Precursors and Consequences of Partner Buffering of Attachment Insecurity for Agents in Romantic Relationships: An Examination of Two Longitudinal Studies

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Dedication

This dissertation is dedicated to my partner, Ryan Striley, who has buffered all of my moments of insecurity, and my dogs, Izze and Bailey, who create shining moments of joy in my life every day.

Abstract

Insecurely attached people have less satisfying relationships, experience poorer psychological and physical health, and struggle to cope with stressful situations. Attachment insecurity, however, is modifiable. Indeed, individuals (agents) in romantic relationships can provide soothing comfort and tailored support that "buffers" or diminishes their partners' (targets') distress and insecurity. These supportive responses by agents are called *buffering behaviors*. Thus far, research has primarily examined how these responses allay insecurity and distress, thereby enhancing wellbeing and increasing security in many targets. Partner buffering, however, is a dyadic process that involves both targets and agents. Although some research has investigated targets, little is known about partner buffering from the agent's perspective. Specifically, we do not know: (1) why some agents are more effective at buffering their partners than are other agents, or (2) what the long-term costs of engaging in buffering are for agents. Using data from two existing longitudinal studies, I documented whether and how certain personal and relational experiences shape agents' proclivity to engage in buffering behaviors (Studies 1 & 2), along with the long-term repercussions of buffering on agents' individual and relationship wellbeing (Study 2). The current research suggests that agents are best equipped to engage in tailored and effective buffering behaviors when they (1) can regulate themselves, (2) have developed adequate social skills, and (3) are committed to maintaining their current relationship. Moreover, agents tend to benefit from engaging in buffering behaviors when their buffering is effective and when it is reciprocated.

Keywords: Attachment theory, support, buffering, longitudinal

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1. Introduction

> "For all of us, the person we love most in the world, the one who can send us soaring joyfully into space, is also the person who can send us crashing back to earth. All it takes is a slight turning away of the head or a flip, careless remark. There is no closeness without this sensitivity. If our connection with our mate is safe and strong, we can deal with these moments of insensitivity. Indeed, we can use them to bring our partner even closer. But when we don't feel safe and connected, these moments are like a spark in a tinder forest. They set fire to the whole relationship."
>
> – *Sue Johnson, Hold Me Tight: Your Guide to the Most Successful Approach to Building Loving Relationships, p. 65, 2008*

In committed romantic relationships, partners often have inexplicable influence on one another. Each interaction with a partner presents an opportunity to spark changes within the individual and within the relationship. For individuals who are insecurely attached (i.e., those who are reluctant to trust others and/or who lack self-assurance), each interaction with a partner serves as an opportunity for insecure working models to be revised (Fraley et al., 2021; Rholes et al., 2021; Simpson et al., 2003). Indeed, individuals (agents) in romantic relationships can provide soothing comfort and tailored support that "buffers" or diminishes their partners' (targets') distress and insecurity when they arise (Arriaga et al., 2018; Simpson & Overall, 2014). These supportive responses by agents are called *buffering behaviors*. Buffering behaviors have been shown to attenuate attachment insecurity, improve relationship quality, and alleviate psychological distress

in insecure people (Arriaga et al., 2021; Farrell et al., 2016; Overall et al., 2013; Rholes et al., 2021; Simpson et al., 2003).

Partner buffering, however, is a dyadic (two-person), interdependent process that involves both targets and agents. Although some research has investigated insecure targets, little is known about partner buffering from the agent's perspective. Specifically, we do not know: (1) why some agents are more effective at buffering their partners than other agents, or (2) what the long-term costs of engaging in buffering are for agents. Using data from two existing longitudinal studies, I documented whether and how certain personal and relational experiences shape agents' proclivity to engage in effective buffering behaviors, along with the long-term repercussions of buffering on agents' wellbeing.

1.1 Attachment Theory

Humans have a fundamental need to form social bonds that promote their safety and survival (Ainsworth et al., 1978; Bowlby, 1969/1982, 1973, 1980). Consequently, humans have evolved behavioral systems that allow them to solicit and receive care and attain protection from threats (e.g., the attachment behavioral system; Sroufe & Waters, 1977). Attachment theory suggests that the attachment behavioral system monitors the environment for cues of danger and, when activated, prompts people to seek protection. To do so, people seek proximity and support (e.g., a *safe haven*) with others. By finding proximity and safe haven with close others, people's distress typically abates when they believe that they are safe from threats. Once distress subsides, people feel more confident to resume normal activities, knowing that their close others are available if/when needed

(e.g., they have a *secure base*). Indeed, when threats are absent, other behavioral systems (e.g., caregiving, sexuality, exploration) often take precedence, facilitating personal and relational growth.

Although seeking proximity and safe haven is prototypic when people are distressed, some individuals develop different, adaptive responses to distress based on their early experiences. To document these individual differences in attachment-relevant responses, Ainsworth and colleagues (1978) developed the Strange Situation procedure to evaluate children's patterns of attachment behaviors with their caregivers. In this procedure, caregivers and infants participate in a series of short episodes during which they are separated and reunited in a novel environment. Ainsworth and colleagues noticed three dominant attachment behavioral patterns across these episodes. Most children were classified as *secure*; they would explore the room when their caregiver was present, became distressed when their caregiver left, and would seek comfort from and be easily soothed by the caregiver when they returned – fitting the prototypic attachment responses of proximity seeking and safe haven when distressed and secure base when unthreatened.

Infants who exhibited other patterns of behaviors are broadly categorized as being *insecurely attached*. Some insecure infants were classified as *anxious-ambivalent* (hereinto referred to as *anxious*); they were often upset before the caregiver left the room, became increasingly distraught when the caregiver exited, and would seek comfort from the caregiver when they returned, although the infants were not easily soothed. Other insecure infants were classified as *anxious-avoidant* (hereinto referred to

as *avoidant*); they would not explore the room when the caregiver was present and did not react or seem distressed when the caregiver left or returned, going so far as to resist comfort when caregivers tried to provide it upon their return.

These patterns of attachment behaviors were linked to specific caregiving experiences in early life (Ainsworth et al., 1978). When caregivers early in life have been consistently available and responsive, individuals (children) often develop *secure attachments*. When early caregivers are inconsistent or intrusive with their care, individuals often develop *anxious attachments*. When early caregivers are absent or rejecting, individuals often develop *avoidant attachments*.

Bowlby (1979) theorized that early experiences are embedded in children's mental representations (i.e., internal working models) of close others and the self; these mental representations are carried forward from "cradle to grave" (p. 129). Empirical evidence supports the enduring effect of attachment representations across the life course, albeit at modest levels (Sroufe et al., 1990). People form mental representations of their life histories with attachment figures that serve as prototypes for their expectations of future relationships and situations (Main et al., 1985; Sroufe et al., 2005). These prototypes inform how people think, feel, and behave when the attachment system is activated by threatening or distressing events, and they are applied across different caregivers and relationships, transitioning from parents to friends to romantic partners across the life course (Fraley & Davis, 1997; Hazan & Shaver, 1987). Each attachment relationship people form during their lives is combined with and shapes their prior internal working models (Collins & Read, 1994; Sibley & Overall, 2010). Through these

relational experiences, internal working models can dynamically change when relational experiences with later attachment figures counteract existing internal working models (Arriaga et al., 2021; Fraley et al., 2021; Rholes et al., 2021; Simpson et al., 2003).

Secure individuals develop internal working models of close others as trustworthy and of the self as competent (Mikulincer & Shaver, 2003). They have learned that when threats are present, close others will be available and able to comfort them and alleviate their distress (Florian et al., 1995). Secure individuals trust that their partners will continue to be present and that they will work through conflicts together, despite momentary distress. These individuals are effective at regulating their own emotions and accept attempts from agents to regulate their distress, tend to have less biased perceptions of their partners during conflicts, and are better at engaging in pro-relationship behaviors (e.g., support, capitalization, gratitude; Feeney et al., 2013; Mikulincer & Shaver, 2009; Mikulincer et al., 2006; Shallcross et al., 2011; Shaver & Mikulincer, 2014).

Anxious individuals develop internal working models of close others as inconsistently available and of the self as vulnerable, inadequate, and unworthy of positive regard (Mikulincer & Shaver, 2003). In adulthood, anxiously attached individuals continue to have unmet needs for security and worry that close others will fail to meet their security and belongingness needs (Mikulincer & Shaver, 2016). Given these concerns, these individuals become emotionally volatile and highly dependent on close others, particularly during conflicts. They tend to view the world through a perpetually negative lens and are hypervigilant to signs of the availability and approval of close others (Campbell et al., 2005; Collins et al., 2006). Anxious individuals also escalate

conflicts with partners, ironically straining the relational bonds that they are so keen to protect (Simpson et al., 1996). Moreover, when distressed, anxiously attached individuals display an excessive need for reassurance and exaggerated negative emotions, which makes them difficult to soothe (Mikulincer et al., 1993).

Avoidant individuals develop internal working models of close others as undependable and of the self as needing to be guarded against threats to autonomy (Mikulincer & Shaver, 2003). In adulthood, avoidant individuals continue to desire closeness to fulfill their unmet needs for security and closeness, but fear rejection should they seek physical or emotional comfort (Mikulincer & Shaver, 2016). Consequently, avoidant individuals view the need to receive care as a weakness, avoid emotional vulnerability, and become self-reliant. As a result, they avoid close connections with or reliance on others, preferring to maintain their autonomy and to avoid situations that could elicit personal distress or emotional upheaval (Collins & Gillath, 2012; Li & Chan, 2012). When threatened or emotionally vulnerable, avoidant individuals typically withdraw from their romantic partners, which prevents partners from connecting with them (Dyaks & Cassidy, 2011).

The internal working models and resulting thoughts, feelings, and behaviors of insecure individuals, although adaptive given their history of receiving care, can be detrimental to maintaining healthy long-term relationships (Eller et al., 2022; Feeney & Lemay 2012; Givertz et al., 2013; Li & Chan, 2012; Meyer et al., 2015). However, romantic partners (agents) can counteract insecurity by providing soothing comfort and support that alleviates their partner's (the target's) distress. Once their distress is relieved,

effective buffering can enhance safety and security, protecting the relationship and allowing the target's needs to be met across time (Arriaga et al., 2021; Arriaga et al., 2018; Rholes et al., 2021). Yet, partner buffering is a complex interpersonal process requiring a constellation of specific behaviors tailored to the target's specific attachment-related needs as well as to the current situation (Eller & Simpson, 2020; Overall et al., 2022). Given its complexity and potential for high caregiving demand, some agents may not be willing or able to engage in partner buffering and/or may suffer adverse consequences for doing so.

1.2 Partner Buffering of Attachment Insecurity

All people experience moments of insecurity, uncertainty, and distress. For most securely attached individuals, these moments of distress are assuaged by their emotion-regulation skills (Shaver & Mikulincer, 2014) and/or by relying on and accepting comfort via proximity seeking and safe haven support from their attachment figures (Arriaga et al., 2018; Collins & Feeney, 2000; Simpson & Overall, 2014). However, for insecurely attached individuals, the process of downregulating distress is more complicated (Simpson et al., 2007). Anxious individuals may be too emotionally volatile to be soothed easily by typical support behaviors and may need more reassurance than their secure counterparts to assuage their felt insecurity and to fill the void of care they perceive. Avoidant individuals may not seek out their partners for comfort and often disengage from their partners when support is offered (Simpson et al., 1992), especially when support is offered in a way that is emotional or makes them feel indebted to their partner.

Therefore, specific patterns of behavior and communication – known as partner buffering – are necessary for agents to effectively downregulate the distress of insecure targets.

Partner buffering is a specialized form of caregiving in which an agent employs specific behaviors to attenuate or downregulate a target's feelings of distress (Eller & Simpson, 2020; Simpson & Overall, 2014). It requires the use of various types of support and problem-solving behaviors that are tailored to downregulate targets based on the targets' specific attachment-relevant motives and needs. Partner buffering is not one type of behavior – such as instrumental support – but is instead a constellation of behaviors that address particular concerns of the target. Although partner buffering can be tailored to address any number of target characteristics and needs, it is most often applied to addressing attachment-related needs (Arriaga et al., 2018; Overall et al., 2013; Simpson & Overall, 2014).

The Attachment Security Enhancement Model (ASEM; Arriaga et al., 2018) and the Dyadic Regulation Model of Insecurity Buffering (Simpson & Overall, 2014) suggest that insecure targets are best buffered when agents meet their attachment-related needs. For example, agents buffer anxious targets most effectively when they meet the targets' needs for interdependence and greater felt security, without encouraging anxious targets' exaggerated emotions or self-effacement. Thus, to buffer anxious targets effectively, agents must:

1. Communicate intimacy, commitment, and a strong emotional bond.
2. De-escalate (but not invalidate) targets' heightened negative emotions.
3. Provide a strong, visible secure base that emphasizes collective (joint) solutions.

This combination of behaviors is identified as ***safe strategies***.

Agents buffering avoidant targets most effectively when they meet the targets' needs for independence and autonomy while also demonstrating consistent but subtle availability and responsiveness. Thus, to buffer avoidant targets effectively, agents must:

1. Convey respect for the target's personal space and boundaries.
2. Provide practical support.
3. Communicate that wanting aid from partners in relationships is normal and reasonable.

This combination of behaviors is identified as ***soft strategies***.

Supporting the ASEM (Arriaga et al., 2018) and Dyadic Regulation Model of Insecurity Buffering (Simpson & Overall, 2014), recent empirical work suggests that tailored partner-buffering strategies do effectively buffer insecure targets. Anxious individuals who are buffered with safe strategies report decreases in attachment insecurity (Arriaga et al., 2021), greater life satisfaction (Murphy et al., in press), and better sexual and relationship functioning (Raposo & Muise, 2021). Avoidant individuals who are buffered with soft strategies report decreases in attachment insecurity and increases in relationship quality (Rholes et al., 2021), experience less anger and withdrawal during conflict (Farrell et al., 2016; Overall et al., 2013), and are more responsive to the agents' needs, allowing for reciprocal support processes that improve relationship wellbeing for both partners (Schrage et al., 2020).

In addition, for both safe and soft strategies to be most effective, targets must perceive agents' behaviors as genuine and given of agents' own free-will (Arriaga et al.,

2018; Lemay & Clark, 2008). Lies and inauthentic behaviors are more easily detected in close relationships than in more distanced relationships (DePaulo & Kashy, 1998), and false attempts to ingratiate or flatter a partner can create reactance whereby partners experience negative emotions in response to such attempts (DePaulo et al., 1985; Gagné et al., 2008; Pataki & Clark, 2004). Indeed, insecurely attached people may be particularly likely to detect and react negatively to false attempts to provide support given their sensitivity to the presence of adequate or waning care (Cassidy, 2001; Ein-Dor & Perry, 2014). Thus, an added challenge to agents hoping to buffer targets effectively is both to employ the correct buffering behaviors and to do so in authentic ways.

1.3 Partner Buffering as a Dyadic Phenomenon: It Takes Two to Tango

Romantic relationships are inherently interdependent, involving constant mutual influence and exchange (Thibaut & Kelley, 1959; Kelley & Thibaut, 1978; Kelley et al., 1983). From its insanitation, partner buffering has been framed as an inherently dyadic, interdependent process (Overall et al., 2013; Overall & Simpson, 2015; Simpson & Overall, 2014). To date, however, research and theorizing about partner buffering have focused predominantly on characteristics of the *targets* to whom partner buffering must be tailored and on the outcomes of partner buffering for these targets, treating agents primarily as part of the process that fulfills targets' needs and leads targets' outcomes (Arriaga et al., 2018; Simpson & Overall, 2014). From this approach, the consensus of the current literature suggests that when target-tailored partner buffering occurs, it tends to be beneficial for the target. Yet, it is not clear (1) why some agents are more effective at buffering their partners than are other agents and (2) what the consequences of

engaging in buffering are for agents. It is vital to understand the roots and consequences of partner buffering because engaging in buffering is a common recommendation for relationship improvement in both the adult romantic attachment literature (e.g., Arriaga et al., 2018; Farrell et al., 2016; Overall et al., 2013; Simpson & Overall, 2014) and in therapeutic practices (e.g., Greenman et al., 2019; Greenberg & Johnson, 1988; Johnson & Greenberg, 1985; Wiebe & Johnson, 2016). However, we cannot fully endorse and recommend a process when we understand how it impacts only one of the two partners in the relationship. The present research attempts to fill this gap in the literature. In the following sections, I outline theoretically relevant precursors and consequences of partner buffering for agents.

1.3.1 Precursors of Partner Buffering for Agents

Although some agents engage in buffering practices, others do not engage in such practices, or do not tailor them appropriately to their target partners (Overall et al., 2013; Schrage et al., 2020). To understand the origins of buffering, which would aid the development of interventions, researchers must first document the characteristics of agents who are adept at engaging in appropriate buffering techniques. Identifying these characteristics, however, first requires identifying the behaviors and interpersonal processes that agents engage in when enacting successful buffering. To enact effective buffering, agents must first recognize a target's distress, then regulate their own feelings of distress, and finally, engage in the appropriate buffering technique that "matches" the needs of the target (Arriaga et al., 2018; Eller & Simpson, 2020; Simpson & Overall, 2014).

According to this stepwise process, agents must first accurately assess and recognize the target's feelings of distress. Recognition is likely easiest when targets clearly signal their distress (Rafaeli & Gleason, 2009; Swain et al., 2004). For example, people with physically ill partners are more likely to recognize distress and enact support behaviors when their partner has more severe physical symptoms – a clear, unmistakable distress signal (Iida et al., 2010). However, agents often fail to recognize targets' distress when physical symptoms are less evident and, consequently, agents are less likely to support their ailing partner. Thus, the strength and clarity of distress signals from targets, both physically and behaviorally, seem to partially determine whether agents are likely to engage in supportive behaviors. But, given the focus on understanding agents, which agents are best at recognizing the target's distress?

The ability to recognize others' distress is best reflected in the literature on empathic accuracy. Empathic accuracy refers to the degree to which a person can correctly discern another person's thoughts or feelings during a social interaction (Ickes, 1993; Ickes & Simpson, 2001) – often referred to by laypeople as "mind-reading." Most people report that they are good at reading others' minds. Indeed, people in romantic relationships are often accurate in assessing their partners' thoughts and feelings (Simpson et al., 2003; Zaki et al., 2008).

However, not all agents are as accurate as others. The Empathic Accuracy Model (EAM; Ickes & Simpson, 2001) suggests that specific personal and situational factors should determine how accurate agents are at inferring a target's thoughts and feelings (Funder, 2012). Specifically, agents should be less accurate in their perceptions of their

partners' thoughts and feelings when the target's thoughts or feelings may be harmful to the relationship or when the agents themselves feel threatened or under high stress (Simpson et al., 2011a). Therefore, agents who report greater relationship quality and less stress should be best equipped to recognize the target's distress accurately, particularly when discussing relationship problems or conflicts (Sillars, 1985; Verhofstadt et al., 2010).

Some agents may also be less capable of providing appropriately tailored support due to their poor emotion-regulation abilities, their psychological distress, or their own insecurities. Most relationship agents report feeling distressed when they perceive their partner to be distressed (Revenson et al., 2005; Rimé et al., 2020). When agents report greater stress and psychological turmoil, they tend to provide less emotional and instrumental support to targets (Iida et al., 2008; Rafaeli & Gleason, 2009). Enacting fine-tuned buffering techniques is likely to require that agents overcome their own distress before they can care for the target in a well-tailored manner. For example, agents must first soothe their own distress before being able to soothe their a target partner. Therefore, agents who report more effective emotion regulation, less psychological distress, and greater security should be best equipped to engage in effective buffering behaviors.

Despite working through the recognition and self-soothing processes, some agents may still be unable to enact buffering behaviors because they lack the necessary social skills to do so (Lemay & Dudley, 2011). Not all people are skilled at providing support to their partner and some may struggle with providing the suitable type or amount of

support required to meet their partner's attachment-relevant needs (Overall et al., 2010; Rafaeli & Gleason, 2009). It likely takes considerable social competence to balance the behaviors characteristic of safe and soft buffering strategies effectively (Eller & Simpson, 2020). People often develop social competence by modeling the behaviors of those around them (e.g., Raby et al., 2015a; Simpson et al., 2011b). People surrounded by sensitive caregivers who model effective support and constructive conflict-resolution skills often develop greater social competence and should, in turn, also develop the skills necessary to be a more supportive partner. Agents who report greater early-life caregiving sensitivity and social competence should, therefore, be best equipped to engage in buffering behaviors.

Moreover, agents must be *motivated* to buffer their partners (Eller & Simpson, 2020; Feeney & Collins, 2003; Rafaeli & Gleason, 2009). According to Interdependence Theory (Thibaut & Kelley, 1959; Kelley & Thibaut, 1978), people are more likely to engage in pro-relationship behaviors such as buffering when they are highly committed to their relationship, which motivates them to protect it from potential harm (Tran & Simpson, 2009). The investment model of commitment processes (Rusbult, 1980; Rusbult et al., 1998) suggests that people are also more committed to their relationship when they are satisfied with their relationship, have limited alternatives to their current relationship, and have invested resources into the relationship or partner (Li & Agnew, 2003). Therefore, agents who report greater relationship satisfaction and fewer perceived alternatives, and who have more invested in their relationship should be most strongly motivated to engage in effective buffering behaviors.

In summary, becoming an effective partner-buffering agent requires a combination of proper motives, experiences, and skills. In buffering situations, agents must first recognize the target's distress, self-soothe their own distress, and have the necessary social competence to then employ delicate buffering behaviors. Moreover, agents must be motivated to go through these processes to support targets. *Thus, agents who are more emotionally stable and secure, have greater social competence derived from positive early caregiving experiences, and are more committed to their relationship should be most likely to engage in appropriately tailored buffering techniques* (**Hypothesis 1**).

1.3.2 Consequences of Partner Buffering for Agents

Although the consensus in the literature is that receiving buffering, support, or care tends to benefit many targets (see Arriaga et al., 2018), it is not clear whether the same is true for agents. Some scholars have suggested that agents should ultimately benefit from buffering because support processes are often reciprocal. Therefore, engaging in buffering should result in the target doing the same in the future for the agent (Knoll et al., 2006; Uehara, 1995; Walster et al., 1973). However, the literature about whether social support and caregiving are beneficial or detrimental for those agents who provide support is mixed.

On the one hand, some research suggests that providing care and support to others can improve social ties, reduce stress, and activate neural regions associated with pleasure and warmth (Brown et al., 2003; Brown et al., 2012; Inagaki & Eisenberger, 2012; Kleiboer et al., 2006). This perspective holds that providing care and support to

others bolsters social integration and connection (Inagaki & Orehek, 2017). Neural pathways send reward and pleasure signals to the brain when individuals engage in prosocial behaviors (Inagaki & Eisenberger, 2012). Indeed, people in communal relationships who provide more social support report better relationship quality than their counterparts who provide lower levels of social support (Cutrona, 1996; Pasch & Bradbury, 1998). Providing care and support may also be individually beneficial (Doré et al., 2017; Morelli et al., 2015). Doré and colleagues (2017) found that people who provide care for others report increases in self-regulation skills and, in turn, decreases in depressive symptoms.

On the other hand, some research suggests that providing care and support to others can lead to psychological distress, perpetuate negative affect, and can be harmful to people's wellbeing (Gallagher et al., 2021; Uchino, 2009; Walen & Lachman, 2000). This perspective holds that providing constant care to another person can exhaust people's resources and inhibit their ability to care for their own needs, mainly when care is inequitable (Ybema et al., 2002). Caregiver burnout is a well-documented phenomenon wherein people who provide high levels of care and support for others (often an ailing family member or partner) experience psychological, emotional, relationship, and/or financial strain (Cheng, 2005). Caregivers experience greater stress and depression and lower wellbeing compared to non-caregivers (Pinquart & Sörensen, 2003). Providing care and support in more mundane or normative situations is also linked to negative psychological and physical consequences (Gallagher et al., 2021; Uchino, 2009). For example, providing social support and care in daily situations can strain individuals, and

this strain, if not addressed, can lead to negative consequences for individuals who are providing care (Belle, 1982; Inagaki & Orehek, 2017; Walen & Lachman, 2000).

Resolving these two sets of seemingly contradictory findings regarding the impact of providing care and support may lie in understanding the context in which support is provided. Recent theorizing (Inagaki & Orehek, 2017) and research suggest that providing care and support typically leads to beneficial outcomes when agents freely choose to provide care and support (i.e., are not under situational pressures to do so; Weinstein & Ryan, 2010) and when agents believe that the support they are providing is effective and well-received by the target (i.e., the target becomes less distressed and responds positively to care; Marigold et al., 2014; Perrine, 1993; Quinn et al., 2009). Indeed, the outcomes of providing responsive support to a partner depend largely on the contextual factors surrounding the provision of support (Smallen et al., 2022). During the transition to parenthood, for example, people who report providing more responsive support to their partner when under low stress report better relationship quality and less depression across the transition. In contrast, people who report providing more responsive support to their partner when under high stress report worse relationship quality and greater depressive symptoms.

Thus, depending on the context surrounding buffering behaviors, engaging in partner buffering can be beneficial or harmful for agents. *Specifically, agents who enact buffering but do so less effectively (e.g., failing to address the target's specific needs to reduce their distress) should experience declines in relationship quality as well as poorer psychological wellbeing compared to agents who enact buffering more effectively*

(**Hypothesis 2**). In some relationships, agents may consistently buffer without receiving similar care in return. These inequitable interactions are also likely to exhaust agents' psychological resources and may hinder them from caring for themselves or the target in the future (e.g., caregiver burnout; Gérain & Zech, 2019; Ybema et al., 2002). *Therefore, agents who have relationship interactions that lack reciprocity in care should also experience declines in relationship quality and poorer psychological wellbeing* (**Hypothesis 3**).

2. Current Research

To my knowledge, no previous research has examined precursors and consequences of partner buffering behaviors for agents. The goal of the current research is to (1) examine the central precursors of effective and ineffective tailored buffering behaviors, and (2) evaluate the longitudinal consequences to agents of providing buffering.

2.1 Hypotheses

To that end, my hypotheses, as outlined above, are as follows:

Hypothesis 1 (H1): Agents who are more emotionally stable, secure, socially competent or agreeable, and who are more committed to their current relationship should engage in (1a) more buffering behaviors (e.g., greater magnitude of buffering behaviors, regardless of the intra-dyadic dynamics of these behaviors) and (1b) buffering behaviors that are more tailored and effective (e.g., behaviors that address target's *specific* needs and reduce target's distress) compared to

agents who are less emotionally stable, secure, socially competent or agreeable, and who are less committed to or satisfied with their current relationship.

Hypothesis 2 (H2): Agents who enact buffering behaviors but do so ineffectively (e.g., failing to address the target's *specific* needs or reduce their distress) should experience declines in relationship quality and poorer mental health outcomes across time. Conversely, agents who enact buffering behaviors effectively should experience increases in relationship quality and better mental-health outcomes (e.g., less stress) across time.

Hypothesis 3 (H3): Agents who enact buffering behaviors but do not receive support in return from their target partner (e.g., interactions that lack *reciprocity*) should experience declines in relationship quality and poorer mental-health outcomes across time. Conversely, agents who enact buffering behaviors and receive support from their target partner in return should experience increases in relationship quality and improved mental health (e.g., less stress) across time.

To test these hypotheses, I used existing data and generated new behavioral codes from two samples. Study 1 involved new behavioral coding and analyses of a unique longitudinal sample of high-risk individuals followed from birth into middle adulthood (the Minnesota Longitudinal Study of Risk and Adaptation; MLSRA). Study 2 examined how MLSRA participants' development of social and emotional skills (e.g., longitudinal assessments of social competence and attachment security), as well as relationship commitment, predicted the dynamic buffering behaviors they enact as agents during conflict.

Study 2 involved new behavioral coding and analyses of a group of low-risk couples undergoing the transition to parenthood (TTP), from 6 weeks prenatal through two years postnatal. Study 2 examined how each partner's prenatal social and emotional skills (e.g., their agreeableness, neuroticism, depression, and attachment security), as well as relationship satisfaction, predict their buffering behaviors during conflict 6 months after the birth of their child. Moreover, building upon the findings of Study 1, Study 2 also examined how engagement in tailored effective versus ineffective buffering and the reciprocity in buffering behaviors from the target predicted changes in agents' psychological wellbeing and relationship quality across the transition to parenthood in the 18 months following the conflict discussion.

2.2 Coding Scheme

In both the TTP and MLSRA studies, participants completed a version of the Markman-Cox Conflict Discussion Task (Cox, 1991; see methods for details) with their current romantic partner. Although these interactions focused on one specific relationship-relevant discussion for each couple, these conflict interactions are assumed to be diagnostic of what couples likely do during major problem-solving episodes at home on a regular basis (cf. Cox, 1991; McNulty et al., 2021; Rholes et al., 2021). These conflict discussions should also present a potential threat and activate the attachment system (cf. Feeney & Karantzas, 2017; Pietromonaco et al., 2004; Simpson et al., 1996). Moreover, in both the high-risk sample from Study 1 and the high-stressed parenting sample from Study 2, the attachment system may already be activated due to the pressures participants in these samples already experience in their daily lives.

The videotaped interactions were recoded for agents' buffering behaviors and target's attachment-relevant reactions. Each partner was coded for each type of behavior: buffering strategies and reactions thereto. In line with the ASEM (Arriaga et al., 2018), ***safe buffering strategies*** were coded as the extent to which participants (1) provide visible, explicit support, (2) communicate intimacy and a strong emotional connection, and (3) de-escalate the heightened emotions. ***Soft buffering strategies*** were coded as the extent to which participants (1) provide subtle, casual support, (2) acknowledge and allow targets to have their own physical or psychological space, and (3) use reasonable and tactful requests that emphasize the benign nature of mutual reliance in relationships. ***Anxious responses*** were coded as the extent to which participants (1) seek reassurance from their partner, (2) become overly distressed and caught up in their emotions, and (3) exaggerate or "dramatize" the interaction or problem being discussed. ***Avoidant responses*** were coded as the extent to which (target) participants (1) disengage from the interaction or partner, (2) avoid intimacy or emotions, and (3) demonstrate discomfort about potential mutual reliance. See Appendix A for the full coding manual.

Videos were coded in one-minute intervals to allow for within-interaction dynamics to be examined. That is, by coding these discussions in segments, I was able to examine how behaviors in one segment (e.g., partner buffering) predict behaviors in the next segment (e.g., target insecure reactions; see methods section for further analytic details) in a dynamic way.

Independent coders who were blind to the participants' identities and responses on the measures coded each video. At least five coders coded partner-buffering behaviors

and five coders coded attachment-relevant responses in all videos. All coders participated in a five-week training series before beginning coding. All coders were closely monitored throughout coding and attended weekly group meetings and biweekly individual meetings to ensure ongoing reliability. Coders were provided with rotating weeks off from coding to prevent coder drift and burnout. Coders were intentionally grouped with others who varied in terms of background experiences, culture, and identity. The same set of coders coded the videos for both Studies 1 and 2, but were re-normed for each sample to reflect differences in the type of samples and severity of problems within each sample. I coded 50% of all videos to provide an expert code in order to assess ongoing validity of coder's scores. When discrepancies occurred or coders' reliabilities noticeably changed, coders were required to cease independent coding and complete a refresher training session before continuing.

The coders' interrater reliabilities (i.e., intraclass correlations) for both Studies 1 and 2 are reported in Table 1. The coders were reliable on all measures. Factor analyses of all behavioral codes for both Study 1 and 2 are reported in Table 2 (insecure responses) and Table 3 (partner buffering behaviors). The subcomponents of each broader behavior type (e.g., safe strategies, soft strategies, anxious responses, and avoidant responses) loaded together as expected and, consequently, were aggregated for all subsequent analyses.

Table 1.

Studies 1 & 2 – Interrater Reliability for Behavioral Coding

	Study 1 (MLSRA)	**Study 2 (TTP)**
Anxious responses		
Needing reassurance	.90	.93
Being overly focused on own emotions	.91	.92
"Dramatizing" interactions	.94	.92
Avoidant responses		
Disengagement	.93	.95
Avoiding emotional intimacy	.92	.93
Discomfort with mutual reliance	.89	.92
Partner buffering of anxiety		
Being a visible secure base	.93	.93
Communicating intimacy	.92	.92
De-escalating heightened emotions	.90	.94
Partner buffering of avoidance		
Providing non-obvious support	.82	.83
Being respectful of space	.89	.85
Making reasonable requests	.86	.84

Table 2.

Studies 1 & 2 – Factor Analysis of Insecure Response Behavioral Codes

	Study 1 (MLSRA)		**Study 2 (TTP)**	
	Factor Loading			
	1	2	1	2
Anxious responses				
Needing reassurance	.732		.704	
Being overly focused on own emotions	.811		.854	
"Dramatizing" interactions	.851		.838	
Avoidant responses				
Disengagement		.710		.729
Avoiding emotional intimacy		.893		.759
Discomfort with mutual reliance		.774		.718

Table 3.

Studies 1 & 2 – Factor Analysis of Partner Buffering Behavioral Codes

	Study 1 (MLSRA)		**Study 2 (TTP)**	
	Factor Loading			
	1	2	1	2
Partner buffering of anxiety				
Being a visible secure base	.828		.820	
Communicating intimacy	.766		.762	
De-escalating heightened emotions	.781		.697	
Partner buffering of avoidance				
Providing non-obvious support		.734		.729
Being respectful of space		.772		.812
Making reasonable requests		.734		.771

3. Study 1 – The Minnesota Longitudinal Study of Risk and Adaptation (MLSRA)

Although attachment processes are important to study in all samples, high-risk samples are particularly important to examine given (a) the dearth of longitudinal data on high-risk samples and (b) the likelihood that high-risk individuals may have less secure working models and be less able to provide buffering behaviors to targets. Relationship processes have been typically studied in low-risk samples (cf. Karney, 2021; Neff & Karney, 2004). However, for high-risk couples, relationship processes such as conflict and support often operate differently and result in different outcomes (Buck & Neff, 2012; Karney & Bradbury, 2005; Hammett et al., 2021). For example, couples who are under more economic stress tend to display more hostility and less warmth during conflict discussions (Conger et al., 1990; Masarik et al., 2016) and are more likely to divorce or end their relationship (Arriaga, 2001; Karney & Bradbury, 1995; Lundberg et al., 2016) than couples who are better off financially. It is, therefore, important to examine how relationship processes, like partner buffering, operate in high-risk couples to understand these processes in contexts not typically examined.

Moreover, people develop essential expectations and skills for operating in their adult romantic relationships across their life course. It is possible that the skills to engage in buffering behaviors are formed predominantly in adulthood or within a specific relationship. However, given the breadth of literature on social and emotional development (Fitzgerald, 2021; Parke et al., 2019; Raby et al., 2015a; Raby et al., 2015b), it seems likely that the essential precursors to effective buffering behaviors are developed across time, development, contexts, and specific relationships. I examined data from the

MLSRA to test whether and how both longitudinal and concurrent experiences served as potential origins of engaging in tailored and effective buffering behaviors.

3.1 Methods

3.1.1 Participants

Between 1975 and 1977, 267 expectant mothers who were living below the poverty line and receiving free prenatal care in Minneapolis, Minnesota were recruited for a study about child development and maltreatment (Sroufe et al., 2005). Mothers and their child (the target participant) were assessed throughout the target participant's life. Only the assessments relevant to the current analyses will be discussed.

At childbirth, most of the mothers were single (65%), almost half were teenagers (48%), and many had completed less than a high school education (42%). At childbirth, 58% of the target participants were identified as White[1], 16% were identified as having a mixed racial background, 14% were identified as African American, 3% were identified as Native American or Latina/o, and 9% were labeled as unclassifiable because of missing data about their biological father's race or ethnicity. Of the target participants, 55% were classified as biologically male at childbirth. Information on gender identity and sexual orientation was not collected. Only the target participants who, during adulthood,

[1] The terminology used here to describe participants' race and ethnicity aligns with that used in the original study design when asking participants' mothers and fathers about their race and ethnicity.

completed at least one of the first three in-lab interactions with a romantic partner were included for the purposes of this study (*N* = 124).[2, 3]

3.1.2 Procedure

Mothers were recruited from free prenatal care clinics in Minneapolis, MN and the surrounding area. To qualify for the study, mothers had to be living below the poverty line and expecting their first biological child. Over the course of the study, assessments were administered to both mothers, target participants (the mothers' children), and those who interacted with them regularly throughout the target participants' lives. Assessments varied in type (e.g., observational, interview, self-report, physiological) and frequency of administration (e.g., regularly, semi-regularly, or on a single occurrence). For a description of study procedures, see Sroufe et al. (2005).

At ages 20, 23, and/or 26, target participants who were involved in a romantic relationship lasting at least 4 months were invited to the lab to complete a series of videotaped interactions. Each partner was asked to independently identify problems or issues that caused disagreement between them by rating a list of common relationship problems from least to most serious for them. Each couple reviewed this list together and mutually chose which topic to discuss. Couples were instructed to discuss this issue for 8-

[2] The fourth in-lab interaction included 8 participants who had not completed one of the first three in-lab interactions with a romantic partner. However, the fourth in-lab interaction and participants who completed only that interaction were not included in the present analyses because the fourth in-lab interaction had participants hooked up to physiological equipment and sitting across from the table from one another with limited physical mobility. This change in mobility blunted their behaviors compared to those shown in the other assessment waves and resulted in significantly poorer reliabilities for coding all constructs.

[3] The sample size across analyses varied slightly based on missing participant data. One-hundred eight (108) participants had data for all of the predictor variables and completed the in-lab conflict discussion. Sixteen (16) participants had data for the at least three (3) of the five (5) predictor variables and were included in the analyses for which they had complete data.

10 minutes. They were instructed to attempt to come to a solution to the issue within the time allotted. Couples were given no direction on how to behave. This conflict paradigm was adapted from the Markman-Cox Conflict Discussion Task (Cox, 1991).[4]

3.1.3 Measures

The full scales as presented to participants and coding schemes as presented to coders are reported in Appendix B.

Early maternal sensitivity. When target participants were 3, 6, 24, and 42 months old, they took part in semi-structured interactions with their mothers. These video-recorded interactions were coded for the degree to which the mother was responsive and sensitive toward their child. In each interaction, mothers were instructed to interact with their child as they normally would at home.

When target participants were 3 and 6 months old, mothers were observed while feeding the participant at home. At 6 months, mothers were also observed at home using a set of novel toys during free play with the target participant. All 3- and 6-month interactions were coded using Ainsworth and colleagues' 9-point (1 = *highly insensitive* to 9 = *highly sensitive*). Sensitivity versus Insensitivity Scale (Ainsworth et al, 1978; ICCs were .90 and .89, respectively).

When target participants were 24 and 42 months old, mothers and participants were observed in the lab completing a complicated puzzle task. Target participants were

[4] Some participants completed multiple video-recorded conflict discussions (e.g., one at each age) whereas other participants only completed one video-recorded conflict discussion. Consistent with previous research using data from the MLSRA, we coded only the first conflict discussion recorded for each participant. For example, if participant 999 completed video-recorded conflict discussions at ages 20 and 26, the age 20 video was coded and used for the current analyses.

provided with a series of progressively challenging puzzles that were designed to become too difficult for the participants to complete independently. Mothers were instructed to allow their child the chance to solve the puzzle on their own and to intervene when they thought it was necessary to do so. Mothers were rated for supportive presence on a 7-point scale (1 = *very low supportive presence* to 7 = *very high supportive presence*) in the puzzle task for both the 24- and 42-month assessments (ICCs were .84 and .87, respectively).

Peer competence. Peer competence was assessed by teacher reports when the target participants were in kindergarten, grades 1-3 and 6, and at age 16. Teachers were given a behavioral description of what constituted social competence. Teachers were then asked to rate all of the students in their class in order of the social competence based on the description they were shown, with children who best fit the description being rated as more socially competent and children who least fit the description as being least socially competent. Teachers ranked their students from 1 (*most socially competent*) to the last student in their class (*least socially competent*). List lengths varied by class size. Target participants' rankings were standardized by dividing their rank by the number of students in their class. Peer competence rankings across childhood and adolescence were averaged to represent overall peer competence for each participant.

Relationship effectiveness. Relationship effectiveness was assessed at the age-23 assessment through coded interviews. Target participants were interviewed about their current and recent romantic relationships. They were asked to describe what they did and did not like about their relationship(s) and relationship partner(s); how close others treat

them and how they treat close others in return; their experiences with relationship conflict and conflict resolution; perceptions of their own and their partners' values related to their relationship; and other general details about their romantic experiences. Most target participants answered questions primarily about their current romantic partner (70.5%), and about half of them answered questions about at least two different prior relationships (53.5%). At age 23, most target participants had lived with at least one of the romantic partners about whom they answered questions (70.0%).

Trained coders read all interview questions and responses in full and assigned a single rating of the degree to which the target participants were competent at engaging in romantic relationships. Coders rated interviews on a 1 (*low effectiveness*) to 5 (*high effectiveness*) Likert-type scale. Coders' ratings had excellent interrater reliability (intraclass correlation [ICC] = 0.93). Lower scores indicated that the target participant (1) had emotionally distanced relationship(s) that were devoid of mutual care, trust, and intimacy, (2) were not sensitive to the needs of their romantic partner(s), (3) did not have positive or lighthearted experiences with their partner(s), (4) were not faithful, loyal, and honest in their relationship(s), and (5) conflicts were handled poorly or left unresolved. Lower scores also indicated that the target participant might have been unable to maintain romantic relationships long enough to develop the characteristics described above in any one relationship. Higher scores indicated the opposite pattern of relationship characteristics. Specifically, higher scores indicated that the target participant (1) had emotionally close relationship(s) that were characterized by mutual care, trust, and intimacy, (2) were sensitive to the needs of their romantic partner(s), (3) had ongoing

positive experiences with their partner(s), (4) were faithful, loyal, honest, and trustworthy in their relationship(s), and (5) that conflicts were handled skillfully and resolved to the mutual agreement of both relationship partners.

Secure base script knowledge. Secure base script knowledge was assessed at age 19 using the Adult Attachment Interview (AAI; George et al., 1987). Secure base script knowledge represents the degree to which people have developed stable internal working models (i.e., cognitive representations) about their caregiver's accessibility and quality of care (i.e., being a secure base). Secure base script knowledge is coded from the first six questions of the AAI. The AAI is a semi-structured interview about people's recollections of their childhood experiences and relationships with caregivers. All AAIs were audio-recorded and then transcribed. The AAI is typically coded for adulthood attachment classifications (e.g., dismissing, preoccupied, autonomous, and disorganized), coherence of the script, and coherence of mind (i.e., how logical and consistent participants' autobiographical stories of childhood are across the interview). However, recent coding techniques of the AAI also code for secure base script knowledge (AAI_{sbs}; H. S. Waters & E. Waters, 2006; T. E. A. Waters & Roisman, 2019).

Coders coded for the degree to which participants' expectations of caregivers were consistent with a secure-base script, and for the ease and coherence of the participants' autobiographical recollections. AAI_{sbs} were coded by 2 trained and reliable coders. More than half (54%) of the 19-year AAIs were coded by both coders. Coders were highly reliable on the scripts that were mutually coded (ICC = .83). Discrepancies were resolved through consensus.

Relationship commitment. Relationship commitment was assessed at each in-lab romantic relationship session (i.e., at ages 20, 23, and/or 26) using the Relationship Perceptions Battery (RPB; Lund, 1985). The 9-item commitment subscale measured the extent to which target participants are dedicated to and exclusive within their current romantic relationship (e.g., "How likely is your relationship to continue?" and "How likely is it that you and your partner will be together six months from now?"). Participants rated items on a 1 (*not at all*) to 7 (*extremely*) Likert-type scale (Cronbach's $\alpha = .82$).[5]

Covariates. Composite socioeconomic status (SES) across the life course was included as a covariate. SES was coded using the Duncan Index of Socioeconomic Status and its accompanying TSEI (prestige) score (Stevens & Featherman, 1981; Stevens & Cho, 1985).

3.2 Power Analysis

In the original grant proposal for Study 1, the target sample size was determined by standards in the field for studies examining child development beginning in infancy. Standards at the time indicated that an initial sample of 200 infants would be sufficient to detect medium effect sizes (Sroufe et al., 2005). Given these standards and available grant funds, 267 expectant mothers were initially recruited.

[5] Some participants had data on relationship commitment at multiple time-points because they completed multiple assessments with their romantic partner(s) (See Footnote 3). For the present analyses, I used the commitment score that was collected at the assessment wave that corresponded to the video that was coded for that participant. For example, if participant 999 completed the RPB and video-recorded conflict discussions at ages 20 and 26 and the age 20 video was coded, then the age 20 commitment score was used in the analyses and the age 26 commitment score was omitted.

I also computed a priori power analyses (Cohen, 1988). Specifically, sensitivity analyses were run to compute the required effect size given the current sample size (N = 116), alpha ($\alpha = .01$)[6], and desired power ($\beta = 0.80$). According to these analyses, I had power to detect medium effects (0.32). Notably, it has been well-established that many longitudinal studies lack sufficient power (Dozier et al., 2005), including in recent investigations within the MLSRA (e.g., Girme et al., 2021; Young et al., 2021). Future research should conduct sufficiently high-powered longitudinal studies (Brumariu, 2015).

3.3 Results

3.3.1 Preliminary Analyses

Descriptive statistics and zero-order correlations are reported in Table 4. Agents' safe strategies were significantly and positively correlated with early maternal sensitivity, relationship effectiveness, secure base script knowledge, and relationship commitment. Agent's soft strategies were significantly and positively correlated with early maternal sensitivity, relationship effectiveness, and secure base script knowledge. Notably, neither the correlation between agent's safe strategies and target's anxiety nor the correlation between agent's soft strategies and target's avoidance were statistically significant; this suggests that agents do not consistently respond to targets' attachment-relevant needs with effective tailored buffering behaviors.

[6] α was set to .01, instead of the typical .05, to adjust for the inflated probability of detecting an effect when many statistical tests are run. Setting α to a more conservative estimate increases the confidence that effects are robust.

Table 4.

Study 1 – Descriptive Statistics and Correlations

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
1. Early maternal sensitivity									
2. Peer competence	.37*								
3. Relationship effectiveness	.02	.30*							
4. Secure base script knowledge	.29*	.17	.16						
5. Relationship commitment	.02	.18	-.01	-.01					
6. Target (partner's) anxiety	.04	.11	-.06	-.08	.11				
7. Agent safe strategies	.21*	.09	.25*	.23*	.32*	0.10			
8. Target (partner's) avoidance	.03	-.10	.18	.00	.25*	-.04	.04		
9. Agent soft strategies	.33*	.18	.20*	.22*	.11	.07	.14	.10	
M	0.00	50.14	2.83	3.24	5.37	2.71	3.09	2.67	2.76
SD	1.00	19.94	1.24	1.70	0.81	0.87	0.98	0.77	1.04
Range	-2 to 2	0 to 100	1 to 5	1 to 9	1 to 7	1 to 5	1 to 5	1 to 5	1 to 5

Note: Maternal sensitivity was *z*-transformed.

3.3.2 Examining Within-Dyad Buffering Processes

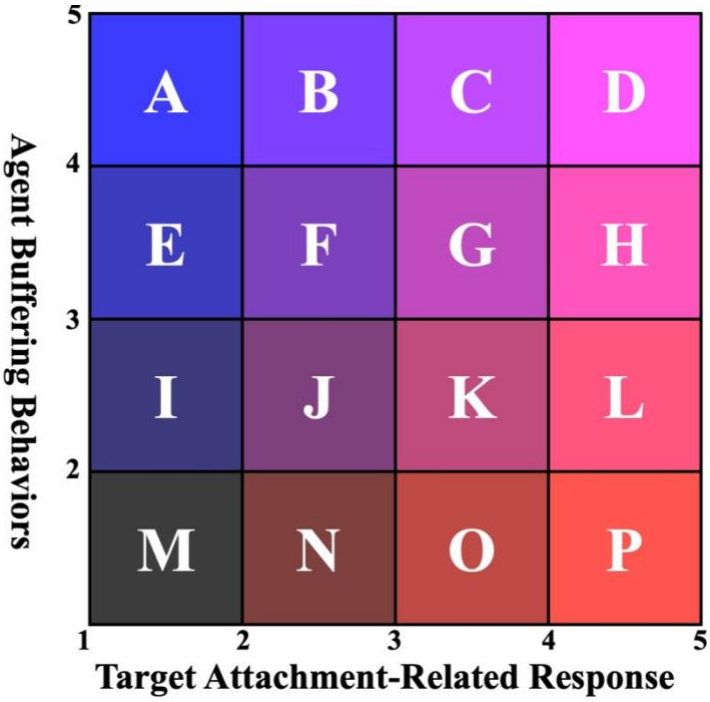
Before analyzing the data for the primary hypotheses, I first examined the within-dyad buffering process using grid-sequence analyses (Brinberg et al., 2017; Brinberg et al., 2018). The primary purpose of this research was to examine not only the raw magnitude of buffering behaviors employed (H1a), but also to examine the interaction between buffering behaviors and attachment-relevant behaviors (H1b). To do this accurately, intra-dyadic dynamics need to be examined utilizing techniques broadly defined as dynamic systems modeling.[7] Grid-sequence analyses capture within-dyad dynamics in repeated measures data and extract specific patterns or clusters of these dynamic processes that can be used for between-person comparisons.

Grid-sequence analyses are a combination of state-space grids (Hollenstein, 2013; Lewis et al., 1999) and sequence analysis (Macindoe & Abbott, 2004). State-space grids place scores from a construct of interest for one dyad member on the x-axis and scores from the same or a different construct of interest for the other dyad member on the y-axis. This creates a grid of all possible score combinations for the agent and target. See Figure 1. Each score is a combination of the x and y value and is called a *state*. Each state is assigned a designated letter. The repeated measures for each dyad member are then plotted within this psychological space (or grid) to indicate the pattern of behaviors (or states) across the interaction. However, traditional state-space grids do not show the order in which the states occurred. Sequence analysis, however, can be used to represent the order of states from each grid.

[7] Dynamic systems modeling is a broad term used to define analyses that examine how multiple components or variables function across time and encompasses a range of analytic techniques and models (Irwin & Wang, 2017).

Figure 1.

State-space grid set-up



Note: The x-axis represents the degree of target's attachment-related response behaviors and the y-axis represents the degree of agent's buffering behaviors; each square represents a different state and designated a letter (A-P).

Sequence analysis originated from biological techniques for identifying and grouping DNA sequences (Macindoe & Abbott, 2004). In behavioral research, sequence analysis examines how dissimilar sequences of behaviors unfolding in different dyads are from one another. Dissimilarity is calculated by how many changes in states or the sequence of states would need to be made for one dyad to be identical to another. Changes can include adding new states to the sequence (i.e., insertions), removing existing states from the sequence (i.e., deletions), and altering existing states within the sequence (i.e., substitutions).

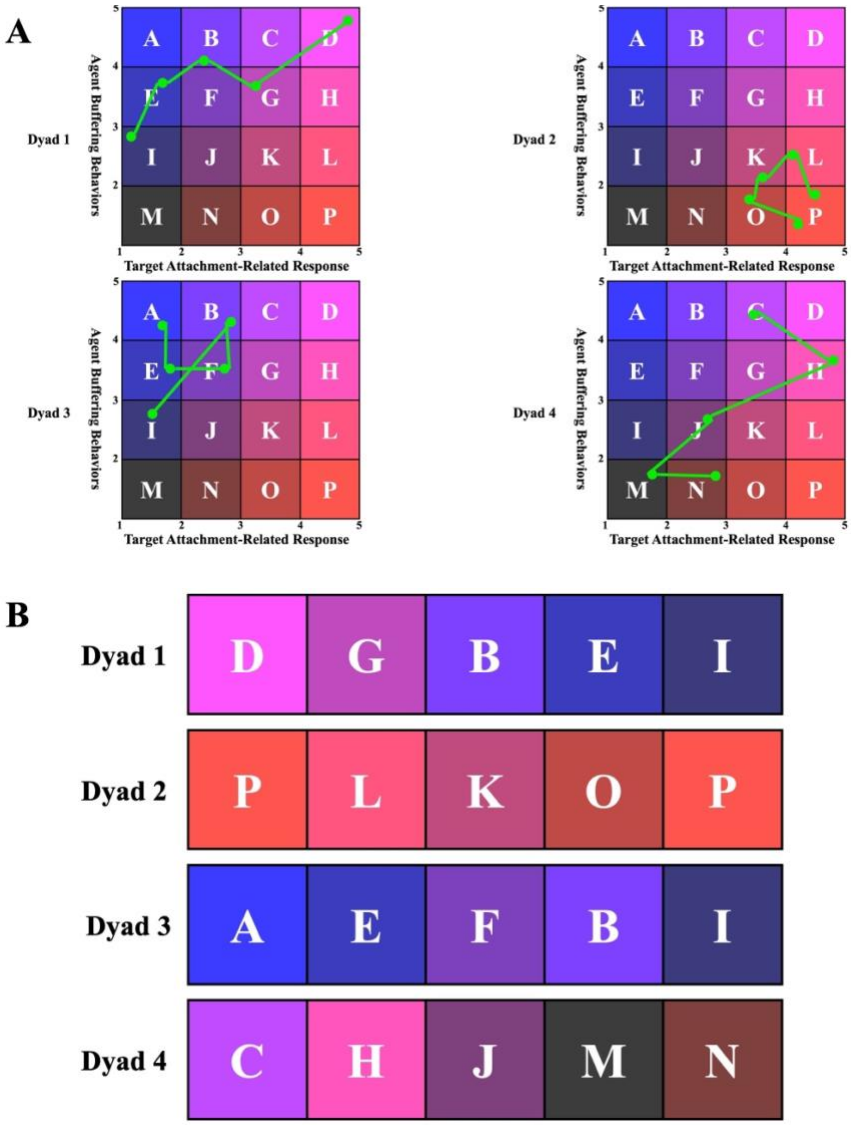
Each type of change has a different associated "cost" based on how dissimilar the change is from the original state; insertions and deletions cost the most because they require altering the sequence more drastically, whereas substitutions cost the least because they require less change. Cost can be conceptualized as how many letters you need to change in one word to make it into another word. For example, to make the word "psychology" to "psychiatry" you would need to make four substitutions (*o* for *i*, *l* for *a*, *o* for *t*, and *g* for *r*), but to make the word "psychology" to "biology" you would need to make two substitutions (*p* for *b*, and *s* for *i*) and three deletions (*y*, *c*, and *h*). In this example, the dissimilarity score for the sequence from the word "psychology" to "psychiatry" would be lower than the dissimilarity score for the sequence from the word "psychology" to "biology." Cost calculations for the state space grids were computed using Manhattan (city-block) distances.

Grid-sequence analysis combines these methods by mapping each dyad's repeated measures onto a state-space grid (see Figure 2a), extracting the pattern of behaviors in the

time series sequence from the grid (see Figure 2b), and calculating the dissimilarity among the extracted sequences using sequence analysis (Brinberg et al., 2017; 2018). The dissimilarity scores and extracted sequences are then analyzed using hierarchical cluster analyses to identify commonalities in sequences among dyads. Once the clusters have been extracted and each dyad is classified into the best fitting cluster, between-person analyses can be run to examine differences between who is most likely to be classified in which cluster and differences in outcomes across different clusters.

Figure 2.

Example of state-space grids (A) and the sequences extracted from each grid (B).



Note: These are fictional examples used for demonstration purposes.

In the present study, grid-sequence analyses were used to examine the tailoring and effectiveness of buffering behaviors. For each grid sequence, attachment-relevant behaviors were paired with the buffering technique that should theoretically mitigate a given type of insecurity. That is, attachment anxiety behaviors were paired with safe buffering techniques, and attachment avoidance behaviors were paired with soft buffering techniques.

Safe strategies and attachment anxiety. The anxiety-buffering sequences for all participants are displayed in Figure 3. Participants showed considerable variation across their interactions in their state-space sequences, validating the potential importance captured by using these dynamical systems methods. Hierarchical cluster analyses suggested that the three-cluster solution created the most parsimonious and interpretable clusters with relatively equal sample sizes across the clusters. See Figure 4.

Figure 3.

Study 1 – All Participant's Anxiety Buffering Sequences

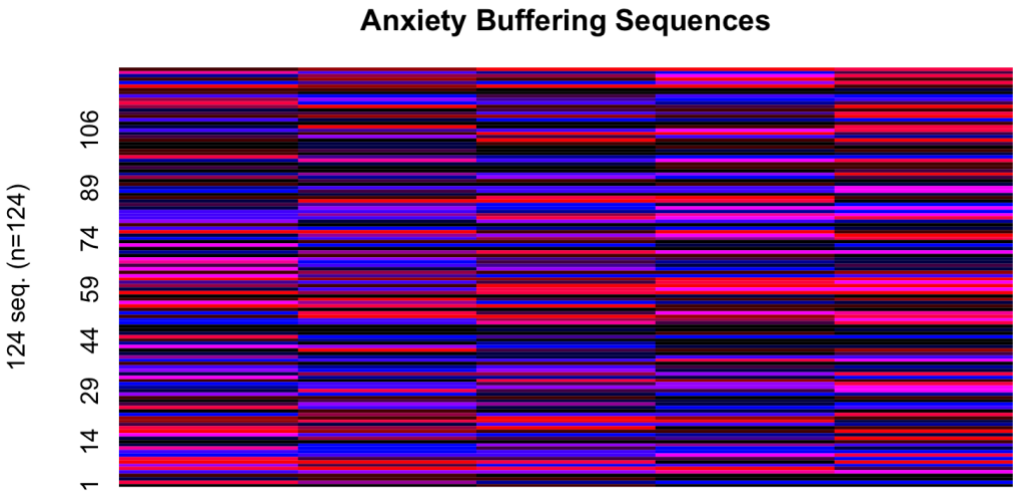
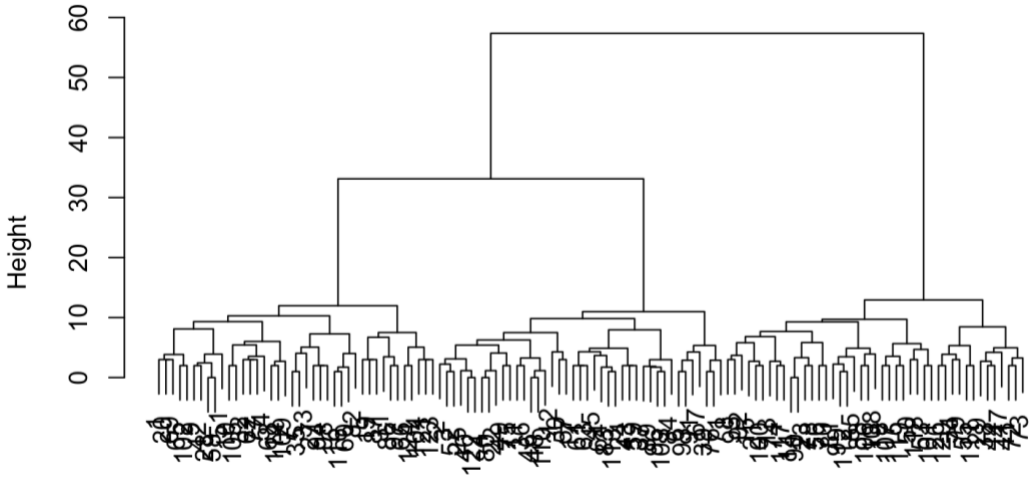


Figure 4.

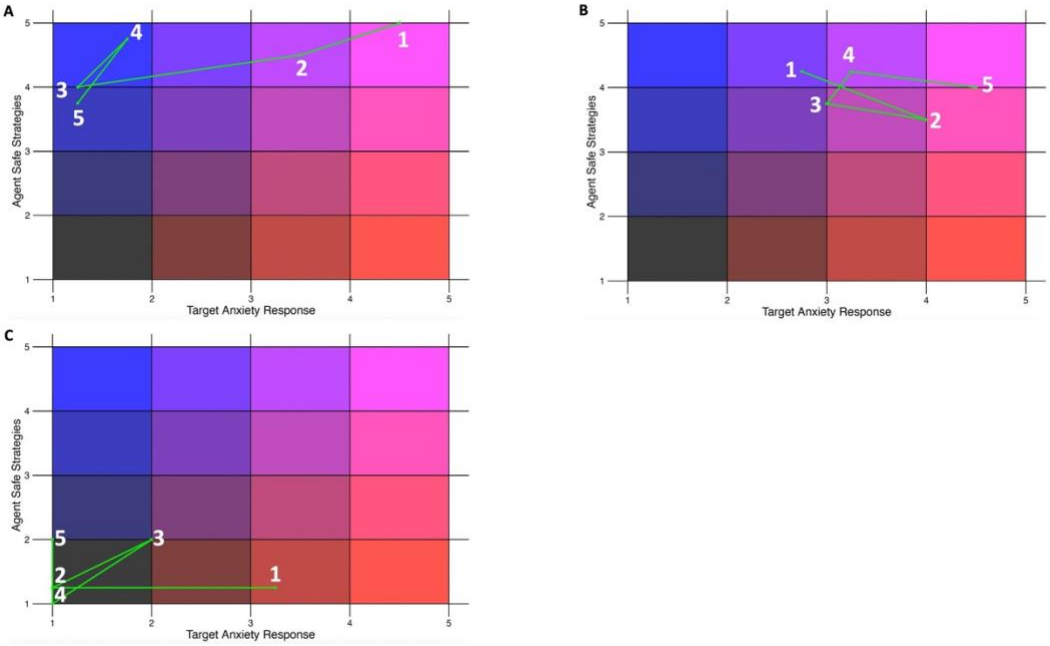
Study 1 – Anxiety Buffering Hierarchical Cluster Analysis



The participants classified into Cluster 1 tended to have interactions that were characterized by high levels of agent's safe strategies and progressively declining levels of the target's anxiety behaviors after the higher levels of safe strategies. See Figure 5a, which depicts a prototypic Cluster 1 participant's state-space grid. Cluster 1, therefore, represents the *Effective Buffering* group. The participants classified into Cluster 2 tended to have interactions that were characterized by high levels of agent's safe strategies, but the use of these strategies did not systematically impact the target's anxiety behaviors across the interaction. See Figure 5b, which depicts a prototypic Cluster 2 participant's state-space grid. Cluster 2, therefore, represents the *Ineffective Buffering* group. Finally, the participants classified into Cluster 3 tended to have interactions that were defined by low levels of agent's safe strategies and no systematic pattern of the target's anxiety behaviors across the interaction. See Figure 5c, which depicts a prototypic Cluster 3 participant's state-space grid. Cluster 3, therefore, represents the *No Buffering* group.

Figure 5.

Study 1 – Examples of Prototypic State-Space Grides for Each Anxiety Buffering Cluster



Note: A represents the *Effective Buffering* group (Cluster 1); B represents the *Ineffective Buffering* group (Cluster 2); C represents the *No Buffering* group (Cluster 3); the points on each figure represent the movement of dyads through the state-space and the numbers next to each point (1-5) represent the sequence or order in which each state occurred for the dyad.

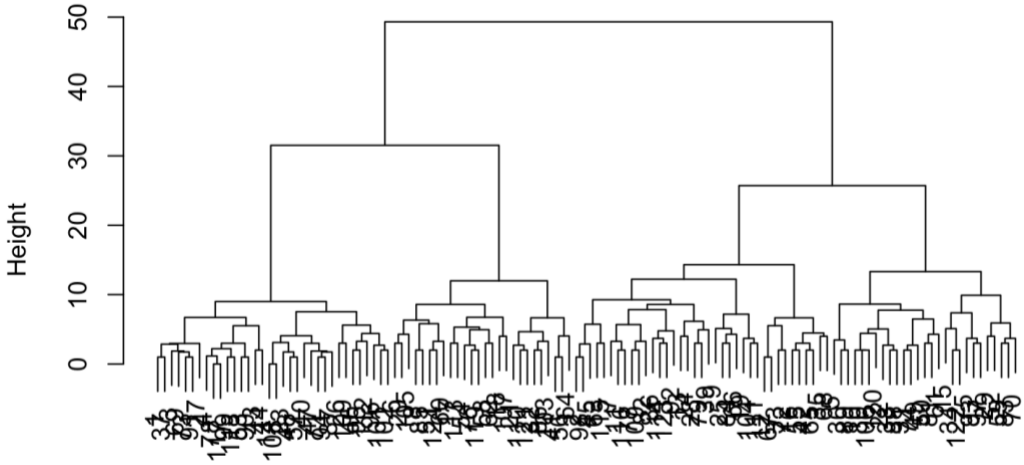
Soft strategies and attachment avoidance. The avoidance buffering sequences for all participants are displayed in Figure 6. As with anxiety buffering, participants showed considerable variation across their interactions in their state-space sequences, validating the potential importance captured by using these dynamical systems methods. Hierarchical cluster analyses suggested that the four-cluster solution created the most parsimonious and interpretable clusters with relatively equal sample sizes across the clusters. See Figure 7.

Figure 6.

Study 1 – All Participant's Avoidance Buffering Sequences

Figure 7.

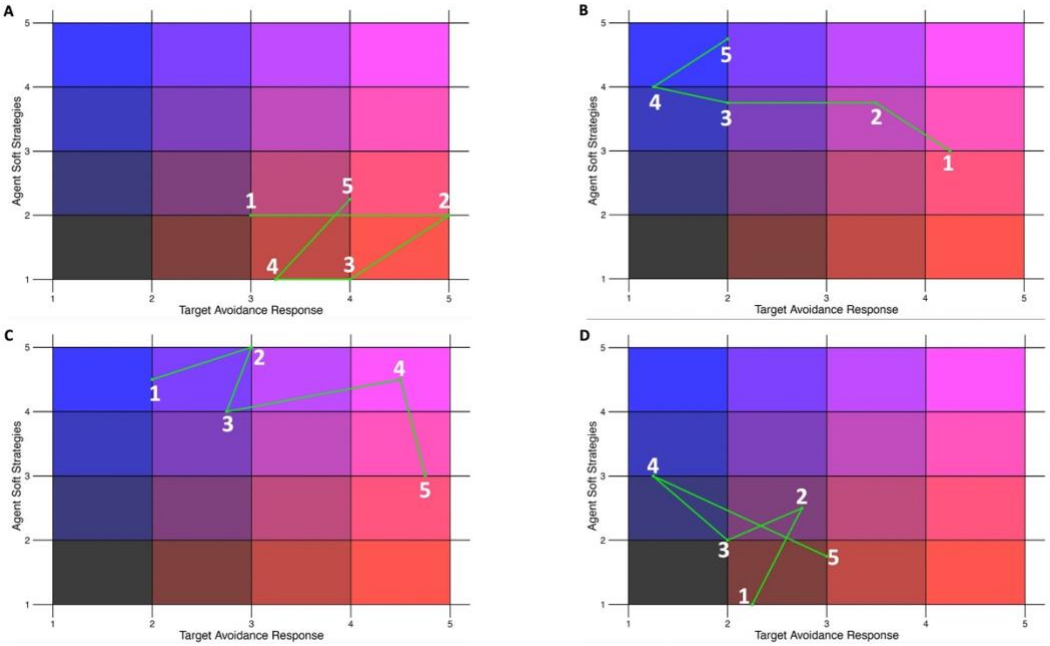
Study 1 – Avoidance Buffering Hierarchical Cluster Analysis



The participants classified into Cluster 1 tended to have interactions that were characterized by low levels of the agent's soft strategies and persistently high levels of the target's avoidance behaviors across the interaction. See Figure 8a, which depicts a prototypic cluster 1 participant's state-space grid. Cluster 1, therefore, represents the *Unresponsive* group. The participants classified into Cluster 2 tended to have interactions that were characterized by high levels of the agent's soft strategies and progressively declining levels of the target's avoidance behaviors after the higher levels of soft strategies. See Figure 8b, which depicts a prototypic Cluster 2 participant's state-space grid. Cluster 2, therefore, represents the *Effective Buffering* group. The participants classified into Cluster 3 tended to have interactions that were characterized by high levels of the agent's soft strategies and progressively increasing levels of the target's avoidance behaviors after the higher levels of soft strategies. See Figure 8c, which depicts a prototypic Cluster 3 participant's state-space grid. Cluster 3, therefore, represents the *Ineffective Buffering* group. Finally, the participants classified into Cluster 4 tended to have interactions that were characterized by low-to-average levels of the agent's soft strategies and relatively stable levels of the target's avoidance behaviors throughout the interaction. See Figure 8d, which depicts a prototypic cluster 4 participant's state-space grid. Cluster 4, therefore, represents the *No Buffering* group.

Figure 8.

Study 1 – Examples of Prototypic State-Space Grides for Each Avoidance Buffering Cluster



Note: A represents the *Unresponsive* group (Cluster 1); B represents the *Effective Buffering* group (Cluster 2); C represents the *Ineffective Buffering* group (Cluster 3); D represents the *No Buffering* group (Cluster 4); the points on each figure represent the movement of dyads through the state-space and the numbers next to each point (1-5) represent the sequence or order in which each state occurred for the dyad.

3.3.3 Testing Hypotheses 1a & 1b

First, to test Hypothesis 1a regarding the precursors of the magnitude of buffering behaviors, I examined how early maternal sensitivity, peer competence, secure base script knowledge, and relationship commitment predict agents' mean levels of buffering behaviors during the age 20, 23, and/or 26 romantic-relationship conflict discussions. Specifically, I ran a linear regression model predicting agents' aggregate buffering behaviors from each predictor variable, controlling for composite SES.

To test Hypothesis 1b concerning the precursors of tailored and effective buffering behaviors, I examined whether participants in each cluster created through the grid-sequence analyses differed in terms of early maternal sensitivity, peer competence, secure base script knowledge, and relationship commitment. Specifically, I ran an analysis of covariance (ANCOVA) comparing each cluster to one another, controlling for composite SES in Step 1 of the ANCOVA.

Safe strategies and attachment anxiety. Partially supporting Hypothesis 1a, I found that greater (+1 *SD*) relationship effectiveness ($b = 0.22$, $t(102) = 3.24$, $p = .002$) and relationship commitment ($b = 0.46$, $t(102) = 4.13$, $p < .001$) predicted greater overall engagement in safe buffering strategies. However, contrary to Hypothesis 1a, overall levels of engagement in safe buffering strategies were not significantly predicted by early maternal sensitivity ($b = 0.15$, $t(102) = 1.09$, $p = .281$), peer competence ($b = 0.02$, $t(102) = 0.24$, $p = .809$), or secure base script knowledge ($b = 0.18$, $t(102) = 2.14$, $p = .035$).

Partially supporting Hypothesis 1b, I found that anxiety buffering clusters differed significantly on secure base script knowledge ($F(2, 99) = 9.00$, $p < .001$), relationship

effectiveness ($F(2, 115) = 14.54$, $p < .001$), and relationship commitment ($F(2, 120) = 24.245$, $p < .001$). See Table 5. Post hoc analyses using Tukey's honest significance different test (HSD) revealed that participants in the *Effective Buffering* group had greater relationship effectiveness and secure base script knowledge than the *Ineffective Buffering* and *No Buffering* groups. Participants in the *Effective Buffering* group and those in the *Ineffective Buffering* group reported greater relationship commitment than participants in the *No Buffering* group. Clusters did not significantly differ from one another in early maternal sensitivity ($F(2, 112) = 3.30$, $p = .04$) and peer competence ($F(2, 120) = 3.26$, $p = .04$).

Table 5.

Study 1 – Anxiety Buffering Analysis of Covariance (ANCOVA)

	Cluster 1 – Effectively Buffering	**Cluster 2 – Ineffectively Buffering**	**Cluster 3 – No Buffering**	**Post hoc Tukey's HSD** ($p < .01$)
Early maternal sensitivity	0.27 (0.66)	0.14 (0.68)	-0.22 (0.73)	-
Peer competence	57.71 (22.18)	48.18 (17.69)	44.98 (18.01)	-
Relationship effectiveness	3.59 (1.04)	2.61 (1.14)	2.31 (1.20)	1 > 2 & 3
Secure base script knowledge	4.16 (1.81)	2.89 (1.58)	2.70 (1.34)	1 > 2 & 3
Relationship commitment	5.74 (0.60)	5.64 (0.85)	4.77 (0.56)	1 & 2 > 3
N	40	41	43	

Note: Standard deviations are presented in parentheses; composite SES was entered as a Step 1 covariate.

Soft strategies and attachment avoidance. Partially supporting Hypothesis 1a, I found that greater (+1 *SD*) early maternal sensitivity (b = 0.46, $t(102)$ = 3.06, p = .003) predicted greater overall engagement in soft buffering strategies. However, contrary to Hypothesis 1a, overall levels of engagement in safe buffering strategies were not significantly predicted by peer competence (b = -0.02, $t(102)$ = -0.14, p = .888), relationship effectiveness (b = 0.19, $t(102)$ = 1.88, p = .063), secure base script knowledge (b = 0.10, $t(102)$ = 0.99, p =.322), or relationship commitment (b = 0.07, $t(102)$ = 0.71, p = .482).

Partially supporting Hypothesis 1b, I found that avoidance-buffering clusters differed significantly in early maternal sensitivity ($F(3, 111)$ = 5.84, p = .001), peer competence ($F(3, 119)$ = 5.30, p = .001), relationship effectiveness ($F(3, 114)$ = 13.01, p < .001), secure base script knowledge ($F(3, 107)$ = 6.42, p < .001), and relationship commitment ($F(3, 119)$ = 3.87, p = .01). See Table 6. Post hoc analyses using Tukey's HSD revealed that participants in the *Effective Buffering* group had higher early maternal sensitivity than did participants in the *Unresponsive* group. Participants in the *Effective Buffering* group were more competent with peers in childhood and adolescence and had greater relationship effectiveness and secure-base script knowledge than did participants in both the *Unresponsive* and *Ineffective Buffering* groups. Participants in the *No Buffering* group also had greater relationship effectiveness than did participants in both the *Unresponsive* and *Ineffective Buffering* groups. Finally, participants in the *Ineffective Buffering* group reported greater relationship commitment than participants in the *Unresponsive* group.

Table 6.

Study 1 – Avoidance Buffering Analysis of Covariance (ANCOVA)

	Cluster 1 – Unresponsive	**Cluster 2 – Effectively Buffering**	**Cluster 3 – Ineffectively Buffering**	**Cluster 4 – No Buffering**	**Post hoc Tukey's HSD** ($p < .01$)
Early maternal sensitivity	-0.25 (0.75)	0.36 (0.71)	0.19 (0.48)	-0.10 (0.70)	1 < 2
Peer competence	44.75 (20.09)	60.37 (18.88)	45.11 (15.21)	47.88 (21.04)	1 & 3 < 2
Relationship effectiveness	2.09 (0.97)	3.59 (1.18)	2.42 (0.81)	3.24 (1.33)	1 & 3 < 2 & 4
Secure base script knowledge	2.60 (1.37)	4.16 (1.75)	2.70 (1.34)	3.29 (1.81)	1 & 3 < 2
Relationship commitment	5.07 (0.82)	5.34 (0.76)	5.71 (0.77)	5.44 (0.78)	1 < 3
N	34	37	27	26	

Note: Standard deviations are presented in parentheses; composite SES was entered as a step 1 covariate.

3.4 Study 1 Discussion

In a longitudinal sample of high-risk individuals, I found that buffering during conflict discussions with romantic partners tend to be dynamic processes that cannot be fully captured or understood through aggregate values alone. Indeed, overall engagement in safe buffering strategies was significantly predicted only by people's ability to navigate relationships effectively and by how committed they are to their current relationship, whereas soft strategies were significantly predicted only by early maternal sensitivity. Though important, these limited findings in combination with the robust findings uncovered using the latter analyses suggest that it is illuminating to examine partner-buffering behaviors as dynamic processes. That is, dynamically assessing partner buffering processes reveals more about information about the antecedents of partner buffering than do more stagnate aggregate assessments.

When examining buffering dynamically, buffering of both attachment anxiety and avoidance appears to occur in at least three different patterns: (1) effectively buffering – agents who engage in high levels of buffering that result in declines in insecure responses from targets, (2) ineffectively buffering – agents who engage in high levels of buffering that result in increases in insecure responses from targets, and (3) no buffering – agents who engage in limited buffering behaviors, but who have target partners who are low-to-moderate in their insecure responses throughout the interaction and, therefore, most likely do not need to be buffered in that moment. For soft buffering strategies only, I also found a pattern of unresponsiveness – agents who engage in limited buffering behaviors even though their target partners are demonstrating high levels of insecurity in the moment.

Effective safe buffering, therefore, appears to be contingent on people's overall relationship effectiveness (i.e., how well they are generally able to navigate, thrive, and be resilient within relationships) and their current relationship commitment, whereas effective soft buffering appears to be contingent more on early life experiences (e.g., maternal sensitivity and socialization with peers) that help people build the necessary skills to engage in the subtleties of soft strategies. Thus, an agent's ability to engage in anxiety buffering may be more relationship dependent, whereas engaging in avoidance buffering may be more of a skill developed across time, much like building a muscle.

Despite the strength of the longitudinal design, Study 1 had several limitations including only having data on one individual in the couple, limiting how much of the inherently dyadic buffering process we can examine, and a relatively limited sample size that resulted in the limited samples for each cluster in the grid-sequence analysis.

4. Study 2 – The Transition to Parenthood

In Study 2, I attempted to replicate and extend the findings from Study 1 by examining a longitudinal sample of couples followed across a stressful time in life: the transition to parenthood. The transition to parenthood presents an inherent paradox for first-time parents. New parents experience joy (Russell, 1974), find greater meaning in life (Baumeister, 1991), and are more committed to their family unit (Cowan & Cowan, 2000; Nomaguchi & Milkie, 2003). When parents can capitalize on these positive experiences and emotions during the transition to parenthood, they often experience improved relationship quality over time (Don et al., 2022). At the same time, however, new parents also report greater stress (LeMasters, 1957; Pistrang & Barker, 2005), more

depleted resources (Feldman & Nash, 1984; Nomaguchi & Milkie, 2003), and greater strain on and less time for their romantic relationships (Doss et al., 2009; MacDermid et al., 1990; Twenge et al., 2003). These stressors and the presence of a new baby should activate the attachment system (Bowlby, 1988; Rholes et al., 2021; Simpson et al., 2003; Simpson & Rholes, 2012) and make each individual's attachment-related needs salient (Jones et al., 2014). This presents a unique opportunity to examine partner buffering in normative populations among people who may not otherwise have their attachment systems activated as frequently as members of high-risk populations described in Study 1. Moreover, the transition to parenthood puts stress and strain on both partners simultaneously (Doss & Rhoades, 2017; Schoppe-Sullivan et al., 2016) and, therefore, optimizes the applicability of taking a dyadic approach to understanding both agents and targets.

Study 2 includes data from both romantic partners six weeks before the birth of their first child and every six months over a two-year period after the birth of their first child. New parents took part in a videorecorded buffering conversation 6 months after the birth of their first child. The findings from Study 1 suggested that recent and concurrent features of individual and relationship functioning are the most consistent precursors of effectively buffering both attachment anxiety and avoidance. In Study 2, therefore, I expanded Study 1 findings by examining longitudinal data provided by *both* dyad members, with a focus on more proximal experiences both before and after a videorecorded and subsequently coded interaction.

4.1 Methods

4.1.1 Participants

Between 2002 and 2006, 192 married or cohabiting different-gender first-time parents in Bryan, Texas were recruited for a study about the transition to parenthood. Dyads completed assessments every six months from six-weeks prenatal through two years postnatal. At the prenatal assessment, 192 dyads completed the study. At 6 months postnatal, 159 dyads completed both the in-lab interactions and self-report surveys. Only dyads that completed the in-lab interactions were included for the purposes of this study (N = 159). Of the participants who completed the in-lab assessments, 137 dyads completed all subsequent assessment waves (12 months postnatal N = 147; 18 months postnatal N = 144; 24 months postnatal N = 137).

Most of the dyads were married (N = 156, 98.11%) for an average of 3.33 years (SD = 2.66 years) at the prenatal assessment. The remaining dyads were cohabiting (N = 3, 1.89%) for an average of 3.48 years (SD = 2.75 years) at the prenatal assessment. The majority of couples reported that they had a planned or intentional pregnancy (N = 119, 74.84%). Half of the sample identified as cisgender male and half of the sample identified as cisgender female with no participants reporting any other gender identities. Information about sexual orientation was not collected.

On average, male partners were 28.57 years old (SD = 4.42 years, range = 19 to 45) and female partners were 26.89 years old (SD = 4.12 years, range = 19 to 41). The majority of the sample identified as White (N = 258, 81.13%) followed by Latino/a/Hispanic (N = 28, 8.81%), Asian (N = 24, 7.55%), and Black (N = 8, 2.51%).

The sample was highly educated with most participants reporting that their highest level of education completed was a Bachelor's degree (*N* = 141, 44.34%), followed by Master's degrees (*N* = 59, 18.55%), some college but no formal degree (*N* = 58, 18.24%), professional or doctoral degrees (*N* = 23, 7.23%), 2-year degrees (*N* = 21, 6.60%), high school only (*N* = 14, 4.40%), and less than a high school education (*N* = 2, 0.63%). The majority of the sample reported a yearly household income of between $40,000 and $54,999 (*N* = 91, 28.62%), followed by $25,000 to $39,999 per year (*N* = 54, 16.98%), $55,000 to $69,999 per year (*N* = 53, 16.67%), under $25,000 per year (*N* = 46, 14.47%), $70,000 to $84,999 per year (*N* = 44, 13.84%), over $100,000 per year (*N* = 20, 6.29%), and $85,000 to $99,999 per year (*N* = 10, 3.14%). Many attempts were made to recruit more diverse couples, but with limited success given the location of data collection. However, despite the homogeneity of the sample, the sample characteristics matched those of the location from which participants were recruited at the time.

4.1.2 Procedure

Couples were recruited from childbirth classes and prenatal care clinics in Bryan, Texas, and the surrounding area. To qualify for the study, couples had to be romantically involved (i.e., married or cohabiting) and expecting their first biological child together. Forty-five percent of the couples who were initially approached and were eligible agreed to participate. Self-report assessments were administered five times from 6 weeks before childbirth (i.e., prenatal) and then every six months for two years after childbirth (i.e., 6, 12, 18, and 24 months postnatal). Self-report surveys were mailed to couples with an envelope and stamp to send the questionnaires back. Couples were explicitly instructed to

complete all surveys independently. Couples were compensated $50 for completing each of the first three self-report assessments at 6 weeks prenatal and 6 and 12 months postnatal. To help prevent attrition, compensation was increased for the last two assessments. Couples were compensated $75 for the completing each of the self-report assessments at 18 and 24 months postnatal. To further incentivize ongoing participation, couples who completed all five self-report assessments were entered into a raffle to win one of two $500 cash prizes.

At the 6-month postnatal assessment, couples were invited to the lab to complete a series of videotaped interactions. To maximize participation in the in-lab activities, free childcare was provided for all parents. As in Study 1, each partner was asked to independently identify problems or issues that caused disagreement between them by ranking a list of common relationship problems from least to most serious for them. Each couple reviewed this list together and mutually chose which topic to discuss. Couples were instructed to discuss this issue for 8-10 minutes. They were instructed to attempt to come to a solution to the issue within the time allotted. Couples were given no direction on how to behave. This conflict paradigm was adapted from the Markman-Cox Conflict Discussion Task (Cox, 1991). Couples were compensated $75 for completing the lab session.

4.1.3 Measures

The full scales as presented to participants are reported in Appendix C.

Personality. Agreeableness and neuroticism were assessed at the prenatal assessment using the Big Five Inventory (BFI; John et al., 1991). The 7-item agreeableness subscale measured the extent to which participants are typically warm and friendly towards others (e.g., "I am considerate and kind to almost everyone" and "I have a forgiving nature") and demonstrated good internal reliability ($\alpha = .70$ for men and $\alpha = .71$ for women). The 7-item neuroticism subscale measured the extent to which participants tend to experience negative affect and emotional instability (e.g., "I get nervous easily" and "I can be tense") and demonstrated good internal reliability ($\alpha = .79$ for men and $\alpha = .84$ for women). Participants rated items on a 1 (*strongly disagree*) to 7 (*strongly agree*) Likert-type scale.[8]

Attachment orientations. Self-reported adult romantic attachment anxiety and avoidance were assessed at the prenatal and postnatal assessments using the Experiences in Close Relationships Scale (ECR; Brennan et al., 1998). The 18-item attachment anxiety subscale measured the extent to which participants feared rejection and abandonment from romantic partners (e.g., "I worry a lot about my relationships" and "My desire to be very close sometimes scares people away") and demonstrated good internal reliability (α ranged from .91 to .94 for men and from .90 to .96 for women across the five assessment waves). The 18-item attachment avoidance subscale measured the extent to which participants felt discomfort with closeness or with depending on others in adult romantic relationships (e.g., "I am nervous when partners get too close to

[8] Openness to new experiences, conscientiousness, and extraversion were also assessed. However, given the aims of the current research and theoretical background for the hypotheses, these other facets of personality were not examined.

me” and “I don't feel comfortable opening up to romantic partners”) and demonstrated good internal reliability (α ranged from .84 to .94 for men and from .87 to .96 for women across the five assessment waves). Participants rated items on a 1 (*strongly disagree*) to 7 (*strongly agree*) Likert-type scale.

Relationship satisfaction. Relationship satisfaction was assessed at the prenatal and postnatal assessments using the Dyadic Adjustment Scale (DAS; Spanier, 1976). The 10-item scale measured the extent to which participants were happy with and had positive evaluations of their current romantic relationship (e.g., “In general, how often do you think that things between you and your partner/spouse are going well?” and “How often do you discuss or have you considered divorce, separation, or terminating your marriage/relationship?”) and demonstrated good internal reliability (α ranged from .83 to .89 for men and from.81 to .89 for women across the five assessment waves). Participants rated items on a 1 (*never*) to 6 (*all of the time*) Likert-type scale.[9]

Parental stress. Parental stress was assessed at the postnatal assessments using the Parental Stress Inventory (PSI; Abidin, 1983).[10] The 32-item scale measured the extent to which participants were experiencing stress related to their parenting responsibilities or child (e.g., “I feel trapped by my responsibilities as a parent” and “My baby is so demanding that it exhausts me”) and demonstrated good internal reliability (α ranged from .90 to .95 for men and from .86 to .95 for women across the five assessment

[9] Although other measures of relationship quality are more commonly used now (e.g., the Perceived Relationship Quality Components Inventory; Fletcher et al., 2000), at the time of data collection, the DAS was the standard and most reliable scale being used to assess relationship quality.
[10] The original PSI is scaled such that higher scores indicate less stress, and lower scores indicate more stress. For the present analyses, the scale was reversed to improve the interpretability of the findings (e.g., increases in scores indicate increases in stress).

waves). Participants rated items on a 1 (*strongly disagree*) to 5 (*strongly agree*) Likert-type scale.[11]

4.2 Power Analysis

In the original grant proposal for Study 2 (see NIMH Award Number MH49599), the target sample size was determined by standards in the field for studies examining the transition to parenthood. Standards at the time indicated that an initial sample of 150 couples transitioning to parenthood would be sufficient to detect medium effect sizes (Cowan & Cowan, 2000). Given these standards and available grant funds, 192 couples were initially recruited.

I also conduct post-hoc power analyses for multilevel analyses using dyadic data (Bolger & Laurenceau, 2013; Lane & Hennes, 2018). Power analyses were run using Monte Carlo simulations (replications = 20,000) with parameters entered for sample size (N = 159 dyads), the number of longitudinal assessments (assessments = 5), and means, variances, and fixed and random effects for each variable entered into the model. Specifically, I conducted sensitivity analyses (Lane & Hennes, 2019) to determine the minimum detectable effect (MDE; the smallest effect size necessary to detect an effect with .80 power) for each model. Sensitivity analyses suggested that I had sufficient power to detect small-to-medium effect sizes ($r > 0.26$).

[11] The PSI was original constructed to include 9 subscales (i.e., hyperactivity/distractibility, reinforces parent, acceptability, mood, attachment, adaptability, demandingness, sense of competence, and restriction of role). However, previous research from using the data described for Study 2 has found that all items from the PSI in this dataset load onto one factor and that this aggregate measure is more reliable than the individual subscales (see Eller et al., 2019; Smallen et al., 2022). Therefore, to be consistent with prior research and to use the most reliable measure available, the PSI was also aggregated in the present study.

4.3 Results

4.3.1 Preliminary Analyses

Descriptive statistics are reported in Table 7. Zero-order correlations at the prenatal assessment are reported in Table 8. Dyad members' scores for neuroticism, relationship satisfaction, and safe and soft strategies were significantly correlated. Agent's magnitude of use of safe strategies were significantly and positively correlated with agreeableness and relationship satisfaction and significantly and negatively correlated with neuroticism and attachment avoidance and anxiety. Agent's magnitude of us of soft strategies were significantly and positively correlated with agreeableness and relationship satisfaction and significantly and negatively correlated with neuroticism and attachment avoidance and anxiety. Notably, replicating Study 1, neither the correlation between agent's safe strategies and target's anxiety nor the correlation between agent's soft strategies and target's avoidance were statistically significant; this suggests that agents do not consistently respond to targets' attachment-relevant needs with effective tailored buffering behaviors.

Table 7.

Study 2 – Descriptive Statistics and Correlations

	Assessment Wave					
Variable	**Prenatal**	**6 months**	**12 months**	**18 months**	**24 months**	**Range**
Agreeableness	3.78 (0.57)					1 to 7
Neuroticism	2.5 (0.79)					1 to 7
Attachment anxiety	3.01 (1.01)	2.92 (1.11)	2.77 (0.99)	2.82 (1.06)	2.78 (1.08)	1 to 7
Attachment avoidance	2.37 (0.89)	2.27 (0.88)	2.27 (0.95)	2.3 (0.95)	2.34 (1.03)	1 to 7
Relationship satisfaction	42.89 (4.56)	42.26 (4.87)	42.03 (5.82)	41.92 (6.05)	41.16 (6.97)	10 to 50
Parental stress		1.82 (0.42)	1.85 (0.41)	1.81 (0.39)	1.84 (0.42)	1 to 5
Target (partner's) anxiety		2.74 (0.87)				1 to 5
Agent safe strategies		2.76 (1.10)				1 to 5
Target (partner's) avoidance		2.78 (0.87)				1 to 5
Agent soft strategies		2.77 (1.12)				1 to 5
N (complete dyads)	159	159	147	144	137	

Note: Means are listed with standard deviations presented in parentheses.

Table 8.

Study 2 – Zero-Order Correlations at the Six-Weeks Prenatal Assessment

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
1. Agreeableness	[0.13]								
2. Neuroticism	-0.31*	[-0.19*]							
3. Attachment anxiety	-0.15	0.47*	[0.07]						
4. Attachment avoidance	-0.19*	0.14	0.18*	[0.15]					
5. Relationship satisfaction	0.13	-0.15	-0.11	-0.3	[0.52*]				
6. Target (partner's) anxiety	0.02	0.02	0.09	0.10	-0.17*	[0.14]			
7. Agent safe strategies	0.37*	-0.37*	-0.27*	-0.43*	0.27*	-0.07	[0.22*]		
8. Target (partner's) avoidance	-0.05	0.11	0.09	0.07	-0.14	0.14	-0.09	[0.05]	
9. Agent soft strategies	0.41*	-0.42*	-0.39*	-0.29*	0.19*	-0.13	0.36*	-0.07	[0.17*]

Note: * $p < .01$; Interpartner correlations (e.g., husbands' satisfaction correlated with wives' satisfaction) are presented in brackets along the diagonal.

To determine whether dyads should be treated as distinguishable (e.g., examining differences between male and female partners), I conducted omnibus tests of distinguishability (Kenny et al., 2006). These tests suggested that dyads should be treated as indistinguishable because (1) for each variable, the means of the male and female partners scores were not significantly different from one another, (2) for each variable, the variances of the male and female partners scores were not significantly different from one another, (3) for each pair of variables, the intrapersonal correlations (i.e., correlations between two measures for the same member of the dyad; e.g., the correlation between husbands' commitment and satisfaction versus the correlation between wives' commitment and satisfaction) of the male and female partners were not significantly different from one another, and (4) for each pair of variables, the interpersonal or cross-dyad correlations (i.e., correlations between two measures that come from different members of the dyad; e.g., the correlation between husbands' commitment and wives' satisfaction versus the correlation between wives' commitment and husbands' satisfaction) are not significantly different from one another. Treating dyads as indistinguishable also increased statistical power of all analyses (Kenny et al., 2006).

4.3.2 Examining Within-Dyad Buffering Processes

The same analytic approach for examining within-dyad buffering processes described in Study 1 was used in Study 2.

Safe strategies and attachment anxiety. The anxiety buffering sequences for all participants are displayed in Figure 9. Participants showed considerable variation across their interactions in their state-space sequences, validating the potential importance of using these dynamical systems methods. Hierarchical cluster analyses suggested that the

four-cluster solution created the most parsimonious and interpretable clusters with relatively equal sample sizes across the clusters. See Figure 10.

Figure 9.

Study 2 – All Participant's Anxiety Buffering Sequences

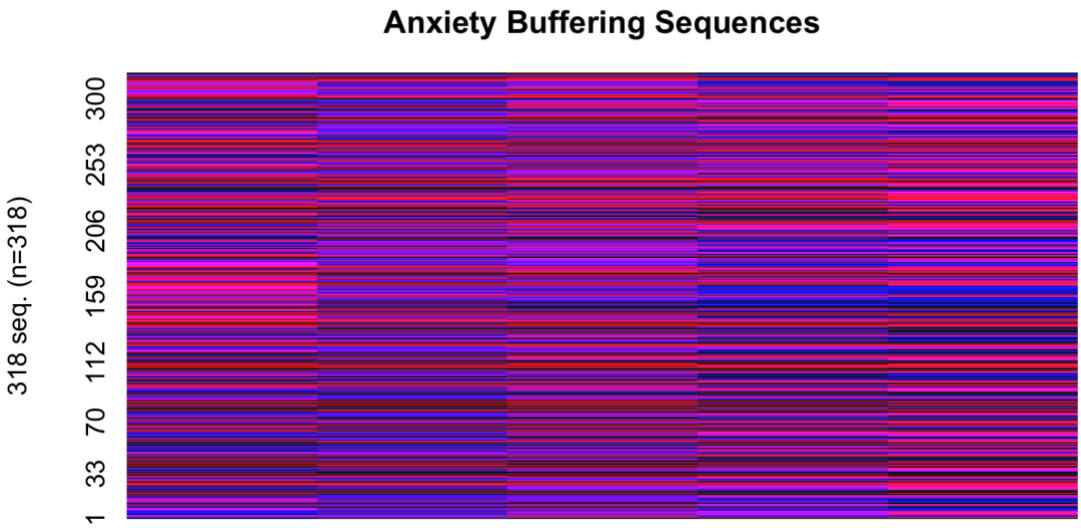
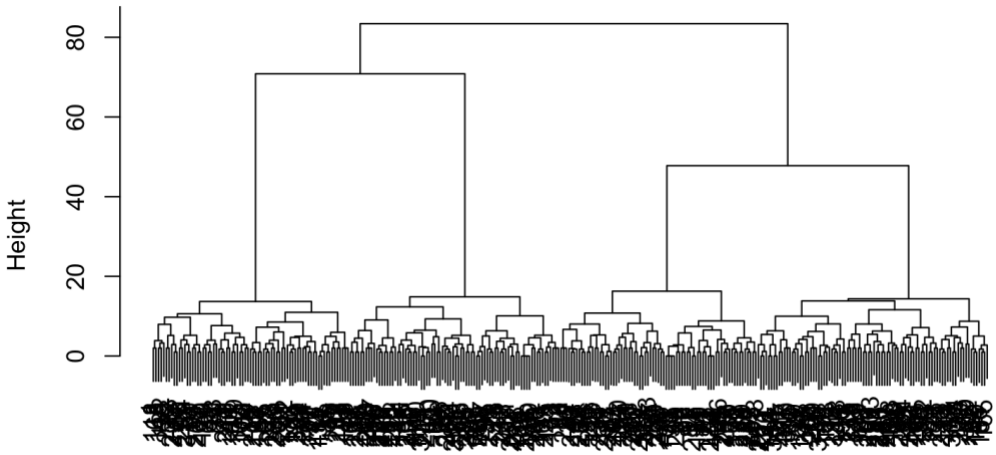


Figure 10.

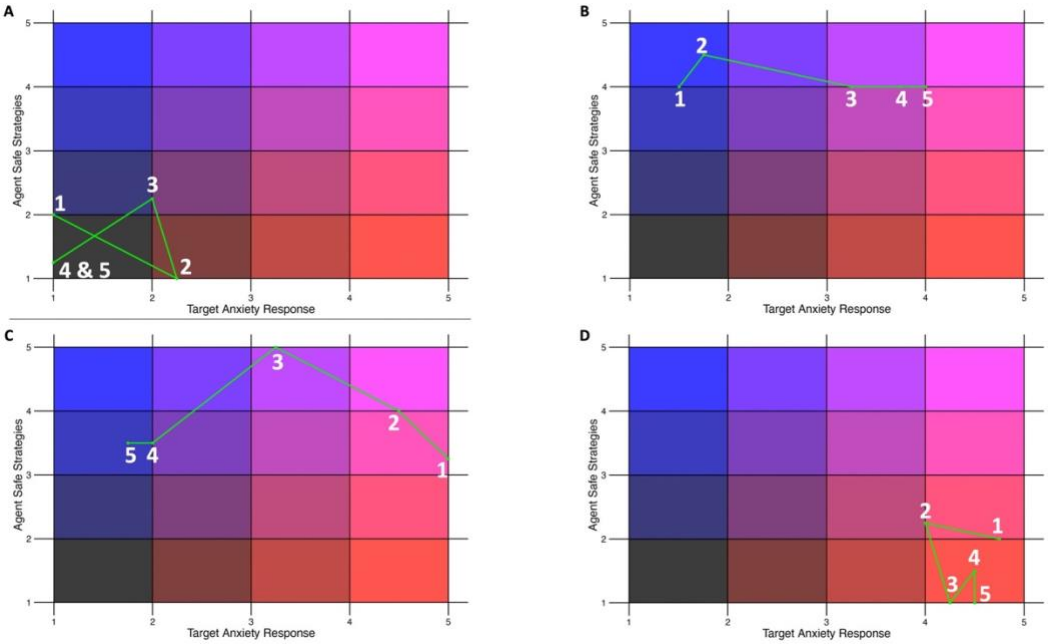
Study 2 – Anxiety Buffering Hierarchical Cluster Analysis



The participants classified into Cluster 1 tended to have interactions that were characterized by both low levels of the agent's safe strategies and low levels of the target's anxious behaviors. See Figure 11a, which depicts the prototypic Cluster 1 state-space grid of these participants. Cluster 1, therefore, represents the *No Buffering* group. The participants classified into Cluster 2 tended to have interactions that were characterized by high levels of the agent's safe strategies and progressively increasing levels of the target's anxiety behaviors following the higher levels of safe strategies. See Figure 11b, which depicts the prototypic Cluster 2 participants' state-space grid. Cluster 2, therefore, represents the *Ineffective Buffering* group. The participants classified into Cluster 3 tended to have interactions that were characterized by high levels of the agent's safe strategies and progressively declining levels of the target's anxious behaviors following the higher levels of safe strategies. See Figure 11c, which depicts the prototypic Cluster 3 participants' state-space grid. Cluster 3, therefore, represents the *Effective Buffering* group. Finally, participants classified into Cluster 4 tended to have interactions that were characterized by low levels of the agent's safe strategies and persistently high levels of the target's anxious behaviors across the interaction. See Figure 11d, which depicts the prototypic Cluster 4 participants' state-space grid. Cluster 4, therefore, represents the *Unresponsive* group.

Figure 11.

Study 2 – Examples of Prototypic State-Space Grides for Each Anxiety Buffering Cluster



Note: A represents the *No Buffering* group (Cluster 1); B represents the *Ineffective Buffering* group (Cluster 2); C represents the *Effective Buffering* group (Cluster 3); D represents the *Unresponsive* group (Cluster 4); the points on each figure represent the movement of dyads through the state-space and the numbers next to each point (1-5) represent the sequence or order in which each state occurred for the dyad.

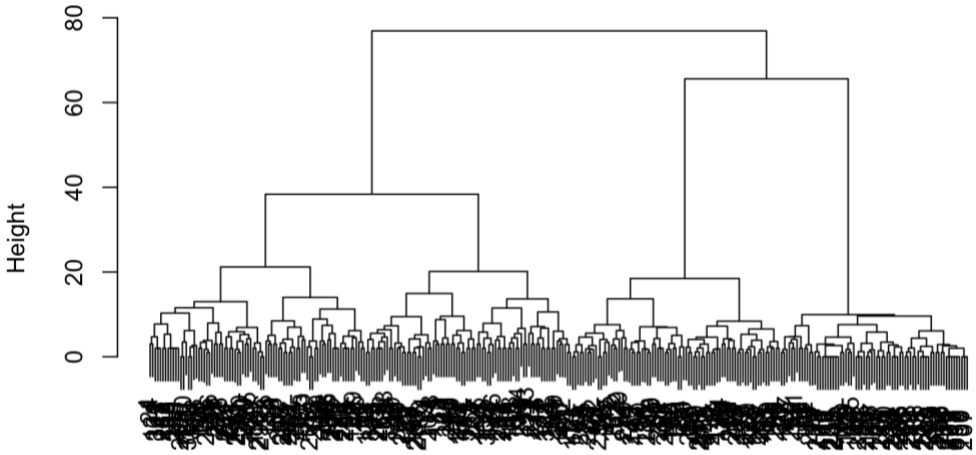
Soft strategies and attachment avoidance. The avoidance buffering sequences for all participants are displayed in Figure 12. Participants showed considerable variation across their interactions in their state-space sequences, validating the potential importance of using these dynamical systems methods. Hierarchical cluster analyses suggested that the four-cluster solution created the most parsimonious and interpretable clusters with relatively equal sample sizes across the clusters. See Figure 13.

Figure 12.

Study 2 – All Participant's Avoidance Buffering Sequences

Figure 13.

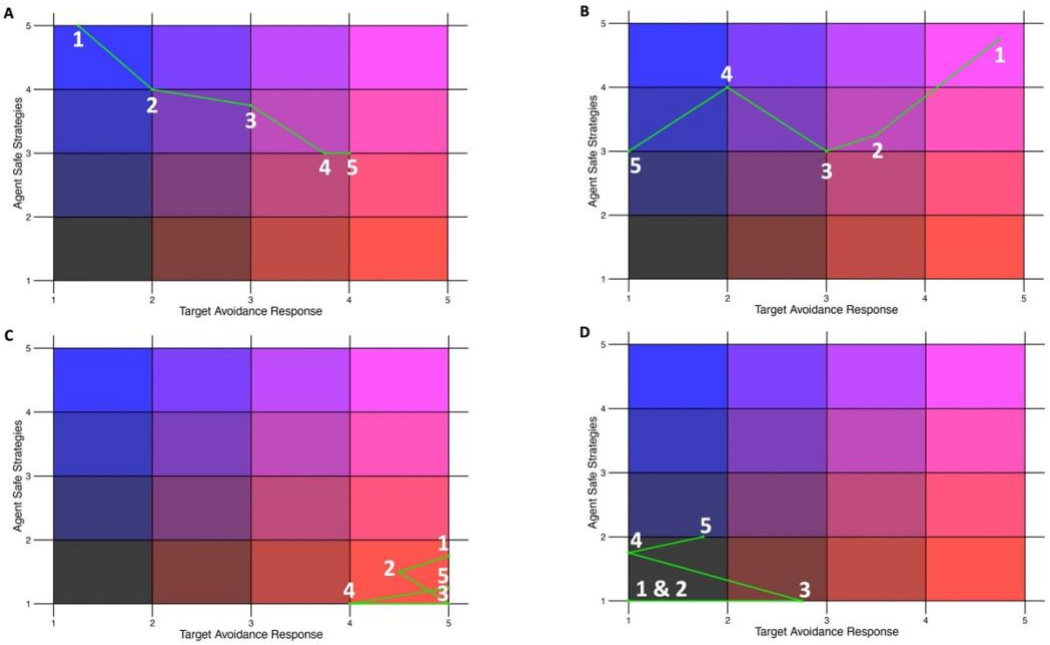
Study 2 – Avoidance Buffering Hierarchical Cluster Analysis



The participants classified into Cluster 1 tended to have interactions that were characterized by high levels of the agent's safe strategies and progressively increasing levels of the target's anxiety behaviors following the higher levels of safe strategies. See Figure 14a, which depicts the prototypic cluster 1 participants' state-space grid. Cluster 1, therefore, represents the *Ineffective Buffering* group. The participants classified into Cluster 2 tended to have interactions that were characterized by high levels of the agent's safe strategies and progressively declining levels of the target's anxious behaviors following the higher levels of safe strategies. See Figure 14b, which depicts the prototypic Cluster 1 participants' state-space grid. Cluster 1, therefore, represents the *Effective Buffering* group. The participants classified into Cluster 3 tended to have interactions that were characterized by low levels of the agent's safe strategies and persistently high levels of the target's anxious behaviors across the interaction. See Figure 14c, which depicts the prototypic Cluster 3 participants' state-space grid. Cluster 3, therefore, represents the *Unresponsive* group. Finally, participants classified into Cluster 4 tended to have interactions that were characterized by both low levels of the agent's safe strategies and low levels of the target's anxious behaviors. See Figure 14d, which depicts the prototypic cluster 4 participants' state-space grid. Cluster 4, therefore, represents the *No Buffering* group.

Figure 14.

Study 2 – Examples of Prototypic State-Space Grides for Each Avoidance Buffering Cluster



Note: A represents the *Ineffectively Buffering* group (Cluster 1); B represents the *Effectively Buffering* group (Cluster 2); C represents the *Unresponsive* group (Cluster 3); D represents the *No Buffering* group (Cluster 4); the points on each figure represent the movement of dyads through the state-space and the numbers next to each point (1-5) represent the sequence or order in which each state occurred for the dyad.

4.3.3 Testing Hypotheses 1a & 1b

First, to test Hypothesis 1a regarding the precursors of the *magnitude* of buffering behaviors, I examined how prenatal agreeableness, neuroticism, attachment anxiety, attachment avoidance, and relationship satisfaction predicted agents' mean levels of buffering behaviors during the 6-month postnatal conflict discussion. Specifically, I ran a dyadic multilevel regression model predicting agents' aggregate buffering behaviors from their prenatal predictor variables. Interdependence between dyad members' scores on predictors was accounted for by nesting individuals (Level 1) within dyads (Level 2). The errors in agents' and targets' buffering scores were allowed to correlate to account for non-independence in the outcome scores (Kenny et al., 2006).

To test Hypothesis 1b concerning the precursors of tailored and effective buffering behaviors, I examined whether participants in each cluster created through the grid-sequence analyses differed in terms of prenatal agreeableness, neuroticism, attachment anxiety, attachment avoidance, and relationship satisfaction predicted the probability of the cluster classifications extracted from the agent buffering and target attachment grid-sequence analysis. Specifically, I ran an ANCOVA comparing each cluster to one another, controlling for the partner's cluster classification in Step 1 of the ANCOVA.

Safe strategies and attachment anxiety. Partially supporting Hypothesis 1a, I found that agents' greater agreeableness ($b = 0.22$, $t(306.99) = 4.06$, $p < .001$), lower neuroticism ($b = -0.24$, $t(277.51) = -3.80$, $p < .001$), and lower attachment avoidance ($b = -0.33$, $t(305.64) = -5.91$, $p < .001$) significantly predicted agents' greater overall

engagement in safe buffering strategies. However, contrary to Hypothesis 1a, agents' overall levels of engagement in safe buffering strategies were not significantly predicted by either agents' attachment anxiety (b = -0.06, t(306.88) = -1.06, p = 0.289) or relationship satisfaction (b = 0.10, t(249.86) = 1.61, p = .108).[12]

Supporting Hypothesis 1b, I found that anxiety-buffering clusters differed significantly on agreeableness (F(3, 313) = 24.58, p < .001), neuroticism (F(3, 313) = 23.94, p < .001), attachment anxiety (F(3, 313) = 23.72, p < .001), attachment avoidance (F(3, 313) = 27.12, p < .001), and relationship satisfaction (F(3, 313) = 11.02, p < .001). See Table 9. Post hoc analyses using Tukey's HSD revealed that participants in the *Effective Buffering* group had higher scores on agreeableness and lower scores on neuroticism and attachment anxiety compared to all other groups. Participants in the *No Buffering* group scored lower on agreeableness compared to those in the *Ineffective Buffering* group. Participants in the *No Buffering* and *Unresponsive* groups scored higher in attachment avoidance compared to participants in the *Ineffective Buffering* and *Effective Buffering* groups. Finally, participants in the *Unresponsive* group reported lower in relationship satisfaction compared to all other groups.

[12] These findings control for partner's reports of these same variables in this and all subsequent models. However, given the focus on agents, only actor's reports are discussed.

Table 9.

Study 2 – Anxiety Buffering Analysis of Covariance (ANCOVA)

	Cluster 1 – No Buffering	**Cluster 2 – Ineffectively Buffering**	**Cluster 3 – Effectively Buffering**	**Cluster 4 – Unresponsive**	**Post hoc Tukey's HSD** ($p < .01$)
Agreeableness	3.49 (0.62)	3.84 (0.50)	4.13 (0.47)	3.62 (0.46)	1 < 2 1 & 2 & 4 < 3
Neuroticism	2.83 (0.74)	2.47 (0.68)	2.00 (0.70)	2.77 (0.74)	1 & 2 & 4 > 3
Attachment anxiety	3.30 (1.03)	3.29 (0.94)	2.25 (0.78)	3.32 (0.83)	1 & 2 & 4 > 3
Attachment avoidance	2.68 (0.92)	2.16 (0.60)	1.86 (0.73)	2.85 (0.90)	1 & 4 > 2 & 3
Relationship satisfaction	42.91 (3.80)	43.63 (3.28)	44.31 (5.05)	40.63 (4.88)	1 & 2 & 3 > 4
N	75	75	88	80	

Note: Standard deviations are presented in parentheses; partner's cluster classification was entered as a Step 1 covariate.

Soft strategies and attachment avoidance. Partially supporting Hypothesis 1a, I found that agents' greater agreeableness (b = 0.29, t(306.66) = 5.30, p < .001), lower neuroticism (b = -0.27, t(272.42) = -4.13, p < .001), lower attachment anxiety (b = -0.25, t(306.94) = -4.19, p < .001), and lower attachment avoidance (b = -0.15, t(306.67) = -2.68, p = .008) significantly predicted agents' greater overall engagement in soft buffering strategies. However, contrary to Hypothesis 1a, agents' overall levels of engagement in soft buffering strategies were not significantly predicted by agents' relationship satisfaction (b = 0.04, t(255.01)= 0.64, p = .526).

Supporting Hypothesis 1b, I found that avoidance buffering clusters differed significantly on agreeableness (F(3, 313) = 27.11, p < .001), neuroticism (F(3, 313) = 30.31, p < .001), attachment anxiety (F(3, 313) = 30.54, p < .001), attachment avoidance (F(3, 313) = 20.32, p < .001), and relationship satisfaction (F(3, 313) = 7.726, p < .001). See Table 10. Post hoc analyses using Tukey's HSD revealed that participants in the *Effective Buffering* group scored higher in agreeableness and lower in neuroticism as well as lower in attachment anxiety and avoidance compared to ~~than~~ all other groups. Participants in the *Ineffective Buffering* group also scored higher in agreeableness and lower in neuroticism compared to participants in the *Unresponsive* and *No Buffering* groups. Finally, participants in the *Unresponsive* group scored higher in attachment anxiety and lower in relationship satisfaction compared to participants in the *No Buffering* group.

Table 10.

Study 2 – Avoidance Buffering Analysis of Covariance (ANCOVA)

	Cluster 1 – Ineffectively Buffering	**Cluster 2 – Effectively Buffering**	**Cluster 3 – Unresponsive**	**Cluster 4 – No Buffering**	**Post hoc Tukey's HSD** ($p < .01$)
Agreeableness	3.87 (0.53)	4.16 (0.41)	3.55 (0.55)	3.53 (0.54)	1 & 3 & 4 < 2 1 > 3 & 4
Neuroticism	2.33 (0.63)	1.99 (0.65)	2.92 (0.77)	2.79 (0.74)	1 & 3 & 4 > 2 1 < 3 & 4
Attachment anxiety	2.97 (0.89)	2.26 (0.73)	3.52 (0.96)	3.33 (0.98)	1 & 3 & 4 > 2 1 < 3
Attachment avoidance	2.43 (0.90)	1.78 (0.60)	2.65 (0.79)	2.66 (0.94)	1 & 3 & 4 > 2
Relationship satisfaction	42.63 (4.49)	44.79 (4.01)	41.51 (5.21)	42.64 (3.77)	2 > 3
N	84	80	81	73	

Note: Standard deviations are presented in parentheses; partner's cluster classification was entered as a Step 1 covariate.

4.3.4 Testing Hypothesis 2

To test Hypothesis 2 regarding the outcomes of ineffective buffering behaviors, I examined how the cluster classifications extracted from the agent buffering and target attachment grid-sequence analysis predicted changes in relationship satisfaction and parental stress, respectively, over time. Specifically, I ran dyadic latent growth curve models predicting latent intercepts and slopes from cluster classifications. The intercept was set to the 6-month postnatal assessment so that each participant's slope of relationship satisfaction and parental stress was a function of each partner's initial level of relationship satisfaction or parental stress at the 6-month assessment, permitting me to examine the degree to which it changed from the initial level across the multiple measurement waves. Intercepts, assessment-specific scores, and slopes were allowed to correlate both within each partner (i.e., autocorrelation) and between partners (i.e., interdependence; Kashy et al., 2008). Within-person variability was represented at Level 1, and both between-person and between-dyad variability was represented at Level 2.

Safe strategies and attachment anxiety. Supporting Hypothesis 2, I found that participants in the *Ineffective Buffering* and *Unresponsive* groups experienced decreases in relationship satisfaction and increases in parental stress across time, whereas participants in the *Effective Buffering* group experienced increases in relationship satisfaction and decreases in parental stress across time. Participants in the *No Buffering* group did not experience significant changes in either relationship satisfaction or parental stress across time. See Table 11.

Table 11.

Study 2 – Anxiety Buffering Latent Growth Curve Models Predicting Relationship Satisfaction and Parental Stress Across Time

	Outcome: Relationship Satisfaction						**Outcome: Parental Stress**					
					95% CI						**95% CI**	
Variable	***b***	***df***	***t***	***p***	***lower***	***upper***	***b***	***df***	***t***	***p***	***lower***	***upper***
(Intercept)	43.12	550.20	50.5	< .001	41.46	44.78	1.89	129.88	32.23	< .001	1.77	2
Time	-0.07	351.53	-1.34	0.18	-0.16	0.03	0.00	32.79	-0.03	0.97	-0.01	0.01
Intercept												
Cluster 1 (No Buffering)	0.38	484.1	0.42	0.68	-1.36	2.12	-0.02	485.48	-0.26	0.79	-0.14	0.11
Cluster 2 (Ineffectively Buffering)	0.8	451.32	0.9	0.37	-0.93	2.54	0.05	492.23	0.75	0.46	-0.08	0.17
Cluster 3 (Effectively Buffering)	0.91	449.36	1.02	0.31	-0.82	2.65	-0.24	473.83	-3.83	< .001	-0.36	-0.12
Cluster 4 (Unresponsive)	-2.34	468.51	-2.62	0.01	-4.08	-0.60	0.07	487.06	1.06	0.29	-0.06	0.19
Slope												
Time x Cluster 1 (No Buffering)	0.00	712.35	0.01	0.99	-0.09	0.09	0.00	793.89	0.05	0.96	-0.01	0.01
Time x Cluster 2 (Ineffectively Buffering)	**-0.13**	**712.4**	**-2.51**	**0.006**	**-0.16**	**-0.09**	**0.05**	**792.95**	**2.88**	**0.002**	**0.03**	**0.07**
Time x Cluster 3 (Effectively Buffering)	**0.12**	**766.1**	**2.46**	**0.007**	**0.08**	**0.16**	**-0.02**	**776.62**	**-2.22**	**0.013**	**-0.05**	**-0.01**
Time x Cluster 4 (Unresponsive)	**-0.11**	**765.99**	**-2.37**	**0.009**	**-0.15**	**-0.07**	**0.03**	**792.13**	**2.51**	**0.006**	**0.02**	**0.06**

Note: CI stands for Confidence Interval; the statistically significant slope effects are represented in bold.

Soft strategies and attachment avoidance. Supporting Hypothesis 2, I found that participants in the *Ineffective Buffering* group experienced decreases in relationship satisfaction and increases in parental stress across time, whereas those in the *Effective Buffering* group experienced increases in relationship satisfaction and decreases in parental stress across time. Participants in the *Unresponsive* group experienced decreases in relationship satisfaction across time but no changes in parental stress. Participants in the *No Buffering* group did not experience significant changes in either relationship satisfaction or parental stress across time. See Table 12.

Table 12.

Study 2 – Avoidance Buffering Latent Growth Curve Models Predicting Relationship Satisfaction and Parental Stress Across Time

	Outcome: Relationship Satisfaction						**Outcome: Parental Stress**					
					95% CI						**95% CI**	
Variable	***b***	***df***	***t***	***p***	***lower***	***upper***	***b***	***df***	***t***	***p***	***lower***	***upper***
(Intercept)	41.67	537.94	50.52	< .001	40.06	43.27	1.85	121.18	32.84	< .001	1.75	1.96
Time	-0.11	357.07	-2.31	0.02	-0.2	-0.02	0.00	29.48	1.58	0.12	0.00	0.01
Intercept												
Cluster 1 (Ineffectively Buffering)	0.90	482.64	1.02	0.31	-0.81	2.62	0.09	488.27	1.4	0.16	-0.03	0.2
Cluster 2 (Effectively Buffering)	1.84	444.38	2.05	0.04	0.09	3.59	-0.15	469.56	-2.33	0.02	-0.27	-0.02
Cluster 3 (Unresponsive)	-0.75	469.91	-0.86	0.39	-2.44	0.95	0.07	486.44	1.21	0.23	-0.05	0.19
Cluster 4 (No Buffering)	-0.36	479.28	-0.41	0.68	-2.08	1.35	-0.02	480.92	-0.38	0.71	-0.14	0.1
Slope												
Time x Cluster 1 (Ineffectively Buffering)	**-0.12**	**778.75**	**-2.32**	**0.010**	**0.07**	**0.16**	**0.04**	**771.74**	**3.41**	**< .001**	**0.02**	**0.07**
Time x Cluster 2 (Effectively Buffering)	**0.17**	**779.57**	**3.29**	**< .001**	**0.12**	**0.21**	**-0.03**	**799.68**	**-2.65**	**0.008**	**-0.04**	**-0.01**
Time x Cluster 3 (Unresponsive)	**-0.14**	**745.6**	**-2.63**	**0.005**	**-0.19**	**-0.10**	0.00	771.42	1.16	0.24	0.00	0.01
Time x Cluster 4 (No Buffering)	0.01	744.01	0.21	0.83	-0.04	0.06	0.00	765.75	-0.59	0.56	-0.01	0.01

Note: CI stands for Confidence Interval; the statistically significant slope effects are represented in bold.

4.3.5 Testing Hypothesis 3

To test Hypothesis 3, the same analysis plan used for Hypothesis 2 was used, with one exception. In testing Hypothesis 3, the predictor variable was the cluster classification extracted from the agent buffering and target *buffering* grid-sequence analysis. All other analytic techniques were identical to that previously described.

Safe strategies reciprocity. The safe strategies reciprocity sequences for all participants are displayed in Figure 15. Participants showed some variation across their interactions in their state-space sequences. Hierarchical cluster analyses suggested that the two-cluster solution created the most parsimonious and interpretable clusters with relatively equal sample sizes across the clusters. See Figure 16.

Figure 15.

Study 2 – All Participant's Safe Strategies Reciprocity Sequences

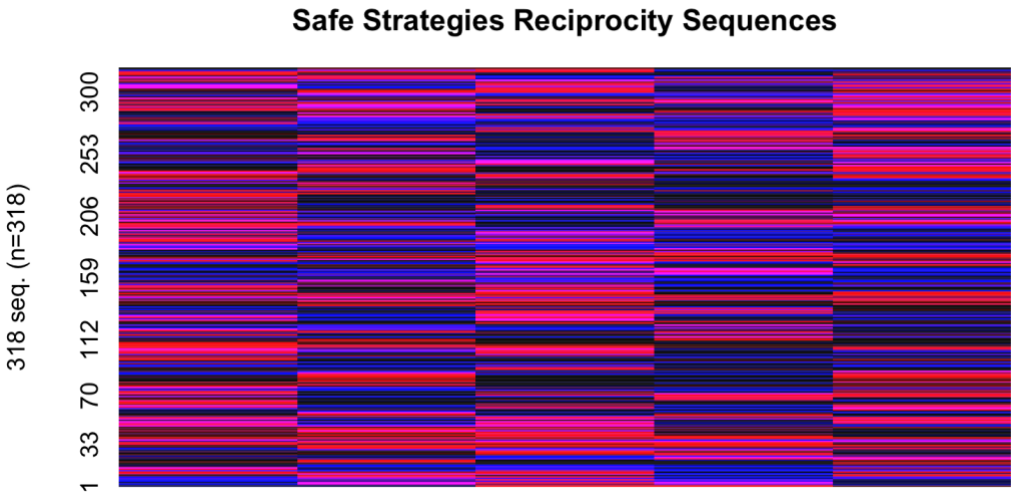
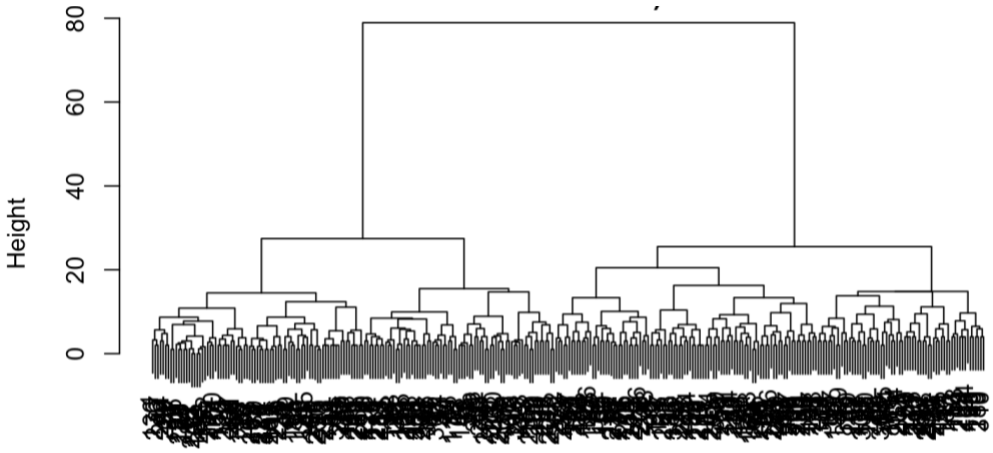


Figure 16.

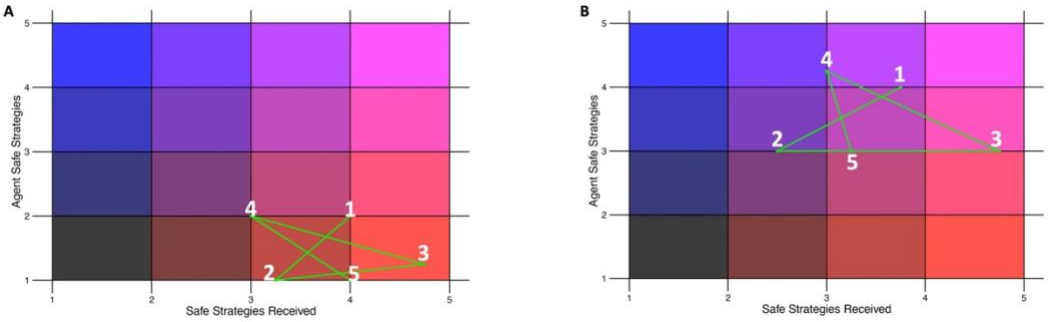
Study 2 – Safe Strategies Reciprocity Hierarchical Cluster Analysis



The participants classified into Cluster 1 tended to have interactions that were characterized by one partner engaging in high levels of safe buffering strategies and the other partner not engaging in safe buffering strategies or doing so only occasionally throughout the interaction. See Figure 17a, which depicts the prototypic Cluster 1 participants' state-space grid. Cluster 1, therefore, represents the *Asymmetrical Buffering* group. The participants in Cluster 2 tended to have interactions that were characterized by both partners engaging in high levels or comparable moderate levels of safe buffering strategies throughout the interaction. See Figure 17b, which depicts the prototypic Cluster 2 participants' state-space grid. Cluster 2, therefore, represents the *Reciprocal Buffering* group.

Figure 17.

Study 2 – Examples of Prototypic State-Space Grides for Each Safe Strategies Reciprocity Cluster



Note: A represents the *Asymmetrical Buffering* group (Cluster 1); B represents the *Reciprocal Buffering* group (Cluster 2); the points on each figure represent the movement of dyads through the state-space and the numbers next to each point (1-5) represent the sequence or order in which each state occurred for the dyad.

Supporting Hypothesis 3, I found that participants in the *Asymmetrical Buffering* group experienced decreases in relationship satisfaction and increases in parental stress across time, whereas those in the *Reciprocal Buffering* group experienced no changes in relationship satisfaction and declines in parental stress across time. See Table 13.

Table 13.

Study 2 – Safe Strategies Reciprocity Latent Growth Curve Model Predicting Relationship Satisfaction and Parental Stress Across Time

	Outcome: Relationship Satisfaction						**Outcome: Parental Stress**					
					95% CI						**95% CI**	
Variable	***b***	***df***	***t***	***p***	***lower***	***upper***	***b***	***df***	***t***	***p***	***lower***	***upper***
(Intercept)	40.72	544.27	72.59	< .001	39.62	41.81	1.93	34.4	48.34	< .001	1.85	2.01
Time	-0.06	358.61	-1.92	0.06	-0.13	0.00	0.00	8.48	-0.13	0.89	0.00	0.00
Intercept												
Cluster 1 (Asymmetrical Buffering)	0.39	460.85	0.2	0.42	-0.68	0.83	0.07	477.27	1.06	0.29	-0.04	0.13
Cluster 2 (Reciprocal Buffering)	2.12	460.81	3.35	< .001	0.89	3.36	-0.16	477.17	-3.58	0.001	-0.25	-0.07
Slope												
Time x Cluster 1 (Asymmetrical Buffering)	**-0.14**	**747.25**	**-2.71**	**0.003**	**-0.17**	**-0.11**	**0.05**	**796.46**	**3.18**	**0.001**	**0.03**	**0.08**
Time x Cluster 2 (Reciprocal Buffering)	0.00	746.78	0.13	0.89	-0.06	0.07	**-0.03**	**796.59**	**-2.59**	**0.005**	**-0.05**	**-0.02**

Note: CI stands for Confidence Interval; the statistically significant slope effects are represented in bold.

Soft strategies reciprocity. The soft strategies reciprocity sequences for all participants are displayed in Figure 18. Participants showed some variation across their interactions in their state-space sequences. Hierarchical cluster analyses suggested that the two-cluster solution created the most parsimonious and interpretable clusters with relatively equal sample sizes across the clusters. See Figure 19.

Figure 18.

Study 2 – All Participant's Soft Strategies Reciprocity Sequences

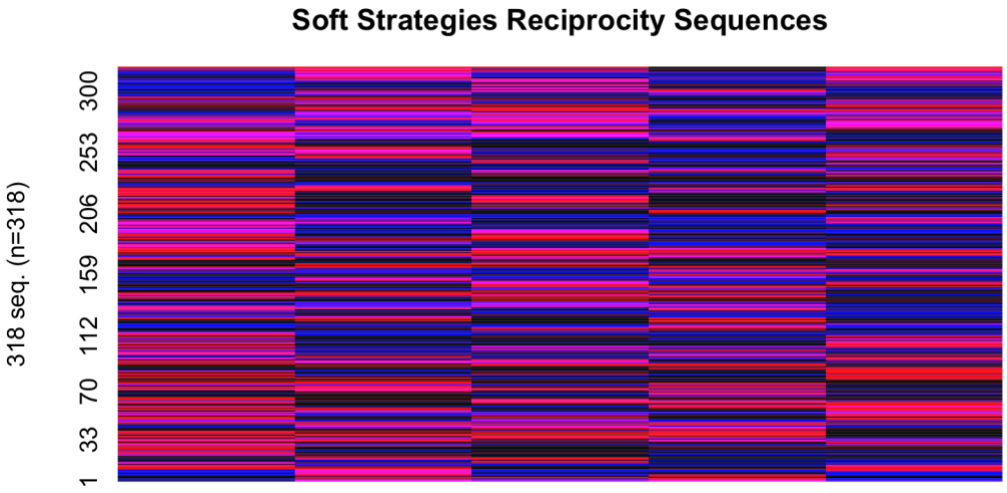
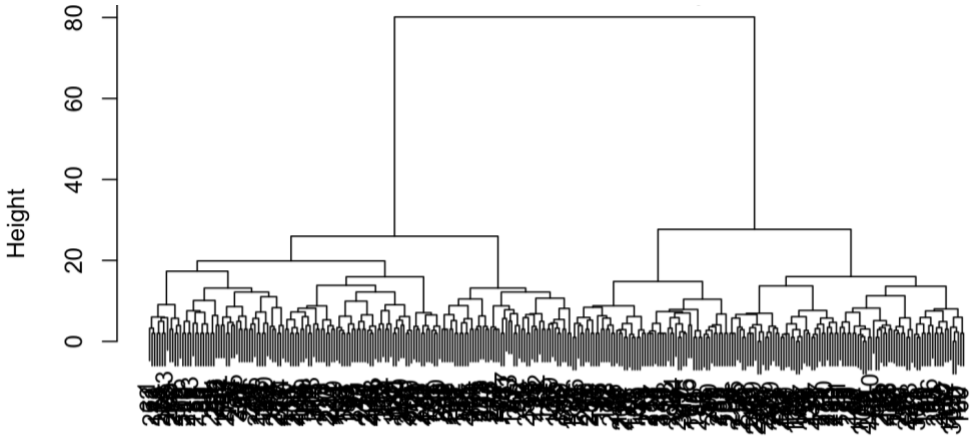


Figure 19.

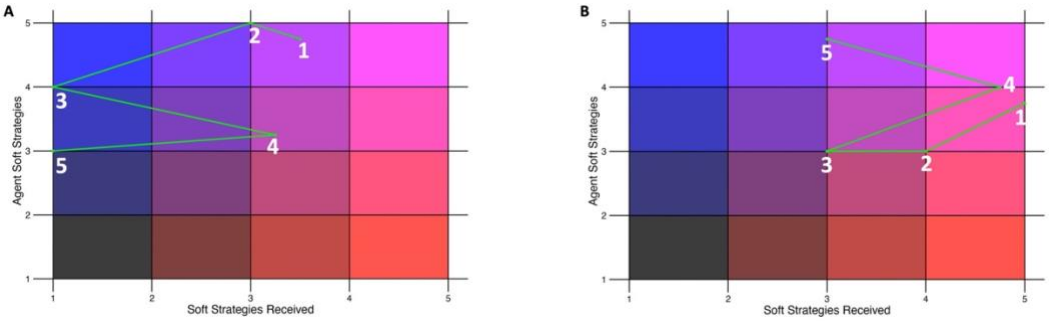
Study 2 –Soft Strategies Reciprocity Hierarchical Cluster Analysis



The participants classified into Cluster 1 tended to have interactions that were characterized by one partner engaging in high levels of soft buffering strategies and the other partner not engaging in soft strategies or doing so only occasionally throughout the interaction. See Figure 20a, which depicts the prototypic cluster 1 participants' state-space grid. Cluster 1, therefore, represents the *Asymmetrical Buffering* group. The participants in Cluster 2 tended to have interactions that were characterized by both partners engaging in high levels or comparable moderate levels of soft strategies throughout the interaction. See Figure 20b, which depicts the prototypic Cluster 2 participants' state-space grid. Cluster 2, therefore, represents the *Reciprocal Buffering* group.

Figure 20.

Study 2 – Examples of Prototypic State-Space Grides for Each Soft Strategies Reciprocity Cluster



Note: A represents the *Asymmetrical Buffering* group (Cluster 1); B represents the *Reciprocal Buffering* group (Cluster 2); the points on each figure represent the movement of dyads through the state-space and the numbers next to each point (1-5) represent the sequence or order in which each state occurred for the dyad.

Contrary to Hypothesis 3, I found that reciprocity, or lack thereof, in soft strategies did not significantly predict changes in relationship satisfaction across time. However, supporting Hypothesis 3, participants in the *Asymmetrical Buffering* group experienced increases in parental stress across time, whereas those in the *Reciprocal Buffering* group experienced decreases in parental stress across time. See Table 14.

Table 14.

Study 2 – Soft strategies Reciprocity Latent Growth Curve Model Predicting Relationship Satisfaction and Parental Stress Across Time

	Outcome: Relationship Satisfaction						**Outcome: Parental Stress**					
					95% CI						**95% CI**	
Variable	***b***	***df***	***t***	***p***	***lower***	***upper***	***b***	***df***	***t***	***p***	***lower***	***upper***
(Intercept)	43.60	535.5	79.89	< .001	42.53	44.66	1.73	30.36	44.35	< .001	1.66	1.8
Time	-0.07	348.43	-2.1	0.04	-0.13	0.00	0.00	7.34	0.67	0.53	0.00	0.01
Intercept												
Cluster 1 (Asymmetrical Buffering)	-1.60	460.43	-2.51	0.01	-2.85	-0.35	0.11	476.9	2.48	0.01	0.02	0.2
Cluster 2 (Reciprocal Buffering)	-0.62	460.3	-0.96	0.34	-1.86	0.63	0.08	476.67	1.86	0.06	0.00	0.17
Slope												
Time x Cluster 1 (Asymmetrical Buffering)	-0.01	727.06	-0.22	0.83	-0.07	0.06	**0.03**	**797.81**	**2.66**	**0.004**	**0.02**	**0.05**
Time x Cluster 2 (Reciprocal Buffering)	-0.02	727	-0.71	0.48	-0.09	0.04	**-0.07**	**797.95**	**-3.87**	**< .001**	**-0.11**	**-0.04**

Note: CI stands for Confidence Interval; the statistically significant slope effects are represented in bold.

4.3 Study 2 Discussion

In a longitudinal, dyadic sample of low-risk individuals, I found that buffering during conflict discussions is a dynamic process that is only partially explained by aggregate measurement and values. People who were more agreeable, emotionally stable, and secure tended to engage in more safe and soft buffering strategies overall. However, at odds with Study 1, people who were more satisfied in their relationships were no more likely to engage in safe or soft strategies in general than people who were less satisfied. The Study 2 sample was relatively lower in risk, somewhat older, and had more participants who were involved in more serious and committed relationships (e.g., having a child together) compared to the Study 1 sample. It is possible that the highly skewed scores on relationship satisfaction in this sample along with the commitment-inducing nature of becoming a parent created a ceiling effect, wherein differences in buffering behaviors could not be predicted by such high scores and low variances in satisfaction in this sample.

Study 2 replicates and extends Study 1 in several important ways. First, it shows the same patterns of buffering behaviors as in Study 1: (1) effectively buffering, (2) ineffectively buffering, (3) no buffering, and (4) unresponsiveness. As in Study 1, agents who were characterized as effectively buffering their target partners tended to fare better across most of the predictor variables (e.g., agreeableness, emotional stability, security, and relationship satisfaction) compared to agents who were characterized as unresponsive. However, agents who were characterized as trying to buffer their partner but doing so ineffectively tended to fare well in some ways (e.g., they scored higher in agreeableness and relationship satisfaction and lower in attachment avoidance) but worse

in other ways (e.g., they scored higher in neuroticism and attachment anxiety). This suggests that these people (agents) may have been motivated to buffer their target partners, but might not have regulated their own emotions well enough to buffer their target partners effectively. This distinction between those who buffer effectively and those who do not is notable because it may reveal one of the key underlying reasons some agents fail to buffer well: self-regulation skills.

Extending the findings from Study 1, Study 2 also examined the consequences of different patterns of buffering behaviors. I found that agents who were ineffective at buffering tended to experience less relationship satisfaction and more parental stress over time, whereas agents who were effective at buffering experienced more relationship satisfaction and less parental stress over time. These findings suggest that the effectiveness of one's buffering attempts forecasts both relational and individual well-being over time. These results are in contrast to previous studies of buffering (e.g., Farrell et al., 2016; Overall et al., 2013; Schrage et al., 2020), which have focused only (1) on target's outcomes and (2) on the raw magnitude of buffering behaviors instead of the "in-the-moment" effectiveness of such behaviors. Agents who were unresponsive to their target partner's needs also tended to become less satisfied with their relationship over time. For example, agents who were unresponsive to their target partner's *anxious* attachment needs tended to experience increases in parental stress over time.

Finally, Study 2 also examined an often-proposed hypothesis about partner buffering: that *reciprocity* in buffering matters for agent's outcomes (Nakamura et al., 2020). Supporting this premise, I found that unreciprocated safe buffering was harmful

for agent's relationship and personal well-being over time, whereas unreciprocated soft buffering was harmful for agent's personal well-being over time but *not* for their relationship well-being. These findings provide further evidence that it truly takes two for buffering to work well. Both partners need to be giving something to one another in order for both of them to benefit. Asymmetric buffering in which only the target benefits may be harmful to the agent across time, even if such buffering is useful and effective for the target in the moment.

5. General Discussion

Helping people develop secure-base working models has been a defining feature of modern research on attachment theory within social psychology. Partner buffering, or the ability of a romantic partner (agent) to downregulate a partner's (target's) attachment-related concerns, is one way in which scholars have suggested attachment insecurity can be downregulated (Arriaga et al., 2018; Simpson & Overall, 2014). However, to date, theoretical models, such as the Attachment Security Enhancement Model (ASEM; Arriaga et al., 2018) and the Dyadic Regulation Model of Insecurity Buffering (Simpson & Overall, 2014), and empirical work about partner buffering (e.g., Farrell et al., 2016; Overall et al., 2013; Schrage et al., 2020) have been one-sided, focusing predominantly on *targets*, with the experiences of agents treated as a process factor rather than an area of primary investigation. By and large, partner buffering appears to be beneficial for targets. However, it is vital to understand whether and how partner buffering impacts both the targets being buffered and the agents enacting buffering before touting partner buffering as the golden rule for creating more secure working models.

The current research attempted to fill this gap by answering two fundamental questions: (1) What features determine whether an agent can effectively downregulate a target (their partner)? and (2) What are the consequences of engaging in buffering behaviors for agents? Across two longitudinal studies, I found that (1) it takes a specific set of features (e.g., self-regulation, ability, and motivation) to enact *effective* buffering of attachment insecurity and (2) attempting to buffer a target in highly stressful or less-than-ideal circumstances may lead to more harm than good for agents with respect to personal and relational outcomes across time.

Study 1 examined some of the early developmental processes that predate partner buffering behaviors in high-risk couples who often endure chronic, ongoing stress. Specifically, the findings of Study 1 suggest that engaging in effective buffering of anxious targets depends on current relationship features (e.g., relationship effectiveness and commitment), whereas buffering avoidant targets depends on skills likely to have been developed over the life course (e.g., higher-quality relationships and more secure relationship scripts from infancy through adolescences). Study 2 extends these findings by revealing that in low-risk couples, effective buffering of anxious and avoidant targets appears to depend on current relationship features (e.g., relationship satisfaction and adult romantic attachment orientations) and on individual differences (e.g., agreeableness and neuroticism). These findings partially support Hypothesis 1 and suggest that the *effectiveness* of safe and soft buffering depends on agents' predisposition towards social competence and agreeableness and overall ability to successfully navigate relationships in secure ways.

Therapeutic practices often suggest that agents should engage in buffering behaviors to downregulate targets (e.g., Greenman et al., 2019; Greenberg & Johnson, 1988; Johnson & Greenberg, 1985; Wiebe & Johnson, 2016); however, agents may lack the necessary social skill to engage in the intricate and delicate balance of social behaviors required of partner buffering. The current research provides further evidence that some people are better equipped to provide support to their partners than are others (Lemay & Dudley, 2011; Rafaeli & Gleason, 2009). Indeed, agents who are more socially competent (e.g., more agreeable and more effective in their relationship) tended to engage in more buffering behaviors overall. These agents are more capable of engaging in relationship-promoting ways because they possess the necessary social skills to do so. These findings, combined with previous research on social competence and adult romantic functioning (e.g., Iida et al., 2008; Raby et al., 2015a; Simpson et al., 2011b), suggest that not every agent can engage in effective partner-buffering behaviors (i.e., safe and soft strategies); therefore, caution should be used when making recommendations that all agents should attempt to engage in safe and soft strategies.

Although determinants of social skills (e.g., agreeableness) consistently characterized agents who engaged in both effective and ineffective buffering behaviors, self-regulation-related constructs (e.g., attachment security, neuroticism) were the most consistent characteristics of agents who *effectively* buffered their target partners. Much like putting one's oxygen mask on before helping others on an airplane, agents' regulation of their own distress is essential for them to downregulate their target partner's distress successfully. Most people report feeling distressed when their partner is

distressed (Revenson et al., 2005; Rimé et al., 2020). This mutual distress is further amplified when discussing joint issues, such as during conflict discussions like those in the current research (Pasch & Bradbury, 1998). Nevertheless, some agents, such as those who are securely attached and those who are more emotionally stable (i.e., low in neuroticism), are better able to regulate their own heightened emotions. Agents who regulate their emotions can effectively buffer their target partners because they have already assuaged their own distress.

Supporting these findings, some scholars have hypothesized that self-regulation evolved primarily to improve human's ability to effectively socialize with others (Baumeister, 2005; Fitzsimons & Finkel, 2011; Luchies et al., 2011). Imagine navigating a social world in which no one could regulate their thoughts or emotions; the result would likely be more conflict and less harmony between people. In close relationships, agents' abilities to regulate their emotions in the service of their target partner are directly tied to the target's goal success and to productive relationship functioning (Berscheid, 1983, 1991; Fehr & Harasymchuk, 2005; Fitzsimons & Bargh, 2003). However, it is notoriously difficult to create enduring improvements in people's self-regulation skills in adulthood (Baumeister et al., 2007; Berkman, 2016). Self-regulation skills seem to be primarily developed in early childhood (Blair, 2010; Montroy et al., 2016; Posner & Rothbart, 2000). As such, improving self-regulation and, thereby, improving adult relationship functioning and effective buffering behaviors may require interventions in early childhood.

Beyond characterizing whether some agents are better at engaging in buffering than others, the findings from Study 2 confirmed Hypotheses 2 and 3 by revealing that even though agents who can engage in effective buffering tend to fare better, agents who are unable to engage in buffering effectively and agents whose target partner does not reciprocate their buffering tend to have worse personal and relationship well-being across time. These findings further emphasize why universally recommending that agents buffer their target partner's insecurities may be harmful.

Agents who become less satisfied in their relationship and more stressed across time may eventually experience caregiver burnout (Gallagher et al., 2021; Pinquart & Sörensen, 2003; Uchino, 2009) and/or choose to end their unsatisfying relationship (Joel et al., 2018; Machia & Ogolsky, 2021). In either case, the agent will no longer be able to provide sustained care for the target, and the resulting withdrawal of care may exacerbate the target's feelings of insecurity, at least temporarily (Arriaga et al., 2018; Simpson & Overall, 2014). Ultimately, when agents' attempts to buffer their target partner are unsuccessful or are not met with reciprocated care from the target, agents suffer, which could eventually harm both their relationship with the target and the target's well-being. In this way, it is harmful to both agents and targets for buffering to occur in less-than-ideal circumstances.

Overall, the current research contributes to the existing theory on partner buffering by highlighting the importance of taking a dyadic perspective when studying partner buffering and by providing initial evidence for understanding the antecedents and consequences of agents engaging in effective partner buffering behaviors. Existing

models of partner buffering, such as the ASEM (Arriaga et al., 2018) and the Dyadic Regulation Model of Insecurity Buffering (Simpson & Overall, 2014), should be revised using a dyadic perspective that considers the tradeoffs between downregulating targets' insecurities and being sensitive to agents' abilities, motivations, and need to be downregulated and cared for. Achieving this balanced and equitable approach to partner buffering is essential before recommendations regarding buffering are made in applied and therapeutic settings (e.g., Johnson & Greenberg, 1985).

The current research also contributes methodologically to both the study of partner buffering and to social-psychological approaches to studying relationship interactions more generally. I pitted standard aggregate measurement of relationship interactions (e.g., overall buffering behavior) against more dynamic measures of relationship interactions (e.g., grid-sequences of behaviors; Brinberg et al., 2017; Brinberg et al., 2018). I found that partner buffering is a dynamic process that is best understood when examined dynamically. Indeed, across the two studies, whereas only 50% of the tests predicting aggregate buffering behaviors yielded significant results, approximately 90% of the tests characterizing dynamic buffering behaviors did so—an approximately 40% increase in the number of constructs we can use to understand partner buffering behaviors. These differences in success rates of the two methods emerged primarily because the conventional aggregate approach treated all partner buffering as the same. In contrast, the dynamic approach considered the magnitude and effectiveness of agents' buffering behaviors. If effective downregulation is a core component of theoretical models of

partner buffering, then our empirical models of partner buffering must be tested in such a way that effectiveness can be evaluated.

Examining intricate and complex processes, like partner buffering, requires researchers to attend to nuances within and across interactions. For example, relationships defined by greater turbulence (i.e., ups and downs) may look the same as relationships defined by more stability if examinations consider only aggregate experiences (Solomon & Knobloch, 2004; Solomon & Theiss, 2008). Indeed, a growing body of theoretical (e.g., Girme, 2020) and empirical work (Arriaga, 2001; Campbell et al., 2010; Eller et al., 2022; Overall, 2020) suggests that dynamic and nonlinear approaches to understanding human behavior are essential for social scientists to understand fully the complexities of human social interactions. The current research provides initial evidence of the utility of using dynamic approaches when studying partner buffering. Future research should continue to adopt these dynamic approaches when appropriate.

5.1 Discrepancies, Caveats, and Future Directions

Despite the strengths of the current research, there were several inconsistent findings and limitations of the current methods. In the paragraphs that follow, I outline these discrepancies and caveats and suggest how each can be addressed in future research.

Although the findings for social skills and self-regulatory responses were relatively consistent across both samples, the impact of one motivation to buffer (e.g., relationship commitment) was inconsistent across the two studies. With relatively high-

risk individuals, the findings from Study 1 suggest that greater relationship commitment is related to engaging in more buffering behaviors overall. With relatively low-risk couples, the findings from Study 2 show that greater relationship satisfaction does not predict greater engagement in buffering behaviors; however, lower relationship satisfaction *does* predict failure to engage in buffering behaviors when a target partner is in need (e.g., unresponsive agents). That is, confirming Hypothesis 1, greater relationship commitment seems to impel agents to buffer more overall, but only within high-risk couples, and, in both studies, lower relationship commitment and satisfaction seem to inhibit agents from buffering their target partners effectively. However, counter to Hypothesis 1, for low-risk couples, higher satisfaction does not motivate greater engagement in buffering behaviors. These findings may be best understood by considering differences in how low- and high-risk couples evaluate and function within their relationships.

Low-risk couples tend to experience less stress, to cope with conflict more productively, and to have longer-lasting relationships than do high-risk couples (Karney, 2021; Neff & Karney, 2004). Conversely, high-risk couples tend to engage in more destructive relationship behaviors (Conger et al., 1990; Masarik et al., 2016) and tend to be less committed to their romantic relationships over time compared to low-risk couples (Karney & Bradbury, 1995; Lundberg et al., 2016). Notably, research on low-risk couples is often plagued by issues of restricted range (e.g., ceiling effects) because low-risk couples frequently evaluate their relationships as substantially better than average on most scales assessing relationship quality (Fletcher et al., 2000; Joel et al., 2020). This

range restriction likely occurred in the low-risk sample from Study 2 but not in the high-risk sample from Study 1.

Problems with range restriction may partially explain why relationship-maintenance motivations impelled buffering behaviors only in the high-risk sample. Most of the couples in Study 2 were highly satisfied and committed, and consequently it was difficult to detect how increases in relationship satisfaction would impact buffering behaviors. However, most of the couples in Study 1 were only moderately committed, with greater variance across the sample. As a result, it was easier to detect how increasing relationship commitment would impact buffering behaviors. Future research should continue to collect data from both low- and high-risk couples with larger sample sizes and consistent evaluations across samples to allow for direct comparisons. Moreover, more reliable and varied measurement of relationship quality needs to be developed to help prevent issues with range restriction (Fincham et al., 2018; Gottman, 1990).

Although the current research capitalized on two different longitudinal samples, each sample presents unique problems that may limit the generalizability of the reported findings. First, the Study 1 sample size was limited, and Study 1 did not include dyadic data. If it did, I could have determined whether the effects in Study 1 were specific to just one partner (e.g., the longitudinally-studied participant in the MLSRA) or if features of both partners impacted the buffering process. However, collecting multi-wave longitudinal data across decades is tremendously costly and resource-intensive, and acquiring and maintaining large sample sizes is challenging. Yet, the power analyses for both studies indicated that I had sufficient power to detect most of the effects found in the

primary models. Additionally, the lack of dyadic data in Study 1 was partly compensated by the dyadic data across the transition to parenthood in Study 2.

The lack of dyadic data in both studies limited the number of hypotheses that could be tested and replicated. Some features of the target partner likely impact the agent's effective buffering behaviors. For example, people who are avoidantly attached tend to be more constructive during interactions in which their partner uses very high level (+2 *SD*) of practical support (Girme et al., 2015). Therefore, fully understanding agents' buffering behaviors may also depend on unpacking targets' characteristics and experiences, like existing levels of attachment insecurity. However, it is impossible to test for and replicate these potential target-driven differences in agents' buffering behaviors without dyadic data in both studies. Future research should continue to collect dyadic data with enough information about both agents and targets to better understand the bidirectional nature of partner buffering.

Finally, many of the antecedents of the social skills and self-regulatory responses necessary for partner buffering are developed in early life (Blair, 2010; Montroy et al., 2016; Posner & Rothbart, 2000). However, in the findings for Study 1, only temporally proximal constructs (i.e., variables assessed in adulthood) characterized effective buffering of the target's anxious responses. In contrast, experiences throughout the life course characterized buffering of the target's avoidant responses. Study 2 examined only proximal experiences in adulthood, and therefore, I could not evaluate whether the Study 1 pattern replicated. The skills and motives necessary to engage in soft strategies may be developed across time, like building a muscle, whereas the skills and motives necessary

to engage in safe strategies are developed within one's current relationship, like drinking coffee to wake up in the morning. This difference stands to reason given that soft strategies are relatively more nuanced (e.g., subtle or invisible support) and require a more delicate approach to avoid triggering highly avoidant individuals' tendency to disengage. Safe strategies, by contrast, involve relatively more overt actions and require a more active presence in the relationship to reassure highly anxious individuals that the relationship will endure. However, this pattern of developing safe versus soft strategies over time could only be tested in Study 1. Future research should examine additional longitudinal samples to unpack potential differences in agents' development of the necessary proficiencies to engage in soft versus safe strategies.

5.2 Conclusions

Insecurely attached people tend to suffer from lower well-being, due in part to their struggles in close relationships. However, agents can provide soothing comfort and tailored support that downregulates or buffers the target's distress and insecurity. Targets tend to benefit from agents buffering them. However, little is known about partner buffering from the agent's perspective. The current research is the first to document (1) why some agents are more effective at buffering their partners than are other agents and (2) the costs and benefits to agents of engaging in buffering. Across two longitudinal studies, I found that agents are most proficient in engaging in tailored and effective buffering behaviors when they can regulate themselves, have adequate social skills necessary for buffering, and are committed to maintaining their current relationship.

Agents need a specific constellation of skills and motivations to downregulate their target partners effectively.

Furthermore, engaging in partner buffering behaviors is beneficial only for agents who can engage in tailored and effective buffering behaviors and only for agents who receive buffering in return from their target partner. Agents who buffer ineffectively and those whose buffering attempts are unreciprocated tend to experience negative relational and personal well-being across time. Future research should continue to investigate the nuances presented when adopting a dyadic perspective of partner buffering. On the whole, engaging in partner buffering can just as easily help us soar as it can lead us to crash back to the earth.

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7. Appendices

Appendix A: Coding Scheme

Training Schedule

Week 1

- Complete registration, CITI certifications, and other housekeeping tasks.
- Attend Workshop 1: Introduction to Coding
- Attend Workshop 2: Developing a "Coding Mindset"
- Attend Workshop 3: Introduction to Attachment Theory
- Complete Knowledge Check Quiz #1 (reviewing material from Workshops 1-3)

Week 2

- Read and take notes on the coding scheme document before Workshop 4
- Submit questions about coding scheme on the Google Form
- Attend Workshop 4: Introduction to the Coding Scheme
- Attend Individual Check-In 1
- Watch assigned sample videos for this week and take notes; do not code these videos
- Complete Knowledge Check Quiz #2 (reviewing material from the coding manual and Workshop 4)

Week 3

- Submit questions based on videos from last week
- Attend Workshop 5: Coding Scheme In-Depth and FAQs
- Attend Coding Group Meeting 1: Live Coding Demonstration by Expert Coder
- Attend Individual Check-In 2

- Watch assigned sample videos for this week and take notes; do not code these videos
- Complete Knowledge Check Quiz #3 (reviewing material from the coding manual and Workshops 4 and 5)
- Complete practice coding videos 1 and 2, and submit scores for comparison

Week 4

- Submit questions based on videos from last week
- Attend Workshop 6: Avoiding Bias While Coding
- Attend Coding Group Meeting 2: Reviewing Practice Codes
- Attend Coding Group Meeting 3: Live Coding Demonstration by Expert Coder
- Attend Individual Check-In 3
- Watch assigned sample videos for this week and take notes; do not code these videos
- Complete Knowledge Check Quiz #5 (reviewing material from Workshops 6)
- Complete practice coding videos 3-6, and submit scores for comparison

Week 5

- Submit questions based on videos from last week
- Attend Coding Group Meeting 4: Reviewing Practice Codes
- Attend Coding Group Meeting 5: Live Coding Demonstration by Expert Coder
- Attend Workshop 7: Coding on Your Own – Confidence, Time Management, and Other Information You Need to Know
- Attend Individual Check-In 4

- Watch assigned sample videos for this week and take notes; do not code these videos
- Complete practice coding videos 7-10, and submit scores for comparison
- Complete Coding Training Certification Quiz; must score 100% to be permitted to begin coding

Week 6 and on

- Complete weekly coding assignments
- Attend Coding Group Meeting (weekly)
- Attend Individual Check-Ins (biweekly)
- Attend Live Coding by Expert Example (biweekly)
- Review coding manual and complete recall quiz (biweekly)

General Coding Notes

- All codes are individual-level codes. Each partner should get a separate code for each construct. Rate each individual based primarily on their behavior. Although their partner's behaviors will likely influence how they behave, you should focus on assigning codes based on only the behaviors you are seeing from the person you are coding. If you are struggling to do focus only on the person you are coding, consider putting a post-it notes or otherwise blocking the other partner from view wherever possible.
- Remember to code behaviors based on both the **intensity/extremity** of the actions and the **behaviors' frequency/duration**. You should consider the balance between intensity and frequency. If behavior is more intense, it requires less frequency to get bumped up on the scale. If an action is more frequent, it requires

less intensity to get bumped up on the scale. If behavior is both intense and frequent, it will go to the top scale point. You need to balance these two components when assigning all codes.

  - Example) A behavior that is extreme but only happens once or twice in the segment could still warrant a score of 4 or 5. A behavior that is not very extreme but frequently occurs throughout the segment could also earn a score of 4 or 5. A behavior that is both intense and frequent would almost always warrant a score of 5. Keep this balance of intensity and frequency at the forefront of your mind throughout your coding. Enduring behaviors matter just as much as extreme behaviors do.

- Code all behaviors relative to the rest of the sample. Actions in the lab are often over or underexaggerated compared to what you would see in life. Therefore, you should be assigning codes relative to the sample and not relative to what you would expect to see from partners in the real world. For this reason, you are required (per training) to watch videos from at least 50% of the sample before you start coding.
- Ask yourself: If I was sitting in the room with this person and they behaved this way, how would I evaluate their behavior? Are the actions they are displaying more, less, or on par with what I would expect out of a typical conversation? You should not be using your own judgements of appropriateness when coding, but this perspective may help you with where on the scale the person is likely falling (low, middle, or high).

- When coding, always **<u>start at the midpoint</u>** of the scale and move up and down from there as follows:

  1 - The behavior displayed is *significantly* below average for what is typical of this behavior *in the sample*. There are *no signs* of this behavior at all, even at a low intensity or frequency.

  2 - The behavior displayed is below average for what is typical of this behavior *in the sample*. There are signs of this behavior, but they are not frequent and/or intense. You may see mild instances of this behavior 1-4 times, or you may see a *very low* level (e.g., a hint or suggestion) of this behavior that continues throughout the segment. However, you would not see both intensity and frequency.

  3 - The behavior displayed is typical/average for this behavior *in the sample*. There are signs of the behavior being coded, but they aren't very intense and/or frequent during the segment. You may see moderate instances of this behavior 2-4 times, or you may notice mild cases of this behavior continues throughout the segment. You should say to yourself "yes, this is about what most people seem to be like."

  4 - The behavior displayed is above average for what is typical for this behavior *in the sample*. There are clear signs of this behavior that are *somewhat* frequent and/or intense. You may see extreme instances of this behavior 2-4 times, or you may continually see moderate instances throughout the segment.

5 - The behavior displayed is significantly above average for what is typical for this behavior *in the sample*. There are clear and consistent signs of this behavior that are *very* frequent and/or intense. You may see extreme instances of this behavior 4+ times, or you may see extreme instances of this behavior continually throughout the segment. You may react with shock or awe at the level of behaviors.

- When coding, consider starting by first assigning an up or down arrow or a straight line for each behavior. An up arrow would indicate that a behavior was more extreme than the average. A down arrow would indicate that a behavior was less extreme than the average. A straight line would indicate a behavior that was about what you would expect on average. Once you have determined the directionality, then decide on the extremity. For example, if you put an up arrow, then you must decide if it is a 4 or 5 depending on what you watched. You know it's above average, but then the question becomes focused on by how much the behavior is above average.
- When using the coding scale, think about it like assigning a grade on a standard curve for a class where:
    - 1 = F (bottom 15%; failure to meet any expectations),
    - 2 = D (next 20%; partially meets expectations but doesn't fulfill all),
    - 3 = C (middle 30%; meets minimum expectations),
    - 4 = B (next 20%; mildly exceeds expectations but not a full mastery), and
    - 5 = A (top 15%; significantly exceeds expectations/mastery of material)

- Your scores should be approximately distributed according to the proportions shown above. Be mindful of how frequently you are assigning each code. If you start to notice almost all of your codes are 3 or above, ask yourself if that is really warranted or evidenced by the behaviors being shown. Your codes may be correct but be critical about this process in reflection. If you are truly coding with the midpoint being the average behavior in this sample, then you should have a fairly even distribution of scores.
- Be aware of your mindset when coding. If you have something major or stressful happening in your life, consider if you should be completing your coding when you are feeling distressed. Often, codes are less reliable when coders are experiencing psychological distress. If you are not in the best psychological state to code, don't code!
- Develop a routine for completing your coding. Your routine should create a peaceful and focused environment and mental state to complete your coding. For example, you may make yourself a cup of tea and set yourself in the coziest part of your house. Try to avoid coding when you have big time constraints (e.g., 20 minutes before your next class starts) or when distractions are present (e.g., your roommate is fighting with their partner). Treat the set-up you create for coding as you would in how you prepare to study.
- Continue to follow the ethical guidelines and rules set in place by the CITI training and by the coding training. These will be particularly important when you are coding remotely.

- Frequently reference back to or have open this coding manual to assist you as you code. If you would like a physical copy of the codebook, please contact me directly (eller091@umn.edu) and I can print one out and deliver it to you.

Target Behaviors

Across the three categories of target behaviors, you should be asking yourself:

1) How involved was the person in the interaction? / How much were they asking their partner to get involved in the interaction?
2) How appropriate was the person's emotional reaction?
3) How constructive was the person in resolving the problem? / Did they make strides forward or make things worse?

Anxiety

This category involves needing a lot of reassurance and wanting more from the partner or relationship than the partner is ready to provide. This also involves appearing more anxious or agitated than might be expected or warranted given the situation, exhibiting negative emotions that at an extreme may escalate into anger, criticism, or hostility, and perseverating or being overly focused on getting the partner to address their needs. Rate assigned the individuals for:

- **Needing reassurance:**
    - Ask yourself: How much were they asking their partner to get involved in the interaction?
    - Showing signs of concern over being more invested/involved than the partner in the relationship, family, or issue being discussed (e.g., "I care more about this family than you do")

- Wanting more than the partner currently provides beyond what is reasonable or expected from a typical partner (e.g., “I need more from you than you give me”)
- Seeking indications of a viable relationship future, seeking “proof” of a partner’s caring/commitment through direct statements or manipulative means (e.g., "fishing" for a comment)
- Questioning whether the partner really loves, cares, respects, and wants to be with them/their family in the long-term
- Wanting the partner to place greater importance on the relationship (e.g., “Our family/relationship should always be your number one priority”)
- May manipulate their partner to evoke love, guilt, hurt, etc.; uses language that exaggerates their needs beyond what would be expected (e.g., reminding the partner of past favors or transgressions, appealing to obligations or fairness)
- Underlying assumptions that the partner will not support them before the partner even has a chance to prove them wrong (e.g., “I’m not going to get enough from you and I never well”)
- Needing reassurance should be rated on the following scale:

    1 - The person never seeks reassurance or demonstrates a need for reassurance. You observe no instances of any of the behaviors described above. The person may not be actively rebuffing their partner, but they aren't actively seeking anything from their

partner. There are no signs of manipulation or attempts to influence expressions of commitment from their partner.

2 - The person may seek reassurance once or twice, but they aren't doing so very intensely. They might hint at wanting more from their partner, but they aren't blatant about it. They might pout a little, but it isn't extreme or enduring. They might begin to lean towards their partner like they are yearning for more contact or comfort, but no extreme motions are taken. They *do not* manipulate their partner to have their needs met. They seem to understand that the partner wants to help them but express some momentary doubts of need for a bit more. They might display some of the behaviors above, but it is very slight, almost like a whisper or shadow of the behavior.

3 - The person is seeking reassurance occasionally at a reasonable/average level given the context. These reassurance-seeking behaviors occur at the rate and intensity that you would expect to see when witnessing a couple argue. You see some instances of concern about their partner's availability, seeking a commitment from the partner, or questioning but these are at reasonable levels that you might see in daily life without cause for alarm. They seem to want the partner to be a little more involved and understand that their partner is currently contributing the best

they can. The person might be a little manipulative, but not to any extreme.

4 - The person is seeking reassurance somewhat regularly at a bit of an extreme level given the context. The reassurance-seeking behaviors are a bit more frequent or intense than you might expect to see but still not alarmingly so. There are many instances of seeking signs of commitment and support or manipulation to get the support they want. They seem to be starting to question their partner's commitment or willingness to help resolve the issue at hand. These behaviors will be more blatant and verbal than at lower levels.

5 - The person is seeking reassurance to a great extent. They continuously seek reassurance with intensity. There are persistent requests and signals of wanting the partner to value the relationship more or be more supportive. They seem to assume their partner isn't going to support them and need to pull support from them. You may feel like the person is trying to suck something (emotions, support, commitment, care, love) out of their partner ("leeching"). You may be alarmed by some of the extremity or endurance of these behaviors (e.g., you raise your eyebrow about them).

- **Being overly focused on own emotions:**

- Ask yourself: How appropriate was the person's emotional reaction? (Keeping the context of the interaction in mind – conflict should be a little upsetting and we expect to see some of this in their interaction.)
- Being deeply affected or hurt and seeming unable to "let go" of the perception that the partner seems unresponsive (e.g., perseverating or ruminating)
- Exaggerated language or body language that expresses feelings; amplified anxieties about the problem; verbal cues may indicate that they have "let it go" but their body language is still tense (e.g., discordance between verbal and non-verbal behaviors).
- Difficulty controlling emotional expressions/outbursts or "keeping it together"; may seem upset or unhinged as conveyed by comments, facial expressions, body language, and/or emotional expressions (e.g., tears, sulking, making exaggerated sad faces, pouting, stomping foot or banging hands in frustration, increased respiration from overwhelming emotions).
- Being too focused on their own needs (e.g., "my feelings," "my experiences," "my problem") with little mind paid to the needs of their partner.
- Seeming to want to pull or elicit stronger emotions from the partner; at an extreme, becoming stressed, angry, frustrated, or even hostile because of a perceived failure of the partner to address their needs.
- Escalating emotional tone and exaggerated emotional body language

- Being overly focused on own emotions should be rated on the following scale:
    - **1 -** The person never focuses on their feelings or discusses their thoughts/emotions about the issue. You observe no instances of any of the behaviors described above. The person may not be cold/emotionless, but they aren’t actively displaying or discussing their emotions. Their face might be flat and body language too relaxed beyond what you would expect in this context. They seem more engaged in what their partner feels in that moment than in what they are feeling.
    - **2 -** The person may express and focus on their emotions once or twice, but they aren't doing so very intensely. They might hint at some of their feelings, but they aren't blatant about it. They might demonstrate subtle anger or sadness, but it isn't extreme or enduring. They might begin to shift around in their chair as if upset, but no extreme motions are taken. They seem to be regulating their own emotions reasonably well, with occasional slips during which emotions escape more readily. They might display some of the behaviors above, but it is very slight, almost like a whisper or shadow of the behavior.
    - **3 -** The person is focusing on their own emotions occasionally at a reasonable/average level given the context. These emotional expressions and focusing on their own emotions occur at the rate

and intensity that you would expect to see when witnessing a couple argue. You see some instances of trying to elicit emotions of their partner or focusing exclusively on their needs/feelings. Still, these are at reasonable levels that you might see in daily life without cause for alarm. The person might begin to escalate their emotional tone but not to any extreme. They balance expressing their own emotions and allowing their partner to express their feelings as needed (e.g., they aren't dominating all of the emotional bandwidth in the conversation, but instead sharing it equally with their partner). This would be the level of distress that you might typically experience when having any serious discussion with a loved one.

4 - The person focuses on their own emotions somewhat regularly at a bit of an extreme level given the context. The emotions and self-focus are more frequent or intense than you might expect to see but still not alarmingly so. There are many instances of the person getting somewhat upset or angry. There are some instances of the person struggling to control their emotional expression or not let go. The majority of the person's attention is on their feelings and/or how they think their partner should feel, rather than their partner's current feelings. They may begin to express frustration that their partner is not expressing the emotions they think they should.

These behaviors will be more blatant and verbal than at lower levels.

5 - The person is focusing on their own emotions to a great extent. They frequently express emotions with intensity. There are persistent expressions (both verbal and non-verbal) of feeling upset or angry. They may be insensitive to their partner's feelings or attempt to manipulate their partner to feel the way they think their partner should feel. You may feel like the person is out of control with their feelings (e.g., why can't they calm down). You may be alarmed by some of the extremity or endurance of these behaviors (e.g., you raise your eyebrow about them).

- **"Dramatizing" interactions:**
  - Ask yourself: How constructive was the person in resolving the problem? / Did they make strides forward or make things worse?
  - Infusing the discussion with a strong emotional tone; may look like a soap opera type of exaggeration.
  - Taking the problem and manipulating it to seem worse than it actually is (e.g., over exaggerations or stretching the truth/reality of the problem).
  - Struggling to see beyond an issue/ "let go" or persisting with the idea that the issue cannot seem to be solved or contained even when viable solutions are presented (e.g., "we're never going to be able to fix this")
  - Quickly becoming agitated or "ramped up" and escalating drama; the smallest thing seems to set them off.

- Restating concerns or perseverating and going around in circles over the same issue; seems overly redundant; they seem like they don't actually want to solve the problem but rather want to ruminate on it until the issue seems out of control.
- Feeling more doom than is warranted about finding solutions or solution viability.
- Creates unnecessary drama with body language (e.g., large, exaggerated gestures with arms, legs, or facial expressions; extreme raises of the eyebrows, pouting of the lips, or exaggerated breathing patterns) or verbal cues (e.g., "do you even care?!," "oh my god!" "Seriously!", "this is the worst thing every")
- Use of deterministic language (e.g., "always", "never", "constantly")
- "Dramatizing" interactions should be rated on the following scale:
  - **1 -** The person never dramatizes or amps up the interaction at all. You observe no instances of any of the behaviors described above. The person may not be calm and emotionless, but they aren't actively exaggerating or worsening the situation. They may seem under-concerned given the context of the discussion (e.g., "there's an easy solution to this" when perhaps there isn't an easy solution).
  - **2 -** The person may amp up the conversation once or twice, but they aren't doing so very intensely. They might suggest a little doom/gloom, but they aren't blatant about it and don't perseverate on this mentality. They might demonstrate subtle frustration or an

inability to let go, but it isn't extreme or enduring. They might make some frustrated or disgruntled facial expressions, but no extreme motions are taken. They might display some of the behaviors above, but it is very slight, almost like a whisper or shadow of the behavior.

3 - The person is dramatizing the situation at a reasonable/average level given the context. These dramatizing behaviors occur at the rate and intensity you would expect to see when witnessing a couple argue. You see some instances of perseverating or strong emotional tones, but these are at reasonable levels that you might see in daily life without cause for alarm. The person might begin to take a bit of a gloom and doom mentality but not to any extreme.

4 - The person is dramatizing somewhat regularly at a bit of an extreme level given the context. Exaggerations are a bit more frequent or intense than you might expect to see but still not alarmingly so. There are many instances of the person exaggerating the doom of the situation. There are some instances of the person perseverating or repeating themselves about the issue. These behaviors will be more blatant and verbal than at lower levels.

5 - The person is dramatizing to a great extent. They repeatedly express a doom and gloom mentality. There are persistent expressions (both verbal and non-verbal) of defeat. They may be

almost morose. You may feel like the person is acting out some kind of soap opera type of scene. You may be alarmed by some of the extremity or endurance of these behaviors (e.g., you raise your eyebrow about them).

Avoidance

This category involves exhibiting discomfort with closeness and intimacy and possibly a lack of trust over the partner's intentions or motives. This involves avoidant, aloof, disengaged, dismissing, or overly passive behavior, as revealed by a reluctance to open up or a tentativeness to take on a discussion. This also may involve suppressing emotions, which comes across as flat or muted emotional responses, although when "pushed" too far, there may be visible annoyance or hostility. This behavior may also involve avoiding deep reflection about an issue by providing simple or straightforward solutions, relying on logical or rational solutions, and steering away from emotion. This behavior may involve seeming more laid back than is warranted given the seriousness of the topic. Rate the assigned individuals for:

- **Disengagement:**
    - Ask yourself: How involved was the person in the interaction? / How much were they asking their partner to get involved in the interaction?
    - Appearing reluctant to share their thoughts or feelings, ignoring or refusing to discuss problems or issues (e.g., hesitation or reluctance, diverting attention, changing topics)

- Dismissing the importance of the topic or events or deflecting the partner's concerns (e.g., "why does this matter?", "you don't need to be this upset about this!")
- Disengaging or withdrawing from the discussion (e.g., being silent, distant, and/or cold; reducing eye contact or looking away [often at the ceiling or floor or looking just above their partner's face], physical distancing or closing off with arms or legs; may develop a glazed look in the eye)
- Distracting oneself with other things (e.g., pencils, paper, doodling, picking a spot on a couch, cleaning under fingernails)
- Wanting to escape from the interaction or partner, may frequently glance at the door/exit.
- Disengagement should be rated on the following scale:
    - **1 -** The person is consistently and continuously engaged in the interaction. You observe no instances of any of the behaviors described above. The person may not be talking or contributing, but they are attentive to the ongoing conversation and aren't closed off. There are no signs of dismissal or distraction from the conversation. They maintain eye contact and seem comfortable with their place in the conversation, even if they aren't saying anything.
    - **2 -** The person may begin to disengage or look distant once or twice, but they aren't doing so very intensely. They might glaze over a

bit, but they aren't blatant about it, and they snap back to attention reasonably quickly. They might try to distract themselves with objectives in the room (e.g., fiddling lightly and casually with a pencil), but it isn't extreme or enduring and doesn't detract from the conversation. They might begin to lean away from their partner or tip back in their chair, but no extreme motions are taken. They might display some of the behaviors above, but it is very slight, almost like a whisper or shadow of the behavior.

3 - The person is disengaged occasionally at a reasonable/average level given the context. The disengagement behaviors occur at the rate and intensity that you would expect to see when witnessing a couple argue. You see some instances of distraction or "zoning out," but these are at reasonable levels that you might see in daily life without cause for alarm. They might distract themselves more often, but they still seem to be tracking the ongoing conversation. They are disengaged from the conversation about as often as they are engaged. The person might be a little dismissive but not to any extreme.

4 - The person is disengaged somewhat regularly at a bit of an extreme level, given the context. The disengagement behaviors are more frequent or intense than you might expect to see but still not alarmingly so. There are many instances of "zoning out," distracting themselves, or being reluctant at a bit more of an

extreme. They may more actively dismiss their partner's concerns but not in an intense way. They seem to be disengaged more often than they are engaged in the conversation. These behaviors will be more blatant and verbal than at lower levels.

5 - The person is disengaged to a great extent. They are disengaged continuously or "zoned out" and are unresponsive to appeals for attention from their partner. It seems clear that they aren't following the ongoing conversation. There are persistent distractions that divert their attention, many of which are self-created. You may feel like the person is on another planet and wholly disconnected. This person may more actively and extremely dismiss and invalidate their partner's concerns about the issues when they are involved in the conversation. This might even seem aggressive or offensive. You may be alarmed by some of the extremity or endurance of these behaviors (e.g., you raise your eyebrow about them).

- **Avoiding emotional intimacy or emotional tone:**
    - Ask yourself: How appropriate was the person's emotional involvement?
    - Being guarded about intimacy, avoiding an emotional connection, not wanting to be "coddled" or "helped,"; being suspicious or critical when others provide emotional support; seeming suspicious of being emotionally manipulated by others; seeming weary or afraid of their partner's expression of emotions

- Concealing deeper feelings and emotions surrounding an issue and instead focusing on rational, logical, or unemotional (or muted emotional) approaches to discussing an issue. Seems to sidestep emotional questions by answering logically instead (e.g., the partner may say "how do you feel about our division of labor?" and they may answer with "I think we need to develop a time schedule" – not actually saying what they are feeling but rather a logical, non-emotional solution).
- Emotions are muted given what you would expect to see in the context; non-verbal cues of emotion do not match that of the verbal expressions being made.
- Person suppresses or conceals emotions with slow or labored speech in an attempt to seem "neutral" (e.g., purposefully deep breaths, slow shifting around, not talking and moving as they normally would, puppet-like behaviors; seems to sidestep opportunities to express emotions)
- Signals of physical discomfort such as holding body back, clasping or sitting on hangs, tightly closed mouth, biting lips, covering mouth, looking away, or hiding face.
- May seem overly aware of and precautious towards the camera(s) in the room (e.g., "they're spying on me" mentality).
- May frequently avoid making eye contact or sustained gaze with their partner, particularly when their partner expresses emotions or attempts to get them to express an emotion.

- Avoiding emotional intimacy or emotional tone should be rated on the following scale:
  - **1 -** The person never avoids emotional thoughts/emotions. They seem open to and comfortable with discussing their feelings. You observe no instances of any of the behaviors described above. The person may not be overly emotional, but they aren't afraid to display or discuss their emotions. Their face might be relatively expressive or could be relatively flat but not closed off. They don't seem to be rebuffing their partner or concealing their emotions inappropriately in any way.
  - **2 -** The person may avoid some emotional expressions or intimacy, but they aren't doing so very intensely. They might begin to conceal some of their more extreme feelings, but they aren't blatant about it. They might demonstrate subtle withdrawal, but it isn't extreme or enduring. They might begin to cross their arms as if holding their feelings in, but no extreme motions are taken. They might display some of the behaviors above, but it is very slight, almost like a whisper or shadow of the behavior.
  - **3 -** The person is avoiding emotional expressions or intimacy occasionally at a reasonable/average level given the context. These emotional aversions occur at the rate and intensity you would expect to see when witnessing a couple argue. You see some instances of trying to rebuff their partner for attempts to elicit more

emotion or intimacy. Still, these are at reasonable levels/not explicit that you might see in daily life without cause for alarm. The person might begin to demonstrate consistently flat affect or unresponsiveness to their partner but not to any extreme.

4 - The person avoids emotional expressions and intimacy somewhat regularly at a bit of an extreme level given the context. The avoidance of emotions is a bit more frequent or intense than you might expect to see but still not alarmingly so. There are many instances of the person suppressing feelings, and the emotions they do have seem muted. There are some instances of the person relying on logical and rational approaches. They might begin to rebuff their partner's attempts to be supportive actively. These behaviors will be more blatant and verbal than at lower levels.

5 - The person is avoiding emotional expression and intimacy to a great extent. They frequently suppress emotions with intensity. There are persistent attempts to conceal deeper feelings. They seem eerily muted in their responses. They may be too focused on exclusively rational conversations and suggestions. They may be blatant about wanting to avoid their partner’s support or help at all. You may feel like the person is like a robot. You may be alarmed by some of the extremity or endurance of these behaviors (e.g., you raise your eyebrow about them).

- **Being uncomfortable with mutual reliance and negotiating relationship needs:**
    - Ask yourself: How constructive was the person in resolving the problem? / Did they make strides forward or make things worse?
    - Resisting the give and take that occurs in relationships; unwilling to negotiate each person's needs.
    - Being vigilant about others trying to change them or others relying on them; feeling burdened when they perceive others as being needy or dependent
    - Comments that suggest that the partner is expecting too much or being unreasonable in their requests ("that's asking an awful lot.")
    - Concerted efforts to retain parts of one's self that are separate from the partner; either subtle or explicit reminders of their boundaries or that the partner must keep to their own issues ("I can make this decision myself!"; "That doesn't involve you.")
    - Unnecessary defensiveness or being quick to defend oneself even if the partner is not attacking them or making unreasonable requests
    - Being slow, careful, or reluctant to offer help and support ("I mean, I don't know, I guess maybe…"; shrugging when partner's ask for help)
    - Automatic tendency to rely on independent or self-oriented comments, expressions, or approaches to resolving problems ("I," "me," "my") or to present oneself as independent rather than part of the relationship partnership; if you didn't know otherwise you might mistake the issue,

they are talking about like it was a personal issue (of either the individual or the partner only) rather than a joint relationship issue because of their self-orientation

- Language switching to avoid mutual language (“we”, “our”). The partner may use mutual language and then the individual responds with use of singular language (“I”, “me”, “my”)
- Being uncomfortable with mutual reliance and negotiating relationship needs should be rated on the following scale:

  1 - The person is extremely comfortable with and open to their partner’s involvement. You observe no instances of any of the behaviors described above. The person may not be actively seeking their partner’s help, but they resistant to it when offered suggestions. They may seem open to attempts to collaborate with their partner. They seem willing to some necessary give and take.

  2 - The person may resist collaboration with their partner once or twice, but they aren't doing so very intensely. They might suggest a little discomfort with their partner’s influence, but they aren't blatant about it and seem to quickly move past this discomfort. They might demonstrate subtle frustration with their partner’s involvement, but it isn't extreme or enduring. They might make some sarcastic or dismissive facial expressions, but no extreme motions are taken. They may be very slow and cautious about offering support to their partner but eventually give in. They might

display some of the behaviors above, but it is very slight, almost like a whisper or shadow of the behavior.

3 - The person is uncomfortable with mutual reliance at a reasonable/average level given the context. Their behaviors demonstrating discomfort with their partner's influence occur at the rate and intensity that you would expect to see when witnessing a couple argue. You see some instances of the person trying to retain their independence, but these are at reasonable levels that you might see in daily life without cause for alarm. The person might begin to become defensive or attack the partner for invading their autonomy but not to any extreme. They might hold back readily from offering support but give in when it is clear that they need to contribute. They use an even mixture of self-centered (I, me, my) and relationship-centered language (we, our).

4 - The person is uncomfortable with mutual reliance somewhat regularly at a bit of an extreme level given the context. Resisting give and take negotiations becomes a bit more frequent or intense than you might expect to see but still not alarmingly so. There are many instances of the person being vigilant of their partner's influence and hesitating to provide support or input. There are some instances of the person becoming defensive or resisting their partner's influence. They use more self-centered language than

relationship-centered language, but both are still present. These behaviors will be more blatant and verbal than at lower levels.

5 - The person is resisting mutual reliance to a great extent. They frequently resist their partner's influence and relationships' "give and take." There are persistent expressions (both verbal and non-verbal) of self-reliance and self-centered language. They may be extraordinarily defensive or aggressive. You may feel like the person is determined to solve every problem on their own. You may be alarmed by some of the extremity or endurance of these behaviors (e.g., you raise your eyebrow about them).

Secure

This category involves acknowledging the problem, active efforts to collaboratively solve the problem, and open and self-assured discussion of thoughts, opinions, and emotions. This includes collaborative efforts to discuss and deal with the problem and generally appropriate emotional responses. This also many include efforts to engage in honest and unbiased reflection of the problem reflecting both partners' views and "sides," more significant focus on the unit working together to resolve the issue and disclosing one's thoughts or feelings without being overwhelmed by their own or the partner's negative emotions.

- **Collaborative engagement:**
    - Ask yourself: How involved was the person in the interaction? / How much were they asking their partner to get involved in the interaction?

- Acknowledging one's part in the problem and what one can do to change; recognizing the partner's role and potential actions without excessive blame or anger ("I should have been better about…", "I should change…")
- Encouraging the partner's contributions to the discussion; avoiding unreasonable/unnecessary accusations or aggressive comments
- Approaching solutions to the problem as a relationship team (e.g., 'we,' 'us,' 'our') and conveying that couples withstand and solve the problem together (i.e., 'we are in it / can fix it together')
- Having *no sense of competition* with their partner; team-oriented approach to the problem.
- Collaborative engagement should be rated on the following scale:

  1 - The person does not collaboratively engage in the interaction at all. You observe no instances of any of the behaviors described above. The person may not be dismissing their partner, but they are not actively engaging with their partner or trying to work with their partner on the issue. There are no signs of approaching a solution like a team from the conversation. They may act as if they are in a competition with their partner when discussing solutions. They aren't engaging with their partner (e.g., no eye contact, head nods, mhms, and so on).

  2 - The person may collaboratively engage once or twice, but they aren't doing so very intensely. They might hint at wanting to work with their partner and approach a mutual solution, but they aren't

blatant about it. They might try to compete with their partner, but it isn't extreme or enduring. They might begin to lean into their partner like they're trying to put their head together, but no extreme motions are taken. They might display some of the behaviors above, but it is very slight, almost like a whisper or shadow of the behavior.

3 - The person is collaboratively engaging occasionally at a reasonable/average level given the context. These collaborative behaviors occur at the rate and intensity that you would expect to see when witnessing a couple argue. You see some instances of them competing with their partner, but these are at reasonable levels that you might see in daily life without cause for alarm. The person might begin to acknowledge their part in the problem but doesn't fully take accountability. They might suggest being willing to change, but they shy away from this or move beyond the suggestion of change readily.

4 - The person is collaboratively engaging somewhat regularly, a bit more than you would typically expect given the context. The collaborative behaviors are more frequent or intense than you might expect to see but still not surprisingly so. There are many instances of acknowledging their part in the problem and encouraging their partner's contributions to the discussion. They use more mutual language than individual language. There's no

immense sense of competition between the partners, though a little competition may linger in a subtly form. These behaviors will be more blatant and verbal than at lower levels.

5 - The person is collaboratively engaging to a great extent. They continuously collaborate and engage with their partner with intensity. There are persistent references to mutual language and encouraging the partner's contributions. You may feel like this person is trying to come to a solution through teamwork. The person will be open and willing to acknowledge their role in the problem and is willing to make the changes necessary to reach a solution. You may be surprised by some of the extremity or endurance of these behaviors (e.g., you raise your eyebrow about them – in a good way).

- **Balanced emotion:**
    - Ask yourself: How appropriate was the person's emotional involvement?
    - Acknowledging emotions and feelings without being afraid of conflict; the person seems to manage their own and their partner's emotions and does not need to "shut down."
    - Avoiding having negative emotions become overwhelming or disabling; avoiding a combative approach; avoiding dominating or interrupting the flow of the discussion
    - Being willing to seek and receive emotional support or comfort, and encouraging (but not coercing) the partner to do the same; comfort

disclosing things to their partner and having things disclosed by their partner in return without becoming upset or overwhelmed ("I've been feeling really overwhelmed with…")

- The tone seems consistent with the person's emotional reactions; non-verbal and verbal signs of emotion seem to match or line up.
- Does not allow emotions to overwhelm or distract from the interaction; may engage in clear emotion regulation strategies such as deep breathing or positive reappraisal.
- NOTE: You are not coding the positivity or negativity of their emotions. Instead, you are coding the extent to which the individual balances their emotions, emotional needs, and expressions of emotions in an effective way. Are they letting their emotions stand in the way of progress in solving the problem, or do they effectively maneuver through their emotions while not ignoring them?
- Balanced emotions should be rated on the following scale:

  1 - The person does not balance their emotions at all. You observe no instances of any of the behaviors described above. The person may not be managing their emotions appropriately within the context. They may allow their emotions to overwhelm them, or they may shut down emotionally (inappropriately withdrawn). There are no signs of being willing to seek emotional support or comfort. Their tone, body language, and facial expressions do not seem to match up.

2 - The person balances their emotions once or twice, but they aren't doing so very well or consistently. They might have glimmers of effectively regulating their emotions, but it is not consistent nor enduring. They might try to seek or receive emotional support but are not entirely receptive to it. They might display some of the behaviors above, but it is very slight, almost like a whisper or shadow of the behavior.

3 - The person is balancing their emotions occasionally at a reasonable/average level given the context. These emotion regulation behaviors occur at the rate and intensity you would expect to see when witnessing a couple argue. You see some instances of them getting overly upset or beginning to shut down but at reasonable levels that you might see in daily life without cause for alarm. The person might begin to seek emotional support or comfort, but they're not fully open to it all of the time. Their body language, tone, and facial expressions match most of the time, but there are moments of discordance. Overall, they seem to be making real strides to regulate their emotions, but more extreme emotions burst through every once in a while.

4 - The person balances their emotions somewhat regularly, a bit more than you would typically expect given the context. The emotion regulation behaviors are more frequent or intense than you might expect to see but still not surprisingly so. There are many instances

of acknowledging emotions and feelings without being overwhelmed by them or afraid of the conflict. They may be willing to seek and receive emotional support most of the time but resist a little when pushed too hard. Their tone, body language, and facial expresses mostly match up. These behaviors will be more blatant and verbal than at lower levels.

5 - The person is balancing their emotions to a great extent. They are continually acknowledging their emotions while avoiding becoming overwhelmed by their emotions. There are persistent efforts to regulate emotions without dismissing them or squashing them down. They are willing to seek and receive any support their partner is willing to give them without trying to pull support from their partner unwillingly. You may feel like this person is too emotionally intelligent and agile in their emotional abilities. You may be surprised by some of the extremity or endurance of these behaviors, particularly given the stress of the situation (e.g., you raise your eyebrow about them – in a good way).

- **Constructive problem-solving:**
    - Ask yourself: How constructive was the person in resolving the problem? / Did they make strides forward or make things worse?
    - Discussing an issue with an optimistic/positive tone or through direct and honest language (avoiding manipulative comments, sulking, whining)

- Not dwelling on negative emotions, reducing the threat a problem may pose, conveying that the problem can be dealt with/solved (e.g., construing as a challenge rather than a vulnerability, recognizing improvements)
- Expressing positive expectations about the future ("things will get better")
- Accepting suggestions offered by the partner (i.e., *not* taking over and solving the problem without the partner's input), and striving to overcome challenges; open to discussions about self-improvement or changes that need to be made
- Constructive problem-solving should be rated on the following scale:

  1 - The person does not constructively problem solve. You observe no instances of any of the behaviors described above. The person may not be destructive, but they are not moving towards a solution or maintaining an optimistic tone. There are no signs of direct and honest communication. They may refuse to accept suggestions offered by their partner. They might dwell on negative emotions or reduce the threat a problem poses. They do not have positive sentiments about the future (but they might not have negative ones either). They are not open to conversations about self-improvement or changes that need to be made.

  2 - The person may engage in constructive problem-solving once or twice, but they aren't doing so very intensely. They might hint at a positive outlook for the future, but they aren't blatant about it. They might try to express positivity, but it isn't extreme or enduring.

They might begin to accept their partner's solutions and strive to overcome challenges, but this quickly diminishes. They might display some of the behaviors above, but it is very slight, almost like a whisper or shadow of the behavior.

3 - The person is engaging in constructive problem-solving occasionally at a reasonable/average level given the context. These constructive behaviors occur at the rate and intensity that you would expect to see when witnessing a couple argue while trying to resolve a conflict. You see some instances of the person expressing positive expectations about the future, but these are reasonable levels that you might see in daily life without surprise. The person might begin to accept their partner’s suggestions, but they don’t accept every suggestion. They might suggest ways they can make strives forward, but they still occasionally dwell on potential setbacks. Overall, they are relatively constructive but with a hint of pessimism that everything might not be too easy or perfect.

4 - The person constructively problem-solves somewhat regularly, a bit more than you would typically expect given the context. The problem-solving behaviors are a bit more frequent or intense than you might expect to see but still not surprisingly so. There are many instances of accepting the partner’s suggestions and working to overcome challenges. They may be more open to conversations

about self-improvement or changes that need to be made. There's an overall positive tone that leads to optimism about the future. These behaviors will be more blatant and verbal than at lower levels.

5 - The person is constructively problem-solving to a great extent. They regularly discuss issues with an optimistic tone and use primarily direct and honest language. They do not dwell on negative emotions for more than a few moments. The person is actively accepting of their partner's suggestions. They seem to be striving to reach a solution as soon as possible without under-representing how challenging the issue is. You may feel like this person is a great team player. The person is open to change and self-improvement. They are solution (rather than problem) oriented. You may be surprised by some of the extremity or endurance of these behaviors (e.g., you raise your eyebrow about them – in a good way).

Partner Buffering Responses

Across the two categories of partner buffering behaviors, you should be asking yourself:

1) How supportive is the person being? / How direct/explicit is the support being provided?

2) How much is the person respecting various attachment-specific needs (e.g., needs for intimacy or autonomy)? (Regardless of how the target is behaving).
3) How much is the person addressing counterproductive behaviors (e.g., heightened emotions or excessive self-reliance) to helping move the discussion towards resolution? (Regardless of how the target is behaving).

Buffering of Anxiety

This involves providing partners with a lot of reassurance, communicating that their relationship is stable and safe, and conveying that one will support a partner as one works through an issue. This strategy also involves managing perceptions of an issue by de-escalating emotional concerns and restoring a calm sense. Individuals who do this effectively function as a "safe port in a stormy sea."

- **Being a visible "secure base" in dealing with an issue.** Person conveys that they are there and can be counted on to provide support, help, backing, or whatever the partner needs.
    - Ask yourself: How supportive is the person being? / How direct/explicit is the support being provided?
    - Providing comfort and reassurance to the target, making it clear that the person can be relied upon for help and support; lending a sympathetic ear, and expressing active listening skills that demonstrate that they care about what the target has to say
    - Making it clear that they can work through any challenge or difficulty *together* by supporting each other's needs

- Expressing sympathy for the target's distress; matching facial expressions and body language that are appropriate to the feelings the target is having at the moment.
- Without being too directive, the person moves the discussion toward generating possible solutions *together* – even if the partner will solve the issue independently.
- NOTE: This is not the person taking over a problem or issue or the person being domineering, condescending, or overly controlling. Rather than reinforcing dependence, the person is encouraging a team effort in addressing possible ways to approach an issue.
- Being a visible "secure base" in dealing with an issue should be rated on the following scale:

  1 - The person does not provide any visible support. You observe no instances of any of the behaviors described above. The person may not be unsupportive, but they are not actively doling out affection or visible support. There are no expressions of sympathy or understanding. They are not actively encouraging teamwork (but they might not be discouraging it). They do not provide any body language signals that suggest support (e.g., no head nods, mhms, etc.). They might guide the target, but it might be overbearing, condescending, or over-controlling.

  2 - The person may provide visible support once or twice, but they aren't doing so very intensely. They might suggest that they are

sympathetic to the target or make vaguely reassuring comments, but they aren't blatant. They might try to use mutual language, but it isn't extreme or enduring. They might begin to lean in towards the target like they're trying to get closer to them to provide comfort, but this motion is so subtle that the target might not notice it. They might begin to provide gentle guidance to the target, but they often become too directive. They might display some of the behaviors above, but it is very slight, almost like a whisper or shadow of the behavior. It may seem like they want to engage in support behaviors but fail to do so with enough exaggeration/enthusiasm for the target to notice the support.

3 - The person is providing visible support occasionally at a reasonable/average level given the context. These visible support behaviors occur at the rate and intensity you would expect to see when witnessing a couple argue. You see some instances of them providing care, reassurance, or sympathy to the target, but these are at reasonable levels that you might see in daily life without being surprised by the level of care. The person might begin to synchronize with the target (e.g., matching the target's mood with appropriate body language and facial expressions), but they are not consistent. They might suggest being willing to work as a team, but they don't always follow through on their suggestions.

4 - The person provides visible support somewhat regularly, a bit more than you would typically expect given the context. The support behaviors are more frequent or intense than you might expect to see but still not surprisingly so. There are many instances of providing comfort, reassurance, and sympathy to the target. They use more mutual language than individual language. These behaviors will be more blatant and verbal than at lower levels.

5 - The person is providing visible support to a great extent. They continuously comfort and reassure their target with intensity while not taking over the issue/solution. There are persistent references to mutual language and encouraging the target's contributions. You may feel like this person is almost like a therapist in how supportive and collaborative they are. The person may be perfectly matching the target's emotions with appropriate body language. They don't ever talk over the target and show the utmost respect for the target's feelings and suggestions. You may be surprised by some of the extremity or endurance of these behaviors (e.g., you raise your eyebrow about them – in a good way).

- **Communicating intimacy and a strong emotional connection**. The person makes salient intimacy and emotional bonds with their partner, using emotional/intimate language and communication, and encourages expressions of thoughts and feelings. The person also conveys a sense of confidence that their bond is secure no matter what and will not be affected by the problem or issue.

- Ask yourself: How much is the person respecting various attachment specific needs (e.g., needs for intimacy)?
- Expressing love and commitment; making explicit statements that the relationship is meaningful and matters to them very much; saying things or taking steps to reaffirm the strength of their relationship / their love.
- The person may communicate that they're a "team."
- Giving the target full attention, listening carefully, signaling attention via body language (maintaining eye contact, turning toward partner), signaling engagement via active listening and verbal encouragements (“mhm," "yes")
- Conveying that the target is the person's immediate priority (set aside one's immediate tasks or needs to be responsive and present for their partner and relationship)
- Using physical affection, terms of endearment, or other forms of intimacy that convey feelings of love or attraction.
- Showering the Target with emotional support, intimate comments. At an extreme, this might even seem like excessive reassurance and “gushing.”
- Communicating intimacy and a strong emotional connection should be rated on the following scale:

  1 - The person does not communicate any intimacy. You observe no instances of any of the behaviors described above. The person may not be unloving or uninvolved, but they do not actively remind their partner of their connection/bond. There are no expressions of

love or commitment. They do not use any mutual language. They are not providing anybody language signals that suggest love or care (e.g., not leaning forward, gazing at each other with a slight smile, etc.). They do not convey that the target is a priority or use terms of endearment.

2 - The person may communicate intimacy once or twice, but they aren't doing so very intensely. They might use terms of endearment occasionally, but they use them in a very casual way. They might try to use mutual language, but it isn't extreme or enduring. They might begin to move their hand or body towards the target to convey unity, but they seem to hold back slightly. They might begin to express love, but they are not blatant in these expressions. They might display some of the behaviors above, but it is very slight, almost like a whisper or shadow of the behavior. It may seem like they want to express love and affection but feel uncomfortable or afraid to do so.

3 - The person is communicating intimacy and affection occasionally at a reasonable/average level given the context. These intimacy behaviors occur at the rate and intensity you would expect to see when witnessing a couple argue. You see some instances of them expressing love or commitment to the target, but these are at reasonable levels that you might see in daily life without being surprised by the level of affection. The person might begin to gush

about the target or their relationship, but they are not consistent. They might suggest that the target is a priority, but they don't make this their primary focus or motivation.

4 - The person communicates intimacy somewhat regularly, a bit more than you would typically expect given the context. You may feel slightly uncomfortable with the level of intimacy (like if someone was engaging in mild PDA in a class). The intimacy expressions are more frequent or intense than you might expect to see but still not surprisingly so. There are many instances of expressing love, commitment, and unity. They use more mutual language than individual language. They might begin to gush about their partner or convey that the target is a priority, but these moments still pass relatively quickly. These behaviors will be more blatant and verbal than at lower levels.

5 - The person is communicating intimacy to a great extent. They repeatedly gush about the target or relationship with intensity. There are persistent references to mutual language and conveying that the target/relationship/family is a priority. You may feel like this person is taking their affection too far for a semi-public setting. The person may be using a lot of physical contact or terms of endearment to convey their closeness. You may be surprised by some of the extremity or endurance of these behaviors (e.g., you raise your eyebrow about them).

- **De-escalating heightened partner emotions.** The person diffuses any elevated negative emotions that the partner may express and provides a soothing influence by offering a sense of calm and comfort. The person avoids adding any other problems that are not already being discussed and provides reassurance that the issue or problem can be contained or solved without minimizing or dismissing the partner's negative feelings.
    - Ask yourself: How much is the person addressing counterproductive behaviors (e.g., heightened emotions) to helping move the discussion towards resolution?
    - Maintaining a calm tone to minimize amplifying tension or drama.
    - Attempting to diffuse the partner's negative feelings without adding anything that escalates negative emotions.
    - Conveying that the problem can be contained or solved, without dismissing the problem.
    - Using physical affection, touch, massage to help the partner calm down or feel soothed/relaxed.
    - De-escalating heightened partner emotions should be rated on the following scale:
        - **1 -** The person does not de-escalate heightened target emotions at all. You observe no instances of any of the behaviors described above. The person may not be making the target more upset, but they are not actively downregulating the target. There are no attempts to defuse emotions or restore a sense of calm. They are not trying to

express the solvability of the issue. Their body language might be tense or wound up – not conveying a sense of calm through the storm.

2 - The person may de-escalate heightened emotions once or twice, but they aren't doing so very intensely or regularly. They might maintain a calm tone, but their lack of calm still cracks through at times. They might try to convey that the problem is solvable, but it isn't extreme or enduring. They might begin to reach for the target but pull themselves back. They might begin to provide gentle reassurance to soothe the target but aren't doing so effectively. They might display some of the behaviors above, but it is very slight, almost like a whisper or shadow of the behavior.

3 - The person is de-escalating heightened target emotions occasionally at a reasonable/average level given the context. These de-escalating behaviors occur at the rate and intensity you would expect to see when witnessing a couple argue. You see some instances of them soothing or downregulating the target, but these are at reasonable levels that you might see in daily life without being surprised by the level of care. The person might begin to convey how solvable the problem is, but they are not consistent. They might begin to diffuse the target, but they don't get the target entirely calmed down.

4 - The person de-escalates heightened target emotions somewhat regularly, a bit more than you would typically expect given the context. The de-escalating behaviors are more frequent or intense than you might expect to see but still not surprisingly so. There are many instances of conveying solvability to the target. They might begin to use a lot more physical touch in a gentle way (massage, rubbing, petting). These behaviors will be more blatant and verbal than at lower levels.

5 - The person is de-escalating heightened target emotions to a great extent. They regularly comfort and soothe their target with intensity in a way that seems to calm the target down consistently. There are persistent signals of affection and touch deployed to defuse emotions. You may feel like this person is almost like a meditation coach to release stress from the target. You may be surprised by some of the extremity or endurance of these behaviors (e.g., you raise your eyebrow about them – in a good way).

Buffering of Avoidance

This involves preventing the partner from becoming distant, disengaged, or defensive. The person is sensitive to the other's need for independence or self-reliance, yet the person manages to maintain a close bond. This strategy involves anticipating the partner's distrust or misgivings about the person's motives – for example, by communicating about the benefits of doing things for others or being in a relationship. Individuals who do this effectively function as a "loyal supporter"; they skillfully validate the partner's way of

doing things while trying to influence them, make positive comments, and create a positive context before addressing issues or challenges.

- **Providing support without making it evident that it's support.** The person provides support in a way that seems natural, casual, routine, or does not draw attention to the support being provided. The person provides support toward the partner without expecting or desiring recognition of their effort. The person is helpful without pushing for intimacy, offering high levels of reassurance and comfort, or requiring emotional behavior (e.g., without being "sappy," "touchy-feely," or explicit forms of emotional support). Finding ways to "soften" situations that cause distancing.
    - Ask yourself: How supportive is the person being? / How direct/explicit is the support being provided?
    - The person does not highlight or draw attention to their supportive actions and does not seem too eager and ready to provide support. Behavior is casual, natural, "not a big deal."
    - Avoiding overly personal or emotionally comforting messages, "codding" or "gushing."
    - The person may ask a series of guiding or directing questions so that a partner reaches a solution seemingly “independently”; negotiate solutions; reference others to hint at solutions without trying to change the subject or detracting from the partner’s issue.
    - The person may do things to create a better "zone" for the partner, such as doing something fun together before tackling an issue, providing dinner,

doing another chore, etc. This will be challenging to code because the person cannot make it obvious they are offering help.

- Providing support without making it evident that it's support should be rated on the following scale:

  1 - The person does not provide any invisible/subtle support. You observe no instances of any of the behaviors described above. The person may not be unsupportive, and they may even provide visible support, but they are not using any subtle approaches to providing support. There are no guiding questions or suggestions. They are not actively making the interaction more lighthearted. They might be too intense and not casual in approaching the issue.

  2 - The person may provide invisible/subtle support once or twice, but they aren't doing so effectively. They might begin to use guiding questions but quickly become too involved or overbearing. They might try to suggest instrumental ways they can help but then move into more emotional tactics. They might begin to use more casual body language but then stiffen up again. They might begin to provide gentle guidance to the target, but they often become too directive. They might display some of the behaviors above, but it is very slight, almost like a whisper or shadow of the behavior. It might seem like they don't know how to be supportive while not being noticeable or overbearing, but they are trying to do so.

3 - The person is providing invisible/subtle support occasionally at a reasonable/average level given the context. These invisible/subtle support behaviors occur at the rate and intensity you would expect to see when witnessing a couple argue. You see some instances of them using guiding questions or offering practical solutions. Still, these are at reasonable levels that you might see in daily life without being surprised by the level of care. The person might begin to use more relaxed body language, but they are not consistent.

4 - The person provides invisible/subtle support somewhat regularly at a bit more than you would typically expect given the context. The subtle support behaviors are more frequent or effective than you might expect to see but still not surprisingly so. There are many instances of using guiding questions and offering practical solutions. They use more soft approaches to working through the solution. These behaviors will be more effective at gently providing support than at lower levels.

5 - The person is providing invisible/subtle support to a great extent. They continuously provide subtle and discrete support to their target while not straying into too many emotions or signals of intimacy. There are persistent references to practical solutions to problems. They do not indulge or gush over the partner at all. You may feel like this person is almost too practical in their approach to

the problem. The person may be approaching the issue very casually but is still handling it head-on. They don't ever talk over the target or try to change the target's way of doing things. You may be surprised by some of the extremity or endurance of these behaviors (e.g., you raise your eyebrow about them).

- **Being respectful of space.** Acknowledging and accepting a partner's need for "separate time." Not encroaching when a partner may need some space or moments of independence. This involves expressing understanding and appreciating the partner's position and not expressing negativity when the partner is reluctant to increase their involvement or discuss an issue. The person is strategic and tactful in preventing defensiveness by the partner or diffusing a tense situation. Some examples include using humor or distraction when needed to diffuse defensiveness by the partner or a tense situation; easing into the issue; getting the person in a more positive mood to ready them for the more severe discussion; using a light tone as long as it doesn't belittle the partner's concerns.
    - Ask yourself: How much is the person respecting various attachment-specific needs (e.g., need for autonomy)?
    - Respecting a person's privacy and need for time on their own; conveying respect and understanding, particularly for other demands a partner has that might take them away from the relationship
    - Being skilled in diffusing defensiveness or prevent distancing, for example: using humor or distraction to deflect a tense situation, instilling a positive

tone or doing a positive activity, or joking around before easing into an issue or problem

- Being respectful of space should be rated on the following scale:
  - **1 -** The person does respect the target's boundaries/space. You observe no instances of any of the behaviors described above. The person may not be clingy, but they are respecting the target's way of doing things. They do not handle the target's defensiveness well or prevent distancing. They may begin to take over the target's autonomy and way of doing things.
  - **2 -** The person may respect the target's boundaries once or twice, but they aren't doing so with regularity. They might suggest that they appreciate the target's way of doing things and then change their approach anyway. They might try to diffuse the target's defensiveness but don't do so effectively. The person might try to make jokes to defuse tension, but they are not well received. They might display some of the behaviors above, but it is very slight, almost like a whisper or shadow of the behavior. It may seem like they want to respect the target's boundaries but simply don't know how to.
  - **3 -** The person is respecting the target's boundaries occasionally at a reasonable/average level given the context. The partner respects boundaries at the rate and intensity that you would expect to see when witnessing a couple argue. You see some instances of the

partner invading the target's boundaries. Still, these are at reasonable levels that you might see in daily life without being surprised by the level of intrusion. The person might diffuse defensive or tension to prevent distancing, but they are not consistent. They might start to use jokes delicately as a mechanism for diffusing tension. The person seems to understand the importance of respecting the target’s boundaries and autonomy but isn’t always successful.

4 - The person is respecting the target’s boundaries somewhat regularly. They respect boundaries a bit more frequently or intensely than you might expect to see but still not surprisingly so. There are many instances of diffusing (though not dismissing) tension through skillfully placed jokes or comments. They are clearly respecting the target's boundaries and need for independence. These behaviors will be more blatant and verbal than at lower levels.

5 - The person is respecting the target’s boundaries to a great extent. They seem to be constantly aware of the target’s boundaries and autonomy and do not attempt to intrude. They consistently diffuse tension in the situation through skillful jokes and comments. They do not ever take over the issue or conversation and back off when the target seems to be getting spooked or tense.

- **Tactful and reasonable communication of requests or needs.** A person may need to request or express their own needs (for example, wanting the partner to behave or think in particular ways; wanting the partner to be more involved or engaged; needing the partner to do something). Tactful communication involves conveying that the "give and take" of relationships is normal and routine. When making a request, the person conveys that the request is reasonable (and the request indeed does seem reasonable) without being hostile, demanding, or manipulative. For example, this may involve appealing to logic, stating things plainly and clearly without being manipulative, describing the benefits of giving and taking, referring to relationship norms or typical expectations without inducing guilt or obligation. In contrast, clingy or emotional appeals will likely backfire. The person's intention is reasonable and genuinely does not seem to involve selfish intentions (for example, a person demanding too much from their partner).
    - Ask yourself: How much is the person addressing counterproductive behaviors (e.g., excessive self-reliance) to helping move the discussion towards resolution?
    - Person creates an interaction in which wanting things from each other, or their relationship seems normal, natural, routine, not "scary."
    - Adjusting to each other and depending on each other can have benefits; they both "win."
    - Person is reasonable in what they want, and avoids being hostile, demanding, or aggressive; person may appeal to logic, state things plainly

and clearly without being manipulative, describe the benefits of giving and taking, refer to relationship norms or typical expectations, without inducing guilt or obligation.

- Tactful and reasonable communication of requests or needs should be rated on the following scale:

  1 - The person does not use tactful or reasonable communication of requests or needs. You observe no instances of any of the behaviors described above. The person may not be unreasonable, but they are not trying to reframe their requests gently. There are no references to the "give and take" of relationships. They do not appeal to logic to make requests for needs. They may be clingy or make emotional appeals. They may seem selfish in their requests.

  2 - The person may be occasionally tactful or reasonable in their requests and communication of needs, but their requests often go too far quickly. They might understand the need for give and take, but they seem to suggest taking a bit more than they are giving. They might try to make the interaction seem routine but have moments of making the engagement seem too weighty or extreme. They might begin to refer to relationship norms and expectations but do so very subtly. They may still use some clingy or emotional appeals. The person seems to be legitimately trying to be reasonable but is struggling to do so effectively.

3 - The person is using diplomatic and reasonable requests at an average level given the context. These reasonable request behaviors occur at the rate and intensity you would expect to see when witnessing a couple argue. You see some instances of conveying the natural "give and take" in relationships and referring to relationship norms, but they are not consistent in these appeals. The person might begin to use appeals to reason or logic but still occasionally include emotional appeals. They do not seem to be selfishly motivated. The person makes attempts to make the situation seem routine and succeeds most of the time.

4 - The person is tactful and reasonable in their requests and communication somewhat regularly. The reasonable requests are more frequent or intense than you might expect to see but still not surprisingly so. There are many instances of referring to relationship norms and the natural “give and take” of relationships. The person is not manipulative and rarely relies on clingy or emotional approaches. The person seems selfless in their actions most of the time. They may use primarily logical requests. The person may often refer to the benefits of the "give and take" of the relationship, but they don't always highlight the benefits as much as they could.

5 - The person uses tactful and reasonable requests and communication of needs to a great extent. They continuously make

requests that are reasonable using calm logic. The person uses references to relationship norms and the natural “give and take” in relationships. They do not use any manipulation or clingy/emotional appeals, nor do they elicit feelings of guilt. Their intentions seem reasonable and do not seem selfish. They create an interaction in which needing things from one another is seen as very normal and reasonable. The person makes the benefits of the "give and take" involved in coming to a resolution clear to the target. You may think that this person comes across as a cool-headed negotiator and may yourself be easily persuaded by their message. You may be surprised by some of the extremity or endurance of these behaviors (e.g., you raise your eyebrow about them – in a good way).

Appendix B: Study 1 Measures

<u>Early Maternal Sensitivity – Assessed at 6, 24, 30, and 42 months old</u>

Ainsworth et al.'s (1978) Sensitivity versus Insensitivity Scale

1 - Completely inattentive and insensitive to baby's state and baby's eating. May force feeding with inappropriate actions, completely unresponsive to obvious cues.

2 - Shows no sensitivity to baby's state and eating, but not actively insensitive, mildly inappropriate actions

3 - While aware of baby's state, mother disregards cues and continues her mildly inappropriate actions

4 - Mother is slightly insensitive with variable attention and shows general insensitivity

5 - Intermittent accommodation and sensitivity to baby's needs

6 - Mother is generally sensitive though some few moments of slightly insensitive behavior may be seen

7 - Mother is sensitive to the baby and usually reacts with accommodating responses

8 - Sensitive to baby's states and needs; almost always accommodating or responsive to baby's cues and needs

9 - Sensitive to baby's states and needs at all times, always responsive and attentive

24 and 42 Month 7-point Supportive Presence Scale

1 - Mother completely fails to be supportive to the child, either being aloof and unavailable or being hostile toward the child when the child shows need of some support.

2 - Mother provides very little emotional support to the child. Whatever supportive presence she does display is minimal and not timed well, either being given when the child does not really need it, or only after the child has become upset.

3 - Mother gives some support, but it is sporadic and poorly timed to the child's needs. The consistency of this support is uneven so as to make the mother unreliable as a supportive presence.

4 - This mother does a respectable job of being available when her child needs support. She may lean closer as the child shows small signs of frustration and praise the child's efforts to show that she is available and supportive, but inconsistency in this style makes her support unreliable or unavailable at crucial times in the session.

5 - Mother provides good support, reassurance and confidence in the child's ability, but she falters in this at times when the child especially could use more support. Or, mother is universally supportive, but gives no evidence of modulation to the child's needs.

6 - Mother establishes herself as supportive and encouraging toward the child and continues to provide support when the child needs it. As the child experiences more difficulty, her support increases in commensurate fashion. She has some lapses, however, in which the child's performance waivers for lack of support. Yet, she redoubles her support and attempts to return the child to a level of confidence that is more optimal.

7 - Mother skillfully provides support throughout the session. She sets up the situation from the beginning as one in which she is confident of the child's efforts.

She may reject inadequate solutions to problems in a way that does not reduce her support and confidence in the child's ability to get the correct solution. If the child is having difficulty, she finds ways to structure the problem to reward some sort of success by the child and encourage whatever solution the child can make. Mother not only is emotionally supportive but continuously reinforces the child's success.

Peer Competence – Assessed at kindergarten, grades 1-3 and 6, and age 16

The following is a description of a child with high Social Competence. Please rate all the children in your class (using their initials) on this characteristic. Child number 1 will be highest on social competence, while the last child listed will be the lowest.

Social Competence: This refers to the child's effectiveness in the peer group. Criteria for a child high on social competence would include the following: a) sociability, i.e., fairly frequent social contact with peers; b) popularity, i.e., wide acceptance among other children; c) friendship, i.e., one or more special companions with whom there seems to be a well-meshed relationship; and d) social skills and leadership qualities, i.e., techniques of social interactions that promote social relations, e.g., understanding another child's perspectives and desires, negotiating different play themes if a particular overture to play is not accepted, accepting the other child's ideas as a starting point for interaction, and using clear comprehensible communications toward peers. Others want to be with this child and do what (s)he is doing; and this child knows how to lead them to interesting and fun activities.

<u>Relationship Effectiveness: Romantic Relationship Interview – Assessed at age 23</u>

PART C: CURRENT ROMANTIC RELATIONSHIP

Now we're going to talk about romantic relationships for a few minutes.

14. Are with someone right now? (probe for dating/engaged/married)

    a. Who *(get first name to use in future questions)*?

    b. How old is s/he?

    c. How long have you been together?

    d. Do you live together?

NOTE TO INTERVIEWER: If no relationship or the relationship is less than 4 months, skip to section D

    e. Have the two of you done an interview together for us?

15. How did you meet _____?

16. What first attracted you to _____?

17. Do you know what first attracted _____ to you?

18. How often do you spend time together?

    (1) daily

    (2) almost every day

    (3) every week

    (4) less than once a week

19. How does _____ treat you?

20. What do you like most about your relationship?

21. What are some things you don't like about your relationship?

22. Tell me about a time you felt especially close to _____?

23. Tell me about a time when you didn't feel so close to _____?

24. How easy is it for you to talk about things with _____?

(1) Very difficult

(2) Difficult

(3) Somewhat difficult

(4) Easy

(5) Very easy

25. Do you feel like you can talk about everything with _____?

a. Why?

b. What types of things are difficult to talk about with _____?

c. Tell me about a time when you shared something difficult with _____.

26. Is this a sexual relationship?

27. Do you consider this a serious relationship?

28. Do you feel _____ loves you?

29. Do you love _____?

30. Have you seriously discussed getting married?

_____ Yes

_____ No

_____ Engaged

_____ Already Married. How long? _____ months

a. What does _____ think about getting/being married?

b. What do you think about getting/being married?

31. Have you talked about having children together?

_____ Yes

_____ No

_____ Already have children together. How many? _____

_____ Already have children from previous relationships. How many? ___

If they don't have children:

a. What does _____ think about having children together?

b. What do you think about having children together?

If they do have children:

c. How does having children affect your relationship?

d. How does _____ feel about having more children together?

e. How do you feel about having more children together?

32. What is the biggest argument or fight you have had?

(If never, then ask: Do you agree on everything?)

a. What was it about?

b. What happened (argue? fight? avoid? was it physical?)

NOTE TO INTERVIEWER: Get the play-by-play of the argument/fight

c. How long did it take to work it out?

d. How satisfied are you with how it worked out?

e. How satisfied is _____ with how it worked out?

f. Is this still an issue in your relationship?

g. Is this how your arguments/fights usually go?

h. How often do you fight?

(1) _____ daily

(2) _____ weekly

(3) _____ monthly

(4) _____ less than monthly

33. Have you or _____ ever done any of the following?

Item	**You**	**Partner**
Used insults	_____	_____
Yelled	_____	_____
Threw something. What? _____	_____	_____
Pushed, grabbed or shoved	_____	_____
Slapped	_____	_____
Kicked, bit, hit with fist	_____	_____
Hit or tried to hit with something. What?_____	_____	_____
Beat-up	_____	_____
Threatened with gun or knife	_____	_____
Used gun or knife	_____	_____

34. As far as you know, has _____ ever been unfaithful in your relationship?

a. (If yes) What happened?

b. (If yes) How did you find out about it? How did you react?

c (If yes) How has this affected your relationship?

d. (If no) How would you react if _____ were unfaithful?

e. (If no) How would if affect your relationship?

35. Have you ever been unfaithful in your relationship with _____?

a. (If yes) What happened?

b. (If yes) Did you tell _____ about it? How did _____ react?

c (If yes) How has this affected your relationship?

d. (If no) How would _____ react if you were unfaithful?

e. (If no) How would if affect your relationship?

36. Has there ever been a time when you thought your relationship with _____ would end?

a. (If yes) Why? How did you feel about that?

b. (If no) What could make that happen?

37. Do you expect to be in this relationship five years from now?

a. Why or why not?

38. Overall, how satisfied are you with your relationship with _____?

(Probe for reason)

(1) Very dissatisfied

(2) Dissatisfied

(3) Somewhat satisfied

(4) Satisfied

(5) Very satisfied

39. Overall, how satisfied do you think ____ is with your relationship?

(Probe for reason)

(1) Very dissatisfied

(2) Dissatisfied

(3) Somewhat satisfied

(4) Satisfied

(5) Very satisfied

PART D: DATING HISTORY

Now I would like to ask you some questions about your dating history.

40. How many people have you dated or had a romantic relationship with **since you were 21** (include current relationship)

_____ total # of relationships

41. What was the longest relationship you had in the **past two years**?

a. What was the shortest relationship in the **past two years**?

42. In general, have your relationships **since you turned 21** been:

_____ long-term (4 or more months)

_____ short-term (less than 4 months)

_____ mixed

_____ no relationships

43. When you've dated **since you turned 21**, do you tend to see:

_____ one person at a time

_____ two people at a time

_____ three or more people at a time

_____ do not date: Why _____

44. Have your dating patterns changes since you were a teenager?

a. How?

b. Why?

45. Now, thinking about **all of your relationships**, have you **ever** lived with, been engaged, married, separated while married, or divorced? *(NOTE TO INTERVIEWER: Write the month/year to month/year)*

First Name	**Living With?**	**Engaged?**	**Married?**	**Separated When Married?**	**Divorced?**

46. Since you started dating, which of **all** of your relationships do you consider the most important?

a. Why?

b. How long did it last (has it lasted)?

c. Is/was this an exclusive relationship?

d. How did this relationship end, or is it still going on?

e. If ended:

your choice _____

partner's choice _____

mutual choice _____

47. Since you started dating, which of **all** of your relationships do you consider the least satisfying?

a. Why?

b. How long has it lasted/did it last?

c. Is/was this an exclusive relationship?

d. How did this relationship end, or is it still going on?

e. If ended:

your choice _____

partner's choice _____

mutual choice _____

48. (Not including your current relationship with _____) in how many of your dating relationships **since you turned 21** has physical fighting occurred?

49. (Other than _____) have you ever dated or been involved with anyone where the following has happened **since you turned 21**? *(NOTE TO INTERVIEWER: Make sure that it was not just one date)*:

Item	**You**	**Partner**

Used insults	_____	_____
Yelled	_____	_____
Threw something. What?_____	_____	_____
Pushed, grabbed or shoved	_____	_____
Slapped	_____	_____
Kicked, bit, hit with fist	_____	_____
Hit or tried to hit with something. What?_____	_____	_____
Beat-up	_____	_____
Threatened with gun or knife	_____	_____
Used gun or knife	_____	_____

50. **Since you turned 21**, how many people have you had sexual intercourse with? [*INTERVIEWER: Try to get a number, not a range. If you are given a range, ask for their best guess.]*

Relationship Effectiveness: Coding Scheme – Assessed at age 23

Relationship effectiveness was coded on the 5-point scale listed below:

5 - Very Good Engagement

- Relationship(s) characterized by mutual deep caring.
- All of the qualities of a positive relationship are obvious: mutual caring, trust, and emotional closeness; willingness to sacrifice self-interests; sensitivity to one another's needs and wishes; sharing of experience; enjoyment of each other; loyalty, honesty, and faithfulness.
- Relationship(s) may contribute to a positive sense of self, high self-esteem, and self-respect.
- There is evidence that positive emotional experiences are shared by both parties in the relationship(s).
- Relationship(s) are not necessarily perfect; nonetheless disagreements, when present, are resolved to the mutual satisfaction of both parties and lead to a strengthening of the relationship(s).
- Participant shows reflection about their relationship and considerable understanding.

4 - Good Engagement

- The relationship(s) involve caring on the part of both parties.
- Most of the qualities of positive relationship are present (i.e., mutual caring, trust, and emotional closeness; willingness to sacrifice self-interests; sensitivity to one another's needs and wishes, sharing of experience, enjoyment of each other; loyalty, honesty, fidelity, and

faithfulness); however, some isolated positive feature may be insufficiently present, or some isolated concern may arise as one listens to the interview.

- Relationship(s) may contribute to a positive sense of self, high self-esteem, and self-respect.
- Both parties share positive emotional experiences in the relationship.
- Disagreements may be present, and more often than not appear to be resolved to the mutual satisfaction of both parties.
- Participant clearly is reflective about their relationship(s), but also shows some obvious lack of understanding.

3 - Average Engagement

- Able to form and maintain relationship(s) for more than a short time (e.g., > 6 months)
- Relationship(s) involve caring, but there may be a lack of depth.
- Compared to higher scores, positive features are somewhat diminished, or occasional negative features are more clear. Certain positive qualities may be lacking.
- If negative features are present, these remain overbalanced by positive qualities.
- Relationship(s) may contribute to a positive sense of self, self-esteem, and self-respect, but they do <u>not</u> contribute to a negative sense of self, low self-esteem, or self-derogation.

- Disagreements are present and may be resolved, but resolution is not always mutually satisfying.
- Recounts relationship characteristics, but doesn't show deep reflection about them.

2 - Fair Engagement

- Poor track record in terms of being able to maintain relationship(s)
- It is unclear whether the participants' relationship(s) involve caring on the part of the participant, or some degree of caring is evident but appears to be limited.
- Some positive features may be present in the participant's relationship(s); however, the negative features somewhat outweigh the positive.
- Relationship(s) may contribute to a negative sense of self, low self-esteem, or self-derogation.
- May have had little experience in relationships, but speaks positively about those s/he has had.
- One or two instances of violence might have occurred, but so far have not recurred. Constructive efforts to address the problem may be evident.

1 – Low Engagement

- The coder may question whether the participant is able to maintain relationship(s), or the relationship is exploitative, hurtful, and/or destructive to one or both parties. Recurring violent incidents may be present.

- Very few positive features are present in relationship(s). Negative features are clearly evident, e.g., lack of trust or mutual caring, selfishness, insensitivity to one another's needs and wishes, unfaithfulness, disrespect, active rejection, controlling behaviors. (Note: not all negative features need to be present, but negative features clearly characterize this relationship.)
- Relationship(s) contribute to a negative sense of self, low self-esteem, and self-derogation for one or both parties.
- Participant may be emotionally distant in the relationship or may experience mostly negative emotions.
- Chronic or intense conflict may be present in the relationship(s).
- In rare instances, some participants are completely unable to start and maintain romantic relationships.

Secure Base Script Knowledge – Assessed at age 19

SBSK was coded from Adult Attachment Interviews. SBSK was coded on the 9-point scale listed below:

9 - Several positive scenes that have clear secure base script organization. Positive secure base expectations also present. Positive generic scenes and fragments may also be present.

8 - At least one positive scene that has clear secure base structure plus several additional positive scenes fragments/generic scenes with partial or implied secure base script structure and supported by multiple clear secure base related expectations.

7 - One clear positive example of a secure base scene, with a few scene fragments or generic secure base scenes. Also, evidence of several secure base expectations.

6 - Several secure base scene fragments or generic scenes which suggest secure base script structure/organization of expectations. Perhaps not enough on their own, but credited as positive secure base in light of elaborated secure base related expectations in the transcript.

5 - One generic secure base scene, or scene fragment with explicit or implicit secure base script organization. Secure base conceptualization of the relationship is inferred from multiple examples of clear positive secure base expectations.

4 - No clear positive scenes with explicit or implicit secure base script organization. Some positive secure base expectations with little the specifics or elaboration needed to be confident of their secure base relevance. Possible

negative secure base expectations as well (a mixed bag), but positive expectations outweigh negative.

3 - No clear positive scenes with explicit or implicit secure base script organization. Several negative secure base expectations. Possibly some positive secure base expectations as well (mixed bag), but negative expectations outweigh positive. Narrative may tend to be event focused or focused on instrumental elements of the relationship and supportive care.

2 - Clear examples of one or more scenes that present clear opportunities for secure base resolution, but which does not occur (bids for help not recognized by parent; secure base script failures); several instances of expectations not consistent with secure base script (e.g. expectation of rejection, dismissal of child's needs); or several secure base inconsistent fragments/generic scenes

1 - Relationship viewed through lens of scripts that lack or are inconsistent with secure base script organization. Clear evidence of alternative scripts and no positive evidence of secure base expectations/scenes. E.g., scenes and expectations suggest that the interviewee conceptualizes relationship to parents as one in which they were primarily focused on instrumental aspects of "good parenting", or that child and mother were partners victimized by the fathers unpredictable outbursts.

Appendix C: Study 2 Measures

Below are all of the measures referenced for Study 2 exactly as they appeared to participants completing the study. The labels for each set of measures were not presented to participants but are included here for organizational purposes only. Measures not being assessed from this study are not included below but can be obtained by contacting me directly.

Personality as assessed by the Big Five Personality Inventory (BFI; John et al., 1991) – Assessed at the prenatal wave only

Instructions: For each of the following items, honestly indicate whether you agree or disagree with each statement as it applies to your personality. Use the following scale:

1 – Disagree strongly	2 – Disagree a little	3 – Neither agree nor disagree	4 – Agree a little	5 – Agree strongly

1. I am outgoing, sociable.
2. I tend to find fault with others.
3. I am a reliable worker.
4. I remain calm in tense situations.
5. I value artistic, aesthetic experiences.
6. I am reserved.
7. I am considerate and kind to almost everyone.
8. I can be somewhat careless.
9. I am relaxed, handle stress well.
10. I prefer work that is routine and simple.

11. I am full of energy.

12. I can be called aloof.

13. I do things efficiently.

14. I get nervous easily.

15. I have an active imagination.

16. I am sometimes shy, inhibited.

17. I like to cooperate with others.

18. I tend to be disorganized.

19. I am emotionally stable, not easily upset.

20. I have few artistic interests.

21. I am talkative.

22. I am sometimes rude to others.

23. I do a thorough job.

24. I am depressed, blue.

25. I am sophisticated in art, music, or literature.

26. I tend to be quiet.

27. I am generally trusting.

28. I am lazy at times.

29. I worry a lot.

30. I am ingenious, a deep thinker.

31. I generate a lot of enthusiasm.

32. I have a forgiving nature.

33. I am easily distracted.

34. I can be tense.

35. I am inventive.

Attachment Orientations as assessed by the Experiences in Close Relationships Scale (ECR; Brennan et al., 1998) – Assessed at all waves

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

1 – Disagree strongly	2	3	4 – Neutral	5	6	7 – Agree strongly

1. I prefer not to show partners how I feel deep down.
2. I worry about being abandoned.
3. I am very comfortable being close to romantic partners.
4. I worry a lot about my relationships.
5. Just when partners start to get close to me, I find myself pulling away.
6. I worry that romantic partners won't care about me as much as I care about them.
7. I get uncomfortable when romantic partners want to be very close.
8. I worry a fair amount about losing partners.
9. I don't feel comfortable opening up to romantic partners.
10. I often wish that partners' feelings for me were as strong as my feelings for them.
11. I want to get close to partners, but I keep pulling back.
12. I often want to merge completely with romantic partners and this sometimes scares them away.
13. I am nervous when partners get too close to me.

14. I worry about being alone.

15. I feel comfortable sharing my private thoughts and feelings with partners.

16. My desire to be very close sometimes scares people away.

17. I try to avoid getting too close to partners.

18. I need a lot of reassurance that I am loved by partners.

19. I find it relatively easy to get close to partners.

20. Sometimes I feel that I force my partners to show more feeling, more commitment.

21. I find it difficult to allow myself to depend on romantic partners.

22. I do not often worry about being abandoned.

23. I prefer not to be too close to romantic partners.

24. If I can't get romantic partners to short interest in me, I get upset or angry.

25. I tell romantic partners just about everything.

26. I find that romantic partners don't want to get as close as I would like.

27. I usually discuss my problems and concerns with romantic partners.

28. When I'm not involved in a relationship, I feel somewhat anxious and insecure.

29. I feel comfortable depending on romantic partners.

30. I get frustrated when romantic partners are not around as must as I would like.

31. I don't mind asking romantic partners for comfort, advice, or help

32. I get frustrated if romantic partners are not available when I need them.

33. It helps to turn to my romantic partners in times of need.

34. When romantic partners disapprove of me, I feel really bad about myself.

35. I turn to partners for many things, including comfort and reassurance.

36. I resent it when partners spend time away from me.

Relationship Satisfaction as assessed by the Dyadic Adjustment Scale (DAS; Spanier et al., 1976) – Assessed at all waves

Instructions: Most people have disagreements in their relationships. Please indicate the frequency of the following behaviors.

1 – Never	2 – Rarely	3 – Occasionally	4 – More often than not	5 – Most of the time	6 – All of the time

1. How often do you discuss or have you considered divorce, separation, or terminating your marriage/relationship?
2. How often do you or your partner/spouse leave the house after a fight?
3. In general, how often do you think that things between you and your partner/spouse are going well?
4. Do you confide in your partner/spouse?
5. Do you ever regret that you married (or lived together)?
6. How often do you and your partner/spouse quarrel?
7. How often do you and your partner/spouse "get on each other's nerves?"
8. Which of the following statements best describes how often you are physically intimate with your partner/spouse

1 – Never	2 – Rarely	3 – Occasionally	4 – Almost every day	5 – Every day

9. The scale below represents different degrees of happiness in a relationship. The middle point, "happy", represents the degree of happiness of most

marriages/relationships. Please select the number that best describes the degree of happiness, all things considered, in your marriage/relationship.

1 – Extremely unhappy	2 – Fairly unhappy	3 – A little unhappy	4 – Happy (average)	5 – Very happy	6 – Extremely happy	7 - Perfect

10. Which one of the following statements best describes how you feel about the future of your marriage/relationship?

    6 - I want desperately for my relationship to succeed, and would go to almost any length to see that it does.

    5 - I want very much for my relationship to succeed, and will do all I can to see that it does.

    4 - I want very much for my relationship to succeed, and will do my fair share to see that it does.

    3 - It would be nice if my relationship succeeded, but I can't do much more that I am doing now to help it succeed.

    2 - It would be nice if it succeeded, but I refuse to do any more than I am doing now to keep the relationship going.

    1 - My relationship can never succeed, and there is no more I can do to keep it going.

Parental Stress as assessed by the Parental Stress Inventory (PSI; Abidin, 1983) – Assessed at all postnatal waves

Instructions: The next questions ask you to describe your feelings about your baby. While you may not find an answer that exactly states your feelings, please mark the answer that comes closest to describing how you feel. Your first reaction to each question should be your answer. Use this scale:

1 – Strongly disagree	2 – Disagree	3 – Not sure	4 – Agree	5 – Strongly agree

1. My baby is so demanding that it exhausts me.
2. My baby is very active
3. My baby wanders away from me.
4. When I do things for my baby, I feel that my efforts are not appreciated very much.
5. My baby does not learn as quickly as most children.
6. Sometimes my baby does things that bother me just to be mean.
7. I feel that my baby is very moody and easily upset.
8. My baby squirms and kicks a great deal when being dressed or bathed.
9. Most times I feel that my baby likes me and wants to be close to me.
10. My baby does <u>not</u> smile at me as much as I would like.
11. My baby cries or fusses more often than most children.
12. When playing, my baby does not giggle or laugh often.
13. My baby generally wakes up in a bad mood.

14. My baby rarely does things that make me feel good.

15. My baby does a few things that bother me a great deal.

16. My baby is not able to do as much as I expected.

17. My baby does not smile as much as most babies.

18. My baby reacts very strongly when something happens that s/he doesn't like

19. My baby's sleeping or eating schedule is very hard to establish.

20. It takes a long time and it is very hard for my baby to get used to new things.

21. I find that getting my baby to do something or to stop doing something is:

1 – Much harder than I expected	2 – Somewhat harder than I expected	3 – About as hard as I expected	4 – Somewhat easier than I expected	5 – Much easier than I expected

22. There are some things my baby does that really bother me a lot.

23. My baby is more of a problem than I expected.

24. My baby makes more demands on me than most babies.

25. I often have the feeling that I do not handle things very well.

26. I feel that I am:

1 – Not very good at being a parent	2 – A person who has some trouble being a parent	3 – An average parent	4 – A better than average parent	5 – A very good parent

27. It takes a long time for parents to develop close, warm feelings for their children.
28. I don’t have as close and warm feelings for my baby as I expected, and this bothers me.
29. I find myself giving up more of my life to meet my baby’s needs than I expected.
30. I feel trapped by my responsibilities as a parent.
31. After having this baby, I am unable to do new and different things.
32. After having this baby, I feel that I am almost never able to do the things I like to do.