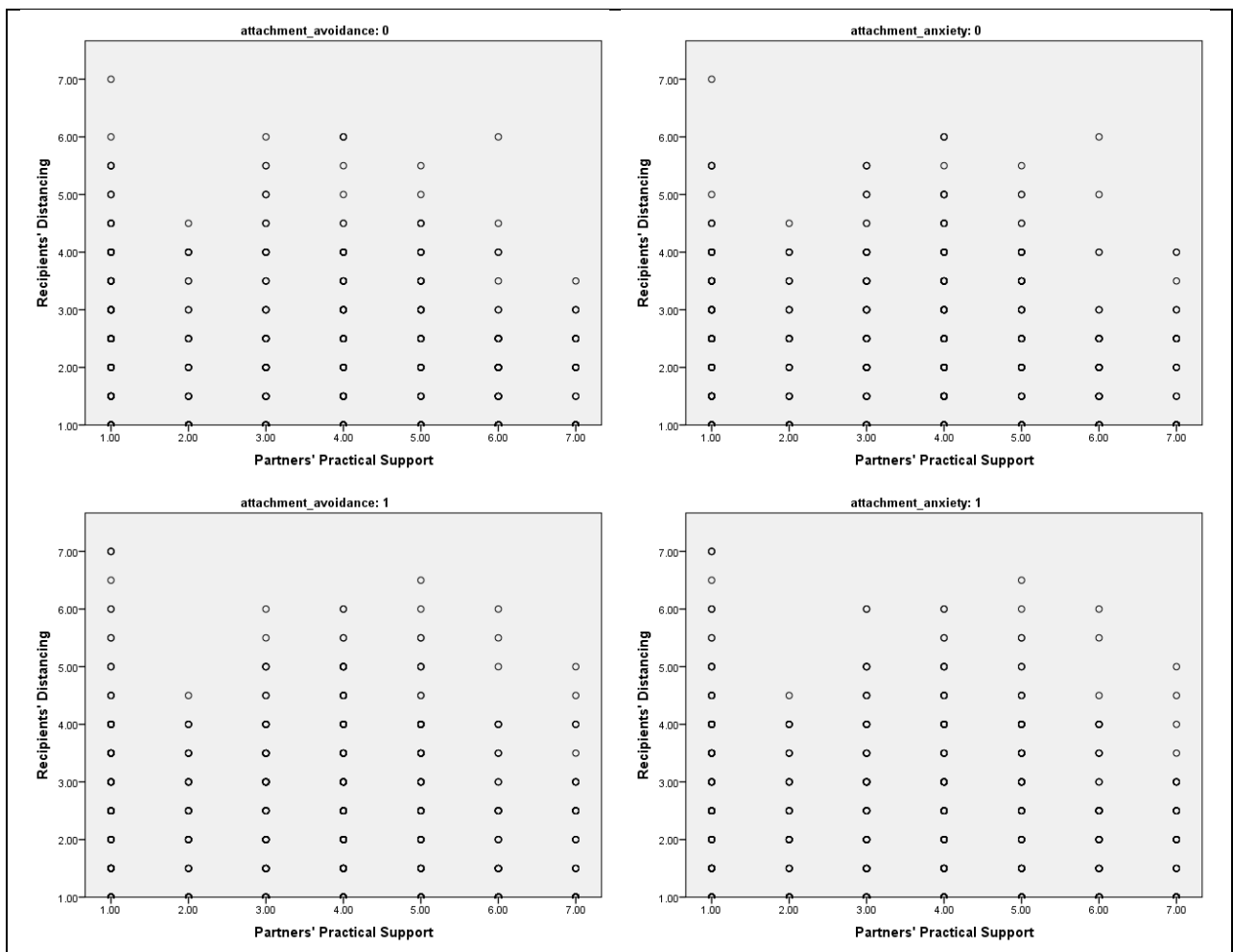
Study4:

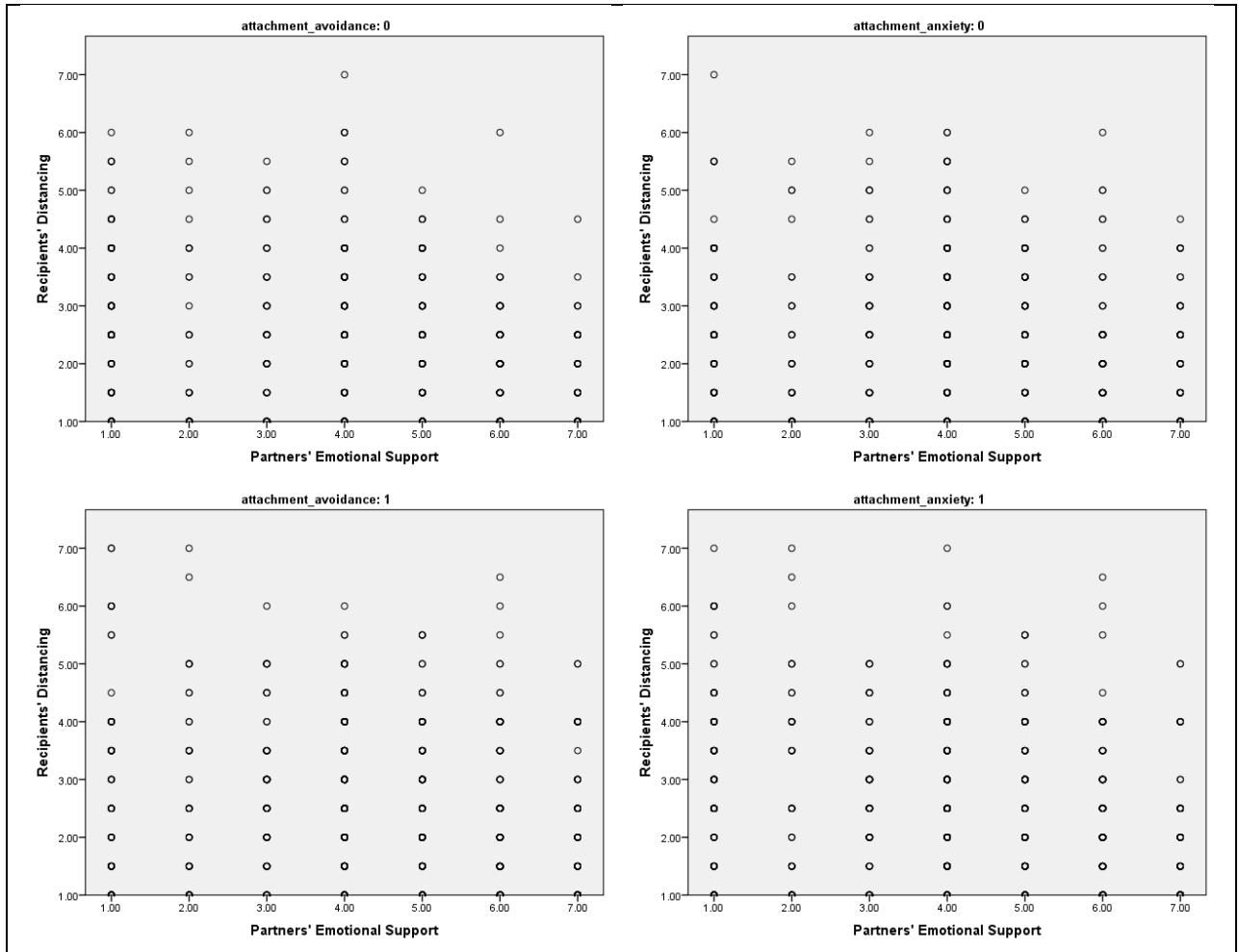
1. **Partners' practical support and distancing** (top figures) for groups low (group = 0) and high (group = 1) in attachment avoidance (left) and low and high in attachment anxiety (right)

2. **Partners' emotional support and distancing** (bottom figures) for groups low (group = 0) and high (group = 1) in attachment avoidance (left) and low and high in attachment anxiety (right)

Group 0 = attachment anxiety and avoidance below the mean

Group 1 = attachment anxiety and avoidance above the mean





3. Histograms of Partners' Practical and Emotional Support

This section examines the frequency of partners' practical and emotional support across all studies. The table below presents indices of skew. In the following pages, the histograms for groups high and low in attachment insecurity are provided for visual inspection.

Table SM.3.1 Skew Statistics and Standard Errors for Partners' Support Across Studies

	Study 1		Study 2		Study 3		Study 4	
	<i>Skew</i>	<i>SE</i>	<i>Skew</i>	<i>SE</i>	<i>Skew</i>	<i>SE</i>	<i>Skew</i>	<i>SE</i>
Partners' Practical Support	.09	.22	.31	.17	-.71	.30	.45	.46
Partners' Emotional Support	2.11	.22	.76	.17	-1.01	.30	-.14	.46

Partners' Practical Support: There was very little skew in the distribution of partners' practical support across the studies, and practical support was similarly distributed for recipients high and low in attachment avoidance. Thus, there was no evidence that high levels of practical support occurs relatively infrequently or that the down-turn in negative responses for highly avoidant recipients might be a rare occurrence.

Partners' Emotional Support: In contrast, in Study 1 and Study 3 emotional support demonstrated substantial skew (in opposite directions). In Study 1, when couples discussed personal goals, partners frequently provided low levels of emotional support. In Study 3, when couples discussed significant stressors, partners tended to provide very high levels of emotional support. These distribution differences map the different contextual needs of recipients. Nonetheless, although levels of emotional support were influenced by contextual factors, the distribution of partners' emotional support was similar regardless of recipients' attachment insecurity. Moreover, the curvilinear interaction that emerged for emotional support was in Study 3, when the stressful nature of the context made emotional support more relevant and high levels of emotional support were delivered frequently. We discuss the contextual nature of this effect in the paper (see general discussion).

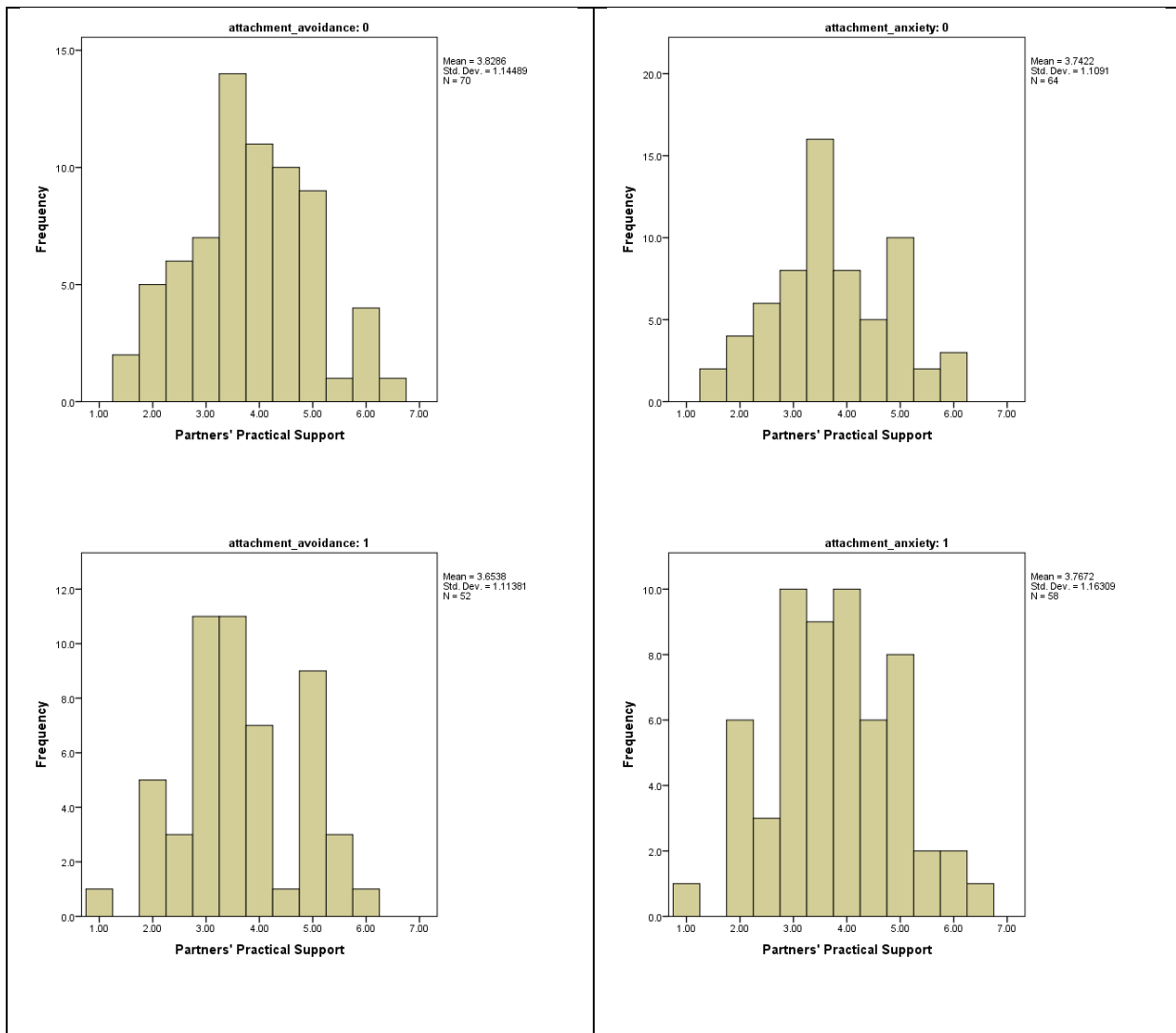
Study 1:

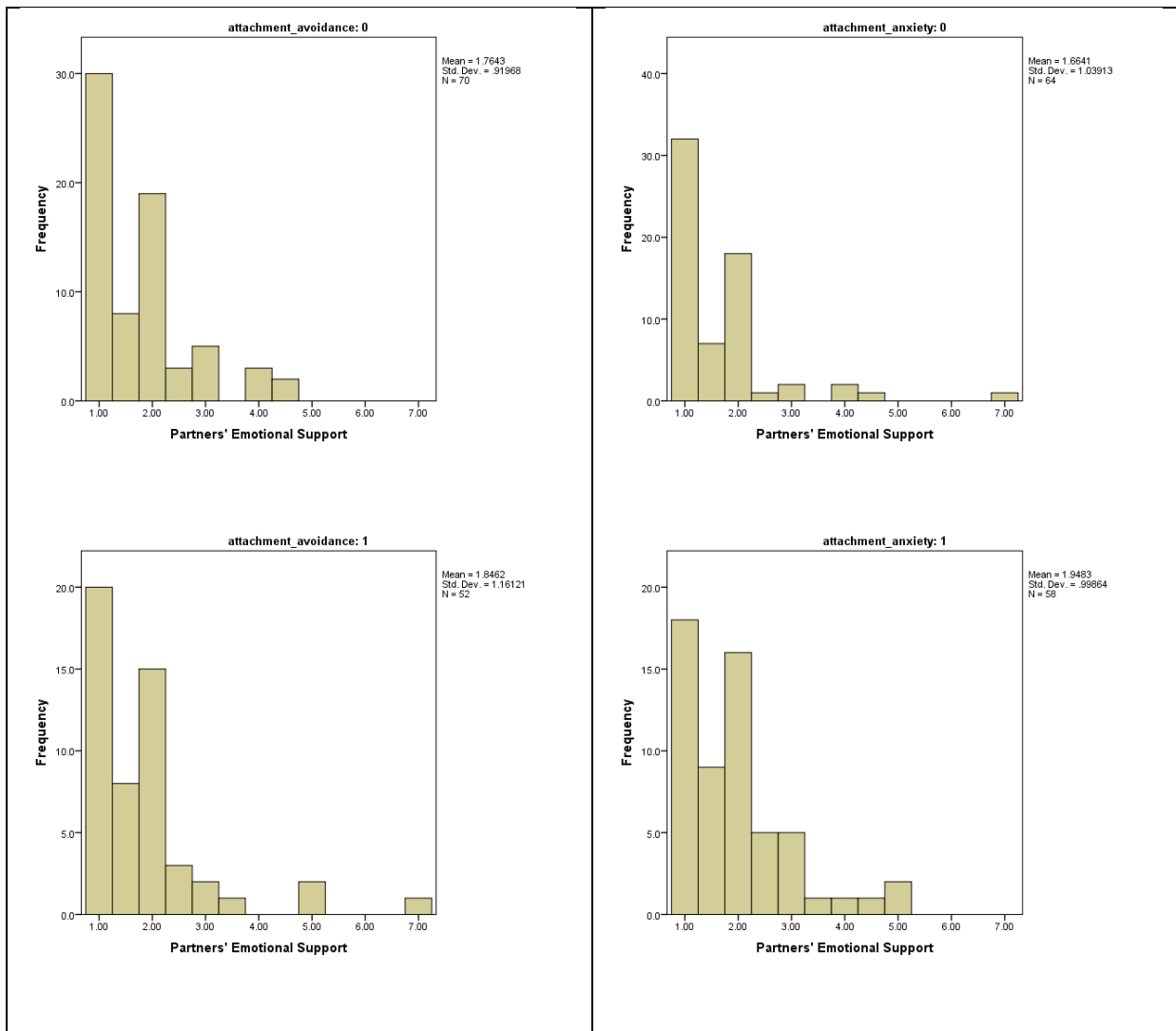
1. **Partners' practical support** (top figures, $M = 3.75$, $SD = 1.13$) for groups low (group = 0) and high (group = 1) and in attachment avoidance (left) and low and high in attachment anxiety (right)

2. **Partners' emotional support** (bottom figures, $M = 1.80$, $SD = 1.03$) for groups low (group = 0) and high (group = 1) and in attachment avoidance (left) and low and high in attachment anxiety (right)

Group 0 = attachment avoidance and anxiety below the mean

Group 1 = attachment anxiety and avoidance above the mean





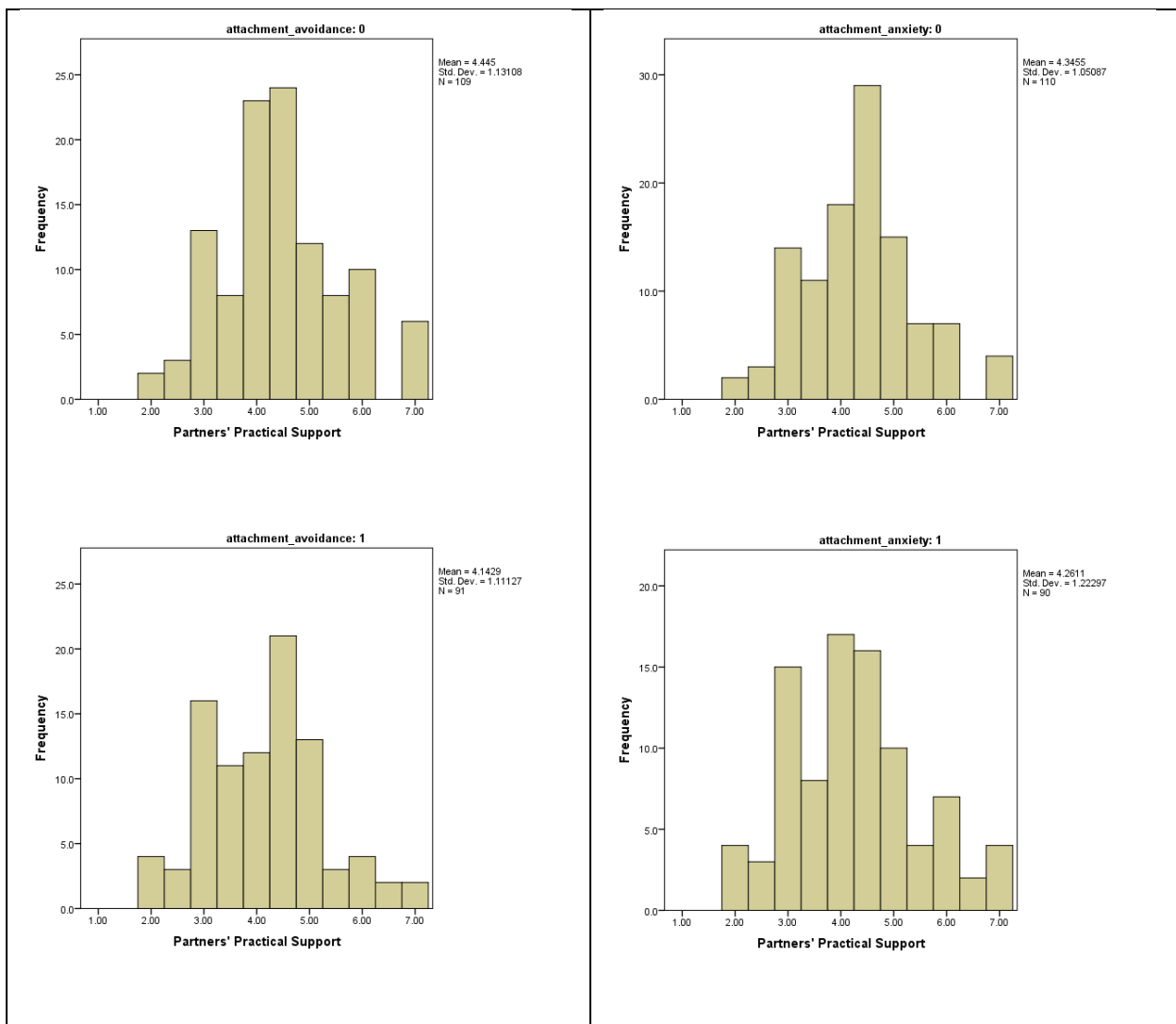
Study 2:

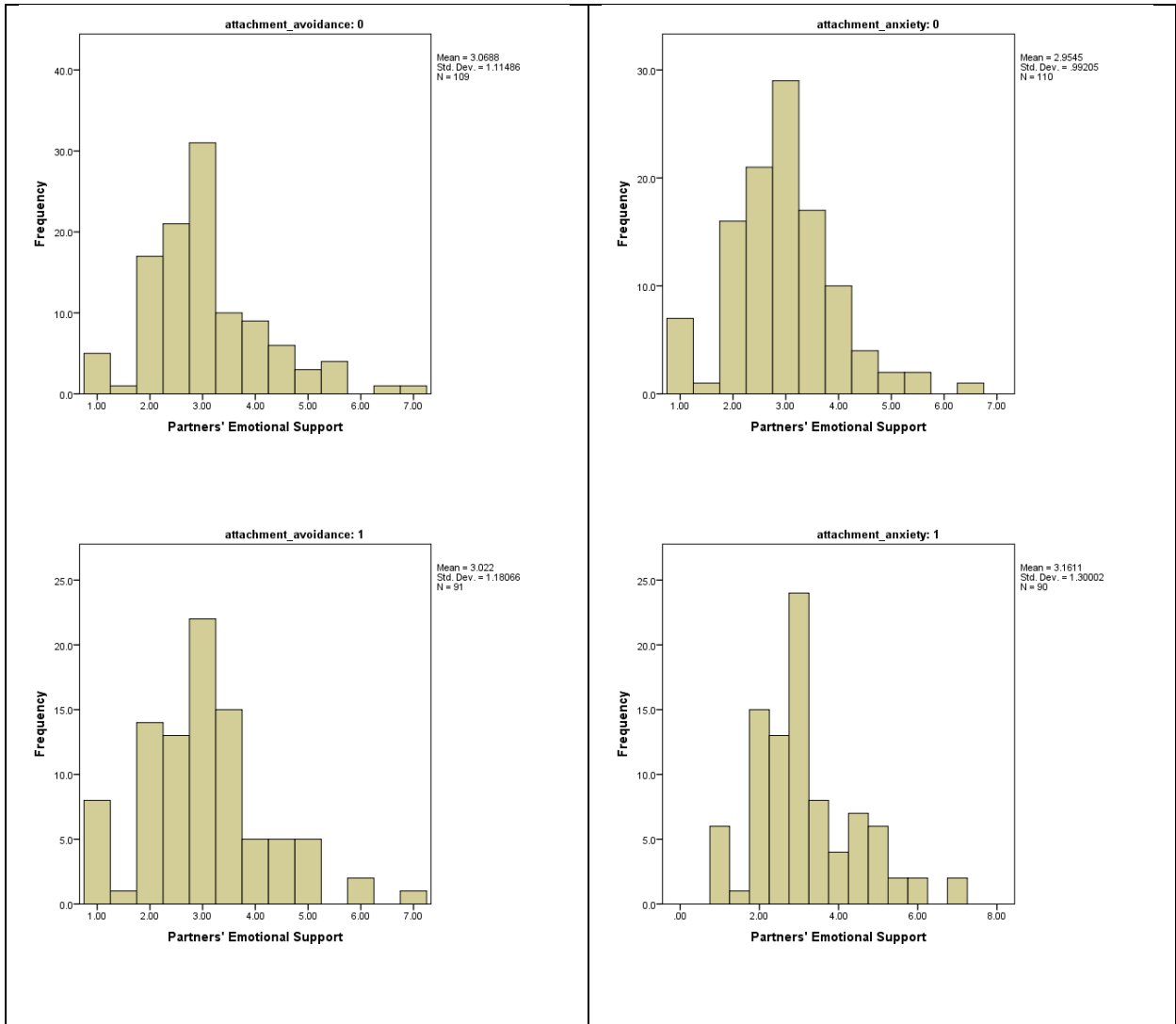
1. **Partners' practical support** (top figures, $M = 4.31$, $SD = 1.13$) for groups low (group = 0) and high (group = 1) and in attachment avoidance (left) and low and high in attachment anxiety (right)

2. **Partners' emotional support** (bottom figures, $M = 3.05$, $SD = 1.14$) for groups low (group = 0) and high (group = 1) and in attachment avoidance (left) and low and high in attachment anxiety (right)

Group 0 = attachment avoidance and anxiety below the mean

Group 1 = attachment anxiety and avoidance above the mean





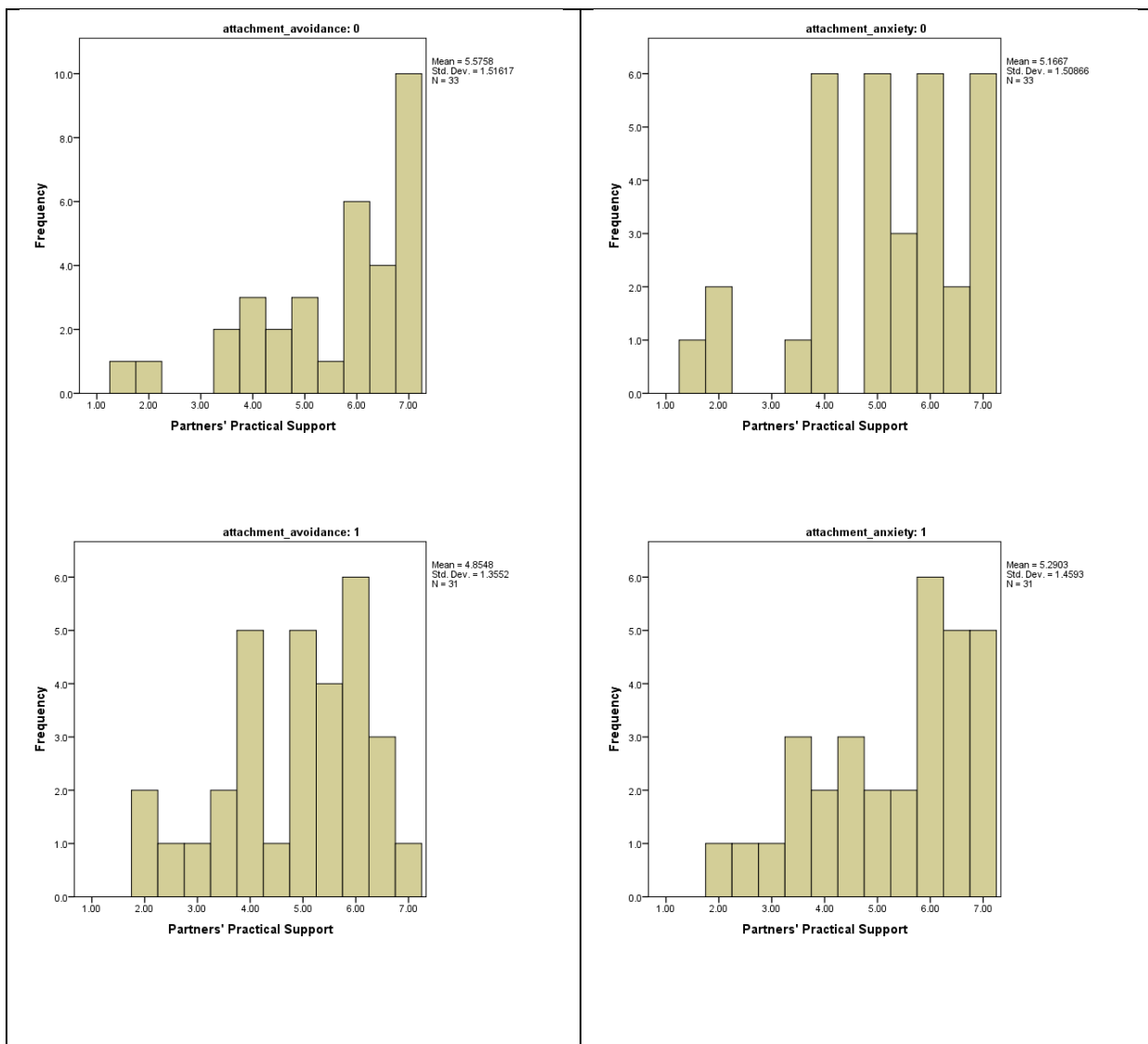
Study 3:

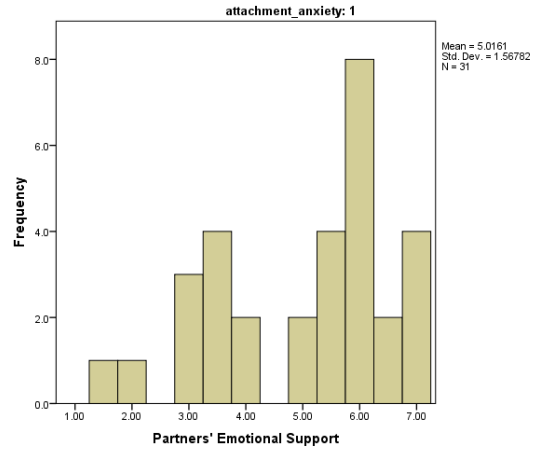
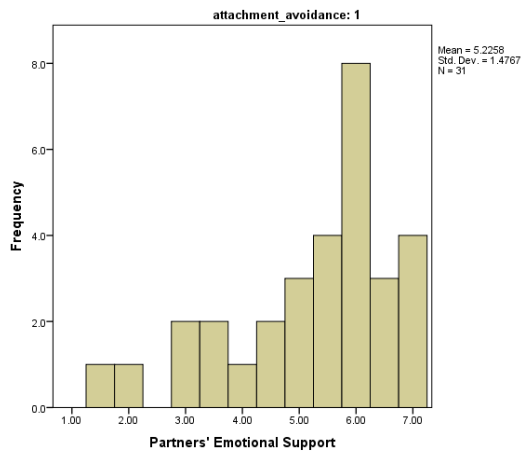
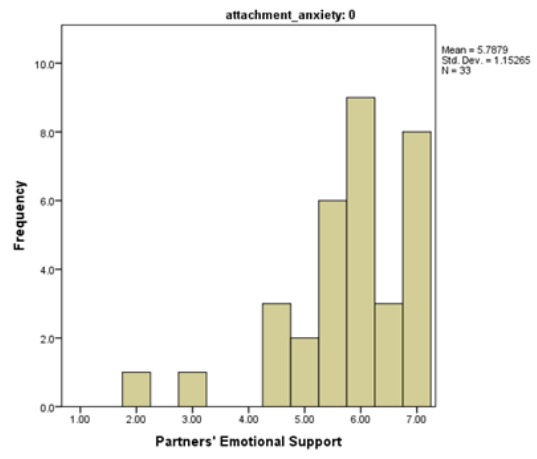
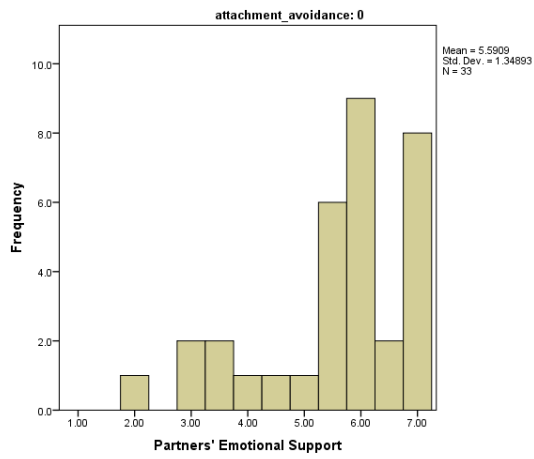
1. **Perceived partners' practical support** (top figures, $M = 5.23$, $SD = 1.47$) for groups low (group = 0) and high (group = 1) and in attachment avoidance (left) and low and high in attachment anxiety (right)

2. **Perceived partners' emotional support** (bottom figures, $M = 5.41$, $SD = 1.41$) for groups low (group = 0) and high (group = 1) and in attachment avoidance (left) and low and high in attachment anxiety (right)

Group 0 = attachment avoidance and anxiety below the mean

Group 1 = attachment anxiety and avoidance above the mean





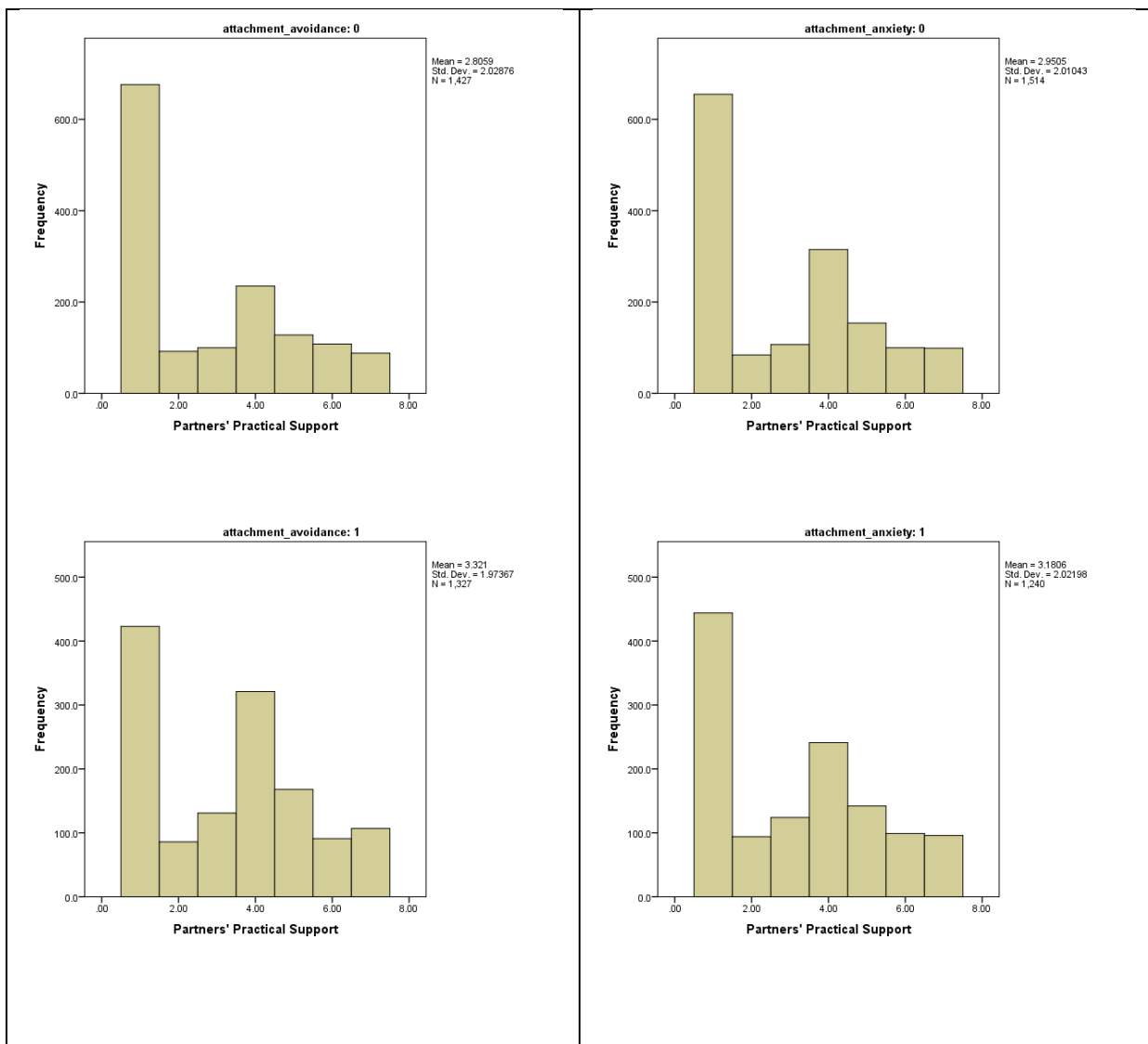
Study 4:

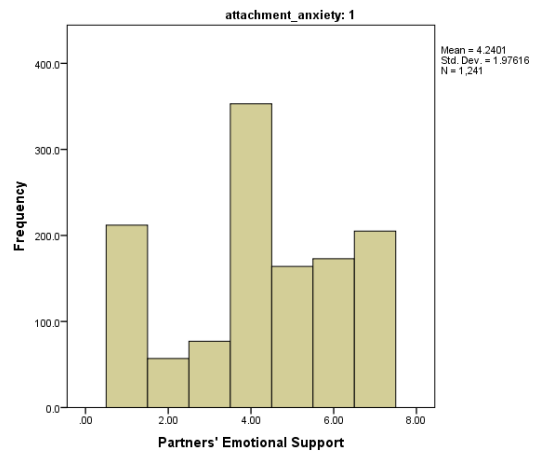
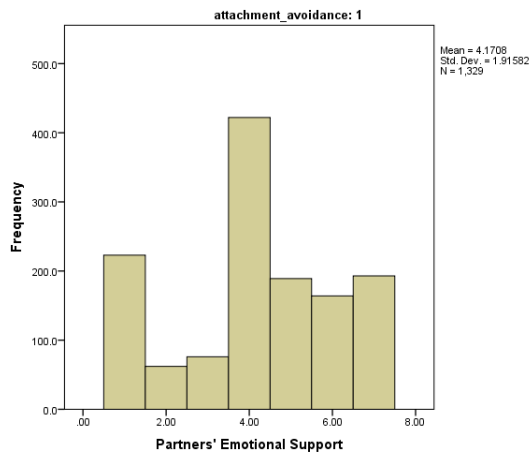
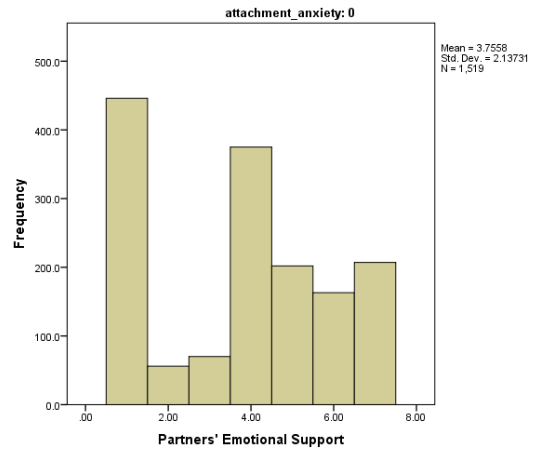
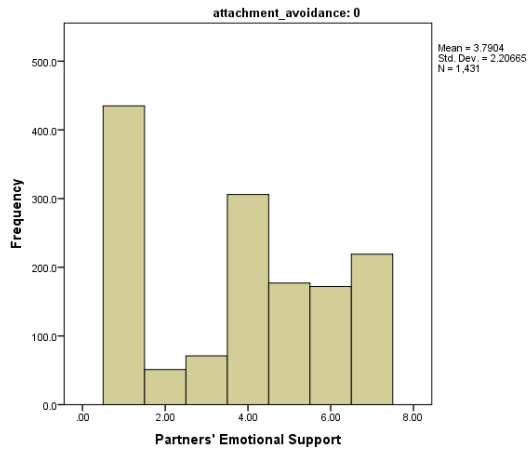
1. **Perceived partners' practical support** (top figures, $M = 3.05$, $SD = 2.02$) for groups low (group = 0) and high (group = 1) and in attachment avoidance (left) and low and high in attachment anxiety (right)

2. **Perceived partners' emotional support** (bottom figures, $M = 3.96$, $SD = 2.08$) for groups low (group = 0) and high (group = 1) and in attachment avoidance (left) and low and high in attachment anxiety (right)

Group 0 = attachment avoidance and anxiety below the mean

Group 1 = attachment anxiety and avoidance above the mean





4. Significant Interactions between Partners' Support and Attachment Anxiety

This following section provides figures for all significant interactions between partners' support and recipients' attachment anxiety that were omitted from the original manuscript due to the length of the paper (although each of the interactions below were described in text in the paper).

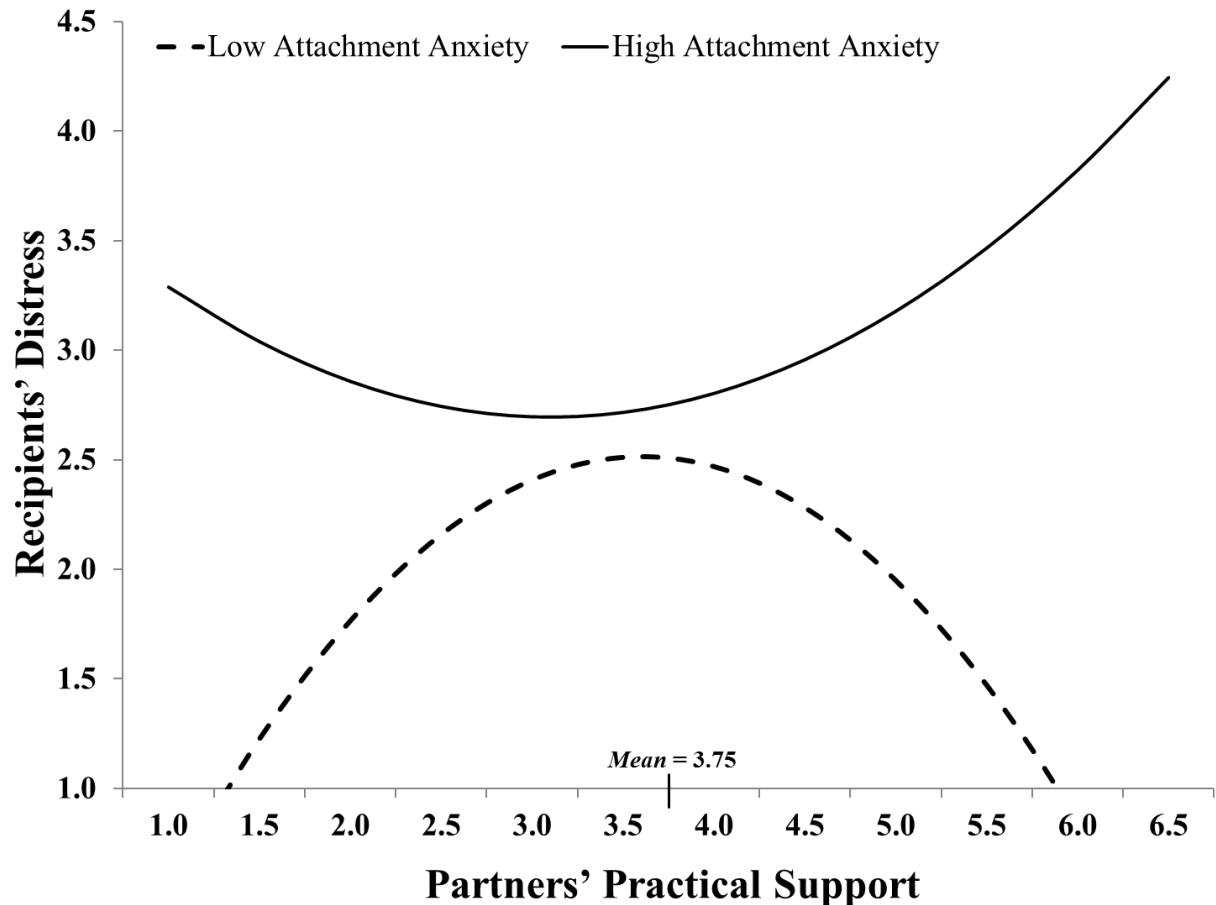


Figure SM.4.1. The moderating effect of recipients' attachment anxiety on the curvilinear association between practical support exhibited by the partner during discussions of recipients' personal goals and recipients' distress (Study 1).

Note. The values on the x-axis represent the range of practical support provided by partners in Study 1 (1 = no practical support, 6.5 = highest levels of practical support). Only predicted values of distress that fell within the range of distress assessed and reported in Study 1 (1 = not at all, 7 = extremely) are shown (i.e., predicted values that fell below 1 were not plotted). Low and high attachment anxiety are indexed by 1 SD below and above the mean.

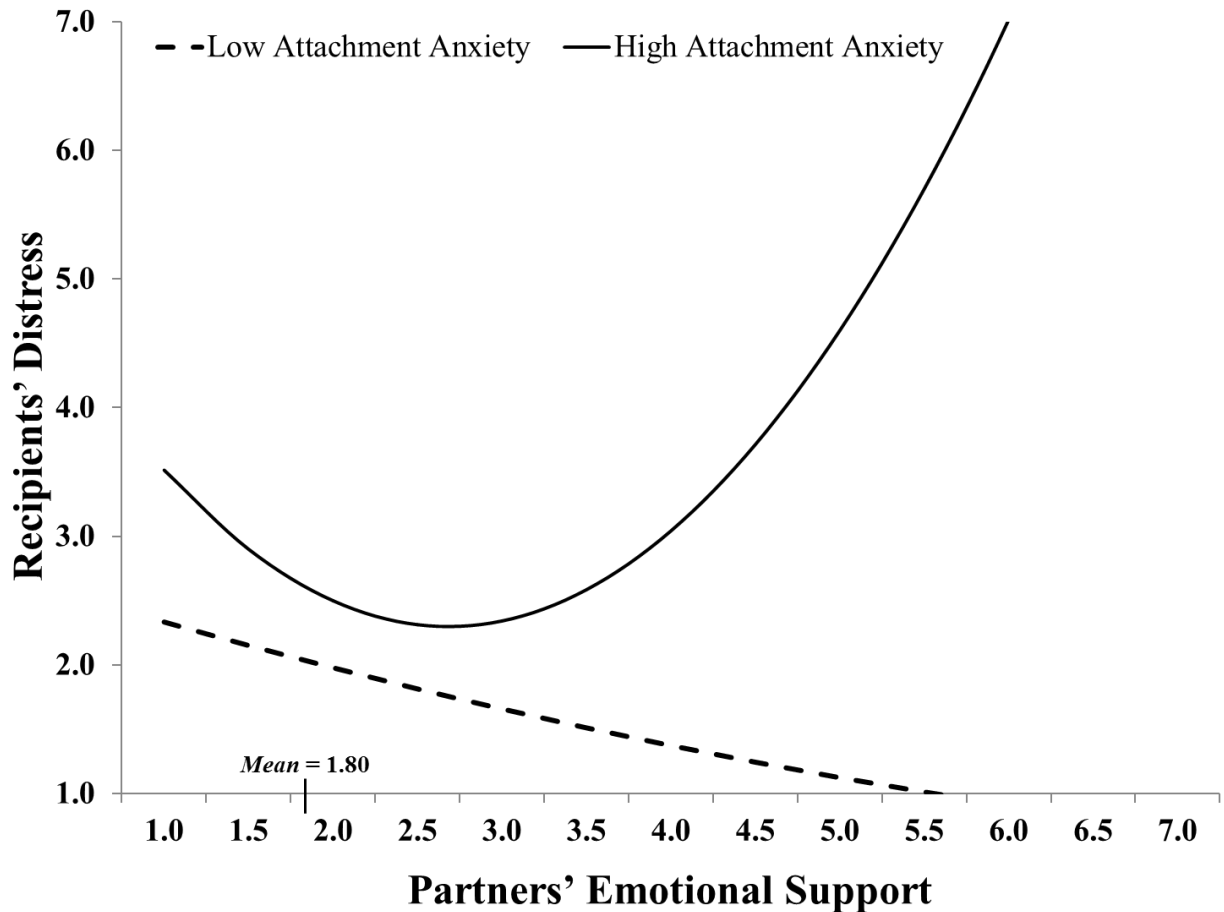


Figure SM.4.2. The moderating effect of recipients' attachment anxiety on the curvilinear association between emotional support exhibited by the partner during discussions of recipients' personal goals and recipients' distress (Study 1).

Note. The values on the x-axis represent the range of emotional support provided by partners in Study 1 (1 = no emotional support, 7 = highest levels of emotional support). Only predicted values of distress that fell within the range of distress assessed and reported in Study 1 (1 = not at all, 7 = extremely) are shown (i.e., predicted values that fell below 1 and above 7 were not plotted). Low and high attachment anxiety are indexed by 1 SD below and above the mean.

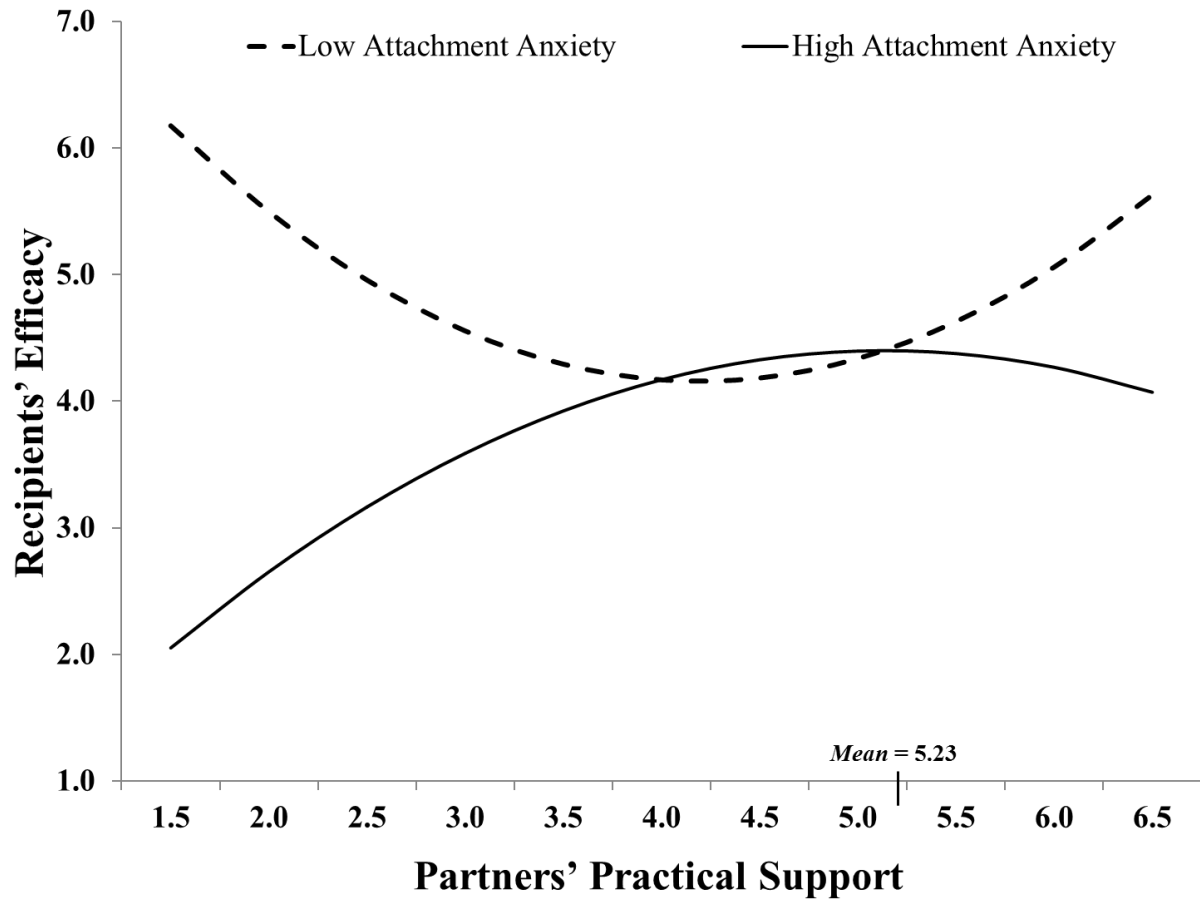


Figure SM.4.3. The moderating effect of recipients' attachment anxiety on the curvilinear association between practical support exhibited by the partner during discussions of recipients' significant stressors and recipients' efficacy (Study 3).

Note. The values on the x-axis represent the range of practical support perceived by recipients in Study 3 (1.5 = lowest levels of practical support, 7 = highest levels of practical support). Low and high attachment anxiety are indexed by 1 SD below and above the mean.

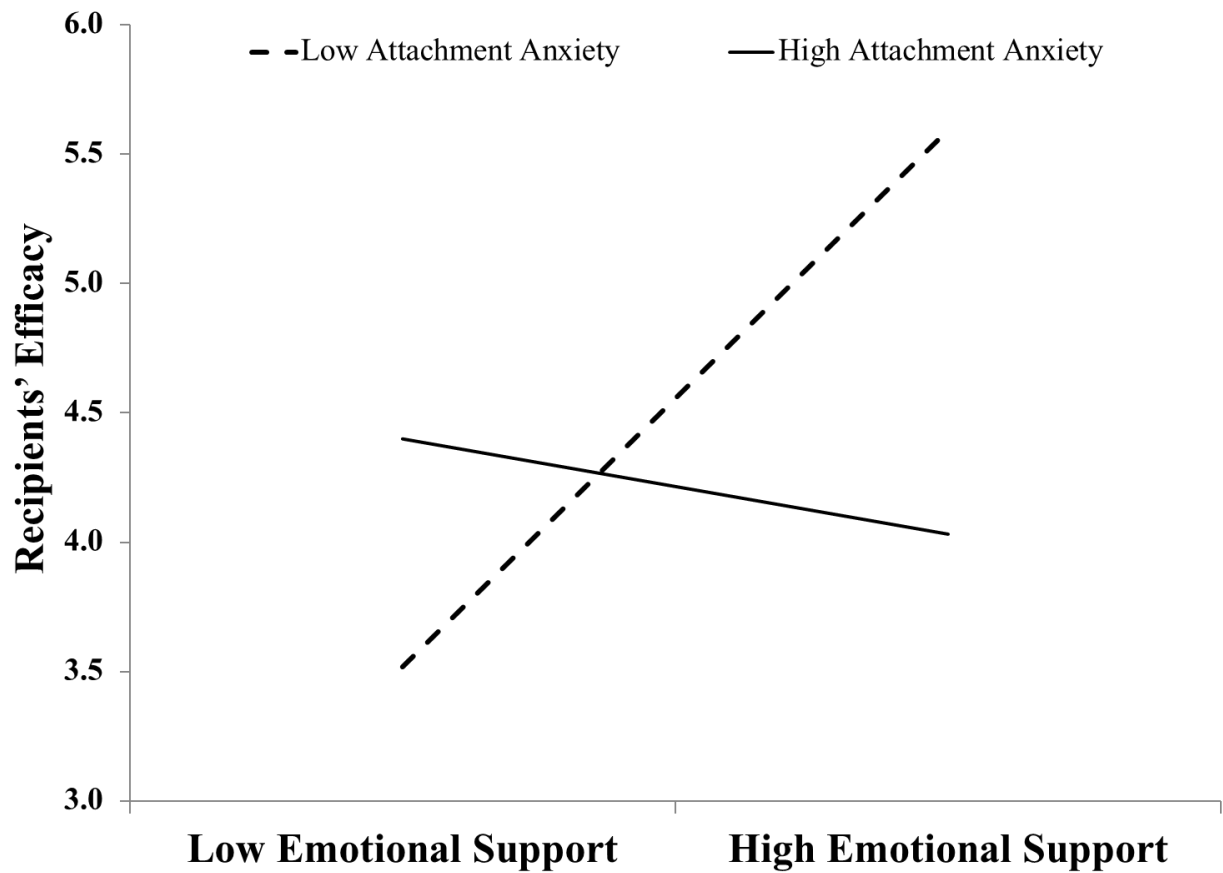


Figure SM.4.4. The moderating effect of recipients' attachment anxiety on the linear association between emotional support exhibited by the partner during discussions of recipients' significant stressors and recipients' efficacy (Study 3).

Note. Low and high attachment anxiety and low and high emotional support are indexed by 1 SD below and above the mean.

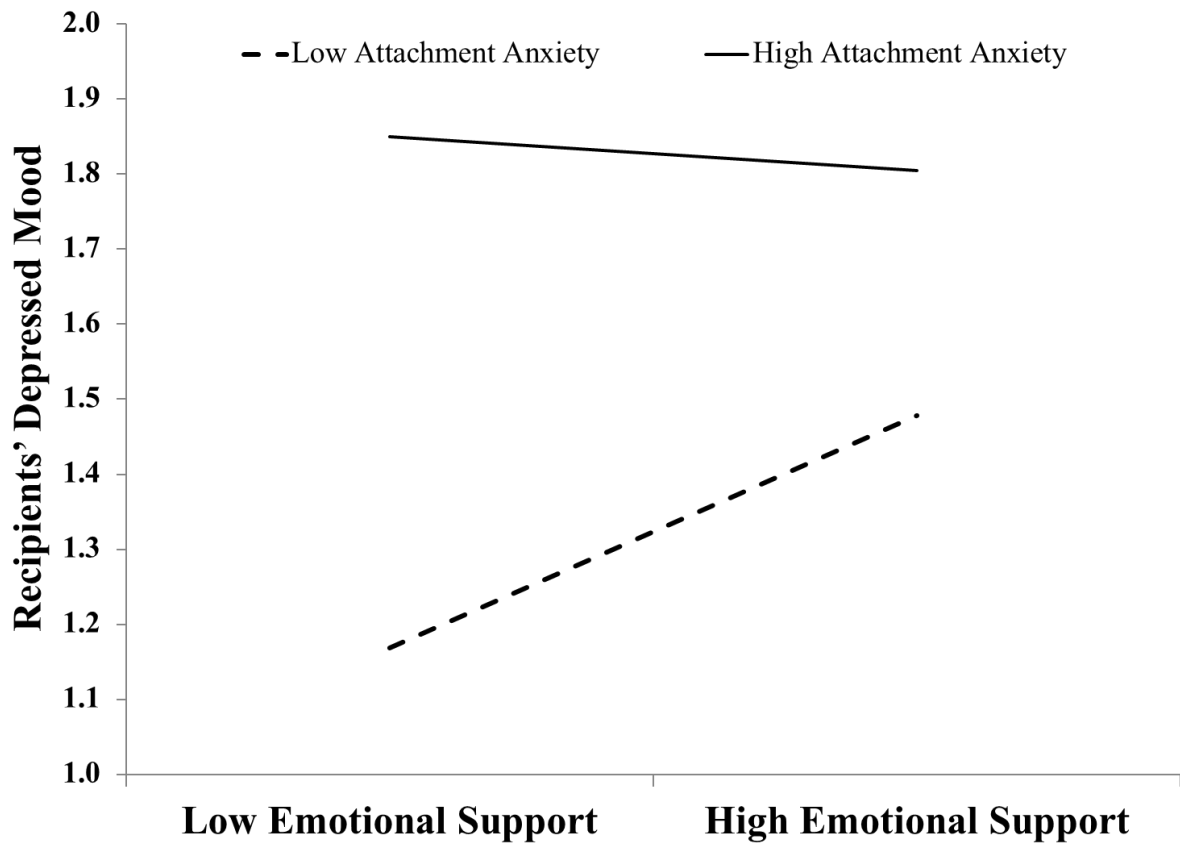


Figure SM.4.5. The moderating effect of recipients' attachment anxiety on the linear association between daily levels of perceived emotional support by the partner and recipients' depressed mood (Study 4).

Note. Low and high attachment anxiety and low and high emotional support are indexed by 1 SD below and above the mean.

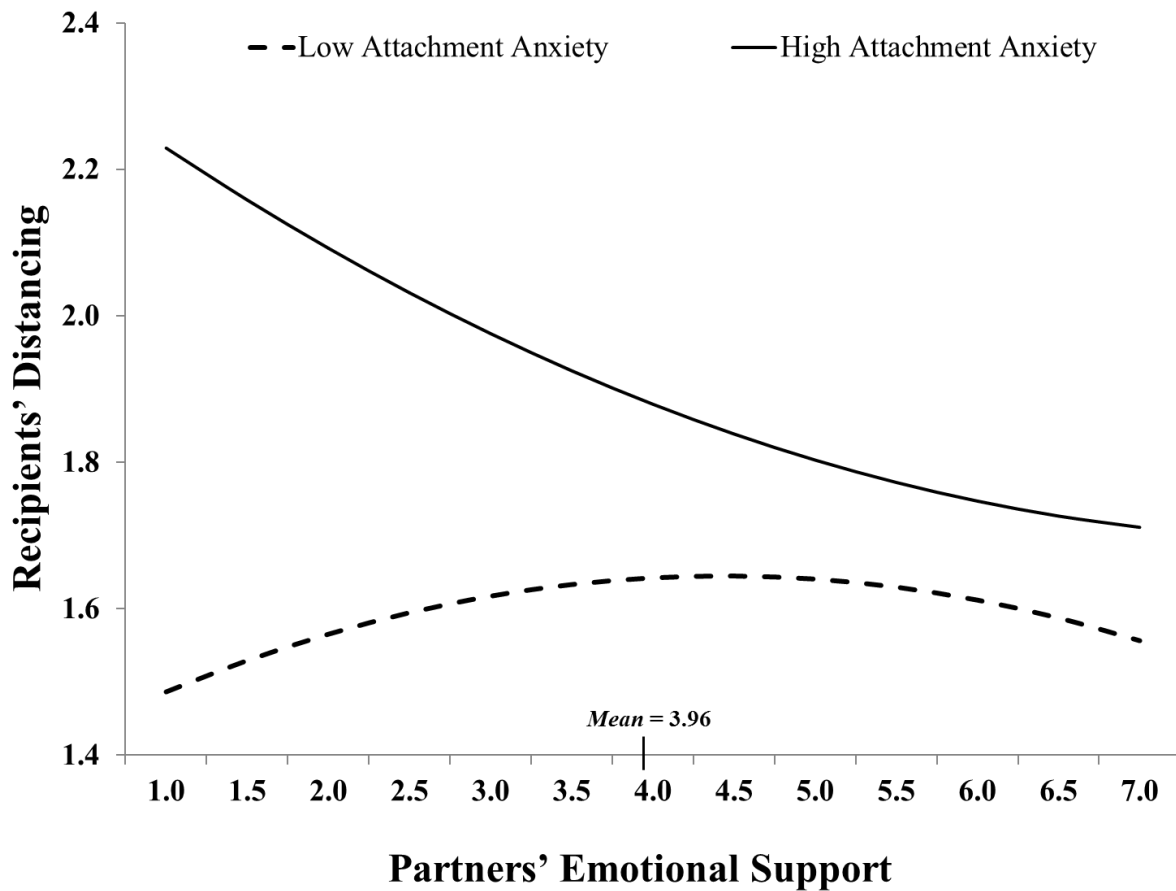


Figure SM.4.6. The moderating effect of recipients' attachment anxiety on the curvilinear association between daily levels of perceived emotional support by the partner and recipients' daily distancing (Study 4).

Note. The values on the x-axis represent the range of perceived emotional support by the partner reported in Study 4 (1 = no partner support, 7 = very high levels of partner support). Low and high attachment anxiety are indexed by 1 SD below and above the mean.

5. How to Calculate Inflection Points

The following section provides supplementary materials providing examples for working out the inflection points of each moderated curve in a moderated curvilinear interaction.

Step-by-Step Example for Study 1, Figure 1.

(1) First, using standard unconstrained optimization techniques (see Stewart, 2011) we composed an equation reflecting the moderated curvilinear effect in Figure 1 where x = partners' practical support and z = recipients' attachment avoidance.

$$f(x, z) = B_0 + B_1x + B_2x^2 + B_3z + B_4xz + B_5x^2z$$

$$f(x, z) = 2.630 + 0.044x - 0.078x^2 + 0.454z - 0.091xz - 0.147x^2z$$

(2) Second, we took the partial derivative with respect to x and solved for $\frac{\partial f}{\partial x} = 0$

$$\frac{\partial f}{\partial x} = B_1 + (2 * B_2x) + B_4z + (2 * B_5xz)$$

$$\frac{\partial f}{\partial x} = 0.044 + (2 * -0.078x) - 0.091z + (2 * -0.147xz)$$

$$= 0.044 - 0.156x - 0.091z - 0.294xz$$

Solve for $\frac{\partial f}{\partial x} = 0$

$$0.044 - 0.156x - 0.091z - 0.294xz = 0$$

$$0.044 - 0.091z = 0.156x + 0.294xz$$

$$0.044 - 0.091z = x(0.156 + 0.294z)$$

$$x = \frac{0.044 - 0.091z}{0.156 + 0.294z}$$

If $0.156 + 0.294z \neq 0$

(3) Finally, we solved x by substituting values for z (i.e., -1 SD and +1 SD values for z or recipients' attachment avoidance) and re-centered the x values (partners' practical support) against the true mean value.

$z = 0.957$ (*High Avoidant Individuals +1 SD*)

$$x = \frac{0.044 - 0.091(0.957)}{0.156 + 0.294(0.957)}$$

$$x = \frac{-0.043087}{0.437358}$$

$$x = -0.098516$$

$z = -0.957$ (*Low Avoidant Individuals -1 SD*)

$$x = \frac{0.044 - 0.091(-0.957)}{0.156 + 0.294(-0.957)}$$

$$x = \frac{0.131087}{-0.125358}$$

$$x = -1.045701$$

Recenter value of x against true mean value

Actual mean for $x = 3.75$

Thus, the inflection points of x at:

High Attachment Avoidance (+1 SD)

$$z = 0.957 \text{ is } 3.75 - 0.098516 = \mathbf{3.65}$$

Low Attachment Avoidance (-1 SD)

$$z = -0.957 \text{ is } 3.75 - 1.045701 = \mathbf{2.70}$$

References

- Aiken, L. S., & West, S. G. (1991). *Multiple Regression: Testing and Interpreting Interactions*. Newbury Park, California: Sage Publications.
- Stewart, J. (2011). *Calculus: Early Transcendentals* (7th Ed.). Belmont, California: Brooks/Cole Cengage Learning.

6. Coding Practical and Emotional Support (Studies 1-2)

This section describes the types of support behaviors classified and coded as practical and emotional support. The specific behaviors are based on the most common types of practical and emotional support acts measured across prior established coding schedules, including the Social Support Interaction Coding System (SSICS; Pasch & Bradbury, 1998), the Social Support Behavior Code (SSBC; Cutrona and Suhr, 1992) and the Interactive Coping Behavior Coding System (ICBCS; Barbee & Cunningham, 1995). This specific coding and associated descriptions have also been used and validated by Overall, Fletcher and Simpson (2010), and are those used to assess the curvilinear associations of practical and emotional support in Study 1 and 2 of Girme, Overall, Simpson and Fletcher (2014).

Coders were instructed to rate the presence of practical and emotional support behavior globally across the entire discussion, with coders taking into consideration the various behaviours associated with each support category. Coders were instructed to take into account the *frequency*, *intensity* and *duration* of the specific support behaviours evident within the interaction to determine the level of practical and emotional support exhibited by each partner in the discussion (*low* = 1-2, *moderate* = 3-5, *high* = 6-7).

Coders independently rated each discussion according to the descriptions below to provide separate ratings of practical and emotional support. To limit coder drift, independent ratings were compared across coders and any discrepancies discussed. Coders' independent ratings demonstrated high consistency for both forms of support (*intraclass correlation coefficients* \geq .89).

Practical Support Behaviors involve the partner's attempts to provide information, advice and guidance about how to deal with the problem and/or bring about desired change.

When considering practical support, think about:

- How much the male/female offered advice and proposed actions to bring about change.
 - How much the male/female asked questions, searched for causes, and generated solutions or options to bringing about change.
 - How much the male/female provided factual information about the situation or about skills needed to bring about change or deal with the situation.
 - How much the male/female clarified or reassessed the situation (in a constructive manner) in order to find ways in which the behaviour might be able to be changed (i.e., reframing situation, offering alternative courses of action, providing insight).
-

Emotional Support Behaviors include expressing or communicating caring, love, concern, empathy and sympathy.

When considering emotional support, think about:

- How much the male/female expressed affection (verbal and non-verbal) and love when discussing what their partner wanted to change.
 - How much the male/female reassured and comforted the partner and/or expressed sorrow and regret about the partner's distress regarding desired change or difficulties in producing change.
 - How much the male/female expressed understanding and empathy of their partner's desired change and difficulties about producing change, and/or distress regarding the situation.
 - How much the male/female encouraged the partner to explain their point of view and express their feelings about the issue, and acknowledged and validated partners' view.
-

References

- Barbee, A. P., & Cunningham, M. R. (1995). *An experimental approach to social support communications: Interactive coping in close relationships*. *Communication yearbook*, 18, 381-413.
- Cutrona, C. E., & Suhr, J. A. (1992). Controllability of stressful events and satisfaction with spouse support behaviors. *Communication Research*, 19(2), 154-174.
- Girme, Y. U., Overall, N. C., Simpson, J. A., & Fletcher, G. J. O. (2014). "All or Nothing": Attachment Avoidance and the Curvilinear Effects of Partner Support. Unpublished Manuscript.
- Overall, N. C., Fletcher, G. J. O., & Simpson, J. A. (2010). Helping each other grow: Romantic partner support, self-improvement, and relationship quality. *Personality and Social Psychology Bulletin*, 36 (11), 1496 – 1513.
- Pasch, L., & Bradbury, T.N. (1998). Social support, conflict and the development of marital dysfunction. *Journal of Consulting and Clinical Psychology*, 66, 219-230.

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