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Daily goal progress is facilitated by spousal support and promotes psychological, physical, and relational well-being throughout adulthood

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Abstract

In two daily-diary studies, we tested the consequences and precursors of daily goal progress throughout the adult lifespan. Attachment theory posits that exploration—including the pursuit of autonomous goals—promotes well-being across the lifespan and is facilitated by support from close others. For both young-adult newlyweds (Study 1) and married couples in late adulthood (Study 2), daily independent goal progress predicted same-day and next-day improvements in psychological, physical, and relational well-being. Specifically, when participants made more progress on their goals than usual on one day, they reported increases in positive affect, sleep quality, and relationship quality, and decreased physical symptoms, the following day (as well as concurrently). Additionally, spousal support (i.e., availability, encouragement, and noninterference) enabled same-day and next-day goal progress. Mediation analyses showed indirect links between spousal support and well-being through goal progress. Some effects were moderated by attachment orientation in the newlywed sample; individuals with greater insecure attachment benefited most from goal progress, and spousal support enabled goal progress most strongly for individuals with less anxious attachment. Overall, these results support and extend attachment theoretical propositions regarding the importance of the exploration system across the adult lifespan. They contribute to existing literature by demonstrating wide-ranging consequences of successful exploration for well-being and by providing evidence for the importance of both exploration and support for exploration into late adulthood.

Keywords

exploration; social support; well-being; goal progress; lifespan

Individuals can expand beyond their comfortable boundaries to travel to new places, approach strangers, and sample new foods. According to attachment theory, these behaviors are examples of exploration and are the result of an innate behavioral exploration system that promotes engagement with the environment throughout the lifespan, from infancy through late adulthood (Bowlby, 1969/1982/1988). Adults also learn foreign languages, renovate their homes, exercise to get/stay in shape, organize community programs, and engage in a variety of other goal-directed behaviors. Although these behaviors can require

sustained effort and may become routine over time, they are also examples of exploration (Elliot & Reis, 2003; Hazan & Shaver, 1990).

Attachment theory describes exploration, broadly, as a basic drive to engage autonomously with the environment and to pursue goals throughout the lifespan. In adulthood, individuals often explore through the pursuit of goals related to work, education, leisure, and their social relationships (e.g., Carnelley & Ruscher, 2000; Elliot & Reis, 2003; Feeney, 2004; Green & Campbell, 2000; Hazan & Shaver, 1990). Fulfillment of one's exploration motivation, through goal progress, is theorized to promote well-being by increasing feelings of competence, autonomy, and control, or by reducing stress associated with failing to meet important goals (e.g., Cohen & Pressman, 2006; Deci & Ryan, 2000; Scioli et al., 1997, Shapiro, Swartz, & Astin, 1996). Empirical evidence has supported an association between goal progress and increases in subjective well-being (i.e., life meaning and positive affect; Klug & Maier, 2014).

Although exploration is linked to well-being, it also carries risks (e.g., physical danger, failure, rejection). According to attachment theory, successful and authentic exploration can only occur when individuals are unhindered by excessive concerns about these risks (e.g., Bowlby, 1969/1982/1973). Thus, individuals are most likely to pursue autonomous goals when they have supportive caregivers (attachment figures) who instill a sense of security and are available to provide assistance if needed (Bowlby, 1988). In childhood, many parents support exploration, and in adulthood, romantic partners tend to be one's primary support-provider (Hazan & Shaver, 1987). Romantic partners can support exploration in adulthood by demonstrating availability, validating or encouraging goals, and not interfering unnecessarily with goal pursuit (e.g., Feeney & Thrush, 2010). These supportive behaviors are theorized to facilitate goal progress, and ultimately goal achievement, throughout the adult lifespan.

In the current research, we investigated the day-to-day consequences and precursors of exploration across the adult lifespan. Specifically, we tested whether daily goal progress predicts increases in daily well-being and whether daily spousal support for goals predicts increases in daily goal progress. This investigation focuses attention on the exploration system, an understudied aspect of attachment theory, and extends prior research and theory in several ways. First, we integrate existing theoretical conceptualizations of exploration to offer a clear and inclusive conceptual definition for exploration (e.g., Bowlby, 1988; Elliot & Reis, 2003; Green & Campbell, 2000; Hazan & Shaver, 1990), and we highlight goal progress as a specific indicator of authentic and successful exploration. Second, this investigation takes an adult-lifespan perspective on the importance of exploration and support for exploration. Although a major proposition of attachment theory is that its principles apply from the cradle to the grave (Bowlby, 1969/1982/1988), the older adult population has been neglected in attachment theory and research – and particularly in research regarding the importance of goal-strivings. The current research addressed this gap by sampling couples across the adult lifespan using a sample of newlyweds (Study 1) and a sample of married couples over age 65 (Study 2). Third, the current research uses a broad operationalization of well-being to assess diverse consequences of exploration (and support for exploration) in adulthood. Specifically, we tested whether goal progress promoted

components of psychological, physical, and relational well-being, and whether spousal support indirectly promotes these important outcomes through goal progress. Attachment theory views authentic exploration as a fundamental drive; therefore, successful exploration (and support for exploration) should have wide-ranging consequences. Finally, we used a daily diary methodology to test within-person links between spousal support, goal progress, and well-being over time; this analysis extends previous between-person research supporting these links (e.g., Feeney, 2004, 2007; Feeney & Thrush, 2010; Girme, Overall, & Simpson, 2013; Klug & Maier, 2014).

Figure 1 (solid arrows) depicts the proposed theoretical model of the normative processes linking spousal support to goal progress and well-being in both younger and older adult samples. As a secondary aim, we explored whether some individuals were more likely than others to benefit from goal progress and support for goals (Figure 1, dashed arrows). In the sections that follow, we elaborate on our guiding theoretical framework and on the specific predictions derived from this framework.

Guiding Theoretical Framework of Exploration

Although there are other theoretical perspectives that would predict that goal progress should promote well-being (e.g., Deci & Ryan, 1985, 2000; White, 1959), attachment theory provides a central perspective from which to examine the full theoretical model depicted in Figure 1. Specifically, attachment theory offers an explanation for how goal progress occurs in a relational context, facilitated by spousal support, because it stipulates that the need for security is a fundamental precursor for initiating and sustaining exploration (for individuals of all ages). Attachment theory stipulates that exploration, attachment, and caregiving are three important and interrelated components of human nature that can be viewed as deeply ingrained biological behavioral systems (Bowlby, 1969/1982/1973/1980/1988). All three systems are presumed to have survival value; thus, the urge to engage in each form of behavior is preprogrammed to some degree. Because attachment theory considers the interworkings of these three systems (and the importance of each), it connects partner support, goal progress, and various forms of well-being most coherently. We briefly elaborate on these behavioral systems, with a particular focus on exploration, as a backdrop for our investigation.

Attachment theory regards the propensity to form strong emotional bonds with particular individuals (attachment) as an innate human characteristic, present in infancy and continuing through adulthood and old age (Bowlby, 1969/1982/1973). Individuals are presumed to enter the world equipped with an attachment system that functions to maintain the individuals' safety and security through contact with nurturing caregivers (i.e., attachment figures). The attachment system becomes activated most strongly in adversity so that when distressed (e.g., alarmed, anxious, tired, or ill), an individual will feel an urge to seek protection, comfort, and support from an attachment figure (e.g., a parent in childhood, a spouse in adulthood; Bowlby, 1969/1982/1973; Bretherton, 1987; Gillath et al., 2006; Hazan & Shaver, 1987). When an individual is not distressed and is feeling secure, he/she can instead direct attention toward exploration, another important component of human nature (Bowlby, 1988).

Attachment theory describes exploration as any behavior that involves going out from the parent/partner/relationship for autonomous engagement with the physical or social environment (Bowlby, 1969/1982/1988; see also Crowell et al., 2002; Waters & Cummings, 2000). According to the theory, when individuals are confident that an attachment figure is available and will be responsive when needed, they should feel secure enough to explore the environment. This confidence in an attachment figure is essential for exploration because exploration typically involves some degree of risk (Bowlby, 1969/1982/1988). The potential risks of exploration range from physical danger to mild psychological discomfort that results from uncertainty about how to proceed or the possibility of failure or rejection. Leaving one's attachment figure to explore can also present a risk in itself; individuals will only explore away from an attachment figure when they are confident that the caregiver will remain committed. Doubts about caregiver availability or responsiveness can interfere with exploration, and any feelings of distress during exploration stimulate an urge toward proximity.

Initial research and theorizing on the exploration system focused on childhood examples, where typical exploratory activities include engagement with the physical or social environment through play with novel toys, trying new activities, or meeting another child (e.g., Ainsworth & Bell, 1970; Bowlby, 1969/1982/1988). These common childhood examples of exploration include novelty, and novelty has indeed been emphasized as part of what may facilitate exploratory behavior. Bowlby suggested that novel and complex stimuli often elicit exploration (Bowlby, 1969/1982), and Ainsworth designed the Strange Situation to be "novel enough to elicit exploratory behavior" (Ainsworth & Bell, 1970, p. 53). However, novelty is not an essential feature of exploration. Bowlby defined exploration in childhood more broadly as "behavior that takes [one] away from his mother into the wide world" (1988, p. 61).

Although Bowlby proposed that the exploration system operates throughout the lifespan, he did not elaborate on how adults are likely to explore (Bowlby, 1969/1982/1988). In defining and measuring exploration in adulthood, some theorists have focused on examples in which adults leave their relationship partners to engage in the physical or social environment in novel ways (e.g., skydiving, traveling to new places, meeting new people; Green & Campbell, 2000). However, as in childhood, exploration need not include novelty. Accordingly, other theorists have focused less on novelty and more on autonomous behaviors in the physical and social environment that allow individuals to develop and demonstrate competence (e.g., Elliot & Reis, 2003; Hazan & Shaver, 1990). Examples of these exploratory behaviors include engaging in professional/work or academic activities and working toward personal achievement goals (Aspelmeier & Kerns, 2003; Elliot & Reis, 2003; Feeney, 2004; Hazan & Shaver, 1990). Other examples of exploration in adulthood, as in childhood, include developing friendships, participating in leisure activities, and developing hobbies (Carnelley & Ruscher, 2000; Hazan & Shaver, 1990).

We propose that the critical elements of exploration (which apply to all forms of exploration across the lifespan) involve (1) motivated autonomous engagement with the physical or social environment (2) such that the outcome is uncertain while engaging in the exploration. The uncertain outcome presents some degree of risk, which attachment figures can mitigate

by being available and responsive should physical or psychological threats arise during exploration. Goal progress is an ideal way to operationalize this conceptual definition in adulthood because making progress on personal goals represents successful, autonomous engagement with the physical or social environment, and the outcomes of the goal progress are as yet uncertain. Even mundane goal progress entails uncertainty (and therefore, some risk). For example, making incremental progress on a goal to learn to play the piano, through daily practice, has an uncertain outcome (e.g., it comes with the risks of failure, disappointment, or frustration). Previously, researchers have measured trait and state willingness to explore by assessing individuals' willingness to pursue autonomous goals (Feeney, 2004). The current research instead captures exploration as it occurs, through daily reports of goal progress. Making progress on goals indicates not only that one has decided to pursue a personal goal, but also that one is engaging in authentic and persistent goal pursuit (exploration) that would be necessary for goal progress to occur.

The exploration system is closely inter-connected with a third major component of human nature: caregiving (i.e., support-provision). The caregiving behavioral system includes a broad array of behaviors that complement and support a relationship partner's attachment and exploration motives (Bowlby, 1969/1982/1988; Kuncze & Shaver, 1994). Thus, caregiving is viewed as serving two major functions: providing a *safe haven* for the attached person by meeting his/her needs for security (e.g., by providing emotional comfort and problem-solving in stressful situations), and most relevant to this investigation, providing a *secure base* for the attached person by supporting his/her autonomy and exploration. This investigation focuses on secure base support as a key facilitator of daily goal progress and as important in promoting diverse well-being outcomes (psychological, physical, and relational well-being) through its effects on goal progress.

In his writings on attachment theory, Bowlby (1969/1982/1988) emphasized the need for research on the normative interplay between the behavioral systems (exploration, attachment, and caregiving) and specific outcomes of this interplay. Subsequent to his writings, exploration (and support for exploration) has received the least theoretical and research attention of all proposed behavioral systems. The purpose of this investigation is to contribute to the advancement of research in this area. Specifically, we empirically test the theory that, throughout the adult lifespan, exploration (indicated by goal progress) is beneficial for three specific facets of well-being (psychological, physical, and relational well-being) and is facilitated by partner support. We next elaborate on the significance of successful exploration, in the form of goal progress, for diverse facets of well-being; then we elaborate theory regarding the importance of secure base support for facilitating goal progress (and for promoting well-being through goal progress).

Importance of Goal Progress for Well-Being Across the Adult Lifespan (Fig. 1, H1)

Goal-directed, exploratory behavior begins in infancy as infants explore away from their caregivers to interact with their environments independently (e.g., Ainsworth & Bell, 1970). Goal pursuit is crucial in infancy and childhood because exploration provides opportunities for learning, and it allows children to develop feelings of competence and efficacy (Bowlby, 1988). Erikson, in his psychosocial theory of development, also proposed a developmental

stage in early childhood in which children must explore away from their caregivers and develop autonomy or experience shame and doubt about themselves (Erikson, 1959). The importance of exploration continues into adulthood where goal pursuit can enable continued self-development, provide individuals with life meaning and purpose, and provide structure to impose on one's day (Cantor, 1990; Little, 1983).

When individuals make progress on their goals, they feel good about themselves; this is especially true when actual goal progress exceeds expected goal progress or when goals are self-concordant (i.e., consistent with personally important values; Carver & Scheier, 1982, 1998; Emmons, 1986; Sheldon & Elliot, 1999; Sheldon & Kasser, 1998). These ideas are all consistent with attachment theory's stipulation that exploration promotes well-being because it is an integral part of human nature, and individuals experience well-being when their needs are satisfied (e.g., Bowlby, 1988; Deci & Ryan, 2000). Several other theories similarly specify that goal pursuit and progress should promote well-being (e.g., Deci & Ryan, 1985, 2000; Feeney & Collins, 2015; Heckhausen, Wrosch, & Schulz, 2010; White, 1959). For instance, self-determination theory describes goal pursuit as a universal endeavor to fulfill fundamental human needs for competence, relatedness, and autonomy, and White's (e.g., 1959) description of effectance motivation proposes an innate desire for competency and environmental mastery. These theories are not inconsistent with attachment theory, and some theorists have argued that exploration in adulthood is functionally equivalent to an effectance motivation (see Elliot & Reis, 2003).

Prior research has demonstrated a robust association between goal progress and subjective well-being; when individuals make progress on their goals, they experience positive emotions and life satisfaction, and they experience less psychological distress (Diener, 1984; Klug & Maier, 2014). For instance, Brunstein (1993) measured college students' subjective well-being and their perceptions of their individual goal progress across an academic semester. Students who reported greater goal progress during the semester were more likely to have increases in well-being or to maintain their level of well-being over the semester than students who reported low levels of goal progress. Other research has investigated goal progress during shorter time frames using a daily diary approach. In a sample of women with fibromyalgia, goal progress on one day predicted increases in positive mood the following day (Affleck et al., 1998). A recent meta-analysis of 85 studies linking goal progress and subjective well-being showed a medium-to-large effect size for the association (Klug & Maier, 2014). Notably, the majority of samples used in this research, and thus, the samples included in the meta-analysis, were undergraduate student samples, and few older individuals were included ($M_{\text{age}} = 30.66$, $SD = 6.69$). Research on the effects of goal progress in an aging population (age 65 and older) has been lacking despite a large and growing percentage of individuals representing this demographic. Some researchers have suggested that goals may be less important in late adulthood (Jacob & Guarnaccia, 1997), but attachment theory suggests that the exploration system is active throughout the lifespan, "from cradle to grave," and that life-long goal progress is essential for well-being.

Although researchers have primarily assessed associations between goal progress and subjective, psychological well-being (c.f., Holahan, 1988), goal progress may have wide-ranging consequences for well-being. Given attachment theory's stipulation that exploration

is a core component of human nature, goal progress is expected to be influential enough to also promote physical well-being (e.g., a lack of physical symptoms or better sleep quality) and relational well-being (e.g., satisfaction with and commitment to one's relationship). Well-being in each of these domains is linked; when individuals are able to achieve psychological well-being (e.g., positive affect), they may avoid physical health symptoms, sleep better, and view their relationships more favorably, as suggested by prior research and theory (e.g., Forgas, 1995; Pressman & Cohen, 2005; Steptoe, O'Donnell, Marmot, & Wardle, 2008). Successful exploration, as indicated by goal progress, may also buffer stress to protect psychological, physical, and relational well-being. Stress interferes with all three domains of well-being (e.g., Cohen, Janicki-Deverts, & Miller, 2007; Neff & Karney, 2004, 2009), and stifled goal progress creates stress whereas pursuing meaningful and achievable goals prevents stress (e.g., Wrosch, Scheier, Miller, Schulz, & Carver, 2003). Therefore, when individuals fail to make progress on goals, the resulting stress may interfere with well-being broadly. Additionally, research suggests that individuals celebrate their goal-related successes with their partners (Gable, Reis, Impett, & Asher, 2004); thus, one individual's successful exploration may promote positive relational processes.

The current research investigated whether daily goal progress is related to daily psychological well-being, physical well-being, and relational well-being to test whether there are diverse and consistent consequences of goal progress across the adult lifespan. We used a daily diary methodology to assess the impact of within-person changes in goal progress on changes in well-being concurrently (on the same day) and prospectively (on the following day). We predicted that when participants reported greater goal progress than their typical level (average level over the daily diary period), they would report increases in psychological, physical, and relational well-being on the same day (Hypothesis 1a) and the following day (Hypothesis 1b), and likewise, when participants reported less goal progress than their typical level, they would report decreases in well-being on the same day and the following day (see Figure 1). These within-person predictions enable us to assess the impact of successful, daily exploration for any individual, regardless of their typical level of goal progress; this analysis extends previous between-person research that has only demonstrated that people who make more goal progress have positive psychological outcomes compared to people who make less progress (e.g., Klug & Maier, 2014). We assessed both concurrent and prospective associations between daily goal progress and daily well-being because we expected that goal progress would impact well-being immediately and that the impact would be maintained on the following day. Additionally, assessing the relationship between goal progress and well-being over time provides a more stringent test of our hypothesis.

Importance of Secure Base Support for Promoting Goal Progress Across the Adult Lifespan (Fig. 1, H2)

If autonomous goal progress does promote well-being, as predicted, it is crucial to investigate the factors that foster successful exploration. According to attachment theory, individuals are most likely to initially pursue their goals and persist through setbacks (i.e., engage in successful exploration) when they believe that they are safe and can rely on close others to be available to provide responsive support when needed (Bowlby, 1969/1982/1973/1988). A theoretical perspective that extends attachment theory also posits

that partner support for opportunities for growth (i.e., relational catalyst support) promotes autonomous goal progress and well-being (Feeney & Collins, 2015). Thus, another primary goal of the current research was to assess whether support from spouses helps to facilitate goal progress in adulthood. Indeed, previous research has demonstrated that individuals who have partners who provide responsive support in this life context are most likely to achieve their personal goals (Brunstein, Danglemayer, & Schultheiss, 1996; Feeney, 2007; Girme et al., 2013; Koestner, Powers, Carbonneau, Milyavskaya, & Chua, 2012).

Individuals may be hesitant to pursue personal goals if they fear failure, do not believe they have the efficacy to achieve their goals, or believe their goals are unimportant. Obstacles during goal pursuit may also derail goal progress. Spouses may remove barriers to goal progress or provide helpful solutions and instrumental aid to enable goal progress. Additionally, spouses could provide encouragement or validate the importance of goals. Support for exploration is referred to as secure base support because support-providers provide a secure base from which individuals can feel comfortable to explore and to which individuals can return if difficulties arise (Bowlby, 1988). Secure base support in adulthood is defined by three characteristics: 1) encouragement and validation of exploration by conveying enthusiasm and confidence, 2) availability to provide help if needed (e.g., by helping to overcome obstacles), and 3) non-interference with exploration when no help is required (Feeney & Thrush, 2010; Feeney & Van Vleet, 2010). Theoretically, the provision of a secure base is an important part of what is needed to assist close others in achieving well-being through embracing life opportunities for growth (Feeney & Collins, 2015). When individuals receive secure base support from their partners, they report greater self-esteem and greater perceptions that their goals are achievable, and they perform better during challenging tasks than when they do not receive secure base support (Feeney, 2004, 2007). Because individuals who perceive support believe that their goals are attainable and have greater self-esteem, they may persist longer or find solutions when they face obstacles during exploration.

Based on attachment theory and this previous research, we hypothesized that secure base support from spouses would facilitate goal progress across the adult lifespan. Again, we tested this prediction using a daily diary within-person methodology which allowed us to control for the average amount of secure base support people receive from their spouses and to instead focus on the effects of daily secure base support. We predicted that when individuals received greater daily secure base support than their typical (average) level, they would make more progress on their personal goals on the same day (Hypothesis 2a) and the following day (Hypothesis 2b), and likewise, when participants received less secure base support than their typical level, they would make less progress on their personal goals on the same day and the following day. We expected that secure base support would promote goal progress immediately—on the same day—and that the impact would continue into the following day (see Figure 1).

Finally, as depicted in Figure 1, we predicted that daily goal progress (representing successful exploration) would provide an indirect link between secure base support receipt and well-being (Hypothesis 3). We predicted that daily secure base support would predict increases in daily goal progress, which in turn would predict increases in daily well-being.

Thus, secure base support was predicted to promote psychological, physical, and relational well-being through its facilitation of goal progress.

Does Everyone Benefit Equally from Goal Progress and Secure Base Support?: Individual Differences in Attachment Orientation (Fig. 1, Exploratory H1 and H2)

Although we predicted that goal progress would normatively promote psychological, physical, and relational well-being and that secure base support would normatively promote goal progress for all individuals (consistent with attachment theory), we explored whether some people might benefit more than others from independent goal progress and secure base support (depicted in the dashed arrows of Figure 1). Just as attachment theory provides a useful framework from which to make our normative predictions, so too does it provide useful information regarding potential individual differences in the strength of these processes.

According to attachment theory, one's particular history of relational experiences with attachment figures underlies individual differences in attachment orientation. Attachment orientation includes general beliefs about oneself and others and preferences in relationships (Bowlby, 1969/1982/1973/1980; Main, Kaplan, & Cassidy, 1985). Attachment anxiety reflects a concern about being rejected, abandoned, or unloved; views of the self as being unacceptable/unworthy; and views of others as being available only occasionally or contingently (e.g., Hazan & Shaver, 1987; Kobak & Sceery, 1988; Shaver & Mikulincer, 2007). Attachment avoidance reflects a discomfort with closeness and intimacy, as well as a belief that others cannot be relied upon when needed. Secure attachment (low attachment anxiety and avoidance) reflects views of close others as being accessible and responsive when support is needed, and views of the self as being acceptable and worthy of love (Bowlby, 1969/1982/1973).

Prior research suggests that individuals who are high in insecure attachment may benefit most from goal progress. Individuals with greater attachment insecurity tend to engage in less exploration overall (e.g., Ainsworth, Blehar, Waters, & Wall, 1978; Aspelmeier & Kerns, 2003; Green & Campbell, 2000); therefore, when goal progress occurs, it may be most salient (and thus, most beneficial) for these individuals. Further, anxiously attached individuals may benefit more from goal progress than more secure individuals because they are prone to poor daily well-being (e.g., psychological distress, physical symptoms, relationship problems) due to persistent doubts about their relationships (Campbell, Simpson, Boldry, & Kashy, 2005). Goal progress may provide a positive experience to buffer the negative effects of their doubts. In addition, people who are high in attachment avoidance may benefit more from goal progress than more secure individuals because they value autonomy. Exploring away from a relationship to pursue personal goals may be especially self-relevant and beneficial for individuals with greater attachment avoidance (Martin, Paetzold, & Rholes, 2010). Thus, we tested whether individuals high in attachment insecurity benefit from goal progress on the same day (Exploratory Hypothesis 1a) and the following day (Exploratory Hypothesis 1b) to a greater extent than more secure individuals.

In contrast, individuals high in insecure attachment may benefit least from secure base support to promote their goal progress. Avoidant individuals tend to be uncomfortable

receiving support, individuals high in anxious attachment have variable responses to support receipt, and individuals high in avoidant or anxious attachment construe ambiguous support more negatively than secure individuals (e.g., Campbell et al., 2005; Collins & Feeney, 2004; Feeney, 2007; Florian, Mikulincer, & Bucholtz, 1995; Mikulincer & Shaver, 2009). In particular, individuals high in attachment anxiety may benefit least from secure base support because they are vigilant for indications that their partners may be trying to withdraw from the relationship (e.g., Campbell et al., 2005) and may misinterpret their partner's secure base support as a distancing behavior. Believing that their partner is reducing relational closeness, they may cling to their home base. Thus, although we predicted normative increases in daily goal progress as a function of receiving daily secure base support, we explored whether this relationship might be moderated by the support-recipient's attachment orientation on the same day (Exploratory Hypothesis 2a) and the following day (Exploratory Hypothesis 2b).

In summary, the current research (1) tested the within-person links between daily goal progress and changes in psychological, physical, and relational well-being on the same day (Hypothesis 1a) and the following day (Hypothesis 1b), (2) tested the within-person links between received daily secure base support and changes in goal progress on the same day (Hypothesis 2a) and the following day (Hypothesis 2b), (3) tested whether daily secure base support is indirectly linked to psychological, physical, and relational well-being through daily goal progress (Hypothesis 3), and (4) explored whether attachment orientation moderates these normative processes such that daily goal progress may more strongly benefit some individuals than others (Exploratory Hypothesis 1a, 1b) and daily secure base support may more strongly facilitate goal process for some individuals than others (Exploratory Hypothesis 2a, 2b). These hypotheses were tested in two studies with a sample of newlyweds (Study 1) and a sample of married couples in late adulthood (Study 2) because our theoretical approach, based in attachment theory, takes a lifespan perspective on the importance of exploration/goal pursuit and support for exploration.

Study 1: Newlywed Study

Method

Participants—Participants were newlywed couples who were recruited through flyers, local newspapers, bridal shows, and email advertisements as part of a larger study of newlywed relationships, and they were compensated for their participation. Eligibility criteria included being married for less than a year in both partners' first marriage, fluency in English, and being no older than 40 years of age. Of the 229 couples who enrolled in the study, there were 197 couples in which both couple-members provided data during the daily diary portion of the study for a total sample of 394 individual participants. Participants were, on average, 27.4 years old ($SD = 4.4$). Male participants (husbands) were slightly older ($M = 26.3$, $SD = 5.2$) than female participants (wives) ($M = 25.2$, $SD = 7.1$). Couples had been married for 4.6 months, on average ($SD = 3.0$). The majority of participants (82.1%) were Caucasian/White. Average level of education was an associate's or bachelor's degree, and mean earned annual income was between US\$40,000 and US\$60,000. A comparison between the participants who completed the daily diary and participants who enrolled in the study but did not complete the diary revealed a significant difference in age such that

participants who completed the study ($M = 27.4$, $SD = 4.4$) were slightly older than participants who did not ($M = 25.7$, $SD = 6.2$), $t(451) = 2.57$, $p = .010$. There were no differences in length of relationship, $t(220) = 0.63$, $p = .530$.

Procedure and measures—Couple-members came to the research laboratory, one couple at a time, to complete background questionnaires (completed separately from one another) that included an abbreviated 26-item version of the Experiences in Close Relationships Scale (ECR; Brennan, Clark, & Shaver, 1998). Participants rated the extent to which they agreed with statements about their preferences in close relationships on a scale from 1 (not at all) to 7 (very much). This scale has two subscales: anxiety and avoidance. Attachment anxiety measures the extent to which one is worried about being rejected, abandoned, or unloved and was computed as the mean of 13 items including “I worry a lot about my relationships,” ($\alpha = .88$). The avoidance dimension measures the extent to which one is comfortable with closeness, intimacy, and dependence on others; it was computed as the mean of 13 items including “I am very uncomfortable being close to people,” ($\alpha = .86$). To ensure an assessment of participants’ general attachment style (and not a relationship specific one), respondents answered in terms of their general orientation toward close relationships instead of their more specific orientation to romantic relationships.

Approximately one week later, participants returned to the laboratory for an observation session in which they had videotaped discussions and interactions with one another as part of the larger investigation of newlywed relationships. After the laboratory observation session, participants received instructions for completing a 7-day daily diary and were given Palm Pilots to access daily questionnaires and record their responses. Participants were instructed to complete the questionnaires on the Palm Pilot once at the end of each day (before bed) for 7 consecutive days. The questionnaires measured psychological well-being, physical well-being, relational well-being, goal progress, and secure base support receipt. Additional questionnaires assessed whether participants experienced specific difficulties and support for these difficulties, but those measures are outside of the scope of the current project. All items were created for purposes of this newlywed investigation. One other paper has been published with this daily diary dataset (Feeney & Lemay, 2012; Study 1). Additionally, one other paper has been published with the same sample but with data other than the daily diary (Tomlinson, Feeney, & Van Vleet, 2016).

Participants completed 12 items to assess their daily psychological (and hedonic) well-being. Using slider scales ranging from 1 (not at all) to 100 (very much), participants rated how they felt that day. They rated both positive items (e.g., confident, happy, calm or relaxed) and negative items (e.g., lonely, depressed, guilty). The negative items were reverse-scored for an overall measure of daily psychological well-being ($\alpha = .97$, reliability of change = .93; see Bolger & Laurenceau, 2013).¹

Each day, participants also reported physical well-being by reporting any physical symptoms they experienced from a list of 21 physical symptoms. Symptoms included items such as “I

¹Reliability of change estimates measure the reliability of measures that have multiple items and are measured repeatedly (see Bolger & Laurenceau, 2013 for a full explanation). Reliability of change is only reported for psychological and relational well-being in these studies because other measures are one-item measures or count measures.

felt nauseous”, “I felt dizzy,” and “I had neck pain.” Daily symptom counts ranged from 0 to 19. Thirty-five percent of daily reports were of 0 symptoms, and 57.1% of daily responses had between 1 and 5 symptoms selected.

Daily relational well-being (i.e., relationship quality) was measured with 8 items on which participants rated how positively they felt about their relationship using slider scales ranging from 1 (not at all) to 100 (very much). An example item is “How close or connected do you feel to your spouse today,” ($\alpha = .90$; reliability of change = .90).

Participants rated their goal progress each day by responding to one item using a slider scale ranging from 1 (not at all) to 100 (very much). The item assessed the amount of goal progress participants made (i.e., “How much progress did you make on achieving your goals for today?”).

Finally, participants indicated behaviors that their partner had enacted that day. From these items, we computed an 8-item scale of participants’ report of secure base support they received. Secure base items for the daily diaries were developed to capture the three theoretical components of a secure base: availability, encouragement, and nonintrusiveness (Feeney & Thrush, 2010). Participants reported whether their partners enacted 4 positive secure base support behaviors including “encouraged me to work on my goals,” “made it easy for me to do things,” “gave me advice about my goals,” and “expressed confidence in me.” There were also four items that described negative secure base support behaviors; these included “interfered with what I was doing,” “discouraged me from doing things,” “made it hard for me to do things,” and “took over something I was doing.” Participants checked off any of the things their partners did that day. These items were embedded in a list of other behaviors one’s partner could have enacted. We computed a composite variable representing secure base support by subtracting the number of negative behaviors (indicating a lack of a secure base) from the number of positive behaviors (indicating the presence of a secure base). Therefore, scores ranged from -4 to $+4$. Across the 7 daily reports, participants reported positive secure base support receipt (a total from 1 to 4) on an average of 4.6 days ($SD = 2.0$). On any daily report, participants most frequently reported 0 (30.8%), 1 (23.9%), or 2 (20.4%) positive secure base behaviors and most frequently reported no negative secure base behaviors (85.0%).

Data analytic strategy—Because the data were collected from both couple-members at multiple time-points, the data violate the statistical assumption of independent observations (as there might be correspondence in outcomes between couple-members, and the multiple reports from one couple-member were nested within that individual; Kenny, Kashy, & Cook, 2006). Also, because couple-members provide their reports at the same time, time and partner were crossed in this design. To account for non-independence, we constructed a multilevel model that allowed for correlated errors between partners by choosing an unrestricted variance structure for each dyad at each time (Kenny et al., 2006). The unrestricted variance was included in the random statement (see Supplementary Material for example syntax). Using this design, we were able to assess correlation in errors using the partial intraclass correlation estimate.

Additionally, because our couple-members are distinguishable on gender (i.e., in each couple, there is a male and female partner), and because there could be gender differences in the hypothesized effects, we used a distinguishable approach in which we estimated separate parameters for each gender (Kenny et al., 2006). In this way, we were able to test the overall effect across genders, the effect for each gender separately, and whether the effect interacted with gender. Further, we used the covariance structure “Compound Symmetry Heterogeneous” to allow for different error variances for the two couple-members. This variance was included in the repeated statement (see Supplemental Material). We present results across gender because we did not expect gender differences, but tests of gender differences and separate results by gender for each effect are available in Supplementary Tables 1–6. Gender was coded 1 for husbands and –1 for wives.

We analyzed the data using mixed models in SPSS 21.0. Our primary hypotheses concerned changes in outcomes as a function of within-person variations in the primary predictor (from the individual’s mean) concurrently and prospectively. Therefore, we person-centered the primary predictors (i.e., daily goal progress and daily secure base support) so that we could estimate the effects of within-person change in these predictors on the outcomes.

Additionally, we included a person’s mean level of the primary predictors (grand-mean-centered) to include an estimate of between-person effects on the outcomes. Using this analysis, we were able to test whether daily fluctuations from an individual’s typical (average) level of the predictor were associated with change in an outcome. For instance, instead of testing whether someone who tends to be higher in goal progress has greater well-being compared to someone who tends to be lower in goal progress, by person-centering the predictors and controlling for the mean level, we tested whether greater daily goal progress than usual is associated with increases in daily well-being. This analysis is better able to test the effects of a discrete instance of goal progress. In addition to estimating fixed effects of the primary predictor variables, we also estimated random intercepts and slopes of the primary predictor variables. For example, in a model predicting psychological well-being from goal progress, we allowed the intercept of goal progress (amount of well-being when goal progress = 0) and slope of goal progress (the relationship between goal progress and psychological well-being) to vary by individual. Random slopes were significant in the majority of cases; nonsignificant random slopes were left in analyses for consistency across models. We also adjusted for the previous report of the outcome (person-centered) to assess changes in the outcome from the previous report.

In the same-day analyses to test our concurrent hypotheses (Hypothesis 1a and 2a), the predictor variable and the outcome variable were measured on the same day. Because these results do not preclude the possibility of a reverse-relationship (i.e., daily well-being could predict daily goal progress, or daily goal progress could predict daily reports of secure base support), analyses to test our prospective hypotheses (Hypotheses 1b and 2b) provide the most stringent test of the associations depicted in Figure 1. We tested prospective models in which we predicted the outcome (e.g., psychological well-being) from the previous day’s predictor (e.g., yesterday’s person-centered goal progress), controlling for the previous day’s outcome (e.g., yesterday’s person-centered psychological well-being). We also included the change in the predictor from the previous day to the current day in the model (see Supplemental Materials).

Person-centering our predictors across a small number of daily observations creates a problematic correlation between the person-centered level of the predictor yesterday and changes in the predictor from yesterday to today. For example, a higher-than-average goal progress day is more likely to be followed by a lower-than-average goal progress day than other options (average goal progress, high goal progress) because there are limited observations on which the average is based. Including the change in the predictor from yesterday to today in the model remedies the artificial patterns this problem can create (see Lemay, Clark, & Feeney, 2007 and Lemay & Neal, 2013 for other research that has described and employed these procedures). In a model including both the lagged goal progress (yesterday's goal progress) and the change in goal progress from yesterday to today, the fixed effect of lagged goal progress indicates how a day with especially high goal progress is related to subsequent changes in well-being, independent of how goal progress changes from yesterday to today. Without controlling for the change score, a high goal progress day (likely followed by a low goal progress day) may appear to demonstrate that high goal progress predicts next-day poor well-being when in fact it is the decrease in goal progress that predicts poor well-being. By controlling for the change in goal progress, the fixed effect of lagged goal progress isolates an estimate of how an individual's goal progress on one day is related to well-being the following day. This is the prospective effect we aim to test in our normative models.

We also estimated and tested the full normative model proposed in Figure 1 (Hypothesis 3) by estimating and testing the total indirect effects using the Monte Carlo method (Rucker, Preacher, Tormala, & Petty, 2011; Selig & Preacher, 2008) and following recommendations from Kenny and West (2014). For this analysis, 1) we assessed the prospective relationship between daily secure base support and each facet of daily well-being to estimate the total direct effect, 2) we estimated the prospective relationship between daily secure base support and the proposed mediator, daily goal progress, to determine the first part of the indirect effect, and 3) we predicted each facet of daily well-being from yesterday's goal progress controlling for yesterday's secure base support to determine the second part of the indirect effect. Specifically, the full model tested whether support on one day predicts goal progress on the same day and well-being the following day. We chose these specific time points for the mediation model based on our theoretical expectation that secure base support is linked closer in time to goal progress than goal progress is to well-being. The specifications of these analyses were consistent with other normative analyses described above (see Supplementary Materials for more information).

Finally, we tested additional models to assess our exploratory hypotheses regarding attachment moderation. In the exploratory models, we included fixed effects of the participant's attachment dimensions (i.e., anxious attachment, avoidant attachment), and we included interactions between attachment dimensions and the primary predictor variables (i.e., daily goal progress, daily secure base support). Example syntax for the normative, mediation, and exploratory models is provided in the Supplementary Materials.

We first present the primary results of the concurrent and prospective normative analyses. Then, we provide the results of the full mediation model to test the theorized normative processes linking daily secure base support, daily goal progress, and daily well-being.

Finally, we describe the results of the exploratory tests of attachment moderation. We present unstandardized effects in all models.

Results

Descriptive statistics and zero-order correlations—Descriptive statistics and zero-order correlations among all study variables are shown in Table 1. For the time-varying variables, we used the average of each individual's reports across 7 daily measurement occasions to compute correlations.

Goal progress predicting same-day personal and relational well-being

(Hypothesis 1a)—We predicted that daily goal progress (over an individual's average level of goal progress) would be related to improvements in daily well-being on the same day. Results of these concurrent analyses are presented in Table 2. As predicted, daily goal progress predicted increases in psychological well-being, controlling for the previous report of psychological well-being (Table 2). This effect was moderated by gender, $t(144) = 1.72, p = .087$. The relationship between goal progress and psychological well-being was marginally stronger for wives ($B = .20, p < .0005$) than husbands ($B = .15, p < .0005$). Daily goal progress also predicted increases in physical well-being on the same day (Table 2). That is, on days when people reported greater goal progress than their average level, they reported greater decreases in physical symptoms than on days when they reported less goal progress. This effect was also moderated by gender, $t(1426) = -1.99, p = .047$; the negative relationship between goal progress and physical symptoms was stronger for wives ($B = -.02, p < .0005$) than husbands ($B = -.01, p = .003$). Finally, daily goal progress predicted within-person increases in relational well-being such that on days when individuals reported greater goal progress than usual, they reported increases in relationship quality from the previous day (Table 2). There was not a gender difference in the magnitude of the relationship between goal progress and relationship quality, $t(164) = 0.25, p = .800$. In sum, when individuals reported greater goal progress than their average level, they normatively reported greater increases in psychological, physical, and relational well-being on the same day, controlling for prior well-being. Although our predictions concerned day-to-day changes in goal progress predicting well-being, we also observed that average (time-invariant) goal progress was positively related to psychological, physical, and relational well-being (see Table 2).

Goal progress predicting next-day personal and relational well-being

(Hypothesis 1b)—Next, we assessed a prospective model in which we predicted well-being from the previous day's goal progress, average goal progress, and the change in goal progress from the previous day to the current day (see Table 3). As predicted, yesterday's goal progress prospectively predicted increases in today's psychological well-being (Table 3), and this effect was moderated by gender, $t(282) = 1.94, p = .053$. Yesterday's goal progress predicted marginally stronger increases in psychological well-being for wives ($B = .21, p < .0005$) than husbands ($B = .16, p < .0005$). Similarly, yesterday's goal progress predicted significant decreases in the number of physical symptoms reported (Table 3), which indicates an increase in physical well-being. This effect was not different for husband and wives, $t(1570) = 0.76, p = .449$.² Yesterday's goal progress also predicted increases in

relational well-being (Table 3), and the effect was not moderated by gender, $t(214) = 0.67, p = .505$. These results were consistent with the same-day models. Although we did not make specific predictions about change in goal progress from yesterday to today predicting increases in well-being, we observed that increases in goal progress from yesterday to today predicted increases in psychological, physical, and relational well-being (Table 3). An individual's average (time-invariant) report of goal progress was also positively related each facet of well-being (see Table 3).

Secure base support predicting same-day goal progress (Hypothesis 2a)—

Next, we tested the prediction that fluctuations in secure base support receipt would be associated with within-person changes in goal progress (see Table 2). Specifically, we tested whether goal progress on one day was predicted by secure base support received on the same day, controlling for goal progress the previous day. Indeed, secure base support predicted increases in concurrent goal progress (Table 2), and this effect was not moderated by gender, $t(1560) = 1.52, p = .129$. Additionally, greater average (time-invariant) secure base support receipt was related to greater goal progress overall (See Table 2).

Secure base support predicting next-day goal progress (Hypothesis 2b)—

We also conducted a prospective analysis of the relationship between secure base support receipt and goal progress (see Table 3). As predicted, an individual's perception that he or she received secure base support on one day predicted increases in goal progress the following day. This effect was moderated by gender, $t(1594) = 2.63, p = .021$. Specifically, secure base support predicted next-day goal progress more strongly for wives ($B = 4.95, p < .0005$) than husbands ($B = 2.32, p = .003$). Again, these results were consistent with the same-day model. Change in secure base support from yesterday to today also predicted increases in goal progress (Table 3). Consistent with the same-day models, an individual's average (time-invariant) report of secure base receipt was positively related to goal progress overall (see Table 3).

Model Mediation (Hypothesis 3)—To test the full theoretical model of normative processes depicted in Figure 1 (solid lines), we evaluated the indirect effect from yesterday's secure base support to today's well-being through yesterday's goal progress (Table 4; decomposed components of the indirect effect are available in Supplementary Table 7). There were significant direct effects of secure base support received yesterday on psychological well-being ($B = .19, p < .0005$), physical symptoms ($B = -.08, p < .0005$), and relational well-being ($B = .26, p < .0005$) today. Consistent with our proposed model, Monte Carlo estimation revealed significant indirect effects through yesterday's goal progress in each case (see Table 4).³

²In lagged models that do not control for changes in the predictor (from yesterday to today) there is not a significant relationship between lagged goal progress and psychological well-being ($B = .02, p = .296$), relational well-being ($B = .03, p = .059$), or physical symptoms ($B = -.00, p = .548$) in study 1. There was also not a significant relationship between lagged goal progress and psychological well-being ($B = .00, p = .996$), relational well-being ($B = -.00, p = .983$), or physical symptoms ($B = .00, p = .129$), or sleep quality ($B = -.00, p = .988$) in study 2. Similarly, without controlling for the change in secure base support, lagged secure base support did not predict goal progress in study 1 ($B = .21, p = .630$) but it did predict goal progress in study 2 ($B = 1.61, p < .0005$).

³Results for the indirect links in Studies 1 and 2 remain consistent using alternative time point patterns (i.e., yesterday's spousal support, today's goal progress, and today's well-being; yesterday's spousal support, today's goal progress, and tomorrow's well-being).

Exploratory Attachment Moderation

Attachment moderation of the same-day relationship between goal progress and well-being (Exploratory Hypothesis 1a): We explored whether goal progress might influence well-being more strongly for some individuals than others, despite a normative positive relationship between goal progress and well-being (see Table 5). We observed a marginal interaction between daily goal progress and attachment anxiety on change in psychological well-being, $B = .02$, $p = .08$ (see Figure 2a), such that the positive relationship between goal progress and psychological well-being was stronger for individuals higher in attachment anxiety ($B = .19$, $p < .0005$) than for individuals lower in attachment anxiety, ($B = .14$, $p < .0005$), $t(459) = 1.75$, $p = .080$.⁴ There was also a significant three-way interaction between attachment anxiety, goal progress, and gender, $t(505) = 1.98$, $p = .048$ (see Figure 2b), such that attachment anxiety moderated the effect of goal progress for wives ($B = .05$, $p = .009$) but not for husbands ($B = -.00$, $p = .895$). There was no interaction between goal progress and attachment avoidance to predict increases in psychological well-being (Table 5).

Attachment avoidance moderated the relationship between goal progress and physical well-being, $t(203) = -2.41$, $p = .017$ (Table 5; see Figure 3a), such that goal progress predicted a reduction in physical symptoms more strongly for individuals high in avoidant attachment ($B = -.02$, $p < .005$) than for individuals low in avoidant attachment ($B = -.01$, $p = .005$). There was also a significant three-way interaction between avoidant attachment, goal progress, and gender, $t(177) = -2.46$, $p = .015$ (Figure 3b), such that avoidance moderated the effect of goal progress for husbands ($B = -.01$, $p = .003$) but not for wives ($B = -.00$, $p = .715$). The relationship between goal progress and physical well-being was not moderated by anxious attachment (Table 5).

Finally, with regard to relational well-being, results revealed an interaction between daily goal progress and avoidant attachment, $t(907) = 3.26$, $p = .001$ (Table 5; see Figure 4), such that the relationship between goal progress and relationship quality was significantly stronger for individuals high in avoidant attachment ($B = .13$, $p < .0005$) than individuals low in avoidant attachment ($B = .05$, $p = .017$). A three-way interaction between gender, avoidance, and goal progress was not significant, indicating that the moderation effect was equivalent across gender, $t(783) = -1.45$, $p = .147$. There was no interaction between daily goal progress and anxious attachment predicting relational well-being (Table 5).

This pattern of moderation results across well-being domains suggests that goal progress may be especially beneficial for individuals with high attachment insecurity. The relationship between goal progress and psychological well-being was particularly strong for women who were higher in attachment anxiety, and the relationship between goal progress and physical well-being, and between goal progress and relational well-being, was particularly striking for individuals high in attachment avoidance. Although our exploratory predictions concerned moderation effects of attachment orientation, there were also main effects of attachment orientation indicating that higher attachment anxiety and avoidance predicted poorer psychological, physical, and relational well-being overall.

⁴Estimated beta values for individuals high and low in an attachment dimension are calculated based on scores one standard deviation above and below the mean.

Attachment moderation of the relationship between goal progress and next-day well-being (Exploratory Hypothesis 1b): We assessed whether goal progress was prospectively linked to well-being more strongly for some individuals than others, despite a normative positive relationship between goal progress and well-being (see Table 6). The relationship between goal progress and next-day psychological well-being was qualified by an interaction with attachment anxiety, $t(221) = -2.09, p = .038$ (see Figure 5), such that the relationship between yesterday's goal progress and today's psychological well-being was stronger for individuals low in attachment anxiety ($B = .21, p < .0005$) than for individuals high in attachment anxiety ($B = .16, p < .0005$). The interaction between goal progress and anxiety did not differ by gender, $t(260) = 0.19, p = .852$.

A marginal interaction between yesterday's goal progress and attachment avoidance to predict increases in psychological well-being also was observed $t(215) = 1.96, p = .052$ (Table 6). Specifically, yesterday's goal progress predicted marginally greater increases in psychological well-being for individuals high in attachment avoidance ($B = .21, p < .0005$) compared to individuals low in attachment avoidance ($B = .16, p < .0005$). There was no three-way interaction with gender, $t(213) = 0.30, p = .764$. Neither the relationship between yesterday's goal progress and physical well-being nor the relationship between yesterday's goal progress and relational well-being was moderated by attachment anxiety or attachment avoidance. However, consistent with the results of the same-day models, main effects emerged indicating that higher anxious and avoidant attachment tended to predict poorer psychological, physical, and relational well-being overall (Table 6).

Attachment moderation of the same-day relationship between secure base support and goal progress (Exploratory Hypothesis 2a): We also investigated whether secure base support promoted goal progress more strongly for some individuals than others (see Table 5). Secure base support receipt did not interact with the support recipient's attachment anxiety or avoidance to moderate the magnitude of the relationship between secure base support and goal progress on the same day. With regard to main effects of attachment orientation on goal progress, avoidant attachment predicted less daily goal progress overall, and anxious attachment was unrelated to goal progress.

Attachment moderation of the relationship between secure base support and next-day goal progress (Exploratory Hypothesis 2b): Finally, we explored whether the normative, prospective relationship between secure base support and goal progress was stronger for some individuals than others (see Table 6). The relationship between secure base support receipt and next-day goal progress was qualified by an interaction with the support recipient's attachment anxiety, $t(478) = -2.19, p = .029$ (see Figure 6), such that the relationship was stronger for individuals low in attachment anxiety ($B = 4.67, p < .0005$) than for individuals high in attachment anxiety ($B = 2.77, p < .0005$). There was not a significant three-way interaction between secure base support receipt, attachment anxiety, and gender, $t(513) = -0.86, p = .389$. The relationship between secure base support received yesterday and next-day goal progress was not moderated by attachment avoidance, $t(370) = 1.59, p = .113$. Consistent with the same-day models, there was a main effect indicating that avoidant

attachment predicted less daily goal progress, whereas anxious attachment was unrelated to goal progress.

Discussion

Overall, Study 1 provided support for our primary predictions and our theoretical model. As predicted, within-person fluctuations in daily goal progress predicted changes in psychological, physical, and relational well-being concurrently (Hypothesis 1a) and prospectively (Hypothesis 1b) in a newlywed sample. In other words, when an individual reported greater daily goal progress compared to their average level of goal progress, their psychological, physical, and relational well-being improved on the same day and the following day. The observed findings are consistent with attachment theory's view of the importance of exploration for well-being. Unexpectedly, although goal progress predicted well-being for both genders, the associations tended to be stronger for wives.

In addition to assessing the impact of daily goal progress on three important domains of well-being, we tested whether daily secure base support from one's partner predicted increases in daily goal progress. Secure base support receipt predicted goal progress, in support of Hypotheses 2a and 2b. Specifically, individuals who received greater secure base support than their average level (i.e., their partners were available, noninterfering, and encouraging of goal pursuits) reported greater goal progress concurrently and prospectively. The prospective relationship between daily secure base support receipt and daily goal progress was also stronger for wives than husbands. These results support attachment theory's proposition that individuals are most able to engage in authentic, successful exploration that results in goal progress when they perceive that close others are available and supportive (Bowlby, 1988).

We also found support for the prediction that daily secure base support and well-being would be linked indirectly through daily goal progress (Hypothesis 3). There was evidence for an indirect link between secure base support and each domain of well-being (psychological, physical, and relational) through goal progress. These mediation results provide support for our full theoretical model and suggest that support for goals, goal progress, and diverse areas of well-being are linked in an interactive day-to-day system.

Additionally, the exploratory analyses of attachment moderation revealed a general pattern whereby both attachment anxiety and avoidance moderated some of the associations between goal progress and the three domains of well-being. The relationship between daily goal progress and psychological well-being was moderated by attachment anxiety, and the nature of this interaction depended on whether psychological well-being was measured on the same day or the following day. Individuals (especially females) who were high in attachment anxiety benefited most from goal progress on the same day, but individuals who were low in attachment anxiety benefited most from goal progress on the following day. These results suggest short-lived effects of goal progress for individuals with high levels of anxious attachment. Anxious individuals' goal progress may lead them to feel good about themselves temporarily, but the effect may be brief. These individuals chronically doubt their self-worth and value to others, and they may return to chronic doubts and pessimistic

thinking following goal progress if the progress is not maintained on subsequent days (e.g., Hazan & Shaver, 1987; Shaver & Mikulincer, 2007).

Additionally, the associations between daily goal progress and improvements in same-day relational and physical well-being were stronger for individuals high in avoidant attachment compared to individuals low in avoidant attachment. Because avoidantly-attached individuals especially value independent goal pursuits, they may experience greater benefits to physical and relational well-being when they make progress on their goals. They may feel especially satisfied that their relationships are not hindering their independent goal pursuits, and they may experience less stress (and associated physical symptoms) when they meet their self-relevant ambitions (e.g., Coy, Green, & Davis, 2012). The finding that avoidant attachment moderated the relationship between goal progress and physical and relational well-being on the same day but not prospectively may indicate that individuals who are high in avoidance receive an added benefit of goal progress only immediately. Because maintaining independence is a central concern for avoidantly-attached individuals, they may need to make goal progress every day to avoid physical symptoms and to view their relationships positively (e.g., Shaver & Mikulincer, 2007).

It is important to note that the relationship between goal progress and well-being may have been moderated by attachment orientation in part because individuals with insecure attachment orientations reported poorer well-being overall. Perhaps individuals who have greater attachment insecurity report greater same-day increases in well-being because their well-being is poorest and they are most in need of goal progress or another intervention to improve it.

The exploratory attachment moderation analyses also revealed that the prospective relationship between secure base support receipt and changes in goal progress the following day was stronger for individuals low in attachment anxiety compared to individuals high in attachment anxiety. Individuals high in attachment anxiety may interpret their partner's secure base support as an attempt to reduce closeness in the relationship by encouraging independent pursuits, and they may find goal pursuit to be threatening to relationship closeness. Therefore, they may choose not to pursue their goals or engage in less genuine goal pursuit that results in less progress on goals the next day.

Study 2: Aging Study

In Study 2, we conducted another 7-day daily diary study with a sample of aging couples to replicate the results of Study 1 and to extend research on exploration (as indicated by goal progress) to individuals in late adulthood. Attachment theory posits the importance of exploration and support for exploration (secure base support) across the lifespan (Bowlby, 1969/1982/1973/1980/1988). However, some researchers have suggested that goal pursuit may be less important for individuals later in life based on failure to find associations between goal motivation and life satisfaction in older samples (Jacob & Guarnaccia, 1997). We argue that in addition to lifespan benefits of exploration, as described by attachment theory, goal progress may be acutely important for individuals in late adulthood. In late adulthood, individuals may no longer have work or family responsibilities to demonstrate

competence, to provide purpose, or to impose structure on their lives; individual goal striving in late adulthood may enrich life while reducing stagnation and boredom (e.g., Robbins, Lee, & Wan, 1994). Research has demonstrated that individuals do continue to pursue goals across a variety of domains in late adulthood; goals reported by older adults include being healthy, growing spiritually, improving personal characteristics, improving relationships, and self-growth through learning new skills (e.g., Lapierre, Bouffard, Dube, Labelle, & Bastin, 2001; Rapkin & Fischer, 1992). Additionally, individuals shift to focus on relational goals and self-concordant goals—goals that are most personally meaningful—in late adulthood, which may make goal progress especially influential for well-being (Baltes & Carstensen, 2003; Carstensen, Fung, & Charles, 2003; Li & Fung, 2011; Sheldon, 2009).

Research has provided preliminary support for the claim that goal progress promotes subjective well-being in late adulthood. Specifically, aging individuals who have goals and believe their goals are attainable experience greater subjective well-being, according to cross-sectional reports (e.g., Halisch & Geppert, 2012; Holahan, 1988; Lapierre, Bouffard, & Bastin, 1997; Rapkin & Fischer, 1992). Although these cross-sectional studies suggest the importance of goals in late adulthood, it is also possible that aging individuals who have greater subjective well-being believe their goals are more attainable and place more importance on goal striving. We argue that although well-being may promote goal pursuit and progress, goal progress should also promote well-being for the reasons we have described. To assess the importance of successful exploration in late adulthood, research must demonstrate that goal progress is related to improvements in well-being over time; the current daily-diary methodology is able to assess whether daily changes in goal progress are associated with changes in three domains of well-being over time.

As in Study 1, we assessed whether goal progress contributed to psychological, physical, and relational well-being in late adulthood. We also assessed sleep quality as an additional measure of physical well-being in this study. Sleep is a critical aspect of health because it provides restorative benefits, prevents illness, and improves memory (e.g., Diekelmann & Born, 2010; Pilcher, Ginter, & Sadowsky, 1997; Unruh et al., 2008).

We predicted that the impact of daily goal progress on changes in psychological, physical, and relational well-being would be consistent with Study 1 because we expected that exploration would continue to promote well-being in late adulthood both concurrently (Hypothesis 1a) and over time (Hypothesis 1b). Additionally, we predicted that the normative relationship between daily secure base support and changes in goal progress would persist in late adulthood (Hypotheses 2a and 2b) because, theoretically, relational support for exploration is what underlies autonomous engagement with the physical or social environment throughout the lifespan (Bowlby, 1988; Feeney, 2004; Feeney & Collins, 2015). Also consistent with Study 1, we predicted that secure base support would promote psychological, physical, and relational well-being indirectly, by facilitating goal progress (Hypothesis 3).

Method

Participants—Participants were married couples who were over age 65 and were recruited as part of a larger study of relationships in late adulthood. Of the 271 couples who enrolled

in the study, there were 238 couples for which both couple-members completed the daily diary portion of the study for a total sample of 476 individual participants. Participants were on average 70.0 years old ($SD = 6.7$), and husbands were slightly older ($M = 71.6$, $SD = 6.2$) than wives ($M = 68.4$, $SD = 6.9$). Couples had been married for 40.0 years on average ($SD = 14.3$). Participants who enrolled in the study but did not complete the diary were significantly older ($M = 72.5$, $SD = 8.0$) than participants who completed the daily diary ($M = 70.0$, $SD = 6.7$), $t(522) = 2.62$, $p = .009$. There were no differences in the length of relationship between participants who completed the daily diary and those who did not $t(252) = 1.05$, $p = .294$.

Procedure and measures—The procedure and measures were similar to Study 1. Participants came to the research laboratory to complete background questionnaires as part of a larger study. Couple members completed the questionnaires, which included the same measure of attachment orientation ($\alpha_{\text{anxiety}} = .88$, $\alpha_{\text{avoidance}} = .87$), privately in separate rooms.

Approximately one week later, participants returned to the laboratory for an observation session in which they had videotaped discussions and interactions with one another as part of a larger investigation. After this session, participants received instructions for completing the 7-day daily diary and were each given an iPod Touch to access daily questionnaires and record their responses. Participants were instructed to complete the questionnaires on the iPod Touch once at the end of each day (before bed) for 7 consecutive days. While the majority of participants used the electronic diaries, there were a total of 25 couples who used paper versions either because the older adult participant felt more comfortable using paper copies and requested them, or because we occasionally had more couples sign up than electronic diaries available. The questionnaires measured psychological (and hedonic) well-being ($\alpha = .96$, reliability of change = .91), physical well-being, relational well-being ($\alpha = .95$, reliability of change = .98), and goal progress in the same way as study 1. However, three additional physical symptoms were included to measure physical well-being in this study including “I had aching joints,” “I had trouble getting around,” and “I was out of breath.” These items were expected to be particularly relevant for the aging population sampled in the current study. Participants reported between 0 and 14 symptoms per day. In 39.5% of daily reports, no symptoms were selected. In 56.1% of reports, participants selected between 1 and 5 physical symptoms. Additionally, we assessed daily sleep quality with the item “How well did you sleep last night.” Participants rated their sleep quality from 0 (very poorly) to 100 (very well) using a slider scale. The measure of secure base support received included two additional items: “was available for me” and “talked with me about my goals/plans.” With these additional positive items, the scale could range from -4 to 6. Across the 7 daily reports, participants reported positive secure base support (a total from 1 to 6) on an average of 5.4 days ($SD = 1.8$). On any given day, participants frequently reported that they received 0 (19.8%), 1 (23.1%), 2 (26.5%), or 3 (19.0%) positive secure base behaviors and no negative secure base behaviors (89.6%).

Results

Descriptive statistics and zero-order correlations—We computed correlations between all study variables in this sample in the same way as Study 1. Means and standard deviations of all study variables are presented in Table 1.

Goal progress predicting same-day personal and relational well-being

(Hypothesis 1a)—We predicted that we would replicate the associations between daily goal progress and improvements in daily psychological, physical, and relational well-being. Results are presented in Table 2. As hypothesized, daily goal progress predicted increases in psychological well-being on the same day, controlling for the previous report of psychological well-being (Table 2). Again, this association was moderated by gender, $t(95) = 3.56, p < .0005$; goal progress predicted increases in well-being more strongly for wives ($B = .15, p < .0005$) than for husbands ($B = .09, p < .0005$). Daily goal progress also predicted better physical well-being (i.e., a decrease in physical symptoms reported; Table 2), and this association did not differ for husbands and wives, $t(2072) = 0.32, p = .749$. In this study, we added the outcome variable of sleep quality, and daily goal progress predicted improvements in sleep quality (Table 2). This association was not moderated by gender, $t(2167) = -0.68, p = .499$. Finally, daily goal progress predicted increases in relational well-being (Table 2), and this effect was also moderated by gender, $t(106) = 3.13, p = .002$. Goal progress predicted increases in relational well-being more strongly for wives ($B = .07, p = .004$) than husbands ($B = .02, p = .014$). Consistent with the newlywed sample, individuals who reported greater average (time-invariant) goal progress across daily diary reports reported greater psychological and relational well-being and better sleep quality; however, average goal progress was unrelated to physical symptoms in this sample (see Table 2).

Goal progress predicting next-day personal and relational well-being

(Hypothesis 1b)—We also sought to replicate the prospective relationship between goal progress and well-being in this aging sample. Results are presented in Table 3. Consistent with Study 1, yesterday's goal progress predicted increases in psychological well-being (Table 3), and this effect was moderated by gender, $t(329) = 3.76, p < .0005$. Yesterday's goal progress predicted today's psychological well-being more strongly for wives ($B = .16, p < .0005$) than husbands ($B = .08, p < .0005$). Yesterday's goal progress also predicted increases in physical well-being today (Table 3). Specifically, yesterday's goal progress predicted decreases in physical symptoms and increases in sleep quality. In the analysis predicting sleep quality, there was not enough random variability to model separate slopes for individuals (i.e., the model would not converge), so the random slope was removed from this analysis. Neither the relationship between goal progress and symptoms, $t(344) = 0.96, p = .336$, nor the relationship between goal progress and sleep quality, $t(340) = -0.59, p = .556$, differed for husband and wives. Finally, yesterday's goal progress also predicted increases in relational well-being (Table 3), and the effect was also moderated by gender, $t(70) = 2.20, p = .031$, such that the effect was stronger for wives ($B = .08, p < .0005$) than husbands ($B = .04, p = .003$). Greater average (time-invariant) goal progress was related to greater psychological and relational well-being and sleep quality but was unrelated physical symptoms (see Table 3). Consistent with the newlywed sample, we also observed

associations between the change in goal progress from yesterday to today and all three domains of well-being (Table 3).

Secure base support predicting same-day goal progress (Hypothesis 2a)—We also sought to replicate the finding that daily secure base support received from a partner is related to changes in daily goal progress. Specifically, we tested whether goal progress increases were predicted by greater-than-average secure base support receipt on the same day, controlling for goal progress at the previous report. As predicted, secure base support receipt predicted increases in goal progress (see Table 2). There were no gender differences in the magnitude of the relationship between secure base support received and goal progress, $t(2001) = 1.43, p = .152$. Finally, (time-invariant) reports of secure base support receipt were positively related to goal progress (see Table 2).

Secure base support predicting next-day goal progress (Hypothesis 2b)—We also assessed the prospective relationship between daily secure base support receipt and daily goal progress (see Table 3). As predicted, secure base support receipt on one day predicted increases in goal progress the following day. This effect was moderated by gender, $t(2080) = 2.74, p = .006$; secure base support receipt predicted the next day's goal progress more strongly for wives ($B = 6.29, p < .0005$) than husbands ($B = 3.34, p < .0005$). Change in secure base support from yesterday to today was similarly related to goal progress (Table 3). Finally, (time-invariant) secure base support received was positively related to daily goal progress (see Table 3).

Model Mediation (Hypothesis 3)—We tested whether the prospective relationship between yesterday's secure base support and today's well-being was explained by an indirect effect of yesterday's goal progress. Results are presented in Table 4, and decomposed components of the indirect effect are available in Supplementary Table 7. There were significant direct effects of secure base support received yesterday on today's psychological well-being ($B = .15, p < .0005$) and relational well-being ($B = .12, p < .0005$), and there was a marginal direct effect on sleep quality ($B = .04, p = .070$). Secure base support received was unrelated to next-day physical symptoms ($B = .00, p = .807$); however, a significant direct effect is not a pre-requisite for mediation analysis (Hayes, 2009). Monte Carlo estimation revealed a significant indirect effect through yesterday's goal progress for psychological and relational well-being (see Table 4). There was not a significant indirect effect through goal progress for the relationship between secure base support and physical symptoms or sleep quality (Table 4).

Exploratory Attachment Moderation

Attachment moderation of the same-day relationship between goal progress and well-being (Exploratory Hypothesis 1a): There were no interactions between goal progress and attachment anxiety or avoidance to predict psychological well-being, physical well-being (physical symptoms or sleep quality), or relational well-being in this sample (see Table 5). In the analysis predicting sleep quality, there was not enough random variability to model separate slopes for individuals (i.e., the model would not converge), so the random slope was removed from this analysis. However, there were main effects of attachment anxiety and

avoidance predicting lower psychological and relational well-being overall (Table 5). Attachment anxiety, but not attachment avoidance, also predicted more physical symptoms, and neither attachment anxiety nor avoidance was related to sleep quality overall (Table 5).

Attachment moderation of the prospective relationship between goal progress and well-being (Exploratory Hypothesis 1b): As shown in Table 6, none of the prospective links between goal progress and well-being were moderated by attachment anxiety or avoidance. However, main effects indicated that greater attachment anxiety and avoidance predicted less psychological, physical, and relational well-being overall.

Attachment moderation of the same-day relationship between secure base support and goal progress (Exploratory Hypothesis 2a): Similar to the newlywed sample in Study 1, neither attachment anxiety nor attachment avoidance moderated the relationship between secure base support and goal progress on the same day (see Table 5). Also consistent with the newlywed sample, there was a main effect of attachment avoidance predicting less daily goal progress, but attachment anxiety was unrelated to goal progress (Table 5).

Attachment moderation of the prospective relationship between secure base support and goal progress (Exploratory Hypothesis 2b): Finally, as shown in Table 6, neither anxious nor avoidant attachment moderated the prospective relationship between secure base support and goal progress. However, there was a main effect of attachment avoidance predicting less goal progress overall, whereas attachment anxiety was unrelated to goal progress.

Discussion

In Study 2, we replicated the primary results of Study 1 using an aging sample composed of married couples who were 65 years or older. Consistent with attachment theory's tenet that the attachment and exploration systems are active across the lifespan, this replication demonstrates the importance of goal progress to promote diverse facets of well-being throughout adulthood, and it suggests that secure base support remains effective to facilitate goal progress in late adulthood. We found support for the hypotheses that daily goal progress promotes improvements in psychological, physical, and relational well-being for aging individuals concurrently (Hypothesis 1a) and prospectively (Hypothesis 1b). Evidence that goal progress promotes well-being over time in late adulthood has been lacking to this point (e.g., Klug & Maier, 2014), and it contradicts some theorists' assertion that goal progress is less important in late adulthood than earlier in life (Jacob & Guarnaccia, 1997). These broad impacts of goal progress on three facets of well-being—psychological, physical (including both symptoms and sleep quality), and relational—are consistent with attachment theory's view that exploration is fundamental to optimal functioning and well-being across the lifespan (e.g., Bowlby, 1988).

Additionally, the results of Study 2 supported the predictions that daily spousal secure base support predicts increases in goal progress on the same day (Hypothesis 2a) and the following day (Hypothesis 2b) in the sample of aging couples. These results suggest that the social facilitation of exploration continues into late adulthood, in line with attachment

theory's view that close others enable autonomous engagement with the physical and social environment throughout the lifespan (e.g., Bowlby, 1988).

The full mediation model (Hypothesis 3) was partially replicated in this sample. Daily goal progress provided an indirect effect linking secure base support receipt and both psychological and relational well-being. Goal progress did not mediate the relationship between secure base support and physical well-being. Because we observed direct effects of goal progress on physical symptoms and sleep quality, it is not the case that goal progress is unrelated to these domains of well-being. Instead, mediation may have been difficult to observe because there was no direct link between secure base support and physical symptoms or sleep quality in this sample. Perhaps aging individuals have additional, unexplored determinants of physical symptoms and sleep quality that may have reduced the direct impact of secure base support.

Finally, we assessed whether the normative relationships that we observed between daily goal progress and well-being, and between daily secure base support and goal progress, were stronger for some individuals than others. There was evidence of moderation by gender; consistent with the newlywed sample, both the association between daily goal progress and well-being and the association between daily secure base support receipt and goal progress tended to be stronger for older women than older men. However, there was no evidence for attachment moderation in this sample (Exploratory Hypotheses 1a, 1b, 2a, 2b), which suggests that goal progress has the same, normative relationship with psychological, physical, and relational well-being, and that secure base support has the same, normative relationship with goal progress, across levels of attachment security in this sample.

Attachment orientation may not have moderated the normative links between secure base support, goal progress, and domains of well-being for several reasons. First, as shown in Table 1, older participants (Study 2) reported less attachment anxiety, overall, compared to newlywed participants (Study 1), $t(984) = 13.25, p < .0005$. If the aging sample was more secure than the newlywed sample, that may have made it more difficult to observe attachment differences in the impact of exploration on well-being in this sample. Second, newlywed and aging participants may have been pursuing different types of goals (e.g., aging participants may not have goals related to career), and attachment orientation may only influence how goal progress is related to well-being for certain types of goals. Finally, the newlywed participants may have been more likely than aging participants to answer the attachment items specifically with regard to their spouse (because of the salience of that relationship immediately following marriage). If aging participants responded in terms of close relationships more broadly (e.g., siblings, children), their attachment orientation may have been less relevant to how daily partner support facilitates daily goal progress. The difference in attachment moderation for younger and older participants is an important issue for replication and follow-up investigation.

General Discussion

Together, these studies provide compelling evidence that exploration (indicated by goal progress) promotes three domains of well-being (i.e., psychological, physical, and relational

well-being) and that spousal support fosters successful exploration across the adult lifespan. In doing so, these studies provide novel support for our guiding theoretical model based in attachment theory (e.g., Bowlby, 1969/1982/1973/1980/1988; Hazan & Shaver, 1990; Waters & Cummings, 2000), and for our theoretical elaboration of the nature and importance of exploration. Specifically, when participants reported greater-than-average goal progress on a given day, they experienced 1) greater psychological well-being, 2) fewer physical symptoms and better sleep quality, and 3) greater satisfaction with and commitment to their romantic relationships concurrently (on the same day) and prospectively (on the following day). Spouses enabled daily goal progress through daily secure base behaviors including being available, encouraging goal pursuit, and not interfering with goal pursuit; these results were also observed concurrently and prospectively. In addition, indirect links were established between spousal support and the well-being outcomes through goal progress; this finding indicates that spousal support indirectly promotes broad domains of well-being by enabling successful exploration. The consistency of results across both a sample of young-adult newlyweds and a sample of married couples in late adulthood suggests the importance of exploration and support for exploration across the adult lifespan, a previously untested proposition of attachment theory. Collectively, these results demonstrate the normative interplay between the attachment, exploration, and caregiving (support provision) systems (Bowlby, 1969/1982/1988).

Daily Goal Progress Promoted Improvements in Daily Well-Being

Consistent with previous research (e.g., Brunstein, 1993; Klug & Maier, 2014) we observed that goal progress predicted increases in psychological well-being and decreases in negative affect on the same day (Hypothesis 1a) and the following day (Hypothesis 1b). Because we analyzed within-person changes in goal progress and controlled for a person's average goal progress, we can be confident that these results are not driven by individual differences in the ability to attain goals but rather that goal progress is related to improvements in well-being regardless of one's overall achievement level. Goal progress indicates sustained, autonomous engagement with the environment—a fundamental human drive—and therefore may result in feelings of satisfaction, accomplishment, competence, and autonomy. Each of these outcomes should prevent depression and anxiety and increase confidence and positive affect.

We also demonstrated that goal progress promotes day-to-day improvements in two additional facets of well-being—physical and relational well-being—both concurrently (Hypothesis 1a) and prospectively (Hypothesis 1b). Making more progress on goals than usual (average goal progress across the week) promoted improvements in physical and relational well-being. These novel findings necessitate additional research to explore the precise mechanisms responsible for these associations. Attachment theory emphasizes the importance of autonomous exploration for comprehensive healthy development throughout the lifespan (Bowlby, 1988), but future research can test the immediate processes that connect successful exploration to relational and physical well-being to extend and elaborate attachment theory.

Successful exploration, as indicated by goal progress, may promote improvements in relational well-being for a variety of reasons. For example, individuals may celebrate their individual autonomous strivings and goal accomplishments with their partners (i.e., capitalization), which has been shown to increase daily relationship quality (Gable et al., 2004). Goal progress may also impact relational well-being because people perceive that their partners are supporting their exploration, which should have relational benefits. This idea is supported by research showing that individuals draw close to others who they believe can help them achieve goals and distance themselves from people who impede their goal progress (Fitzsimons & Shah, 2008). Additionally, individuals who make progress on personal goals may feel more positively about themselves and extend this positive outlook to their relationships and partners as well. After goal progress, individuals may make more favorable attributions about their partners' behaviors or ignore relational transgressions and attend instead to positive behaviors. Within romantic relationships, positivity biases strongly influence relationship functioning and can result in self-fulfilling effects whereby relationships actually improve (Fletcher & Kerr, 2010; Murray, Holmes, & Griffin, 1996a, 1996b). Finally, goal progress may reduce stress whereas failure to pursue goals may increase stress; stress has negative effects on relationship evaluations and relational maintenance behaviors and can encourage relational conflicts (e.g., Neff & Karney, 2004, 2009).

Reductions in stress may also help explain how goal progress is related to improvements in daily physical well-being. Both acute and chronic stress can have negative consequences for health (e.g., Cohen & Herbert, 1996; Cohen, Janicki-Deverts, & Miller, 2007; Han, Kim, & Shim, 2012; Paulson & Shaver, 1991). When people are stressed, they are more likely to become sick or have more severe and persistent illnesses (Cohen, Tyrrell, & Smith, 1991; Kiecolt-Glaser, Marucha, Malarkey, Mercado, & Glaser, 1995), and stress itself includes physical symptoms such as aches, tension, sleep disturbances, and upset stomach. If goal progress reduces stress, it may reduce health problems associated with stress and improve sleep quality. Alternatively, goal progress may impact physical health directly because pursuing goals may result in physical and mental stimulation that is health-protective (Feeney & Collins, 2015). Although there is indirect evidence for these proposed mechanisms (e.g., Wrosch et al., 2003; Gable et al., 2004), future research should test these mechanisms directly.

Daily Secure Base Support Facilitated Daily Goal Progress

Attachment theory proposes that individuals are willing to explore and explore more effectively when they believe that close others will be available and supportive if needed (Bowlby 1988). Additionally, Feeney and Collins (2015) have argued that support for goals and other life opportunities for growth (including secure base behaviors), can help individuals to achieve their goals and can promote well-being. Indeed, our results support these theories; daily secure base support from one's romantic partner was associated with escalations in daily goal progress concurrently (Hypothesis 2a) and prospectively (Hypothesis 2b). In other words, when individuals reported that their partners had been available, encouraged their goals, and did not interfere with their exploration attempts, they reported increases in goal progress on the same day and the following day.

Each characteristic of secure base support—availability, encouragement, and noninterference—may help to facilitate daily goal progress. When an individual's partner demonstrates availability, it allows the individual to accept greater risks with the knowledge that their partner will provide emotional or instrumental assistance if needed (Feeney, 2007; Feeney & Thrush, 2010). This idea is fundamental in attachment theory; from infancy through old age, individuals are motivated to explore when they feel safe and can rely on responsive caregivers (Bowlby, 1988). A partner's encouragement and validation of exploration can also enable goal progress; previous research has demonstrated that individuals are more enthusiastic and are more successful in their goal pursuit when their partners offer encouragement for goals (e.g., Feeney & Thrush, 2010). Finally, a partner's noninterference with goal pursuit demonstrates the partner's confidence that an individual is efficacious and can achieve the goal him- or herself. An individual who perceives partner confidence can persist in goal pursuit over time and through obstacles to make progress on personal goals. The normative daily links between spousal support and goal progress across the adult lifespan support attachment theory's proposition that individuals engage in successful exploration when they believe that close others are available and are reliable support-providers.

The full, proposed normative model (i.e., that spousal support impacts three domains of well-being by enabling goal progress; Hypothesis 3) also received support in both studies. There were indirect links between secure base support and well-being through goal progress in the majority of analyses. The only exceptions were in models predicting physical well-being in the aging sample, and this failure to find indirect effects through goal progress may be due to overall weak direct associations between spousal support and physical well-being in this sample. Direct associations may have been obscured by other factors impacting physical health in the aging sample. However, the strong evidence for spousal support indirectly promoting diverse facets of well-being through goal progress is consistent with attachment theory's postulates that both exploration and support for exploration are important for optimal human functioning.

Although several theories would similarly predict that goal progress should promote well-being (e.g., Deci & Ryan, 1985, 2000; Heckhausen et al., 2010; White, 1959), attachment theory is unique in its proposition that autonomous goal progress is most likely to occur when individuals receive responsive social support from attachment figures. Attachment theory views exploration as a secondary motivation that is active when attachment needs are met and the attachment system is quiescent (Bowlby, 1988). Additionally, attachment theory takes a lifespan perspective on the importance of exploration and support for exploration that other theories do not address. Thus, the evidence for the model we tested in both younger and older adult samples supports attachment theory, in particular.

Some Individuals May Benefit More Than Others from Daily Goal Progress and Secure Base Support

In addition to the strong evidence that goal progress promoted well-being normatively (Hypotheses 1a and 1b), we also found preliminary evidence that some individuals benefited more from daily goal progress than others (Exploratory Hypotheses 1a and 1b). In Study 1,

but not Study 2, we observed a pattern of results such that both attachment anxiety and avoidance moderated some associations between goal progress and well-being. Goal progress had the greatest same-day psychological benefit for individuals who were high in anxious attachment and the greatest next-day psychological benefit for individuals who were low in anxious attachment. Individuals who are high in anxious attachment are prone to self-doubt and worries, especially about their relationships (e.g., Campbell et al., 2005); goal progress may have predicted same-day increases in psychological well-being most strongly for these individuals because they were the most distressed and had the most room to improve as a function of goal progress. Alternatively, anxious individuals pursue personal goals for relational reasons (e.g., Hazan & Shaver, 1990), and they may have received relational benefits from their goal successes as their partners may have celebrated their accomplishments with them. In either case, these extra benefits were short-lived, persisting only for the same day. Perhaps on the day after goal progress is made, individuals who are high in anxious attachment quickly return to their tendencies to worry, whereas individuals who are low in attachment anxiety experience continued calm and confidence. Attachment anxiety did not moderate the relationships between goal progress and physical or relational well-being.

Although all individuals benefited from goal progress, on average, individuals with greater attachment avoidance experienced enhanced benefits of goal progress for their same-day physical and relational well-being. Specifically, people with higher avoidant attachment experienced the greatest decreases in physical symptoms and the greatest increases in relationship quality on days when they made progress on their autonomous goals. People who are high in avoidant attachment desire distance in their relationships, and they worry that others will want to be closer to them than they like (e.g., Brennan et al., 1998; Hazan & Shaver, 1987). On days when these individuals made progress on their independent goals, they may have felt satisfied with their relationships because they perceived that their partners were not interfering with their autonomous exploration. Individuals high in avoidant attachment use independent goal progress to insert distance in their relationships, and they may feel most comfortable with their relationships when distance is achieved (Coy et al., 2012). These individuals may also have felt less stressed when they made progress on their goals and may have therefore experienced fewer physical symptoms that result from stress. Although the attachment moderation results are consistent with attachment theory, they did not emerge for all domains of well-being or for both samples (i.e., attachment anxiety moderated associations with psychological well-being, attachment avoidance moderated associations with relational and physical well-being, and moderation was only observed in Study 1). Therefore, future research should further explore how attachment orientation impacts the relationship between goal progress on well-being. Greater research into the mechanisms by which exploration impacts well-being for all individuals may also help to extend theories to explain how attachment orientation alters this process (i.e., Elliot & Reis, 2003).

Although we only observed moderation by attachment orientation in the newlywed sample, the results do not suggest that attachment orientations do not impact well-being at all in late adulthood. Anxious and avoidant attachment predicted poorer psychological, physical, and relational well-being overall in both the newlywed and aging samples. This pattern of results

is consistent with other research showing that individuals with chronic insecurity report poorer psychological well-being (Bakermans-Kranenburg & van IJzendoorn, 2009), physical health (e.g., Feeney, 2001; Maunder & Hunger, 2001), and relationship quality (e.g., Nofhle & Shaver, 2006).

In addition to moderation by attachment orientation, the results of these studies suggest that goal progress may have a stronger effect on daily well-being for women than men. One possible explanation for this is that men and women select different types of goals, and women may choose to pursue goals that afford them greater benefits. For instance, women tend to be more driven by a communal motivation than men, so they may be more likely to pursue personal goals that are relational in nature (e.g. Moskowitz, Suh, & Desaulniers, 1994). Research suggests that relational goal progress may have a greater benefit for well-being than self-focused goal pursuit (e.g., Crocker & Canevello, 2008), so women may reap greater benefits from goal progress if they do, in fact, prioritize relational goals.

Our results also provided initial evidence that daily secure base support enabled daily goal progress more strongly for some individuals than others (Exploratory Hypothesis 2a and 2b), despite the normative benefits of secure base support. Specifically, daily secure base support predicted goal progress more strongly for individuals low in attachment anxiety than for those high in attachment anxiety. This moderation was observed only prospectively (not same-day) and only in the newlywed sample (Study 1). Therefore, this moderation should be interpreted cautiously. Anxious individuals may misinterpret a partner's secure base support for independent goals as a distancing behavior—an attempt to reduce relational closeness—because they are especially attentive to signs of relational rejection (e.g., Campbell et al., 2005). In response to this perception, individuals high in anxious attachment may reduce their goal pursuit on the following day as they react against perceived separation, or they may engage in inauthentic exploration that results in minimal goal progress. This finding fits with other research that has demonstrated attachment differences in perceptions of social support and that individuals high in anxious attachment have variable responses to support receipt (e.g., Collins & Feeney, 2004; Feeney & Thrush, 2010; Florian et al., 1995; Mikulincer & Shaver, 2009; Simpson, Winterheld, Rholes, & Oriña, 2007). Older adult couples may have been less likely to misinterpret their partners' support behaviors or may have been less worried about relational rejection due to longer relationships and longer histories of relational experiences with their partners.

Finally, the results of these studies also suggest that secure base support from a spouse promotes goal progress more strongly for women than men. Gender stereotypes and traditional gender roles provide a possible explanation for this finding (e.g., Bem, 1974; Eagly & Steffen, 1984). Women tend to be expected to prioritize others' needs before their own (e.g., Abele, 2003; Helgeson, 1994). Therefore, although both men and women benefit from partner support to promote self-esteem and mitigate the risks of exploration, women may benefit especially from a partner's encouragement to focus on their personal goals and engage their exploration motive.

Strengths, Limitations and Future Directions

This investigation makes several important theoretical and empirical contributions regarding the functioning of the exploration system, an understudied aspect of attachment theory. First, we provided a conceptual definition of exploration and featured daily goal progress as an indicator of successful adult exploration. Second, we provided novel empirical support for the exploration system's importance throughout the adult lifespan. As postulated by attachment theory (Bowlby, 1988), individuals continue to benefit from exploring away from attachment figures, and partners can support exploration by providing secure base support, into late adulthood. Third, the current research demonstrated that daily goal progress has broad impacts, including novel impacts on daily physical and relational well-being. These novel findings motivate additional research to uncover the specific mechanisms linking successful exploration to diverse thriving outcomes. Fourth, the use of a daily diary method allowed us to extend previous between-person associations to provide evidence that within-person increases in exploration prospectively predict increases in well-being, and within-person increases in secure base support receipt prospectively predict increases in successful exploration. Fifth, we found strong support for the proposed theoretical model indicating that spousal secure base support promotes diverse facets of well-being through the facilitation of goal progress. Finally, although our predictions focused on normative benefits of exploration and support for exploration, this investigation also revealed intriguing differences in the strengths of these processes based on individual differences in attachment orientation.

Despite the many strengths of this investigation, several limitations should be noted. First, the theoretical model we test in this paper is likely only a partial representation of the multiple, interacting pathways by which goal progress and secure base support can promote each aspect of well-being. For example, relational well-being or psychological well-being may influence the perception of secure base support, and the effectiveness of secure base support to promote goal progress may depend on a support-recipient's psychological, physical, or relational well-being. This process is likely quite complex, with bi-directional processes and feedback loops. In this paper we are investigating a simplified, but important, subset of the system.⁵

Second, it is unclear to what extent independent goal progress would predict well-being in other samples, particularly individuals from interdependent cultures. Our samples were diverse with regard to age, but we sampled only from the United States, a primarily independent culture (Markus & Kitayama, 1991). According to attachment theory, exploration is expected to be an innate characteristic of human nature (e.g., Bowlby, 1988); however, exploration in interdependent cultures (i.e., Eastern countries) may be more

⁵As one might expect, we found evidence for other lagged models in addition to the model that we present. For example, increases in well-being predict next-day increases in goal progress. Specifically, in Study 1, increases in relationship quality ($B = .26, p < .0005$) and psychological well-being ($B = .70, p < .0005$) and decreases in physical symptoms ($B = -2.46, p < .0005$) predict next-day increases in goal progress. In Study 2, increases in relationship quality ($B = .49, p < .0005$) and psychological well-being ($B = .84, p < .0005$) and decreases in physical symptoms ($B = -2.78, p < .0005$) predict next-day increases in goal progress. Increases in sleep quality marginally predict increases in next-day goal progress ($B = .08, p = .057$). These results suggest potential bi-directional associations among goal progress and well-being. However, because we used tested prospective hypotheses regarding changes over time for our primary study predictions, these effects do not negate the significance of this investigation's results.

relational, and individuals may benefit more from pursuing interpersonal, joint goals (Oishi & Diener, 2001).

Finally, our measurement of goal progress was coarse; we assessed perceptions of overall personal goal progress on a given day. Future research may benefit from a detailed assessment of the characteristics of participants' goals. Progress on self-concordant goals—goals that are highly valued and aligned with the self—may have the greatest impact on well-being, whereas progress on goals that are inconsistent with one's priorities may detract from well-being (e.g., Sheldon & Elliot, 1999; Sheldon & Kasser, 1998). This may be especially relevant in late adulthood, when individuals prioritize self-concordant goals (Baltes & Carstensen, 2003; Carstensen et al., 2003; Sheldon, 2009). It also will be important for future research to establish the extent to which perceptions of goal progress reflect actual goal progress, as some individuals may have higher standards for goal progress than others.

Future research also should address the mechanisms underlying the associations we observed in these studies. We speculated about several potential mechanisms, but we cannot assess them without additional data. Future experimental work may be the best way to test the mechanisms underlying the theoretical model. Future studies also should investigate the outcomes of exploration/goal pursuit that does not result in goal progress. In the current research, we cannot differentiate days when goal pursuit was unsuccessful (and led to no progress) from days when participants did not pursue goals because both types of days would result in low goal progress. Unsuccessful attempts at goal pursuit may be particularly damaging because consistent pursuit of unattainable goals can detract from health and well-being (Wrosch, Miller, Scheier, & de Pontet, 2007). Exploration may only be beneficial to the extent that an individual's goals are realistic and achievable.

Conclusion

In conclusion, we have demonstrated 1) that goal progress (an indicator of successful exploration for adults) predicts well-being in psychological, physical, and relational domains across the adult lifespan and 2) that spousal support facilitates goal progress (and indirectly promotes well-being through goal progress) throughout the adult lifespan. These results highlight the important interplay between the attachment, caregiving, and exploration systems (Bowlby, 1969/1982/1973/1980/1988) and provide novel, rigorous evidence of the importance of exploration and support for exploration throughout the adult lifespan. This research suggests that individuals should continue to pursue goals in late adulthood because goal progress continues to promote well-being during this final life stage. The impact of goal progress on broad and wide-ranging facets of well-being underscores the importance of exploration and supports a theoretical extension of attachment theory on the importance of relational support for thriving (Feeney & Collins, 2015).

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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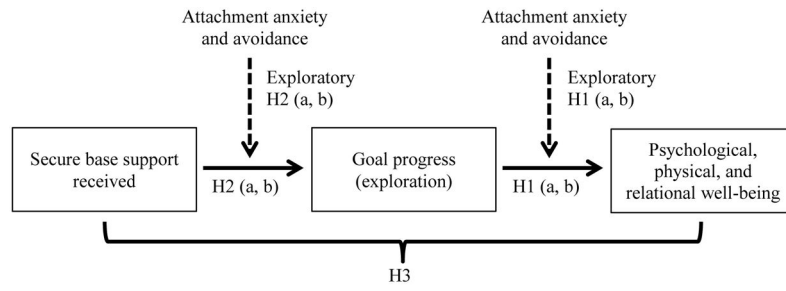


Figure 1. Proposed model linking secure base support, goal progress, and three facets of well-being.

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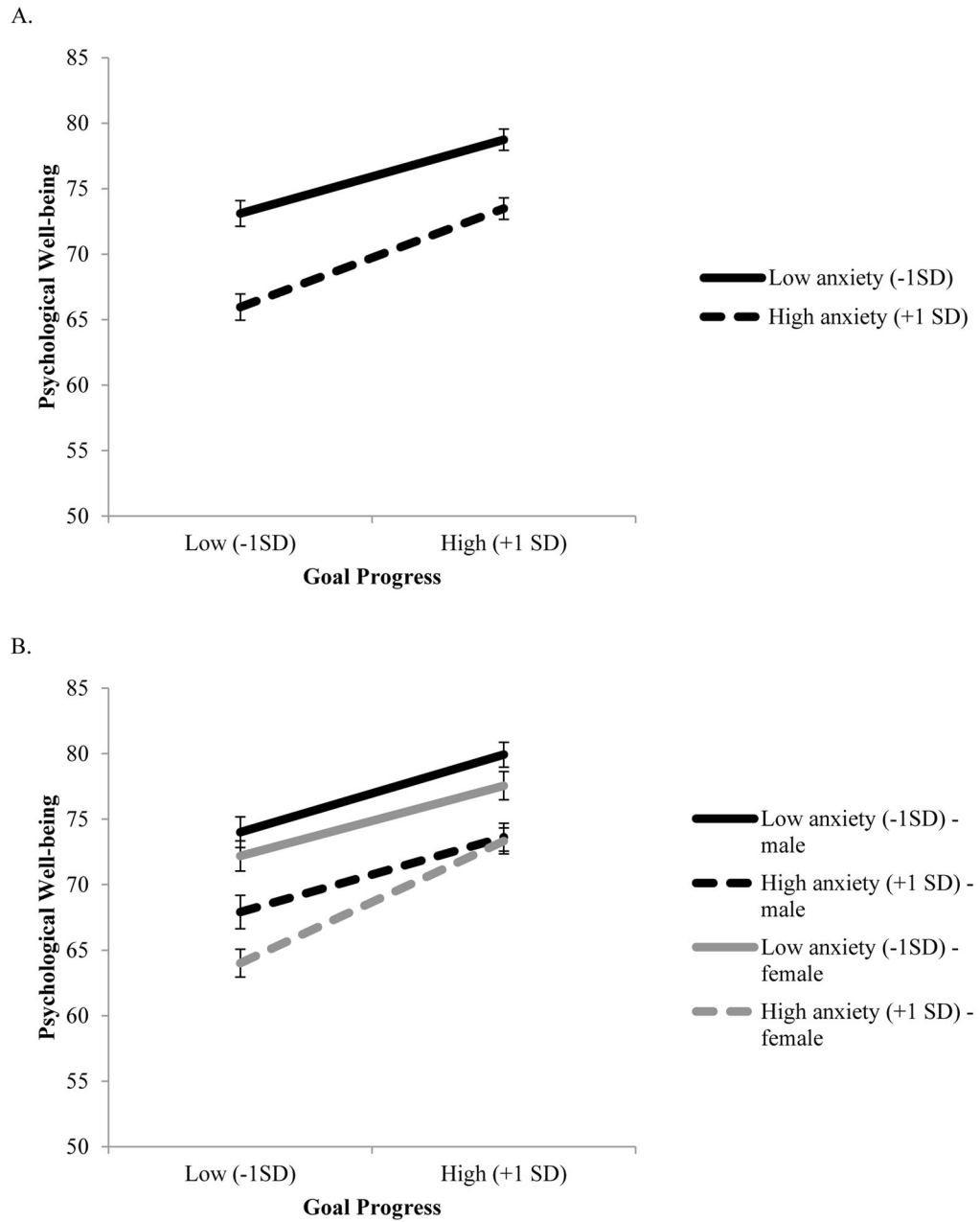


Figure 2. Interaction between attachment anxiety and goal progress on same day psychological well-being (newlywed sample). A. marginal 2-way interaction; B. 3-way interaction with gender. Error bars are 1SE above and below the mean, all other predictors are centered.

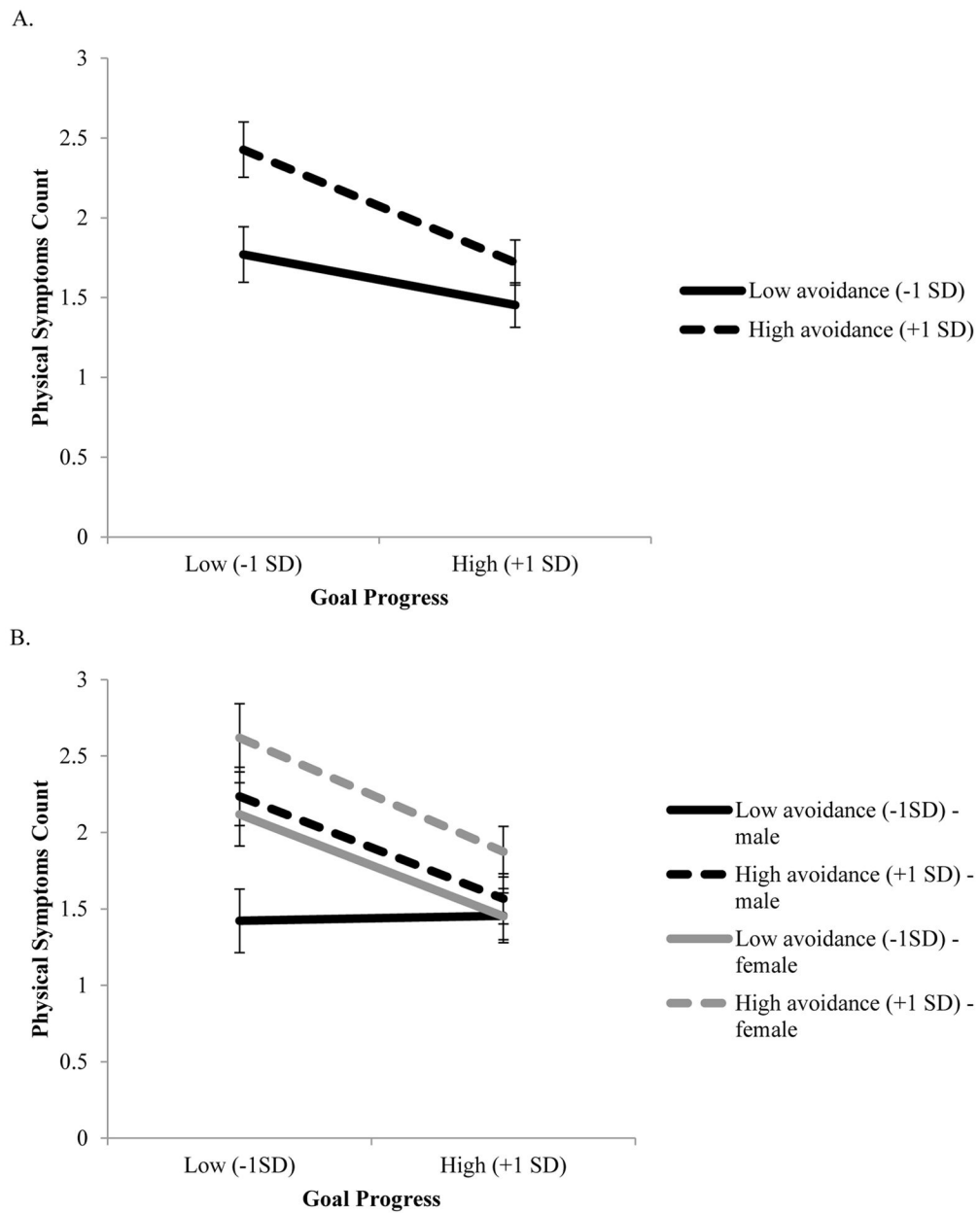


Figure 3. Interaction between attachment avoidance and goal progress on same day physical well-being (symptoms, newlywed sample) A. 2-way interaction; B. 3-way interaction with gender. Error bars are 1SE above and below the mean, all other predictors are centered.

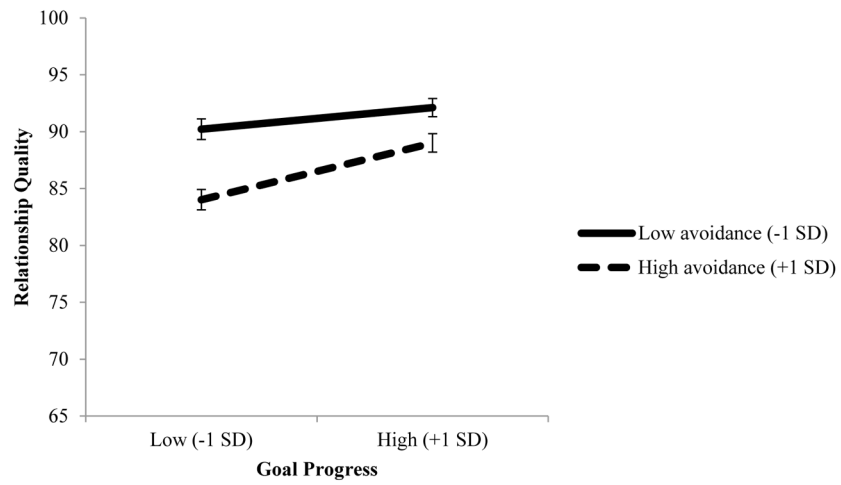


Figure 4. Interaction between attachment avoidance and goal progress on same day relational well-being (newlywed sample). Error bars are 1SE above and below the mean, all other predictors are centered.

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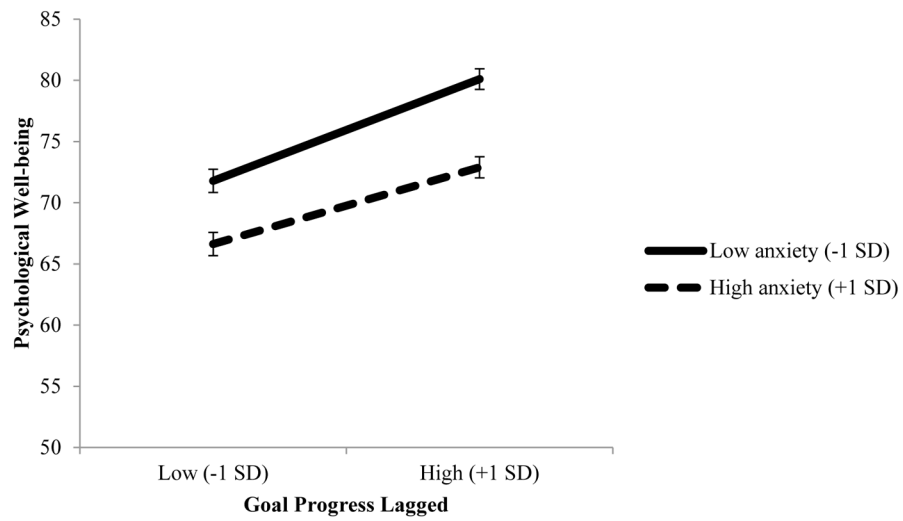


Figure 5. Interaction between lagged goal progress and attachment anxiety on psychological well-being (newlywed sample). Error bars are 1SE above and below the mean, all other predictors are centered.

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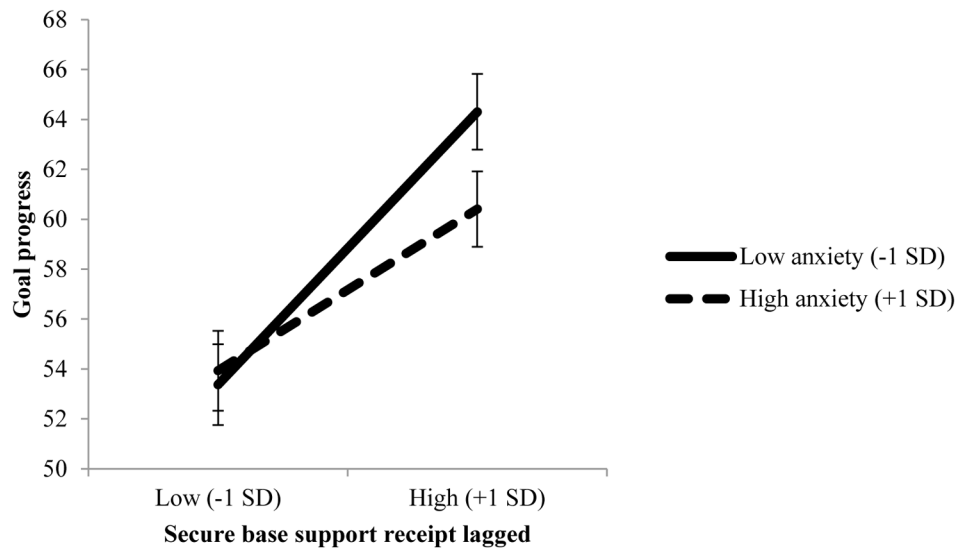


Figure 6. Interaction between secure base support receipt and attachment anxiety on next day goal progress (newlywed study). Error bars are 1SE above and below the mean, all other predictors are centered.

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Table 1

Descriptive statistics and zero-order correlations between study variables

Study 1: Newlywed sample	Mean (SD)	1	2	3	4	5	6	7
<u>Background</u>								
1. Att. Anxiety	3.2 (1.1)							
2. Att. Avoidance	3.2 (1.0)	.28**						
<u>Daily</u>								
3. Goal Progress	57.8 (26.5)	-.08	-.16**					
4. Psych. Well-being	72.8 (12.7)	-.35**	-.30**	.41**				
5. Phys. Symptoms Count	1.9 (2.5)	.21**	.17**	-.20**	-.51**			
6. Relationship Quality	89.0 (13.4)	-.17**	-.26**	.20**	.55**	-.22**		
7. Secure Base Support	1.3 (1.5)	-.05	-.06	.33**	.27**	-.05	.40**	
Study 2: Aging sample								
<u>Background</u>								
1. Att. Anxiety	2.3 (1.0)							
2. Att. Avoidance	3.2 (0.9)	.44**						
<u>Daily</u>								
3. Goal Progress	60.1 (28.0)	.01	-.13**					
4. Psych. Well-being	81.8 (14.3)	-.30**	-.23**	.33**				
5. Phys. Symptoms Count	1.5 (1.9)	.12*	.07	-.06	-.43**			
6. Sleep Quality	78.2 (24.0)	-.09	-.12*	.25**	.53**	-.51**		
7. Relationship Quality	91.8 (13.4)	-.19**	-.18**	.19**	.55**	-.16**	.35**	
8. Secure Base Support	1.7 (1.6)	-.05	-.10*	.31**	.27**	-.00	.17*	.43**

* $p < .05$;

** $p < .01$

Table 2

Summary of normative models (same-day fixed effects)

		H1: Goal progress predicts well-being			H2: SB support predicts goal progress			
		Psychological well-being		Physical symptoms	Sleep	Relationship quality		Goal progress
Study 1: Newlywed sample	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>
1. Person average predictor	.30** [.24, .36]	-.02** [-.03, -.01]	--	--	.10** [.05, .15]		6.36** [4.44, 8.30]	
Daily (time-varying)								
2. Outcome lagged	-.02	.06** [.02, .10]	--	--	.04		-.03	
3. Predictor	.17** [.14, .21]	-.01** [-.02, -.01]	--	--	.09** [.06, .12]		2.99 [1.97, 4.00]	
Partial ICC Between Spouses	.27**	.00	--	--	.34**		.04	
<hr/>								
Study 2: Aging sample	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	
1. Person average predictor	.20** [.15, .25]	-.00	.22** [.14, .31]		.10* [.03, .16]		5.40** [3.81, 6.99]	
Daily (time-varying)								
2. Outcome lagged	-.07** [-.10, -.03]	-.02	-.10** [-.14, -.06]		.00		-.10** [-.14, -.06]	
3. Predictor	.06** [.03, .09]	-.003** [-.01, -.00]	.03* [.00, .07]		.05* [.02, .08]		3.01** [2.12, 3.90]	
Partial ICC Between Spouses	.17**	.00	.03		.31**		.10**	

Note: Estimates are pooled across husbands/wives; unstandardized beta weights; person average predictor is grand-mean-centered; time-varying predictors are person-centered; 95% confidence intervals for significant effects are shown in brackets. For H1, the predictor was goal progress, and for H2, the predictor was secure base support receipt.

* $p < .05$;

** $p < .01$

Table 3

Summary of normative models (lagged fixed effects)

		H1: Goal progress predicts well-being				H2: SB support predicts goal progress					
		Psychological well-being		Physical symptoms		Sleep		Relationship quality		Goal progress	
Study 1: Newlywed sample	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>
1. Person average predictor	.29** [.23, .36]	-.02** [-.03, -.01]	--	--	.10 [.05, .16]	6.42** [4.49, 8.35]					
Daily (time-varying)											
2. Outcome lagged	.03	.07** [.02, .11]	--	--	-.01	-.03					
3. Change in predictor	.26** [.24, .29]	-.02** [-.02, -.01]	--	--	.15** [.12, .17]	3.39** [2.56, 4.21]					
4. Predictor lagged	.19** [.16, .22]	-.01** [-.02, -.01]	--	--	.13** [.10, .15]	3.64** [2.45, 4.82]					
Partial ICC Between Spouses	.26**	.00	--	--	.31**	.04					
<hr/>											
Study 2: Aging sample	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>
1. Person average predictor	.20** [.15, .26]	-.00	.22** [.13, .30]	.09** [.04, .14]	5.47** [3.89, 7.07]						
Daily (time-varying)											
2. Outcome lagged	-.02	-.02	-.10** [-.14, -.06]	.02	-.11 [-.15, -.07]						
3. Change in predictor	.18** [.16, .20]	-.01** [-.01, -.00]	.07** [.04, .12]	.09** [.07, .10]	3.10** [2.33, 3.86]						
4. Predictor lagged	.12** [.10, .14]	-.003* [-.01, -.00]	.05* [.01, .10]	.06** [.04, .08]	4.82** [3.71, 5.91]						
Partial ICC Between Spouses	.18**	.01	.02	.32**	.09**						

Note: Estimates are pooled across husbands/wives; unstandardized beta weights; person average predictor is grand-mean-centered; time-varying predictors are person-centered; 95% confidence intervals for significant effects are shown in brackets. For H1, the predictor was goal progress, and for H2, the predictor was secure base support receipt.

* $p < .05$;

** $p < .01$

Results of mediation models to assess the mediating effect of yesterday's goal progress to explain the relationship between yesterday's secure base support and today's well-being

Table 4

Study 1: Newlywed sample	Total Indirect Effect	SE	Z	% of Total Effect Mediated
Psychological well-being	.56 [.40, .74]	.08	6.36**	22.79
Physical symptoms count	-.05 [-.07, -.03]	.01	-4.63**	27.79
Relational well-being	.28 [.17, .41]	.06	4.75**	9.81
Study 2: Aging sample	Total Indirect Effect	SE	Z	% of Total Effect Mediated
Psychological well-being	.56 [.40, .75]	.09	6.48**	28.80
Physical symptoms count	-.01[-.02, .00]	.01	-1.32	--
Sleep quality	.16 [-.07, .41]	.12	1.34	19.47
Relational well-being	.23 [.13, .34]	.06	4.18**	15.88

Note: Indirect effect estimates are pooled across husbands/wives; 95% confidence intervals are shown in brackets and were produced using Monte Carlo Estimation; percent of total effect mediated is estimated as the indirect effect divided by the total effect (i.e., the estimated indirect effect + the effect of secure base support controlling for goal progress); percent of total effect mediated is not reported when the direction of the indirect and total effect are opposite.

* $p < .05$;

** $p < .01$

Table 5

Summary of exploratory moderation analyses (same-day fixed effects)

	Exploratory H1			Exploratory H2		
	Psychological well-being	Physical symptoms	Sleep	Relationship quality	Goal progress	
Study 1: Newlywed sample	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>
1. Att. anxiety	-2.96** [-4.00, -1.91]	.27** [.09, .45]	--	-.83	-.93	
2. Att. avoidance	-2.18** [-3.32, -1.03]	.24* [.04, .45]	--	-2.44** [-3.46, -1.42]	-2.55** [-4.41, -.69]	
3. Person average predictor	.27** [.21, .32]	-.02** [-.03, -.01]	--	.08** [.02, .13]	6.19** [4.28, 8.10]	
Daily (time-varying)						
4. Outcome lagged	-.02	.04* [.00, .09]	--	.01	-.03	
5. Predictor lagged	.17** [.14, .20]	-.01** [-.02, -.01]	--	.09** [.06, .12]	3.00** [1.97, 4.03]	
Moderation analyses						
6. Predictor * anxiety	.02	.00	--	-.02	-.37	
7. Predictor * avoidance	.02	-.01* [-.01, -.00]	--	.04** [.02, .07]	-.39	
Study 2: Aging sample	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>
1. Att. anxiety	-.27** [-.38, -.18]	.02* [.00, .03]	-.15	-.10* [-.19, -.01]	.09	
2. Att. avoidance	-.09* [-.17, -.00]	.00	-.08	-.11** [-.18, 0.03]	-.22** [-.38, -.07]	
3. Person average predictor	.20** [.16, .25]	-.00	.21** [.13, .30]	.09** [.05, .14]	5.25** [3.66, 6.83]	
Daily (time-varying)						
4. Outcome lagged	-.06** [-.10, -.03]	-.03	-.10** [-.14, -.06]	.01	-.10** [-.14, -.06]	
5. Predictor lagged	.12** [.09, .14]	-.003** [-.01, -.00]	.04* [.00, .07]	.05** [.03, .07]	3.04** [3.12, 3.96]	
Moderation analyses						
6. Predictor * anxiety	.00	-.00	-.00	.00	-.01	
7. Predictor * avoidance	.00	-.00	-.00	.00	-.04	

Note: Estimates are pooled across husbands/wives; unstandardized beta weights; person average predictor is grand-mean-centered; time-varying predictors are person-centered; 95% confidence intervals for significant effects are shown in brackets. For H1, the predictor was goal progress, and for H2, the predictor was secure base support receipt.

* $p < .05$;

** $p < .01$

Table 6

Summary of exploratory moderation analyses (lagged fixed effects)

	Exploratory H1			Exploratory H2		
	Psychological well-being	Physical symptoms	Sleep	Relationship quality	Goal progress	
Study 1: Newlywed sample	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>
1. Att. anxiety	-2.96** [-4.01, -1.90]	.28** [.09, .46]	--	-.90	-.77	
2. Att. avoidance	-2.09** [-3.25, -.92]	.23* [.03, .44]	--	-2.41** [-3.42, -1.41]	-2.71** [-4.56, -.85]	
3. Person average predictor	.26** [.20, .32]	-.02** [-.03, -.01]	--	.07** [.02, .13]	6.26** [4.35, 8.17]	
Daily (time-varying)						
4. Outcome lagged	.03	.07** [.02, .11]	--	-.01	-.02	
5. Change in predictor	.26** [.24, .29]	-.02** [-.02, -.01]	--	.15** [.12, .17]	3.37** [2.54, 4.20]	
6. Predictor lagged	.19** [.16, .22]	-.01** [-.02, -.01]	--	.13** [.10, .16]	3.72** [2.52, 4.92]	
Moderation analyses						
7. Predictor * anxiety	-.02* [-.05, -.00]	-.00	--	-.01	-.91* [-1.72, -.09]	
8. Predictor * avoidance	.01	-.00	--	.01	.64	
Study 2: Aging sample	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>
1. Att. anxiety	-.30** [-.41, -.20]	.02* [.00, .04]	-.15	-.11* [-.20, -.02]	.10	
2. Att. avoidance	-.08	.00	-.09	-.10** [-.18, -.03]	-.22** [-.38, -.07]	
3. Person average predictor	.20** [.15, .25]	-.00	.20** [.12, .29]	.08** [.04, .13]	5.32** [3.73, 6.92]	
Daily (time-varying)						
4. Outcome lagged	-.02	-.02	-.10** [-.14, -.06]	.02	-.11** [-.15, -.07]	
5. Change in predictor	.18** [.16, .20]	-.01** [-.01, -.00]	.07** [.04, .12]	.09** [.07, .10]	3.17** [2.40, 3.94]	
6. Predictor lagged	.12** [.10, .14]	-.003* [-.01, -.00]	.05* [.01, .10]	.06** [.04, .08]	4.84** [3.71, 5.97]	
Moderation analyses						
7. Predictor * anxiety	-.00	.00	.00	-.00	-.05	
8. Predictor * avoidance	-.00	-.00	-.00	.00	-.01	

Note: Estimates are pooled across husbands/wives; unstandardized beta weights; person average predictor is grand-mean-centered; time-varying predictors are person-centered; 95% confidence intervals for significant effects are shown in brackets. For H1, the predictor was goal progress, and for H2, the predictor was secure base support receipt.

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