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From Partnership to Parenthood: The Interplay of Attachment Insecurities, Emotions, and Responsiveness in Committed Couples

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Dedication

I dedicate this doctoral thesis to the memory of my beloved father, Dimosthenis, whose unwavering support and encouragement fueled my passion for studying psychology. Though he is no longer with us in person, his spirit and influence continue to guide me. This work stands as a tribute to his enduring belief in my potential and the profound impact he had on my life.

Summary

Our romantic relationships with others are central aspects of our lives, as they can bring joy when they go well and great sorrow when they go poorly. Most individuals aim to have a satisfying intimate relationship as there is a need to belong in close relationships. As we delve into the intricacies of a couple's life journey, it becomes evident that one of the most transformative and defining moments in their shared narrative is the transition to parenthood. This pivotal juncture not only shapes their relationship but also brings to the forefront a myriad of emotions, challenges, and adjustments. Although it constitutes a normative life transition for a couple, which is perceived as a positive life event, becoming a new parent is not a single event but a process. Therefore, it requires major life changes, often launching downturns in relationship functioning and well-being. The history and experiences that partners bring into the relationship, which are also reflected in attachment orientations, greatly affect how they will face the challenges of parenthood. Particularly, during the shift to parenthood, attachment processes become activated and prominent, not only because it is a stressful time but also because it elicits memories of how individuals were treated during their childhood by their own parents. Attachment insecurities may therefore render certain people more vulnerable to adjusting to this critical period. Attachment orientations greatly affect how partners feel, think, and behave, and may elicit feelings of vulnerability and insecurity within the relationship. They are systematically associated with more negative emotions, perceptions, and patterns of social support and particularly through stressful periods of changes in couples' lives. However, amidst these challenges, there are protective factors at play. Intimate partners exhibit a high degree of mutuality leading them to be committed in their close relationships and are theorized to influence each other in many ways and in a reciprocal manner for long periods of time. Commitment, the deep investment in the partnership, may act as a stabilizing force, promoting care and, motivating individuals to work through difficulties and sustain

their connection. Care may mitigate the negative impact of attachment insecurities, fostering security and in turn resilience during this transformative journey. The goal of the present thesis is to provide evidence for the role of one's own attachment insecurities on individual and relationship functioning, particularly the experience of emotions, perceived partner responsiveness, and the role of commitment on caregiving and in fostering a sense of security, across a significant life-altering event – the transition to parenthood.

Study 1 investigated the role of attachment insecurities on the experience of momentary emotions and their dynamic change through time on a sample of 149 heterosexual couples expecting their first child, especially when they reported feeling stressed. Results showed that attachment anxiety was predictive of more negative affect for both men and women and that attachment avoidance in men predicted more positive affect dynamics generally and in times of stress. Results provide additional insights into the current body of literature on emotional functioning in intimate relationships and particularly on how momentary fluctuating affect is affected by attachment insecurities, especially when people report stress.

Study 2 assessed the association of attachment insecurities with perceived partner responsiveness using a sample of 120 heterosexual couples transitioning to parenthood. Couples were evaluated during pregnancy and at six, 12-, and 18-months post-partum. Individual differences in attachment orientations may shape perceptions of support, especially during stressful times. Considering the mutual role that partners play in maintaining attachment insecurities or acting as a source of security, we also investigated how perceptions of responsiveness influence attachment insecurities. On the one hand, results showed that attachment insecurities were associated with a decline of perceived partner responsiveness across the transition. On the other hand, a rise in attachment insecurities across the four time points of evaluation was also observed, even when individuals perceived responsiveness from

their partner. These findings contribute to the limited evidence on changes of attachment insecurities across time in close relationships and shed more light on the existing literature regarding the role of attachment orientations on perceptions of partner support across the transition to parenthood.

Study 3 examined actor and partner effects of commitment on attachment insecurities and the mediating role of caregiving in a sample of 120 heterosexual couples during the transition to parenthood. Couples were evaluated during pregnancy and at six months post-partum. Studies on couples have shown that commitment and caregiving are vital elements for maintaining healthy and long-lasting intimate relationships. Results revealed actor effects of commitment on caregiving. Caregiving was also associated with less anxiety in women and less avoidance in men. Moreover, men's commitment predicted women's caregiving. No mediating paths were found. Results highlight the need for further research, particularly regarding the factors that help partners to establish security during challenging transitional phases.

Taken together, the findings of these studies confirm that attachment insecurities differentially affect emotions, perceptions of support and caregiving in intimate relationships, during the transition to parenthood. Moreover, results emphasize the role of interpersonal dyadic processes of support on promoting security in couples. Results provide insights for better understanding and maintaining healthy and resilient intimate relationships.

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Somebody...

I want somebody to share, share the rest of my life,
Share my innermost thoughts, know my intimate details,
Someone who'll stay by my side, and give me support,
And in return she'll get my support,
She will listen to me when I want to speak,
About the world we live in, and life in general,
Though my views may be wrong, they may even be perverted,
She will hear me out, and won't easily be converted,
To my way of thinking, in fact she'll often disagree,
But at the end of it all, she will understand me,

I want somebody who cares for me passionately,
With every thought, and with every breath,
Someone who'll help me see things in a different light,
All the things I detest, I will almost like,
I don't want to be tied to anyone's strings,
I am carefully trying to steer clear of those things,
But when I am asleep, I want somebody,
Who will put their arms around me and kiss me tenderly,
Though things like this make me sick,
In a case like this I'll get away with it.

*Lyrics : Martin Gore
Depeche Mode, 1984*

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List of Symbols and Abbreviations

<i>a</i>	Cronbach's coefficient of internal consistency
<i>b</i>	Beta coefficient
<i>p</i>	Probability value
<i>r</i>	Pearson correlation coefficient
APIM	Actor partner interdependence model
CI	Confidence interval
ECR	Experiences in close relationships
EFT	Emotion focused therapy
ICC	Intraclass correlation coefficient
LA	Lagged affect
M	Mean
MLM	Multilevel modeling
NA	Negative affect
PA	Positive affect
PPR	Perceived partner responsiveness
SD	Standard deviation
SE	Standard error

1. Introduction

The transition to parenthood is a potentially stressful period, as the birth of a first child launches a cascade of strong emotions and significant life-altering events in a couple's committed relationship. Many studies describe pregnancy and the transition to parenthood as a developmental phase and a challenging period. It is characterized by stress (Cowan & Cowan, 2000), changes in the dynamics of the relationship (Martin & Redshaw, 2010) and declines in the relationship's quality (Dulude et al., 2002), which requires adaptive changes. However, there is a great variability in how individuals or couples adjust in times of stress. There are several factors at the individual and the dyadic (relationship) level that predict adjustment and shape the trajectory of adaptation for new parents. At the individual level one such factor is attachment orientation (Mikulincer & Florian, 1998) and at the dyadic level one such factor is reflected in the concept of responsiveness between partners (Maisel & Gable, 2009).

Attachment theory focuses on behavior in close relationships (John & Gross, 2007) and addresses emotion regulation in the domain of intimate interpersonal relationships (Mikulincer & Shaver, 2005). People with different attachment orientations regulate and cope with negative affect in different ways (Simpson, 1990). The attachment system is activated in stressful and threatening instances helping to regulate the distress that is associated with perceived threat by controlling proximity to the attachment figure (Bowlby, 1969; 1973)—in the case of intimate relationships, the partner. Whereas secure attachment experiences lead to unconscious beliefs that others are available, understanding, and responsive (Fonagy & Target, 2002), insecure attachment experiences lead to unconscious beliefs that significant others are unavailable and unresponsive, and even abandoning or rejecting. Therefore, different attachment orientations are differentially associated with the experience and regulation of emotions as well perceptions about the availability of others.

Contrary to attachment insecurities, attachment security is a powerful predictor of individual and couple functioning (J. A. Feeney et al., 1996). Specifically, the optimal functioning of the attachment system is of vital importance for the experience of positive emotions and the maintenance of emotional stability, as well as the formation of positive attitudes - like caregiving - toward intimate partners and close relationships in general. In this vein, research has shown that couples who display high responsiveness motivation, are more satisfied (Collins & Feeney, 2000; Overall et al., 2010) and more stable across the first decade of their marriage (Schoebi et al., 2012). These protective factors may render couples more resilient in the face of stressors, which affect both members of the dyad (dyadic stressors) (McGoldrick & Carter, 2003).

The aim of the present doctoral thesis is to further understand the role of attachment on individuals' and couples' functioning during the transition to parenthood. Specifically, it examines how attachment insecurities are associated with the experience of emotions, perceptions of responsiveness and caregiving in adult committed relationships. Moreover, it seeks to deepen our understanding of whether attachment insecurities evolve over time and the role partners play in nurturing them. The thesis begins with a literature overview of the association between the transition to parenthood and theories on close relationships with a specific emphasis on the significance of interdependence in intimate relationships. Attachment theory is given particular attention in this context. The next section investigates, the role of emotions and emotion dynamics in intimate relationships. Subsequently, the concepts of perceived responsiveness and caregiving within intimate relationships are explored, highlighting their impact on experiences within close relationships during times of stress. Then, the following section introduces the methodology employed, followed by an outline of the three studies that contribute to this thesis. Finally, a discussion is provided, elucidating the

results and contributions of these studies, and concluding with a summary of the limitations, future directions, and the theoretical and clinical implications.

2. From partnership to parenthood: Challenges, changes, and joys

As couples transition into parenthood, they face a variety of challenges because many pre-existing roles and patterns of interactions between partners require adaptation. Relationship dynamics shift in the months following childbirth (Nelson-Coffey et al., 2019) and significant intrapersonal and interpersonal adjustments are necessary. Although the transition to parenthood constitutes one of the most joyous periods of a couple's life, it has also been established as a challenging turning point for relationship functioning (Roy et al., 2013; Le et al., 2016) as they have to balance their personal and relationship needs (Glade et al., 2005). Parenthood calls for adjustments in both partners because they both take on new roles and responsibilities (Cowan & Cowan, 2000). One of the paradoxes of this normative challenging time is that new parents experience conflicting emotions like happiness and stress at the same time (Cowan & Cowan, 2000; Simpson & Rholes, 2019). According to the Vulnerability-Stress-Adaptation model (Karney & Bradbury, 1995) personal enduring vulnerabilities can aggravate the impact of a stressful event like the transition to parenthood on relationship functioning. Such vulnerabilities can be practical (e.g., financial scarcity), or psychological (e.g., insecure attachment). Parenthood tends to be a chronically stressful time for most—but not all—new parents, with partners experiencing steeper declines in relationship satisfaction (Lawrence et al., 2008). Often, changes in daily structure can cause higher levels of stress during the transition to parenthood (Belsky & Rovine, 1990; Doss et al., 2009; Goodman, 2004; Kluwer & Johnson, 2007; Reid & Taylor, 2015). Moreover, these changes may undermine personal and relational well-being (Mitnick et al., 2009) leading to an increase in conflict (Kluwer & Johnson, 2007), and a change in sexual (Leavitt et al., 2017) and marital (Don et al., 2013) satisfaction. In addition, increased negative interactions between partners across the transition to parenthood may negatively affect commitment,

leading to considerable decreases (Ferriby et al., 2015; Kamp Dush et al., 2014). Moreover, women and their partners may experience some changes in different ways (e.g., women also face physical changes), which could be an extra source of increased stress for the couple as one partner's stress could spill over on the other and then impact both (Westman, 2011).

However, not all couples will experience negative effects across this transition. Evidence has also indicated some heterogeneity in the course of relationship satisfaction for new parents (e.g., steep declines, moderate declines, no change, moderate increases) (Belsky & Rovine, 1990; Don & Mickelson, 2014). Among various variables, commitment may act as a resource for a relationship during difficult times. Specifically, dedicated individuals desire to maintain or improve their relationship for the joint benefit of partners (Stanley et al., 2010) and many couples manage to retain high levels of commitment and being responsive to each other throughout their transition to parenthood (Leonhardt et al., 2022).

Therefore, the birth of a child constitutes an example of a dyadic stressor as it affects both partners directly (McGoldrick & Carter, 2003) and requires adjustment to the new situation occurring, as well as to each other's personal needs. However, having positive relational resources may diminish the possible negative impact of the transition to parenthood on the relationship. Despite the importance of these findings, parents are surprisingly rarely studied as a dyad. In the following section a selection of theories is presented, which address the dynamic and interdependent approach when investigating stress phenomena in intimate relationships.

3. Theories related to intimate relationships and their connection to the transition to parenthood

The study of intimate relationships has long fascinated scholars, leading to the development of various theories that aim to decipher the underlying mechanisms governing these partnerships. In the realm of psychology and sociology, the transition to parenthood is a pivotal life event in a couple's life that has gathered significant attention due to its profound impact on relationships. This period of adjustment presents a unique set of challenges and opportunities for those involved. Theories related to intimate relationships play a crucial role in shedding light on the dynamics of love, the evolution of relationships over time and their adaptation during this transformative phase. They also offer valuable frameworks for perceiving couples as a dyad and not just as separate individuals as they navigate the terrain of parenthood. In this exploration, a selection of some key theories that have contributed to our understanding of intimate relationships is presented below.

3.1. Social exchange theory

Social exchange theory focuses on how individuals make decisions and evaluate their relationships in the moment, and it holds significance because it served as a foundational source from which elements were drawn to formulate the theory of interdependence at a later stage. It suggests that partners in all social interactions try to maximize their outcomes through the exchange of social goods like status, approval, and information. Social exchange theorists suggest that relationships grow and dissolve as a result of a social-exchange process between the partners (Huston & Burgess, 1979), which is applied not only to how people feel but also to how people behave in their relationships, such as the decision to remain in a relationship or end it. The theory defines rewards as any of the possible ways the relationship may fulfill the needs and desires of each partner (e.g., material, social), and defines costs as any of the consequences of being in a relationship that prevent partners from fulfilling their

needs or desires. In a distressed relationship, the costs are obvious. For instance, during the transition to parenthood, which is a pivotal life event, some costs may be the financial strain or emotional pain from frequent arguments (Cowan & Cowan, 1995). An important tenet of this theory that has guided research is that it helps explain how different individuals can reach different conclusions about the same set of outcomes in the same relationship, contributing to better understand the circumstances under which people will remain or leave their relationships. A person might appear to be in a high rewarding relationship (e.g., low levels of conflict, responsive partner) but still might complain and seem dissatisfied. Conversely, someone else might seem content in a relationship that appears to have few rewards and many costs (e.g., a partner who is inconsiderate or offensive). Therefore, people may differ greatly as to how satisfying or not the outcomes of a relationship are for them. The reason for this is that in the social exchange theory rewards and costs are broadly defined as “aspects of perception, not action” (Gottman, 1982, p.950). This theory laid the groundwork for the development of interdependence theory later on.

3.2. Interdependence theory

The theory sheds light in several aspects of an interaction between two partners. Thibaut & Kelley (1959) laid out many of the central tenets of social-exchange theory aiming to elucidate how couples’ interactions are formed and structured (Meuwly & Schoebi, 2017) leading them later on to propose that the defining feature of any relationship is interdependence (Kelley & Thibaut, 1978). It is defined as the extent to which behaviours of each partner affect the outcomes of the other, suggesting that the result of the relationship relies on the mutual influence that exists between the two partners (Reis, 2020). The couple represents a subsystem of the family and may benefit or suffer from pronounced changes in their life, like the transition to parenthood. Having a child might be a source of stress and partners’ experiences of and reactions to it, mutually influence each other in negative and

positive ways. Thus, relationships underscore the interconnected nature between partners, encompassing emotions, behaviours, and physiology (Butler, 2011). In the context of a stressful experience, one's partner experience of adversity is not limited to himself/herself but affects the experience and well-being of the other partner as well. On the one hand, chronic dyadic stress might lead to increased anxiety (Don et al., 2014) or depression (Simpson, Rholes, Campbell, Tran, & Wilson, 2003). Often, the stressed partner's mood can spillover into the relationship causing the other partner to experience stress as well (Neff & Karney, 2007). On the other hand, each partner can act as a resource for the other in order to cope with stress. Specifically, one's partner support or positive emotions may elevate their relationship satisfaction after the birth of a child (Don et al., 2022) as both partners' needs are satisfied (Rusbult & Van Lange, 2008). Therefore, stress and coping experiences of one partner are intertwined with those of their partner, indicating a relational and interdependent process (Bodenmann, 2005). These findings suggest that relationships themselves may be an important resource in life (Kiecolt-Glaser & Wilson, 2017) especially during periods of increased stress when couples need to cope with challenges together, because they may add genuine positive relational processes to the regulation equation (Rentscher, 2019). One such resource is reflected in commitment, which is presented in the next section.

3.3. Investment model of commitment

As Kelley (1983) pointed out, it is only through interaction, the ongoing sequence of action and reaction between partners, that two individuals make contact. This concept has also been presented in Rusbult's investment model (Rusbult, 1980, 1983), which forms the foundation of stable transformational tendencies in couples going through transitions. This model suggests that commitment is a cognitive appraisal, reflecting individuals' attachment and dedication to maintaining a relationship. Individuals become committed to the degree that satisfaction level is high, quality of alternatives is poor and investment size is high. Quality of

alternatives refers to the perceived desirability of the best available alternative to the relationship to fulfil the most important needs of an individual (Rusbult, Martz, and Agnew, 1998). Investment size refers to the magnitude and importance of the resources that are attached to the relationship. These resources would decline in value or be lost if the relationship were to end (Rubin & Brockner, 1975; Teger, 1980). Commitment in turn promotes a variety of so-called maintenance acts like behaviours or tendencies to accommodate rather than retaliate (Rusbult et al., 1991), which follow the principle of reciprocity. That means that individuals are more willing to enact pro-relationship behaviours to the degree that their partner is expected to do so (Van Lange et al., 1997). During familial transitions, investment of time, energy and resources are required (Van Egeren, 2004) to promote couple adaptation and adjustment. The investments from those familial changes may result in a higher likelihood that couples maintain or even increase commitment irrespective of other relational changes such as relationship satisfaction (Kluwer, 2010). The transition to parenthood marks an ideal time to consider commitment, as this time period is filled with many familial transitions, which require investment of energy and resources (Van Egeren, 2004). However, some research findings suggest that some couples may decrease in commitment over the transition to parenthood (Doss et al., 2009). Individual characteristics like attachment insecurities may influence changes in commitment (Ferriby et al., 2015) because both commitment and attachment encompass aspects of security within relationships. In the next section attachment theory is first presented as a diathesis in the context of a stressful situation and then it is further explored with a specific emphasis.

3.4. Attachment Diathesis-Stress Model

The Attachment Diathesis-Stress Model (Simpson & Rholes, 2012) suggests that attachment insecurity is a diathesis capable of generating maladaptive behaviours in response

to certain stressful events (e.g., parenthood), depending on a person's attachment orientations. A diathesis is a predisposition or vulnerability, which could be acquired through life experiences. It is a risk factor for developing something negative. Therefore, exploring diathesis factors in response to stressful events is important because it helps us uncover vulnerabilities that play a crucial role in the dynamics of intimate relationships.

According to the theory there are three types of negative events that can activate the attachment system. First, negative external events (e.g., threatening situations), second, negative relational events (e.g., relationships conflict), and third, cognitive/emotional stressors (e.g., ruminating about negative events). These events can elicit distress in almost all partners, which in turn triggers attachment motivations to seek proximity/support from attachment figures (e.g., parents, romantic partners) even if people are not consciously aware of these motivations. Accordingly, these acts instigate attachment behaviours that regulate distress and perceptions of the partner and current situation. These perceptions depend greatly on people's working models, which affect how one feels in response to certain negative events, and what behaviours one displays once attachment motivations are stimulated. Working models also affect perceptions of partners in a specific situation, as well as how partners behave (Bowlby, 1969).

Taken together, the significance of theories that examine the interdependence of couples, as well as the individual characteristics of partners, particularly on how they behave, feel, and think during daily stressful circumstances, cannot be overstated. The above presented theories shed light on the intricate dynamics that shape relationships, providing valuable insight into how couples navigate challenges together. The literature has placed significant emphasis on and extensively studied attachment theory within the context of intimate relationships. Understanding the nuanced interplay of attachment orientations with emotions at an individual level and with responsiveness at a dyadic level, is at the core of the

present thesis. In the subsequent section attachment theory is given particular attention and its role in intimate relationships is presented.

4. Attachment theory

John Bowlby, pioneer of attachment theory, explored how affectional bonds are forged and broken and he worked on explaining how infants become emotionally attached to their primary caregivers and emotionally distressed when separated from them (J. A. Feeney & Noller, 1990). In his trilogy, ‘Attachment and Loss’, Bowlby (1969, 1973, 1980, 1982) developed a theory concerning the regulatory functions of maintaining proximity to significant others along with its consequences. He supported the idea that infants are born with a repertoire of behaviors (attachment behaviors) in order to seek and maintain proximity to supportive others (attachment figures). It has been assumed that the need for proximity seeking is an inborn affect-regulation mechanism (primary attachment strategy) protecting an individual from threats and mitigating distress (Mikulincer, et al., 2003). When a child seeks proximity to an attachment figure and experiences support and protection, a sense of attachment security is promoted and the bond will serve as an anxiety buffering function (Nielsen et al., 2017). However, when the child does not experience consistent and reliable support and protection, she or he will develop defensive secondary attachment strategies, namely hyperactivation of the attachment system (e.g., attachment anxiety) or deactivation of the attachment system (e.g., avoidance) (Shaver & Mikulincer, 2002). Hyperactivation and deactivation are presented and explained further below.

Although Bowlby was particularly interested in the parent-child relationship, he was clear that attachment representations would be important for relationship functioning from “cradle to grave” (Bowlby, 1969, p. 208). Multiple attachment relationships will develop throughout childhood and adulthood, and he suggested that once formed, attachment representations would remain relatively stable throughout the lifespan (Bowlby, 1969; Scharfe, 2017). The nature of early relationships becomes a model for later relationships (Collins & Read, 1990). Established bonds or secure attachments are the source of humans’

first powerful experiences of love, trust, and joy. On the contrary, disrupted bonds trigger intense negative emotions such as anxiety, anger, and sorrow (Perlman & Vangelisti, 2006) in later relationships. In the section below the role of attachment in adult relationships is presented.

4.1. The lifelong impact of attachment: Adult bonds and connections

Bowlby assumed that although the attachment behavioural system is most critical in the early phases of life, it is active over the entire life span and it is manifested in thoughts and behaviours related to seeking proximity to attachment figures, especially during times of need. In adulthood, attachment plays an important role in the development and maintenance of romantic relationships, as romantic partners often become one another's attachment figures and show attachment-related behavioural and emotional patterns similar to those in infancy (Hazan & Shaver, 1987). Based on early life experiences (Simpson, 2007) and genetic influences (Gillath et al., 2008), individual differences in adult attachment orientations emerge, which are measured through two independent dimensions called attachment anxiety and attachment avoidance (Brennan et al., 1998).

Attachment orientations seem to conceptually represent the variability in the functioning of two independent subsystems of the attachment behavioural system (Fraley & Shaver, 2000). Attachment anxiety represents the functioning of the sub-system that concerns the *monitoring and appraisal* of events for their relevance to attachment-related goals (e.g., proximity to romantic partner). That is, adults with higher (compared to lower) attachment anxiety tend to be highly vigilant to signs of threat and tend to perceptually heighten the threatening aspects of events (Mikulincer & Shaver, 2019). Attachment avoidance represents the functioning of the sub-system that concerns the *regulation of attachment behaviour* in accordance with attachment-related goals. That is, higher attachment avoidance reflects a lower willingness to rely on the attachment figure for protection (Fraley & Shaver, 2000).

Higher scores on either of the dimensions represent higher attachment insecurity. Adults with different attachment orientations differ greatly in the way they view themselves and the social world (Collins & Read, 1990), and consequently in how they experience emotions in romantic relationships. Therefore, individual differences in attachment orientations can be viewed as differences in the mental representations of the self in relation to attachment (Collins & Read, 1990). In the succeeding section, the importance of mental representations is underscored, alongside the expectations, as well as the emotional and behavioral experiences of individuals with varying attachment orientations in their intimate relationships.

4.2. Attachment theory in action: Exploring its outcomes in intimate relationships

The attachment system is a natural, inborn regulatory device with important implications for personality and interpersonal behaviour (Bowlby, 1969, 1973, 1980, 1982). The goal corrected nature of attachment behaviour requires the storage of relevant information in the form of mental representations of person-environment interactions. These representations, shaped by early interactions with primary caregivers, are the so-called working models and they allow for mental simulation of possible outcomes of various attachment behaviours. Once the attachment system has been repeatedly used in relational contexts, then it includes mental representations of the self's value and efficacy—working models of self, as well as representations of the attachment figures' responses—working models of others (Bowlby, 1969, 1973). Working models organize one's memory about an attachment figure as well as his/her efforts to gain protection and support when needed (Main et al., 1985). They have two components: (1) a model of self, providing information about one's ability to obtain proximity and comfort, as well as one's value as a relationship partner and (2) a model reflecting the degree of an attachment figure's responsiveness to one's prior bids for proximity (Bretherton & Munholland, 2008). Once developed, working models affect

how individuals relate to their romantic partner by guiding behaviours and perceptions, especially in stressful or threatening situations (Arriaga et al., 2018).

In intimate relationships, the partner or spouse represents an important attachment figure (Hazan & Shaver, 1987). Under conditions of stress the individual will try to maintain security and comfort, which is a universal goal, although the specific strategies people will use to achieve this goal will vary with their attachment history (Bowlby, 1969).

Early attachment orientations pervade to adulthood and a responsive caregiving in early childhood usually produces a secure attachment orientation. Securely attached individuals have more positive views of self and partner (Mikulincer et al., 2002). Hence they are comfortable with closeness and intimacy (Collins, 1996) and confident that they are loved and valued (Mikulincer & Shaver, 2019). As a consequence, they reestablish feelings of safety by seeking proximity (Collins & Read, 1990 ; Hazan & Shaver, 1987). They rely more on support-seeking because they believe that others will be responsive when needed (Bowlby, 1988) and are more responsive to their partner's needs (Mikulincer et al., 2002). Perceiving the partner as responsive and dependable increases confidence that the partner provides a safe-haven in times of need and distress (Murray et al., 2006). Feeling encouraged and validated from the partner in one's goal pursuits also provides a secure base (Bowlby, 1973) from which to pursue personal interests and satisfy needs. The sense of attachment security is a resilience resource in times of need and it constitutes a building block of mental health (Bowlby, 1988).

Disruptions in the sense of attachment security lead to adult romantic attachment insecure orientations and are assessed on two relatively uncorrelated dimensions labelled anxiety and avoidance.

Attachment anxiety assesses the concern that intimate partners might not be available or supportive when needed. It reflects the degree of worrying about being unloved and

abandoned (Brennan et al., 1998) and it develops in response to an unfulfilled need for closeness (Mcneil, 2012). Relatively anxiously attached individuals, have a strong desire for close relationships and they hyperactivate their attachment system, seeking assurance from their partner (Starr & Davila, 2008). They focus on their negative emotions and might even exaggerate them because they perceive them as congruent with their proximity-seeking goals in their effort to cause their partners to pay more attention and provide more reliable support (Mikulincer & Shaver, 2007). They also harbor negative self-views and more positive views of their partners (Simpson & Rholes, 2017).

Attachment avoidance reflects the degree of discomfort with intimacy and dependence on others (Brennan et al., 1998). Consequently, they respond with deactivating their attachment system (Mikulincer & Shaver, 2007) and they are more reluctant to form interdependent relationships (Mikulincer et al., 2002). One of the main goals of people chronically relying on deactivating strategies is to avoid negative emotional states that demand attachment system activation (Mikulincer & Shaver, 2003). Their goal is to block emotional reactions to potential threats to attachment-figure availability because such threats could reactivate undesired attachment needs (Fraley & Shaver, 2000). Thus, they engage in inappropriate coping strategies when dealing with stress, engaging in what Lazarus and Folkman (1984) called distancing coping, by turning away from their partner in order to shield themselves against vulnerability (Shi, 2003).

These findings provide strong empirical support for Bowlby's attachment theory and its extension into the dimension of the quality of adult intimate relationships. Findings suggest that attachment theory provides a framework for explaining how early relational dynamics with caregivers add to emotional stability in adulthood (Mcneil, 2012) and provides a framework to better understand the nature of romantic relationships. In the upcoming section, the role of attachment during the challenging period of the transition to parenthood is explored.

4.3. The role of attachment in the journey to parenthood

Having a baby is a joyful but chronically stressful experience and attachment insecurities make individuals more vulnerable to personal and interpersonal problems (Mikulincer & Florian, 1998). Bowlby (1988) believed that the transition to parenthood should be a convenient time to experience systematic changes in attachment orientations for many reasons. First, the chronically stressful nature of having a child (Cowan & Cowan, 2000) ought to make people more receptive to reevaluate and revise their current views of themselves and significant others (Caspi & Bem, 1990). Second, the birth of the first child should revive attachment-related memories from the parents' pasts (Bowlby, 1988). Third, caring for a baby usually bares parents to new personal and interpersonal experiences (Cowan & Cowan, 2000). Some of these experiences may negate existing beliefs or expectations, while some others may confirm existing working models (Bowlby, 1988). Therefore, it is more likely that attachment orientations' changes occur across the transition to parenthood.

People with a secure attachment style feel greater parental competence (Volling et al., 1998) and securely attached mothers are more sensitive to the needs of their babies (Ward & Carlson, 1995). In contrast, insecurely attached individuals express more negative perceptions of parenting and the parent-child relationship (Rholes et al., 1997). Highly anxious women enter the transition to parenthood perceiving lower levels of spousal support, leading to declines in marital satisfaction (J. A. Feeney et al., 2003) and increases in depressive symptoms (Simpson, Rholes, Campbell, Tran, & Wilson, 2003). In addition, they show declines in support seeking and perceptions of partner responsiveness (Rholes et al., 2001). Parents higher in avoidance report more difficulties in adjusting to parenthood (Kazmierczak, 2015) and higher parenting stress (Trillingsgaard et al., 2011). Especially avoidant men report greater declines in relationship satisfaction compared to individuals with lower attachment avoidance because they believe that the newborn is interfering with their personal or work

lives (J. A. Feeney et al., 2003). They are also less interested in being parents and they view parenting as more stressful and less rewarding (Rholes et al., 1995; Rholes et al., 2006).

Avoidant women who seek less support from their partner become more avoidant across the transition while both men and women who perceive greater support from their partner become less avoidant across the transition (Simpson, Rholes, Campbell, & Wilson, 2003).

These results confirm the important role of attachment insecurities on individual and couple functioning during the transition to parenthood. Nevertheless, it is important to recognize that intimate bonds apart from vulnerabilities also possess inherent strengths. Factors like perceived responsiveness and caregiving can act as powerful tools for nurturing and fortifying these connections. By cultivating these positive aspects and fostering a supportive environment, individuals can work towards building long-term security within their relationships, ultimately promoting greater emotional well-being and satisfaction. In the next sections elements of intimate relationships and factors that connect intimate partners (e.g., emotions, perceptions of responsiveness) and foster security (e.g., caregiving) are explored.

5. Connected hearts: The essence of emotions, support, and commitment of loving couples

In intimate relationships individuals undergo emotional experiences, try to adequately respond to each other's needs, and strive to navigate stressful situations together. However, these experiences can vary based on both individual differences and relationship factors. On the one hand, attachment orientations play a crucial role in shaping relationship experiences and outcomes (Hazan & Shaver, 1987). Understanding one's own attachment orientation, can provide valuable insights into relationship dynamics. On the other hand, relationships have protective factors, which counteract the negative effects of attachment insecurities and may enhance security and promote well-being (Arriaga et al., 2018). Exploring the interplay of these factors may help researchers and couples recognize and address potential sources of conflict, improve communication, and foster a more secure and satisfying relationship. The subsequent sections investigate at the individual level the role of emotions and emotion dynamics, in conjunction with attachment orientations. Moreover, at the dyadic level the role of intimacy and perceptions of responsiveness are presented along with an examination of how these can be impacted by attachment insecurities. Lastly, the role of perceptions of support and caregiving in committed intimate relationships and its role in building security are depicted.

5.1. Emotions in intimate relationships: It takes two to tango

Most human beings aspire a satisfying romantic relationship, known to benefit health and longevity (Baumeister & Leary, 1995). The formation and maintenance of romantic relationships are strongly influenced by emotions (Randall & Schoebi, 2018) because close relationships give rise to a variety of emotions, such as acceptance, joy, security and love, but also fear, frustration and grief (Mikulincer & Shaver, 2005).

Studying emotions in intimate relationships is vital because the emotions that couples feel and express in their interactions together are predictive of relationship functioning (Rogge & Bradbury, 1999; Gottman & Levenson, 1999). Emotions cannot be comprehensively grasped solely by examining individuals, as they both rely on and radiate through interpersonal contexts (Butler, 2015). They spread and evolve across social networks (Kappas, 2013). In intimate relationships, couples' emotions are interconnected, and these interconnections are manifested in three distinct ways. First, partners may have similar emotions, second, they may have different emotions because of different interpretations to situations, and third, one person may be the stimulus for the other (e.g., a person's distress may elicit sympathy or distress in the other) (Elfenbein, 2014). Within an interdependent system over time, partners' interactions influence each other's behaviors, emotions, as well as processes related to emotion regulation, psychological adjustment, and overall well-being (Overall & E. P. Jr., Lemay, 2015). Therefore, one partner's state of emotional distress can increase distress or reduce positive affect in the other partner (Hatfield et al., 1994).

Most emotion research has focused on affect as a state trying to identify its antecedents and consequences (Kuppens et al., 2009). Yet emotions and affective states are not haphazard and are inherently dynamic in nature (Gross, 2001). Emotions, result from changes in the internal or external social environment and they fluctuate over time as a result of balancing self-preservative and regulatory tendencies. They consist of responses to events external to them and are continuously regulated to optimally fit with the current desired state (Kuppens & Verduyn, 2017). For instance, in times of stress (e.g., transition to parenthood) negative emotions may be particularly heightened and more intense and they may be transmitted from one partner to the other (Hatfield et al., 1994). Research has indicated that individuals exhibit variations in their average levels of positive and negative emotions (Watson & Tellegen, 1985), highlighting how people are distinguished based on their typical

emotional experiences. Furthermore, it has become evident that individuals consistently vary in the extent to which their emotional experiences fluctuate over time as they exhibit stable differences in the intensity of emotional fluctuations (Kuppens et al., 2007). Through the process of regulation, which aims at aligning emotions with the current desired state, the natural course of affective experiences is thus redirected (Koole, 2009). This often involves the down regulation of emotions to prevent them from persisting indefinitely or reaching potentially harmful extremes (Gross, 2015). For example, in times of stress, couples might try to reduce the transmission of negative emotions to protect the relationship (Coyne & Smith, 1991). Whether emotions are down-regulated (i.e., dampening one's emotional response to control negative emotions) or up-regulated (i.e., enhancing one's emotional response to experience or express emotions more intensely), many of their temporal characteristics such as their duration (Verduyn, Delvaux, et al., 2009) their intensity (Verduyn, Van Mechelen, et al., 2009) or their resistance to change (Kuppens, Allen, et al., 2010) are greatly impacted. Emotional states might exhibit resistance to change, even when there are motivating factors to change. This results in a general tendency for emotions to persist and carry over from one moment to the next—the principle of inertia (Kuppens, Oravecz, & Tuerlinckx, 2010) mainly because of our tendency to perceive and interpret the world around us in a manner that aligns with our current emotional state (Yiend, 2010). Therefore, inertia reflects ineffective emotion regulation and may potentially harm the individual and the relationship. The following section deepens in the concept of emotional inertia and its implications for intimate relationships.

5.2. Emotion dynamics: The role of emotional inertia

The extent to which individuals experience changes in their emotions throughout the day varies greatly. While some people remain relatively unaffected by life's challenges, others are easily disturbed by minor and insignificant disturbances. Hence, it can be inferred that emotions are dynamic processes that exhibit significant individual variations (Kuppens et al.,

2009). The fluctuations in individuals' feelings over time provide a distinctive perspective on their psychological functioning and overall well-being (Bylsma & Rottenberg, 2011).

Emotion dynamics may themselves change under certain conditions, for instance when a person is anticipating a social stressor and those changes will be moderated by individual differences. One important facet of emotion dynamics is temporal dependency. The degree to which people's feelings display temporal dependency—the reliance of one emotion on the timing or occurrence of another—can be thought of as their level of emotional inertia (Kuppens, Allen, & Sheeber, 2010).

Emotional inertia is an understudied concept that grasps how emotions unfold over time and this is a characteristic of emotion dynamics linked also to psychological maladjustment (Kuppens, Allen, et al., 2010). It reflects the degree to which emotions are resistant to change through time (Kuppens, Allen, et al., 2010) or the extent to which emotions are persistent over time, and it is formalized as the degree to which a person's current affective state can be predicted by his or her previous emotional state (Koval, Butler, et al., 2015). It mirrors the moment-to-moment predictability of emotions (Koval et al., 2013) and is commonly operationalized by the autocorrelation of an emotion measure over time within each person (Thompson et al., 2012).

Although psychological maladjustment is intuitively linked to lowered positive reactivity, it seems less straightforward that it is also associated with persistence of positive emotions (Koval, Butler, et al., 2015). Yet these findings assume that the resistance to change applies not only to negative but also to positive emotions. Overall, people who exhibit low psychological adjustment experience lower levels of positive emotions in comparison to people characterized by normal psychological adjustment. However, when they experience positive emotions, they may be slow to change. Hence, emotional inertia seems to influence

the dynamics of emotions, affecting them independent of whether they are positive or negative (Kuppens, Allen, et al., 2010).

Research has proposed various reasons for the occurrence of emotional inertia. First, psychological inertia which impairs emotion regulation may lead to emotional inertia. In this case people may, to a varying extent, tend to continue a repeated pattern of action, thinking or emotion instead of changing it. This can possibly result from an inability to flexibly adapt to changing circumstances (Kashdan & Rottenberg, 2010). Second, emotional inertia may occur from the difficulty to regulate emotions in an efficient way, even if there is a motivation to do so (Kashdan & Rottenberg, 2010). Third, the occurrence of external events may influence emotional inertia via three processes: a) exposure, including the frequency and the intensity of an encountered event, b) reactivity, referring to initial affective response to an event and c) recovery, indicating the degree to which affect returns to baseline in the post event period.

The presence of emotional inertia holds substantial implications for relationships, as it exerts influence over the dynamics and quality of interpersonal interactions. Findings about the association of emotion regulation strategies and emotional inertia between partners provide insight into the development and maintenance of intimate relationships (Schoebi & Randall, 2015) and their level of well-being and psychological adjustment (Koval et al., 2013). Emotional inertia is commonly linked to maladaptive emotion regulation strategies mainly rumination (Koval & Kuppens, 2012) and emotional suppression (Koval, Butler, et al., 2015), suggesting that it can be harmful for intimate partners and the quality of the relationship. Increased exposure to intense environmental events, which elicit stronger emotional reactions and a greater difficulty in downregulating them, results in an increased emotional dependency over time (Koval et al., 2013).

Therefore, it is important to acknowledge and proactively address emotional inertia within relationships to cultivate emotional well-being and foster healthier dynamics of

emotions. Accordingly, the forthcoming section discusses specific maladaptive emotion regulation strategies that are commonly employed by individuals with insecure attachment orientations during times of stress and explores how these strategies impact the dynamics of emotions.

5.3. The interplay of insecurities and emotion regulation in tough times

Individual differences in the emotion generative process are evident and people differ greatly in emotional responding to environmental challenges (Lane et al., 2011). A prominent factor that influences emotion processes in romantic relationships is adult attachment insecurity (Joel et al., 2020; Mikulincer & Shaver, 2019). As a consequence, people who differ in their attachment style can be expected to form relationships that also differ in emotional tone (Simpson, 1990). Attachment orientations can account for variations in stress reactivity and emotion regulation among individuals (Desrosiers et al., 2014), where attachment security is associated with the cultivation and utilization of healthier emotion regulation strategies (Mikulincer et al., 2003; Overall & Lemay, E. P. Jr., 2015). The quality of interpersonal interactions and behaviors, as well as responses to life-events, are likely to be influenced by the utilization of emotion regulation strategies (Gross, 2014). Anxiously attached individuals, known to use hyperactivating attachment strategies, focus their attention to negative thoughts and emotions' intensification and exhibit a strong expression of negative emotions (Winterheld, 2016). Consequently, such individuals may engage in rumination, which is a maladaptive process of self-reflection characterized by an excessive focus on internal distress and the potential causes and consequences of these cognitive-affective experiences (Nolen-Hoeksema et al., 2008). An individual's tendency to ruminate about life stressors impairs psychological adjustment in individuals (Robinson & Alloy, 2003) and couples (Puterman et al., 2010). Avoidantly attached individuals value strength and emotional independence (Mikulincer & Shaver, 2007) and they regulate their affect by adopting

deactivating strategies such as diverting their attention away from threat-related emotions, suppressing negative emotions and denying emotional experiences (Winterheld, 2016).

These maladaptive strategies can undermine the health and stability of intimate relationships (Heavey et al., 1995), making it essential to address and replace them with healthier alternatives for fostering positive relational processes. In the upcoming sections, protective factors that contribute to healthy relationships and felt security in intimate partnerships, enabling couples to face the transition to parenthood, will be highlighted.

6. The journey of love: The art of maintaining intimate relationships

While relationships have the potential to offer significant benefits, it is important to recognize that their positive outcomes are not guaranteed. Maintaining intimate relationships is an ongoing endeavor that requires dedication and effort and demands consistent care. Intimate partners might encounter difficulties in maintaining their relationship because they may have to face adverse situations (Bradbury & Bodenmann, 2020). However, there are some protective factors, which contribute to nurturing strong bonds between partners and to maintaining satisfying relationships. One of them is responsiveness, which promotes a sense of security and intimacy. Committed partners, help maintain these secure and intimate bonds because they are attuned to their partners' needs and provide care and reassurance in times of distress. These components are the tools for partners to fortify their relationships and create an enduring foundation for the journey ahead. In the sections below, the interdependent concepts of intimacy and perceived responsiveness are presented. Moreover, the role of commitment in promoting caregiving is also explored.

6.1. The heart of connection: The crucial role of intimacy in intimate bonds

One building block of a healthy and secure relationship that can be undermined by attachment insecurities is intimacy. Intimacy has been described as important and significant for individuals' well-being and relationship functioning. It constitutes a fundamental element in numerous interpersonal relationships (Bartholomew, 1990; Clark & Reis, 1988) and it has been defined in two ways. First, as a state or ultimate result of a relationship, and second, as a moment-to-moment consequence of a process that represents movement or change over time (Duck & Sants, 1983). Intimacy is a feeling of closeness that arises through disclosures shared between individuals (Perlman & Fehr, 1987). The intimacy process model (Clark & Reis,

1988) characterizes intimacy as the outcome of an interactive interpersonal process, in which self-disclosure and responsiveness play pivotal roles. It evolves through a dynamic process between two persons. Specifically, an individual—the speaker—shares personal information (verbally or nonverbally), thoughts, and emotions with a partner. Throughout the ongoing intimacy process, the partner—the listener—responds to the speaker by sharing personal information, expressing emotions, and exhibiting various behaviors. In order for the speaker to perceive the listener’s communication as responsive, the listener must convey their understanding, demonstrate acceptance and validation, and exhibit care. At every juncture within this process, personal traits, and individual distinctions, including motives, needs, and objectives, can impact the behavior of each person involved and their interpretation of their partner’s actions (Reis & Patrick, 1996).

Overall, intimacy accumulates through repeated interactions over time. Through the interactions between partners, individuals shape their perceptions that gauge the level of intimacy within the relationship (Reis et al., 1994). The speaker’s interpretation of the listener’s communication is considered to be more critical for the formation of intimacy than either the speaker’s disclosure or the listener’s tangible response (Reis & Shaver, 1988) rendering responsiveness a fundamental cornerstone of intimacy. In the next section the concept of perceived responsiveness is presented.

6.2. Perceived partner responsiveness: The bedrock of intimacy

For a relationship to be intimate and emotionally fulfilling, being responsive to the partner’s needs and emotions is crucial. Responsiveness is a profoundly interpersonal process rooted in intrapersonal origins, significantly influencing individuals’ cognitive and emotional experiences (Reis & Clark, 2013). Individuals often share their thoughts and emotions, particularly with their closest relationship partners (Barasch, 2020). Disclosure can be personally fulfilling and contribute positively to the relationship (Pennebaker & Beall, 1986).

Importantly, support received from a partner when a disclosure has occurred, benefits the recipients only when they perceive it as supportive. Reis and Shaver (1988) intimacy process model, highlights the interplay of one partner's self-disclosure with the other's response. Each step of this process is not only affected by the partner's response but also by one's own needs, goals, and wishes, which influence motivation and perception of responsiveness (Reis & Shaver, 1988).

It holds significance to elucidate the mechanisms that underlie the perceptions of partner responsiveness because they can be beneficial for individuals and their relationships. First, responsive actions may be perceived as less responsive when they are performed by a partner who is perceived to possess a high baseline of responsiveness as opposed to a low one. Thus, people might use a within-person standard to evaluate specific responsive acts, comparing the act to the person's typical level of responsiveness (Krueger & Forest, 2022). Therefore, perceiving one's partner as having a high baseline of responsiveness establishes a rigorous standard of comparison. Consequently, a particular responsive action may appear less responsive when carried out by a partner with a high baseline of responsiveness, invoking a higher comparison standard, than it would if executed by a partner with a low responsiveness baseline, which sets a lower comparison standard. It has been found that individuals who perceived their partner as having a high responsiveness baseline also perceived their partners' responsive acts as more situationally responsive—associated with the situation in which responsiveness is perceived—than individuals who perceived their partners as having a low responsiveness baseline (Krueger & Forest, 2022). Second, having high expectations that the partner will be responsive can make standards challenging to meet. It is important to note that these elevated expectations can be beneficial when the partner possesses the necessary skills and abilities to fulfill them (Finkel et al., 2014), which may be the case in high responsiveness baseline partners. Favourable expectations are frequently linked to more favourable

interpretations of relational experiences (Darley & Fazio, 1980), a phenomenon commonly observed in close relationships (McNulty, 2008). Third, attribution theory (Heider, 1958; Weiner, 1985) posits that when an individual is perceived as consistently responsive, their specific acts of responsiveness in different situations are seen as in line with their typical behaviour, lacking distinctiveness (i.e., similar to how they have responded in other situations). Therefore, a partner who is viewed as consistently responsive to themselves may appear more responsive than another partner with a lower baseline of responsiveness, even when both partners engage in the same responsive behaviour.

Perceiving support as being responsive has beneficial effects on personal and relational outcomes (Maisel & Gable, 2009). Both those who disclose and the relationships themselves tend to thrive when the listeners respond in a way that the person sharing perceives as attentive and understanding (Laurenceau et al., 2004). Perceived responsiveness has a vital role in many important relationship processes and individuals who perceive their partner as supportive are more likely to experience positive affect (Collins & B. C. Feeney, 2000), relational well-being (E. P. Jr. Lemay & Neal, 2014) and increased relationship satisfaction (Gable & Reis, 2010). Other benefits of perceived responsiveness include enhanced autonomy and self-efficacy (B. C. Feeney, 2007), increased intimacy and closeness with the partner (Reis, 2017), which is associated with better relationship quality (Hassebrauck & Fehr, 2002) and greater commitment in the relationship (Gable & Reis, 2010). Perceived partner responsiveness also contributes to personal growth and nurtures a sense of security, enabling partners to utilize their relationships as a safe haven during challenging times and as a secure base for exploration (Reis & Clark, 2013). Due to the substantial evidence connecting perceived partner responsiveness to favourable personal and relational results, responsiveness has been acclaimed as the “bedrock of intimacy” (Gordon & Chen, 2016). However, several factors, which interact in complex ways and can vary from

one relationship to another have the potential to influence the perceived partner responsiveness of an individual. For instance, it has been suggested that individual differences in attachment orientations may disrupt perceptions of responsiveness (Reis & Patrick, 1996). In the subsequent section, responsiveness and its association with attachment insecurities are outlined.

6.2.1. When insecurities linger: The toll on perceived responsiveness in intimate bonds

An important theoretical background for highlighting the importance of responsiveness in the intimacy process is attachment theory (Reis & Shaver, 1988). Responsiveness is thought to be of vital importance to attachment security. Parents' responsive caregiving is a key predictor of children's attachment (Bowlby, 1973) and scholars have argued that a similar pattern may exist for adult romantic relationships (Reis & Patrick, 1996). Bowlby (1973) claimed that security, anxiety, or avoidance originate at least in part, from having received adequate or inadequate emotional support earlier in life from attachment figures. Growing up with supportive parents should produce expectations for emotional support. On the contrary, growing up with unsupportive parents should create the perception that no attachment figure can be available. Attachment theory, therefore, suggests that adult attachment orientations should be closely related to experiences and perceptions of social support. Indeed, studies have shown that adult attachment orientations are systematically associated with some aspects of support. First, attachment orientations predict the tendency to seek support as a way of coping with stress (Mikulincer & Florian, 1997; Simpson et al., 1992). Second, attachment orientations are differentially associated with perceptions of available support (Bartholomew et al., 1997; Kobak & Sceery, 1988).

Research has supported that fluctuations in perceived partner responsiveness may vary as a function of individual differences in attachment style (Hazan & Shaver, 1987; Mikulincer, & Shaver, 2007). People who are more insecure in their attachment orientations,

for example, might be less likely to perceive their partners as responsive to their needs (Collins & B. C. Feeney, 2000). Particularly, anxiously attached individuals are more likely to interpret information in a way that typically confirms their negative expectations of attachment figures (Shaver & Mikulincer, 2002). Since reciprocity is a commonly observed norm within intimate relationships, individuals might project their own relationship feelings, insecurities and views regarding their responsiveness onto their partners (Mikulincer & Horesh, 1999), essentially seeing a reflection of their own actions and intentions (Debrot et al., 2012; E. P. Lemay, & Neal, 2013). Moreover, anxiously attached individuals are motivated to monitor their partners for signs of deficient or declining availability and emotional proximity (Cassidy & Berlin, 1994). For avoidant individuals repeated failure in the past to gain proximity eventually suppresses future behavioural attempts to achieve it (Simpson et al., 1992). Long-term decreases in responsiveness negatively affect relationship satisfaction and promote discontent in relationships (Reis & Gable, 2015).

In summary, the perception of responsiveness within a relationship holds immense significance, as it directly impacts the relational dynamics and overall well-being of partners. Recognizing the potential harm when responsiveness is not perceived as such, underscores the need to comprehensively understand its multifaced effects and, ultimately to promote healthier and more fulfilling relationships.

It is important to note that perceived partner responsiveness and caregiving are interconnected yet distinct concepts. Symbolically, they can be thought of as two distinct facets of the same concept. As previously mentioned, perceived responsiveness is related to the caregiver's ability to accurately perceive and interpret the emotional and physical needs of the care recipient. It involves the caregiver's capacity to empathize understand and respond appropriately to the care recipient's cues, whether they are verbal or nonverbal (Clark & E. P. Jr. Lemay, 2010) in such a way that the care recipient perceives these as responsive. Yet,

caregiving encompasses the actual actions and behaviours undertaken by the caregiver in response to the care recipient's needs. It refers to the capacity to develop empathy for others and care for them when they are in need (Bowlby, 1969). While perceived responsiveness lays the foundation for effective caregiving, caregiving involves the practical application of this understanding through activities such as providing physical assistance, emotional support, and creating a nurturing environment, with the ultimate goal of providing a safe haven (Bowlby, 1969) and a secure base for exploration (Ainsworth, 1991). In other words, perceived partner responsiveness mirrors the care recipient's perceptions of the caregiver's actions, while caregiving reflects the caregiver's actual actions of support towards the care recipient (independent of whether will be perceived as responsive or not). Recognizing the difference between these concepts is crucial in optimizing the quality of care and enhancing the well-being of care givers and care recipients, especially in the context of intimate relationships. Hence, a distinct section is included below to elucidate the activation of the caregiving system and how it is shaped by varying attachment orientations.

6.3. Love in action: The caregiving bond in committed couples

Caregiving has been identified not only as a primary component of parental love but also as a significant element in romantic and marital relationships (Mikulincer & Shaver, 2007). In times of need, romantic partners are often called upon to offer one another support and a sense of security. In committed relationships partners are assumed to engage in caregiving to support their partner. Commitment is the subjective manifestation of the dependence between partners (Rusbult et al., 1986), which motivates them to engage in relationship maintenance behaviours (Canary et al., 2002; Stafford & Canary, 1991) and preserve intimacy (Dindia, 2000). There are three mechanisms that are considered to encourage committed individuals to engage in pro-relationship behaviours (Rusbult et al., 2001). Firstly, individuals who are committed have a strong vested interest in the relationship's continuity, making them inclined

to uphold it through pro-relationships behaviours. Secondly, committed individuals evaluate the costs and benefits of the relationship over a longer timeframe, where the immediate costs of pro-relationship behaviour are balanced by expectations of future reciprocity from their partner. Lastly, as time progresses, the well-being of committed individuals and their partners becomes increasingly interconnected, leading to the intrinsic satisfaction of promoting the partner's well-being through pro-relationship actions (Rusbult et al., 2001).

One of the key factors influencing the quality and stability of a relationship is the quality of support that partners are willing to offer (Lakey, 2013). In most social sciences' explanations, the emphasis is placed on attending to the partner's needs rather than the caregiver's own interests. When a caregiver tends to the partner who is in need, their primary focus is on addressing the partner's needs (Bell & Richard, 2000). However, the caregiver's process of estimating the dependent's needs is considered to be fallible and complex, as one may focus on short-term needs or even read the 'wrong' needs into a partner's behaviours, rather than identifying them accurately (Bell & Richard, 2000). One crucial component of the primary strategy within the caregiving system involves showing empathetic concern for someone else's distress. This often includes adopting the person's viewpoint to alleviate their suffering or support their personal growth (Batson, 2010). When caregiving works properly it benefits the person who is cared for by increasing the person's sense of safety and security, and by reinforcing the person's abilities to cope with distressing situations (Collins et al., 2010). Moreover, the support provider is also benefited because it promotes an inner sense called 'generativity'; a sense that one is more than an isolated self and may contribute significantly to the other person's well-being (Erikson, 1993). It is assumed that everyone is born with the potential to provide care. However, certain feelings, beliefs and concerns might render some people vulnerable to provide support and might impair caregiving. Attachment theorists assumed that security is an important foundation for optimal caregiving (Collins et

al., 2010). They proposed that only when a sense of security is restored can a potential caregiver perceive others as human beings who deserve sympathy and care (Bowlby, 1969) and thus, provide support. In the next part the caregiving system and its connection with the attachment system are presented.

6.3.1. Attachment and caregiving: Implications for relationship dynamics

Support provision is conceptualized by attachment theory as caregiving, which provides protection in times of need, and fosters feelings of security. It provides an ideal framework for studying support and caregiving processes because it designates that the need for security is one of the most essential needs for people of all ages (Bowlby, 1969). There is a range of strategies aimed to promote well-being and a sense of security. Several studies have shown that attachment orientation is linked in predictable ways to patterns of caregiving in intimate relationships (Carnelley et al., 1996; J. A. Feeney et al., 1996; Kuncze & Shaver, 1994). Bowlby (1982,1988) suggested that only when their attachment needs have been met, can individuals provide caregiving. Therefore, caregiving may be impaired if one's own feelings of security are currently threatened because this may deplete resources and activate self-protective motives. Hence, attachment security should ease responsive caregiving while attachment insecurity should deter it. Taken together, not all partners are effective caregivers and adult attachment orientations have been associated with different types of support provision (Carnelley et al., 1996).

Attachment security tends to be associated with more beneficial forms of caregiving including more responsive and less overinvolved care. It facilitates adaptive support processes, allowing people to serve as and use their partner as a secure base. Specifically, an observational study showed that secure men offered more support as their partners exhibited greater anxiety in comparison to avoidant men who provided less support (Simpson et al., 1992). Likewise, Davila & Kashy (2009) found that individuals with a secure attachment

orientation reported providing more support to their partners. On the contrary, attachment insecurities are linked to a set of secondary emotion regulation strategies which may hamper sensitive support provision to others (Mikulincer & Shaver, 2019).

People with an anxious attachment orientation are less likely to demonstrate sensitive caregiving because they tend to focus on their own distress and need for security rather than that of their partner (Collins & Read, 1994; Mikulincer et al., 2001). It has been shown that they provide less support even on days when their partners seek more support (Davila & Kashy, 2009). A possible explanation is that they are inclined to exaggerate appraisals of other people's support needs and they tend to hyperactivate their caregiving system but through an intrusive and controlling way, which is often incongruent with their partner's needs (Mikulincer & Shaver, 2007). Their strong desire for closeness makes it difficult for them to distinguish between another person's welfare and their own (Mikulincer & Shaver, 2011).

Individuals who exhibit a higher level of attachment avoidance show disinterest in helping and have a greater difficulty in comprehending their partner's emotions (Shaver & Mikulincer, 2002). Additionally, Fraley & Shaver (1998) found that avoidant women displayed less caregiving behaviour toward their partner during airport separations. Therefore, they disengage from caregiving strategies which practically involve withdrawing from support in response to a care seeker. One explanation for this phenomenon is that individuals with avoidant attachment styles have encountered situations in which their attempts to connect with attachment figures were rejected or hindered (Crittenden & Ainsworth, 1989). Consequently, repeated experiences of being unable to establish closeness, eventually lead to a suppression of future efforts to seek it. Therefore, when their partner expresses a need for support, those with avoidant attachment tendencies tend to defensively withdraw from their partner (Simpson et al., 1992).

The findings on the role of attachment orientation on caregiving provide support for the notion that attachment orientation is connected to cognitive and emotional processes that play a significant role in facilitating or impeding effective caregiving behaviours within intimate relationships. Therefore, the importance of building attachment security in intimate relationships cannot be overstated, as it forms the foundation for emotional safety and for the ability to navigate challenges together. In the following section the role of attachment security in intimate relationships is discussed.

6.4. From vulnerability to strength: Breaking the chains of insecurity

While adult attachment orientations are commonly examined and described as stable individual characteristics, it is important to note that these tendencies are not considered to be unchangeable (Bowlby, 1969,1973,1982). In fact, attachment orientations have the potential to shift and transform through naturally occurring processes. There are factors that uniquely predict increases in security across time in insecure individuals, such as experiences that foster trust (Arriaga et al., 2014). Fostering attachment security is an ongoing process that requires commitment and effort from both partners. Research in the field of intimate relationships continues to uncover valuable insights in how to foster and build security within them. For instance, the Attachment Security Enhancement Model (Arriaga et al., 2018) is a theoretical framework that aims to promote attachment security in intimate relationships. It is a dual-process model, which proposes that increased security over time is achieved through two processes: a) partners skilfully handling insecure interactions that lead to relational tension and the potential deterioration of relationship quality, and b) partners creating a conducive context for situations that can then modify insecure mental representations. Individuals who possess chronic attachment security demonstrate a tendency to bounce back more swiftly from episodes of emotional distress. This ability enables them to surpass such moments and readily reestablish positive interactions with their partners (Salvatore et al.,

2011). Such a resource becomes particularly crucial during the transition to parenthood, which can be an inherently stressful period for many couples. Individuals exhibit attachment security when their experiences with intimate partners have resulted in secure thoughts and feelings. Drawing from these experiences, individuals with a secure attachment style show comfort with closeness and intimacy within their relationships. They feel a sense of being valued and loved by their partners and have trust in their partners' supportive responsiveness when needed. Additionally, they approach challenging or stressful situations with a sense of confidence and maintain positive expectations regarding their ability to effectively navigate and cope with such circumstances (Mikulincer & Shaver, 2003). Enhanced security is fostered when protective processes align and work in conjunction with longer-term processes that cultivate a sense of increased security in an individual's mental representations of self and others (Bowlby, 1973; Mikulincer & Shaver, 2007). By implementing protective mechanisms and interventions that address immediate challenges and promote a sense of safety, individuals can develop more secure models over time. Specifically, anxiously oriented individuals may become more secure when they experience boosts to their working models of self, whereas avoidantly oriented individuals when they experience boosts to their mental model of others (Arriaga et al., 2014). This coordinated effort between the short-term protective processes and long-term transformative processes contributes to the overall promotion of attachment security (Arriaga et al., 2018). For instance, it has been shown that in mixed couples when one partner is secure, both partners reported higher marital quality and more intimacy-promoting behaviour (Ben-Ari & Lavee, 2005).

Recognizing the significance of cultivating security in intimate relationships, this thesis also examined changes in attachment orientations over time predicted by perceived partner responsiveness and caregiving behaviours. Understanding these changes may provide valuable insights for the role of protective factors that facilitate the development of more

secure attachment patterns, thus enhancing both individual well-being and relationship quality, especially during challenging times in a couple's life.

7. Aim of the present thesis and the studies

Attachment orientations shape one's emotions and behaviours at an individual and dyadic level. The aim of the three empirical contributions of this thesis is to shed more light on the role of attachment orientations on the functioning of intimate relationships during stressful times. The first study focuses on the association of adult attachment and the experience of emotions and how these dynamically change through time. The second study investigates how adult attachment is associated with perceptions of responsiveness from the partner across the transition to parenthood. It also examines how perceptions of responsiveness can potentially change attachment orientations across this challenging transition. The third study aims at better understanding the activation of the caregiving system and its association with commitment and how these promote changes in attachment orientations across the transition to parenthood.

7.1. Study 1

The goal of this study was to examine whether insecurely attached individuals differed in their daily affective experience from individuals with more secure attachment orientations, and particularly when they reported stress. Since individuals differ in their patterns of emotional fluctuations over time, we also examined the extent to which emotions are resistant to change over time—termed emotional inertia. Thus, 149 heterosexual couples expecting their first child, participated in the study and they completed an online questionnaire and a smartphone-based momentary assessment to report on their attachment orientations, their emotions, and their level of stress.

7.2. Study 2

The second study illustrates how insecure attachment orientations are predictive of perceptions of less responsiveness across the transition to parenthood. Since both concepts

might be subject to change during the transition to parenthood and might be mutually affecting each other, we also examined how perceptions of responsiveness predict changes in attachment orientations through time. In this study 120 heterosexual couples participated and were followed for 18 months across their transition to parenthood. Participants completed an online questionnaire at four different time points and evaluated their perceptions of partner responsiveness and their attachment orientation.

7.3. Study 3

The third study investigates the role of commitment in intimate relationships and its association with caregiving and attachment insecurities. Commitment may directly protect against insecurities, or it can also indirectly have a positive effect through its association with caregiving behaviours. Therefore, this study also examines the mediational role of caregiving to further understand the association of commitment with attachment. This study uses data from 120 mixed-sex couples who completed an online questionnaire to evaluate their attachment orientation and their commitment in the relationship. They also answered a smartphone-based ambulatory assessment to report on their caregiving behaviour towards their partner.

8. Overview of the methodology

8.1. Methodological approaches

8.1.1. Cross-sectional research

Cross-sectional research is a fundamental approach in social sciences and empirical research. It involves the collection of data from a diverse group of participants at a single time point, usually done with online questionnaires. This method, provides a snapshot of the population at the specific moment, offering insights into patterns, trends, and relationships among variables, aiming at providing estimates of prevalence in the entire population under study (Kesmodel, 2018). Some of its advantages include its simplicity, cost-effectiveness, and short-data collection period. However, it is important to note that cross-sectional research has limitations, such as its inability to establish causality. Two concepts may correlate significantly, but that does not mean that the one causes the other. In addition, the common method variance is another limitation. Relationships among variables can be attributable to factors other than the intended constructs. For instance, the variance in the study variables may be influenced by the measurement method (e.g., using the same self-report survey method for all variables, the order of the questions) rather than the constructs themselves (Spector, 2019). Moreover, this method fails to track changes over time, making it crucial for researchers to interpret findings within the context of the study's design and objectives (Taris et al., 2021).

8.1.2. Longitudinal design

It is broadly accepted that the longitudinal designs offer some advantages. Unlike cross-sectional studies they involve the collection of data from the same participants or groups over an extended period of time. Particularly, data are collected “for the same set of research units for two or more occasions in principle allowing for intra-individual comparison across

time” (Taris, 2000, p.1-2). Therefore, researchers are enabled in tracking changes and patterns over time providing insights into the trajectories of variables and behaviours. Moreover, longitudinal designs are beneficial for studying cause-and-effect relationships, developmental trends and the impact of interventions. By following individuals and cohorts across multiple time points, researchers can explore how variables evolve and interact, helping to identify long-term trends and factors that influence change. However, erroneous conclusions may arise from longitudinal designs if the chosen timeframe of exploration does not align with the timeframe of the phenomenon under investigation (Spector, 2019). These studies are also time consuming and attrition of participants over time can present challenges. Therefore, careful planning and analysis is needed in order to draw meaningful conclusions.

8.1.3. Daily diaries

Daily diaries and momentary sampling belong to a category of methodologies referred to as diary method, which are used to investigate the intricacies of everyday experiences. Throughout a daily diary study, individuals actively engage in periodic assessments to report for instance on their emotions or behaviours and their daily occurrences. Multiple responses are provided on several occasions throughout multiple days (Laurenceau & Bolger, 2005). One benefit of examining couple processes using diary methods is that they allow the examination of relationship events and experiences in their natural context and as such they reduce the likelihood of retrospection by minimizing the amount of time between the occurrence of an event and the report of the event (Bolger et al., 2003). Moreover, the utilization of diary methods enables researchers to access the more fluid and dynamic aspects of experiences within marital and family relationships, which can be obscured when employing conventional designs involving cross-sectional or infrequently spaced longitudinal assessments (Laurenceau & Bolger, 2005). Apart from providing estimates of the average or central tendency within individuals, the diary approach can also reveal the extent of

variability over time in variables of interest. In romantic relationships research field, these methods are extensively employed to gauge for instance the impact of intimacy on couples (Laurenceau et al., 2005) or evaluate the coregulation of affect (Schoebi, 2008) and capture emotion dynamics (Randall & Schoebi, 2018).

8.2. Data analytic and modelling approaches for dyadic analyses

A dyadic analysis possesses several key characteristics. Firstly, all the data are collectively examined in a single analysis. Secondly, the analysis considers the dyad itself, acknowledging its significance instead of disregarding it as if when individuals were treated as independent units. Thirdly, the interdependence or nonindependence of responses between the two members of the dyad is directly measured (Kenny & Ledermann, 2010). The concept of nonindependence is considered fundamental in dyadic analysis. When analysing dyadic data, the two members of a dyad are not viewed as independent individuals. Instead, they possess a shared element known as nonindependence, which underscores their interconnectedness (Kenny et al., 2006). Interdependence between individuals leads to a correlation or linkage between their observations, whereby knowledge of one person's score provides information about the score of the other person. This linkage of scores is broadly referred to as nonindependence of observations (Cook & Kenny, 2005). Diverse approaches exist to conduct dyadic analyses.

8.2.1. Multilevel Modelling

Multilevel models, which are used in this thesis, also known as hierarchical or clustered models, are statistical models designed specifically for the analyses of data that exhibit a hierarchical or clustered structure. These models are suitable for situations where data-points are nested within higher level units or clusters. An example of utilizing repeated measures, involves the nesting of measurements at each time-point within individuals (Kenny et al.,

2006; Ledermann & Kenny, 2017). Multilevel models enable the examination of both within-unit variation and between-unit variation, allowing for a more comprehensive understanding of the relationships and effects present in the data. On the one hand, the between group variation reveals the extent to which individuals' scores differ from one another, providing insights into the differences between individuals. On the other hand, the within-group variation allows us to observe how scores within individuals vary across different measurement time points, providing insights into the changes and fluctuations within individuals over time. By accounting for both levels of variation, multilevel models provide a nuanced and thorough analysis of the data (Kenny et al., 2006).

8.2.2. Actor-Partner Interdependence Model

The Actor-Partner Interdependence Model (APIM) (Kashy & Kenny, 2000; Kenny, 1996) represents a framework for examining dyadic relationships by combining a conceptual understanding of interdependence in two-person relationships with the statistical methodologies necessary for measurement and analysis. In longitudinal analysis, as is the case of the three contributions of this thesis, an actor effect quantifies the extent to which an individual's current behaviour is predicted by their own past behaviour. A partner effect captures the degree of impact that one person experiences as a result of their partner's behaviour. The APIM model has gained increased popularity within the social sciences and has been applied in various domains. For instance, it has been utilized in studies focusing on emotion (Butler et al., 2003) and attachment styles (Campbell et al., 2001). Moreover, the model has been recommended for investigating families (Rayens & Svavarsdottir, 2003), close relationships (Campbell & Kashy, 2002), and as a framework for evaluating treatment outcomes in couple therapy (Cook, 1998).

8.2.3. Structural Equation Modelling

Structural equation modelling is a powerful statistical method to examine complex relationships among variables. Kaplan (2000, p.1) proposes, that “structural equation modelling can perhaps best be defined as a class of methodologies that seeks to represent hypotheses about the means, variances and covariances of observed data in terms of a smaller number of ‘structural’ parameters defined by a hypothesized underlying model”. It represents a series of cause-effect relationships between variables combined into composite testable models (Shipley, 2000). It is defined as a statistical technique for testing causal relations using a combination of statistical data and qualitative causal assumptions (Pearl, 2000). It combines factor analysis and regression analysis to create a comprehensive framework for understanding relationships within a theoretical model. Using multilevel SEM, separate models for within and between group covariances are modelled (Karimi & Meyer, 2014). It has the advantage of accommodating multiple variables simultaneously, making it suitable for studying complex phenomena such as psychological constructs. It goes beyond traditional multivariate statistical analysis by incorporating considerations for measurement error and conducting a more comprehensive assessment of model fit (Karimi & Meyer, 2014). The possibility of modelling complex dependencies and latent variables are regarded as being the main advantages. Some of the disadvantages are its complexity, sample size requirements and data preparation (Nachtigall et al., 2003).

9. Study 1: Attachment insecurities, emotion dynamics and stress in intimate relationships during the transition to parenthood

Abstract

The aim of this study is to examine associations between attachment orientations and reports on the experience of positive and negative emotion, and their dynamics in daily life across the transition to parenthood. Longitudinal data from a sample of 149 mixed-gender couples collected across the transition to parenthood was analyzed. We predicted that individuals with a more insecure attachment would report more negative and less positive affect, and that their emotional experience would be more resistant to change over time, especially when they feel stressed. The data suggested that attachment anxiety but not avoidance was associated with less positive and more negative affect for both women and men. Reported stress was associated with less positive and more negative affect, and anxious and avoidant men showed more inert affect over time, especially when they were stressed. Results are discussed in the light of their impact on couples during stressful periods.

Introduction

Emotions are a central aspect of how individuals experience their intimate relationships (Mikulincer & Shaver, 2005). They help signaling and communicating personal needs and concerns to oneself and to the partner (Schoebi & Randall, 2015; Butler, 2017). Emotions are not static. Rather, they emerge and dissolve across time (Kuppens, Oravecz, et al., 2010; Butler, 2017) and their expression and experience during interactions with intimate partners are predictive of relationship functioning and development (Rogge & Bradbury, 1999; B. C. Feeney & Collins, 2015). The factors that shape emotional experience in intimate relationships are therefore important for individual well-being and relationship functioning, particularly during important life transitions that challenge couples, such as the transition to parenthood. An important factor influencing both emotion regulation and relationship

functioning is adult attachment orientation (J. A. Feeney, 1995). When individuals enter new relationships, they bring with them so-called internal working models of relationships—including assumptions and expectations about how people behave in relationships—shaped by their history of interpersonal experiences (Bowlby, 1973). Such attachment orientations guide relationships (Scharfe, 2017), and shape how individuals feel about and respond to their intimate partners (Collins, 1996). Differences in attachment orientations affect patterns of emotional experience, as well as the strategies individuals use to regulate their emotions, especially when dealing with stress (John & Gross, 2007; Nielsen et al., 2017). Attachment orientations thus, should shape daily emotional experiences in intimate relationships (Mikulincer & Shaver, 2019). The current study examines this possibility during the transition to parenthood, examining the link between attachment orientations and momentary emotion experiences and stress.

In the remainder of the introduction, we first discuss the literature on emotion and emotion dynamics as related to individual and relational functioning. We then discuss attachment orientations, and how they may shape the experience of emotions in intimate romantic relationships.

Emotion Dynamics

Emotions are characterized by frequent change (Koval et al., 2016). They fluctuate over time and are thought to be continuously regulated to optimally fit with the current desired state (Kuppens & Verduyn, 2017). People differ greatly in their emotional responses to environmental challenges (Lane et al., 2011), and some individuals show a relatively high degree of resistance to change of their emotions, called emotional inertia (Kuppens, Allen, et al., 2010). High emotional inertia reflects a pattern of emotions characterized by a high degree of moment-to-moment stability of emotions, with emotions being resistant to external (changes in the environment) and internal (regulation efforts) influences. Low emotional

inertia reflects a pattern of emotions characterized by high moment-to-moment instability of emotions (Kuppens, Allen, et al., 2010). High inertia may reflect a lack of emotion regulation (Kuppens & Verduyn, 2015), such that emotions carry over from one moment to the next, possibly because people tend to perceive and interpret the world around them in ways congruent with their current affective state (Kuppens & Verduyn, 2017). Some possible explanations have been proposed for the occurrence of static emotions. For example, emotional inertia may result from the inability to regulate emotions in an efficient way even if there is a motivation to do so (Kashdan & Rottenberg, 2010). Also, exposure to intense events eliciting strong emotional reactions and difficulty downregulating elicited emotions, can result in an increased emotional dependency over time (Koval et al., 2013). Studies suggest that elevated inertia not only of negative, but also of positive emotion is reliably associated with poorer well-being (for a meta-analysis, see Houben et al., 2015). Specifically, emotional inertia of both positive and negative emotions was associated with low self-esteem and depression (Kuppens, Allen, et al., 2010). Inert patterns of emotion may point to a lack of emotional flexibility and restrict an individual's capacity to actively respond to situational challenges across varying conditions. It is associated with poorer psychological adjustment (Koval & Kuppens, 2012), impaired social functioning (Fairbairn & Sayette, 2013), and lower relationship quality (Luginbuehl & Schoebi, 2020). Highly inert emotion patterns over time may therefore serve as a relevant proxy of maladjustment in everyday life.

Attachment and Emotion in Romantic Relationships

Attachment theory provides a framework for explaining how early relational dynamics with caregivers add to emotional stability in adulthood (McNeil, 2012). In intimate relationships, the partner or spouse represents an important attachment figure (Hazan & Shaver, 1987) and under conditions of stress, people often attend to their closest relations to

maintain or re-establish security and comfort (Bowlby, 1969) and they seek emotional or instrumental support from their romantic partners (Florian et al., 1995) although the specific strategies people will use to achieve this goal vary as a function of their attachment history (Bowlby, 1969).

The transition to parenthood constitutes a major challenge in one's life and is for many marked by periods of stress and emotional turmoil, which can negatively impact relationship quality (Belsky & Rovine, 1990; Doss et al., 2009; Goodman, 2004; Kluwer & Johnson, 2007). The transition to parenthood may well be a time when attachment processes are particularly activated (Bowlby, 1988), and how the becoming parents adjust to this transition is shaped by their attachment orientation. As a consequence, their relationships will also differ in their emotional tone (John & Gross, 2007; Simpson, 1990).

Individuals with a secure attachment orientation can rely on others during times of need (Mikulincer & Florian, 1997), they attribute less hostile intent to others when tensions arise (Mikulincer, 1998a) and they experience more positive emotions in their relationships (Simpson, 1990). Individuals with an anxious orientation tend to focus on negative emotions (Mikulincer & Shaver, 2019b) and overemphasize their helplessness (Cassidy & Berlin, 1994). They experience sadness more frequently (J. A. Feeney, 1995) and report less positive emotions in the relationship (Simpson, 1990). Furthermore, they appear to be more distressed (Campbell et al., 2005), ruminate, and harbor more anger (Mikulincer, 1998a), probably resulting from the expectation that people are unpredictable and inconsistent (Mcneil, 2012).

Individuals with an avoidant attachment orientation mask or inhibit expressions of emotion (Mikulincer & Shaver, 2019), to avoid appearing vulnerable and experiencing further rejection-related distress (Brodie et al., 2019). They tend to believe that their needs will not be met in a particular relationship (Mcneil, 2012), so they minimize experiences of negative affect (Diamond & Hicks, 2005; Gillespie & Beech, 2016) and engage in emotional withdrawal (J. A. Feeney & Karantzas, 2017). At the same time, individuals higher in

avoidance orientation, have also been found to report more frequent negative and fewer positive emotions in their relationship (Barrett, L. F. et al., 1998; Simpson, 1990; Tidwell et al., 2011), more intense negative emotional reactions after the occurrence of negative events (Gentzler et al., 2010), and more intense physiological recordings of anger, as well as higher cortisol levels during conflict (Powers et al., 2006).

In sum, the literature underscores the importance of attachment orientations for individual adjustment, shaping the experience of emotions in intimate relationships (Cassidy, 1994). Individual differences in attachment orientations are reflected in different perceptions of oneself and others, shaping the experience of emotions in intimate relationships, particularly during times of stress.

Attachment, Emotion, and Emotion Dynamics in Romantic Relationships

The emotions of individuals in close relationships tend to be interdependent, as both individuals attend to and respond to their own and to their partner's emotional states (Schoebi & Randall, 2015). People differ widely in their preferences for the strategies they use to regulate their own and the partner's emotions. Rumination, a maladaptive process involving repetitively thinking about negative emotions (Reynolds, Searight, & Ratwik, 2014) was found to be associated with emotional inertia, and individuals with an anxious attachment orientation tend to use this strategy more than their securely attached counterparts (Koval & Kuppens, 2012; Meuwly & Davila, 2019). The more intense perseverative thoughts are on a particular day, the more affective states carry over across occasions (Brose et al., 2015) and result in intense negative feelings, such as anger, (Pascuzzo et al., 2015) and in distressed close relationships (King & DeLongis, 2014; Caldwell et al., 2019).

Suppression of emotion expression is another maladaptive emotion regulation strategy that has been linked to emotional inertia. Individuals with an avoidant attachment orientation tend to use suppression more than individuals with a secure or anxious attachment

orientation (Koval, Brose, et al., 2015; Meuwly & Davila, 2019) probably for self-protective reasons (Brodie et al., 2019). Suppression does not alleviate negative emotions (Szasz et al., 2011). Indeed, individuals who tend to use suppression as a strategy report lower levels of intimacy and more negative emotional experiences (Collins, 1996; Butler et al., 2004).

Overall, a high degree of emotional inertia may mirror a lack of emotional flexibility (Koval et al., 2016) and is associated with emotion regulation strategies preferentially used by anxious and avoidant individuals (Koval, Butler, et al., 2015). Therefore, since individuals high in anxiety and avoidance use emotion regulation strategies associated with emotional inertia, this study examines whether people exhibiting higher levels of insecurity will experience more negative and less positive affect and also exhibit higher emotional inertia.

The current study

The aim of the current study was to examine whether attachment orientations are associated with different patterns of emotion experience and emotional inertia during the transition to parenthood. We assessed individuals' emotional experiences using a momentary assessment approach during ordinary days across the transition to parenthood (Bolger et al., 2003). The transition to parenthood is a major life transition characterized by challenges that often affect relationships (Cowan & Cowan, 2000) sometimes leading to marked decreases in marital satisfaction and personal well-being (Simpson & Rholes, 2019). Highly anxious women enter the transition to parenthood perceiving less spousal support and with steeper declines in their marital satisfaction (Simpson & Rholes, 2019) prior to the baby's birth (Lawrence et al., 2007). It has also been found within a sample of couples expecting their first baby, that partners experience more negative affect due to increased stress (Cowan & Cowan, 2000), more negative perceptions, and decreases in relationship satisfaction (Kluwer, 2010). We hypothesized that individuals higher in attachment anxiety (H1a) and individuals higher in

avoidance (H2a) would experience less positive affect and more negative affect, especially at times of stress (H1b, H2b). We also hypothesized that individuals with higher levels of anxiety (H3a), as well as individuals with higher levels of avoidance (H4a) would exhibit more inert positive and negative emotional experiences than relatively secure individuals, especially when stressed (H3b, H4b).

Material and method

Participants

Participants were recruited from flyers and word-of-mouth advertisement. Eligible couples had to speak the study languages (French or German), be over 18 years old, live in the same household and expecting their first child. The current sample consisted of 149 mixed-gender couples ($n = 298$). The mean age was 31.55 for women ($SD = 3.66$) and 33.19 for men ($SD = 4.06$). The mean relationship duration was 6.73 years ($SD = 3.01$).

Procedures

The data for this study are part of a longitudinal study with four measurements (pregnancy, 6, 12 and 18 months after the birth of the first child). The data used for the current analyses were collected at the first measurement—in the second or third trimester of pregnancy. First, each participant completed an online survey that included questions on demographic characteristics, mental health, well-being, interpersonal dispositions, attachment orientation, and on evaluations of the relationship. Second, participants completed a smartphone-based momentary assessment procedure during seven consecutive days, four times per day (8h00, 12h00, 18h00 and 21h30). It included sets of questions related to participants' momentary emotional states and interpersonal experiences. Participants received a message in order to complete the assessment at each time point of the day and they could

complete it in the next ninety minutes. Before starting the daily assessment, all participants were provided with detailed instructions on the use of the momentary assessment. Other assessments of the study included a diagnostic telephone interview on mental health, home visits with interaction tasks, physiological measures and an evaluation week which included a three-day assessment of physiological measures and the seven-day momentary assessment. All participants completed and signed the informed consent form and after each assessment point, they received approximately 180 \$ per couple. The project was approved from the ethics review board of the regional government.

Measures

Attachment orientation

The Experiences in Close Relationships-Revised (Fraley et al., 2011) French version (Favez et al., 2016) and German version (Neumann et al., 2007) was used to assess individual attachment on two dimensions: anxiety and avoidance. The questionnaire includes 36 items, of which 18 assess attachment anxiety, the degree to which individuals feel insecure about the availability and responsiveness of their partner (e.g., “I need confirmation that my partner loves me”; females: $\alpha = .867$; males: $\alpha = .878$), and another 18 items assess attachment avoidance, the degree to which individuals avoid closeness and intimacy (e.g., “I try to avoid getting too close to my partner”; females: $\alpha = .873$; males: $\alpha = .815$). Participants responded to each item using a 7-point scale from 1 (*strongly disagree*) to 7 (*strongly agree*), rating the extent to which each item is descriptive of how they usually feel and behave in romantic relationships. Ratings were averaged to compute scores for each dimension. Higher scores reflected more anxious and more avoidant attachment orientations.

Emotional states

Emotions were assessed by daily diaries and participants rated the degree to which they felt “happy”, in a “good mood”, “depressed”, “irritated”, “lonely”, and “worried”. A continuous slider on a 10-point-scale was used, ranging from 1 (*not at all*) to 10 (*extremely*). The ratings of the item “happy” and “good mood” were averaged to form a Positive Affect (PA) measure and the two items had a high internal within person consistency (females: $\alpha = .916$; males: $\alpha = .889$). The ratings of the items “depressed”, “irritated”, and “worried”, were averaged to reflect negative affect (NA). The scale for NA had a satisfactory internal consistency (females: $\alpha = .684$; males: $\alpha = .752$). We examined individual differences in emotional trajectories of positive and negative affect. We also calculated between persons internal consistency for PA (females: $\alpha = .965$; males: $\alpha = .969$) and for NA (females: $\alpha = .853$; males: $\alpha = .836$). Emotion dynamics were operationalized as the autocorrelation of repeated measures of emotional states, and we refer to it with the term emotional inertia.

Stress

Stress was assessed by participants’ daily ratings of the degree to which they felt stress at a specific moment (“Currently, how stressed do you feel?”). A continuous slider on a 10-point-scale was used to measure the extent the participants felt stressed, ranging from 1 (*not at all*) to 10 (*extremely*).

Data analysis

We used Multilevel Modeling for our analyses, as it allows to model the variance that occurs within individuals and dyads as distinct from variability that emerges between individuals and dyads, while considering dependencies due to repeated measures and coupled partners. We set up a dyadic model which captures the differences between dyads at Level-2 and the differences within individuals at Level-1. Models were run with the package nlme

(Pineiro et al., 2018) in R Studio (RStudio Team, 2020). We tested equations that included separate coefficients for the two partners of the couple (Bolger & Laurenceau, 2013). Our sample included mixed-gender couples, so dyads' members were distinguishable by their reported gender (Kenny & Cook, 1999). Daily reports (Level 1) of both partners were modeled as nested within couples (Level 2). Level 1 predictors (lagged emotion and stress) were centered around the group mean and Level 2 predictors (anxiety and avoidance) were centered around the grand mean.

Level-1 model examined the within person differences of affective state as a function of lagged emotion (emotional inertia) and stress. Emotional inertia was calculated as first order autocorrelation of positive affect (PA) and negative affect (NA) across time. These coefficients reflect the extent to which the current emotional state is a function of the emotional state reported at the previous measurement (lagged emotional state; $t-1$). Our level 1 equation was:

$$\text{Emotion}_{it} = \pi_{0i} + \pi_{1i} (\text{Anxiety}) + \pi_{2i} (\text{Avoidance}) + \pi_{3i} (\text{Emotion}_{t-1i}) + \pi_{4i} (\text{Anxiety} * \text{Emotion}_{t-1i}) + \pi_{5i} (\text{Avoidance} * \text{Emotion}_{t-1i}) + \pi_{6i} (\text{Stress}) + \pi_{7i} (\text{Stress} * \text{Emotion}_{t-1i}) + \pi_{8i} (\text{Anxiety} * \text{Emotion}_{t-1i} * \text{Stress}_t) + \pi_{9i} (\text{Avoidance} * \text{Emotion}_{t-1i} * \text{Stress}_t) + \text{Time} + e_{it}$$

Emotion_{it} stands for a person's i current affective state at time t , modeled by the slope representing the extent to which current affective state is predicted by the previous affective state, and adjusted for the intercept π_{0i} , which denotes the mean level of current affective state of person i when all other predictors are held constant. The estimates, π_{1i} and π_{2i} represent the between subject effect of anxiety and avoidance of a participant i . The estimate π_{3i} reflects the within-subject effect of affective state of person i at the previous measurement occasion. The estimates π_{4i} and π_{5i} represent the coefficients for the interaction terms between attachment orientations and lagged emotion, capturing the extent to which anxiety and avoidance were associated with affect stability (inertia) over time. The estimate π_{6i} reflects the current felt

stress of a person at time t , and the estimate π_{7i} reflects the interaction effect of current felt stress with the affective state of person i at the previous measurement occasion. The estimates π_{8i} and π_{9i} reflect the three-way effect of attachment orientation (anxiety and avoidance respectively), affective state captured at the previous measurement occasion and current felt stress. Time was used as a covariate and the error term e_{ti} denotes the residual variance.

We ran four different models to test whether attachment orientation predicted positive or negative affect as well as emotional inertia, especially at times of stress. Specifically, we ran two models for anxiety predicting current positive and negative affect (H1a) and we tested associations with stress to test H1b. In addition, we examined actor interaction effects between attachment anxiety and lagged emotion (H3a) in predicting more inert positive or negative affect and especially so at times of stress (H3b). Two more models tested if avoidance predicted current positive and negative affect (H2a) and especially under stress (H2b). We also examined actor interaction effects between avoidance and lagged emotion (H4a) in predicting more inert positive and negative affect and especially so during times of stress (H4b).

Results

Descriptive statistics

Table 1.1. presents the means and the standard deviation (*SD*) for all our variables. Correlation coefficients among study variables are presented in Table 1.2. Across and within individuals *M* and *SDs* were calculated. Specifically, between individuals, the average report of positive affect was $M = 7.59$ ($SD = 1.73$), and the average report of negative affect was $M = 1.06$ ($SD = 1.41$) and the average report of stress was $M = 1.74$ ($SD = 2.19$). The within person variability was $SD = 1.38$ for positive affect, $SD = 1.08$ for negative affect and $SD = 1.68$ for

stress. The ICC for positive affect was .824 (*CI* .817 - .832) and for negative affect it was .462 (*CI* .447 - .476).

Attachment predicting daily affect

We predicted that both attachment anxiety (H1) and avoidance (H2) were associated with less positive and more negative momentary affect reports. Overall, we found significant main effects of anxiety on affect for both men and women (see Table 1.3.). Anxiety was significantly and negatively associated with PA in both women ($b = -.323, p = .002$) and men ($b = -.385, p = .001$). Likewise, anxiety was positively and significantly associated with NA for both women ($b = .328, p = .000$) and men ($b = .388, p = .000$). In contrast, attachment avoidance did not reliably predict positive or negative affect (see Table 1.4.). No significant associations emerged between avoidance and PA for women ($b = .103, p = .630$) or men ($b = .288, p = .253$), and neither did avoidance predict NA in women ($b = .113, p = .599$) or in men ($b = .264, p = .293$).

Table 1.1.*Participants Mean Ratings of Attachment Orientation, Stress and Emotional States*

	Females		Males	
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
Anxiety	2.73	.73	2.65	.76
Avoidance	1.82	.37	1.99	.34
PA	7.59	1.86	7.59	1.73
NA	.84	1.34	1.06	1.41
PA lagged	7.58	1.87	7.58	1.73
NA lagged	.84	1.34	1.07	1.41
Stress	1.49	2.08	2.02	2.26

Note. PA = Positive Affect; NA = Negative Affect

Table 1.2.*Correlation Matrix for Anxiety, Avoidance, Stress, PA, NA, PA-lagged, NA lagged*

	1.	2.	3.	4.	5.	6.	7.
1.Anxiety	-						
2.Avoidance	-.135**	-					
3.Stress	.137**	-.037*	-				
4.PA	-.155**	.100**	-.479**	-			
5.NA	.199**	-.027	.573**	-.555**	-		
6.PA-lagged	-.155**	.101**	-.357**	.586**	-.360**	-	
7.NA-lagged	.193**	-.020	.417**	-.357**	.569**	-.553**	-

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Associations between attachment, stress, and momentary affect

Anxious attachment was associated with less positive and more negative affect reports during stressful moments in women, and partially in men (see Table 1.3.). Anxiety interacted with momentary stress to predict less positive ($b = -.055, p = .011$) and more negative affect ($b = .100, p < .000$). In men, attachment anxiety did not significantly interact with momentary stress to predict positive affect ($b = .009, p = .589$) in men, but men who were more anxious reported more negative affect in moments when they felt more stressed ($b = .032, p = .024$).

As shown in Table 1.4., attachment avoidance did not interact with momentary stress to predict positive or negative affect in significant ways.

Associations between attachment orientations and emotional inertia

Attachment anxiety

Hypotheses 3 and 4 predicted that attachment anxiety and avoidance were associated with more inert affect. We found no significant associations between attachment anxiety (cf. Table 1.3.) or avoidance (cf. Table 1.4.) supporting this prediction. In women, attachment anxiety was not significantly associated with lagged PA predicting concurrent PA ($b = -.032, p = .280$). For men, we found a significant negative association between attachment anxiety and positive affect inertia ($b = -.064, p = .016$), suggesting that positive affect showed fluctuations in more anxious men. No significant associations between attachment anxiety and negative affect inertia emerged, neither for women ($b = .006, p = .831$) nor for men ($b = -.004, p = .860$).

Attachment avoidance

Support for the hypothesis that attachment avoidance was associated with more inert affect was also inconsistent (cf. Table 1.4.). A significant association of attachment avoidance

with positive affect inertia emerged for men ($b = .122, p = .048$), suggesting that in avoidant men, positive affect was more inert. For highly avoidant men (1 *SD* above average in avoidance) we found little evidence for positive affect inertia ($b = .175$), as compared to men lower in attachment avoidance. However, no significant associations between attachment avoidance and affect inertia emerged for men's negative affect ($b = -.101, p = .276$), or women's positive ($b = .038, p = .538$) or negative affect ($b = -.046, p = .602$).

Attachment and emotional states during moments of stress

The results yielded inconsistent results regarding the association between momentary stress and positive or negative affect inertia. While women's momentary stress was associated with more inert positive affect (Table 1.3.: $b = .033, p = .001$; Table 1.4.: $b = .029, p = .002$) and anxious men's momentary stress was associated with more inert negative affect (Table 1.3.: $b = .023, p = .016$) and for avoidant men's momentary stress was associated with less inert negative affect (Table 1.4.: $b = -.023, p = .045$), no significant association emerged for women's negative affect inertia or men's positive affect inertia.

We predicted that insecure attachment was associated with more inert affect specifically during moments of stress. To test this prediction, we estimated three-way interactions between attachment, momentary stress and lagged affect as a predictor of concurrent stress. The results reported in Tables 1.3. and 1.4. yield no consistent support for this prediction.

Attachment anxiety

A significant effect for attachment anxiety as a predictor of differential positive affect inertia during moments of stress emerged for men (Table 1.3.). However, the parameter estimate suggests more fluctuation of positive affect associated with momentary stress for more anxious men ($b = -.024, p = .018$). No equivalent effect emerged for negative affect ($b =$

-.017, $p = .071$), or for women's positive ($b = .003$, $p = .817$) or negative affect ($b = .001$, $p = .962$).

Table 1.3.

The Effects of Attachment Anxiety and Stress on Emotional States and Lagged Affect as a Function of Participant Sex

	PA			NA		
	<i>b</i>	<i>SE</i>	<i>p</i>	<i>b</i>	<i>SE</i>	<i>p</i>
<i>Women</i>						
Anxiety	-.323**	.105	.002	.328***	.076	.000
LA	.090***	.022	.001	.046*	.022	.043
Stress	-.257***	.015	.000	.312***	.010	.000
Anxiety x Stress	-.055*	.022	.011	.100***	.015	.000
Anxiety x LA	-.032	.030	.280	.006	.028	.831
Stress x LA	.033*	.009	.001	.014	.009	.120
Anxiety x Stress x LA	.003	.014	.817	.001	.011	.962
<i>Men</i>						
Anxiety	-.385***	.113	.001	.388***	.100	.001
LA	.130***	.021	.0007	.116***	.022	.000
Stress	-.240***	.014	.000	.257***	.011	.000
Anxiety x Stress	.009	.016	.589	.032**	.014	.024
Anxiety x LA	-.064*	.026	.016	-.004	.026	.860
Stress x LA	.007	.009	.427	.023*	.009	.016
Anxiety x Stress x LA	-.024*	.010	.018	-.017	.009	.071

Note. * $p < .05$. ** $p < .01$. *** $p < .001$. PA = Positive Affect; NA = Negative Affect; LA = Lagged Affect.

Attachment avoidance

The results for attachment avoidance yield support for the predicted association in one case only (cf. Table 1.4.). In men, attachment avoidance was associated with more inert positive affect specifically in situations where momentary stress was reported ($b = .066$, $p = .017$). No equivalent effect was found for men's negative affect in situations of momentary stress ($b = .018$, $p = .585$), or for women's positive ($b = .033$, $p = .353$) or negative affect ($b = -.057$, $p = .204$).

Table 1.4.

The Effects of Attachment Avoidance and Stress on Emotional States and Lagged Affect as a Function of Participant Sex

	PA			NA		
	<i>b</i>	<i>SE</i>	<i>p</i>	<i>b</i>	<i>SE</i>	<i>p</i>
<i>Women</i>						
Avoidance	.103	.215	.630	.113	.215	.599
LA	.087***	.022	.001	-.069*	.030	.021
Stress	-.261***	.016	.000	-.268***	.016	.000
Avoidance x Stress	.073	.051	.154	.074	.050	.141
Avoidance x LA	.038	.062	.538	-.046	.089	.602
Stress x LA	.029**	.010	.002	-.007	.012	.568
Avoidance x Stress x LA	.033	.035	.353	-.057	.045	.204
<i>Men</i>						
Avoidance	.288	.253	.253	.264	.251	.293
LA	.134***	.021	.000	-.109***	.029	.001
Stress	-.241***	.014	.000	-.246***	.014	.000
Avoidance x Stress	.005	.042	.903	.041	.042	.334
Avoidance x LA	.122*	.062	.048	-.101	.093	.276
Stress x LA	.009	.009	.340	-.023*	.011	.045
Avoidance x Stress x LA	.066*	.027	.017	.018	.033	.585

Note. * $p < .05$. ** $p < .01$. *** $p < .001$. PA = Positive Affect; NA = Negative Affect; LA = Lagged Affect.

Discussion

The goal of this research was to examine whether men and women with insecure attachment orientations differed in their daily affective experience from individuals with more secure attachment orientations, and particularly at times when they felt stressed. We expected that individuals high in attachment anxiety orientation (H1a) and individuals high in attachment avoidance orientation (H2a) would experience more negative and less positive affect, especially at times of stress (H1b, H2b) and that people higher in anxiety (H3a) and

avoidance (H4a) would show inertia in their affect reports, and especially so when they reported stress (H3b, H4b).

Overall, the data provided support for generally lower positive and higher negative affect reports for individuals with an anxious attachment orientation, supporting H1a, and some support that this pattern is particularly accentuated for anxious individuals when they reported momentary stress (H1b, H2b). Anxious women showed less positive and more negative affect, and anxious men reported more negative affect, especially when they reported stress (partially supporting H1b). In contrast attachment avoidance was not significantly associated with less positive or more negative affect, neither generally (H2a), nor at times of stress (H2b).

The hypothesized associations between attachment orientations and affect inertia received little support (H3, H4). Only the data from avoidant men supported the prediction. These men featured more inert positive affect dynamics generally and in times of stress. The results for anxious men contrast with this prediction, suggesting that these men feature less stable affect generally and in times of stress. Women's attachment orientation was not associated with their affect dynamics, neither generally nor in times of stress. Taken together, the data yield no support for H3a and H3b, and only partial support for H4a and H4b.

For hypotheses H1a and H1b results are in line with the findings suggesting that anxiously attached individuals tend to perceive negative emotions as congruent with attachment goals, and they may seek to sustain them (Kobak & Sceery, 1988) because signs of weakness and neediness can sometimes elicit attachment figures' attention and care (Cassidy & Berlin, 1994). Hyperactivating strategies like rumination, used by anxiously attached individuals, may intensify negative emotions and overt displays of distress (Mikulincer & Shaver, 2003), hostility, and sadness (Mikulincer & Shaver, 2005). Furthermore, a possible explanation for the experience of more negative and less positive affect experience might be a

higher reactivity and less adequate recovery from negative affect (e.g., Schoebi & Randall, 2015). The finding that the differences in affect reports associated with attachment anxiety were particularly enhanced in times of momentary stress, is consistent with such a possibility.

The hypothesis H2a that individuals with an avoidant orientation were expected to experience higher levels of negative and lower levels of positive affect and especially when stressed (H2b) was not supported. According to previous research, avoidant individuals adopt deactivating strategies that allow distancing from distress-eliciting events (Mikulincer & Shaver, 2003). This may cause them to avoid noticing—or even reporting—their own negative emotional reactions. Avoidant individuals tend to divert attention from emotion related material and defend against the conscious experience of unpleasant emotions (Mikulincer & Shaver, 2019) by denying or suppressing them (Shaver & Mikulincer, 2002). Individual and situational differences may also help explain these results. Avoidant individuals experience activation of attachment-related worries only under conditions of high cognitive load (Shaver & Mikulincer, 2002). Specifically, in severe and persistent stressful conditions imposing increasing demands on their cognitive system, avoidant individuals exhibit high levels of distress (Mikulincer & Florian, 1998). In this study, participants answered an ambulatory assessment about their emotions at different times during a day and we speculate that if individuals did not experience a prolonged stressful situation alongside their emotions, then maybe the avoidant attachment system was not activated. Therefore, attachment avoidance was not significantly associated with more negative emotions. Contextual factors such as current interactions with a partner, the attachment dynamics of the partner and a person's current life situation (e.g., physical and psychological traumas) also modify the tendency that an avoidant individual has for deactivation of the attachment system and the experience of negative emotions (Mikulincer & Shaver, 2003). Moreover, there is some evidence that, rejecting parents often discourage emotional display in their children and they do not teach them

how to label and represent their emotions. As such, avoidantly attached individuals are found to experience more negative emotions but fail to acknowledge them (Fraley & Shaver, 1997) and have greater difficulty in describing these emotions (Wearden et al., 2003) relative to anxious individuals. Consequently, these conditions can lead to later difficulties in affect regulation (Shields et al., 1994).

For our third hypothesis that anxious individuals would show more inert positive and negative experiences (H3a) and especially so when stressed (H3b) we observed that for women positive inert dynamics were predicted only by stress. Positive rumination sustains positive emotions, and it may interfere with flexibly responding to external information (Kuppens et al., 2012). Importantly, positive emotions that are slow to change across contexts may also indicate an affective system that has become disconnected from environmental contingencies or regulatory processes (Kuppens et al., 2012). Anxiety did not predict more inertia neither generally, nor when women were stressed. On the contrary, anxious men showed less inert positive dynamics generally and also when they felt stressed. In line with these findings, (Koval & Kuppens, 2012) found that more vulnerable individuals had a greater drop in inertia levels when they anticipated a stressor suggesting that it is stress vulnerability underlying changes in emotional inertia. Considering that anxious individuals seek proximity to gain support and love (Cassidy & Kobak, 1988) aiming at establishing intimacy and closeness (Mikulincer & Shaver, 2003) maybe this leads to more frequent emotional fluctuations (i.e., lower emotional inertia). Yet, another possibility is that in anticipation of or during a stressor—like the transition to parenthood—individuals might change their daily activities which might influence changes in moment-to-moment feelings (Koval & Kuppens, 2012). Therefore, assuming that anxious individuals would exhibit higher inert emotional experiences might not be true because of their hyperactivating strategies during stress. Thus,

we observe that stress predicts more positive inert experiences in women but more negative inert experiences in men.

Individuals high in avoidance did not report more inert negative emotions, but more inert positive emotions, generally (H4a) and when stressed (H4b). This result is interesting as it confirms past findings suggesting that it is possible that avoidant individuals have learned to deny or suppress their negative emotions, partially because emotional expression increases the likelihood of caregiver rejection (Main & Weston, 1981). Thus, they may report less negative emotion in daily life and show a faster recovery—lower levels of inertia—when they experience them, in an effort to emotionally distance themselves from distress-eliciting events which could cause proximity-seeking and lead to their partner’s rejection (Mikulincer & Shaver, 2003). These findings are in line with our hypothesis and with previous findings, which have shown that suppression—an emotion regulation strategy preferentially used by avoidant individuals (Mikulincer & Shaver, 2007; Brodie et al., 2019) is linked to restricted emotional flexibility (Brose et al., 2015; Koval et al., 2015). Moreover, it resulted in more inert positive behaviors (e.g., smiling, laughing) (Koval, Butler, et al., 2015) which can possibly explain why in our study more avoidant men exhibited more inert positive emotions and particularly so when they were stressed. Importantly, positive emotions that are slow to change across contexts may also indicate an affective system that has become disconnected from environmental contingencies or regulatory processes (Kuppens et al., 2012). Therefore, considering that avoidants suppress their negative emotions, maybe we should have expected that they would only exhibit higher positive inert experiences and not negative ones, generally and also when stressed. Suppressing feelings that imply vulnerability, results in ignoring important information about stressful situations and as such they did not show negative emotional experiences. In addition, another consideration is that the difficulty in regulating

their emotions makes avoidant individuals to keep anger and resentment alive internally while attempting not to express them externally (Mikulincer & Shaver, 2007).

Priming thoughts of a supportive attachment figure and cognitive models of self and others lead people high on anxiety or avoidance to behave like more secure individuals (Mikulincer & Shaver, 2001). Individuals with avoidant workings models when they are in stressful situations and their romantic partners support them with unsolicited support, are rated as more calmed (Simpson et al., 1992). This indicates that such persons can benefit from support which can in turn lead them to experience less negative affect and less inert dynamics because their partner's support buffered their attachment-related concerns. In our sample, couples were relatively happy expecting their first child, which means that they might have encountered more supportive and positive emotional experiences. In this line of reasoning, anxiously or avoidantly oriented individuals are less inclined to feel and behave according to their insecure working models when they are involved in more committed relationships (Tran & Simpson, 2009) or are more dependent on their partner (Campbell et al., 2001). For instance, when they encounter stressful situations these individuals are less likely to react in insecure ways when their partner buffers their attachment related concerns, helping to actually experience less negative affect (Simpson & Overall, 2014).

One question that deserves attention is how affect reactivity and inertia go together and whether they can co-exist. Our results show that stress predicts more positive inertia in avoidant men and more negative inertia in anxious men raising the question of whether some people are more stress-reactive—like the anxious individuals who use hyperactivating strategies—and at the same time they are also more inert after a stressful experience that they might have failed to cope and regulate their emotions.

Limitations

The results reported in this study should be appreciated with caution due to several limitations. First, due to the correlational nature of the analyses, causal inferences among attachment insecurity and emotion or emotional inertia cannot be drawn with certainty. Second, participants were healthy and involved in stable, relatively happy romantic relationships, expecting their first child. It is therefore unclear whether these results can be generalized to other relationships in the broader population. Third, the current studies focused on attachment insecurity and its effect on the experience of affect and its over time dynamics. Several other factors that potentially influence affect experience and dynamics have not been considered in this study (e.g., felt intimacy, current partner interactions). Fourth, we assessed momentary affect four times a day, and this might be too coarse a sampling grid to capture everyday emotional fluctuations. Thus, a more fine-grained assessment of momentary affect fluctuations may be necessary to capture fluctuations in affect inertia (Brose et al., 2015) or momentary emotional experiences.

Conclusion and future directions

Despite the limitations, our study advances the current understanding of how emotions and emotional inertia are associated with attachment anxiety and avoidance, especially when individuals feel stress. Furthermore, studying momentary fluctuating affect offers complementary insight into the emotional functioning of individuals with different attachment orientations. Further research is needed to better understand the role of attachment in the experience of emotions, their sustainability through time and their impact on subsequent functioning and social interactions. It still needs to be clarified why affective experiences are more inert in some people than in others and how attachment orientation and felt stress potentially affect these experiences. The current study examined only the subjective feeling

component of emotions. However, emotions are considered to also involve changes in behavior, physiology and subjective experience (Scherer, 2009). Therefore, future studies should focus on temporal dynamics of emotions as the outcome of multiple factors and processes. Additional investigation of gender and attachment in relation to emotions is warranted. The study of individual differences in attachment orientations, the experience of emotion and emotion dynamics, is likely to contribute to our understanding of why close relationships vary in both their quality and their interpersonal nature.

10.Study 2: Perceived Partner Responsiveness across the transition to parenthood: the role of attachment insecurity

Abstract

During challenging periods like the transition to parenthood, support from one's partner becomes of vital importance for maintaining a healthy relationship. A hallmark of feeling supported by the partner is the perception that he or she is responsive to one's needs. Such perceptions are highly subjective, and also shaped by the attachment orientations of the perceiver. For example, insecurely attached individuals tend to perceive less support from their intimate partner. The current study examines the role of attachment insecurities on changes of perceived partner responsiveness across the transition to parenthood. We investigated changes in perceived responsiveness in 120 mixed-gender couples across the transition to parenthood over four different time points (during pregnancy, 6 months, 12 months, and 18 months after the birth of their first child). Results suggest a significant decline of perceived responsiveness for both women and men during the transition to parenthood. Examination of associations between perceived partner responsiveness and changes of attachment orientations suggest that attachment insecurities increased across the transition to parenthood.

Introduction

The transition to parenthood is a complex process characterized by personal and family changes, which require adjustment (Epifanio et al., 2015) and have a significant impact on relationship functioning (Doss et al., 2009). Changes in the daily structure of couples' life can cause stress (Doss et al., 2009; Reid & Taylor, 2015) and undermine personal and relational well-being, while dealing with stress requires individual and social resources (Lazarus & Folkman, 1984). Intimate relationships can be a valuable source of support during adaptation to life changes (Cohen & E. P. Lemay, 2007), and particularly so during the

transition to parenthood. At the core of support experiences, perceived partner responsiveness to one's needs plays a crucial role and contributes to the growth and well-being of relationships (Reis & Gable, 2015). However, individual differences in attachment orientations can influence and explain to what extent and how people seek close physical and emotional proximity when they feel threatened or distressed (Bowlby, 1973), and they also shape peoples' responses to an intimate partner's distress signals (Hazan & Shaver, 1987). As suggested by the security enhancement model (Arriaga et al., 2018), partners can play an important role in maintaining attachment insecurities through time by reinforcing existing negative working models of the self and other. Perceiving partner responsiveness should enhance attachment security in an intimate relationship for both anxiously and avoidantly attached individuals (Rice et al., 2020). In the current study, we examine the role of attachment anxiety and avoidance in predicting changes in perceived partner responsiveness and we also examine changes of attachment insecurities predicted by perceived partner responsiveness, across the transition to parenthood.

Transition to parenthood

Major life transitions often come with increased stress (Price, 2000) and an elevated risk for mental health problems (Wheaton, 1990). The transition to parenthood is a normative challenge for many, and characterized by pressures for personal, familial and social change (Levy-Shiff, 1994). It is experienced as a major life transition that affects their bodies, minds, social roles, and relationships (Cowan & Cowan, 2000). New parents face the challenges of fatigue, momentary strain, and work-family conflict, and at the same time, they must also learn to be parents and coparents (Mitnick et al., 2009). As a result, and although there is growing research suggesting that parenthood is associated with greater marital stability (Roy et al., 2013) and satisfaction (Guttmann & Lazar, 2004), the stresses associated with the transition to

parenthood can take their toll on couple life and individual well-being (Mitnick et al., 2009). Given the health risks associated with increased levels of stress, they may negatively impact physical and psychological health (Robles et al., 2015).

Although the extent that the transition to parenthood undermines relationship functioning has been discussed controversially (Doss et al., 2009), parents seem to generally experience steeper declines in marital quality (Kiecolt-Glaser & Newton, 2001) and relationship satisfaction than childless couples (Doss & Rhoades, 2017 ; Mitnick et al., 2009), at least temporarily (Lawrence et al., 2008). Often, couples report higher levels of stress during the transition to parenthood (Doss et al., 2009), a decline in relationship satisfaction during the first 18 months after birth (Cowan & Cowan, 1995), and increases of marital distress (Cowan & Cowan, 2000). Additionally, an increased risk for mental health issues in both partners has also been observed (Cowan & Cowan, 2000), with increases in depressive symptoms (Simpson, Rhoades, Campbell, Tran, & Wilson, 2003). Changes in roles and demands help explain why couples experience declines in relationship functioning (Cowan & Cowan, 2000). Despite these negative implications, not all couples are subject to declines in relationship functioning across the transition to parenthood. Some couples even experience increases in satisfaction and their relationship flourishes (Doss et al., 2009). Individual differences in attachment orientations and perceptions of partner responsiveness might help explain such differences in adjustment (Kohn et al., 2012).

The role of partner responsiveness

Partner responsiveness is operationalized as the degree of understanding, validation, and care that partners display toward one another, and it has been associated with positive outcomes in relationships. It refers to the process through which relationship partners attend

to and respond supportively to each other's needs, wishes and concerns (Clark & Lemay, E. P., Jr., 2010) and it involves one's partner disclosure of affect personal information (verbal or nonverbal) and the other partner's contingent response to subjective perception of this disclosure (Reis & Gable, 2015). For both partners, responsiveness contributes to attraction and commitment (Reis & Shaver, 1988) and it is contingent on the partner's responsive actions and the perceptions of being responsively supported (Reis & Clark, 2013). It also plays a pivotal role in establishing and maintaining intimacy in relationships (Laurenceau et al., 2005), and it predicts better adaptation to parenthood in the long term (Ter Kuile et al., 2017).

The benefits of responsive behaviour are not observed only among partners who receive high levels of responsiveness, but also in the responsive partners themselves, arguably because caring for others is an innate human tendency (Bowlby, 1988). However, stressful contexts like the transition to parenthood may compromise the impact of responsive support (McLeod et al., 2020). Stressors are likely to impact both partners to some degree, regardless of whether the impact is direct or not (Randall & Bodenmann, 2009), and can contribute to disengagement and withdrawal (Bodenmann, 1995). Indeed, new parents can be at risk for parental burnout, which can lead to emotional distancing (Roskam et al., 2017) and greater conflict (Blanchard et al., 2021), which in turn may undermine responsiveness and relationship satisfaction (Smallen et al., 2021). Intimate relationships are thus a main source of support during adaptation to life challenges, like the transition to parenthood, as they offer important resources like partner responsiveness, which help individuals to adjust to this challenging period (Cohen, 2004).

Attachment needs and perceived partner responsiveness

Adult attachment theory suggests that attachment orientations are closely related to experiences and perceptions of social support (Bowlby, 1973). Indeed, studies suggest that attachment orientations predict the tendency to seek support when coping with stress (Simpson et al., 1992), and perceptions of available support (Bartholomew et al., 1997). Sometimes enacted support is not perceived as such or is interpreted as unhelpful, even on occasions where support seems to be responsive and sensitive to the specific needs of the partner (Collins & B. C. Feeney, 2000). Attachment orientations may explain such discrepant perceptions: individuals with a secure attachment orientation perceive their partner as being better caregivers than do individuals with an insecure attachment orientation (Kane et al., 2007). Specifically, it is possible that individuals with an anxious attachment orientation perceive less spousal support than should less anxious individuals. For instance, anxious women seem to perceive less support pre-birth and show comparatively large declines in perceptions of support from pre-birth to six months after birth (Rholes et al., 2001). Similarly, individuals with an anxious attachment orientation report being under-supported (Brock & Lawrence, 2014), they tend to negatively evaluate support attempts (Don & Hammond, 2017), and report lower availability of support (Stanton & Campbell, 2014). Such results may also extend to individuals with avoidant attachment orientations. Individuals high in anxiety and avoidance (matching the fearful profile) felt substantially less supported by their partner's supportive notes than their more secure counterparts (Collins & B. C. Feeney, 2004). People with an avoidant attachment orientation report lower perceptions of support availability (Mak et al., 2010) as well as a less provision of support. If perceptions of support are based on perceptions of partner responsiveness, these findings suggest that perceptions of partner responsiveness should be compromised by attachment insecurities.

Although the majority of the literature so far portrays individuals as being chronically anxiously or avoidantly attached, it is important to mention that attachment orientations can change over time (Chopik et al., 2019). Some factors that may foster attachment insecurities across time could be a lack of clarity in one's working models (Davila & Cobb, 2003) and low marital satisfaction (Davila et al., 1999). On the contrary, there are factors which can foster increases in attachment security across time such as trust (Arriaga et al., 2014) and responsive support processes (Simpson, Rholes, Campbell & Wilson, 2003). Additionally, perceived partner responsiveness is thought to be important for a secure attachment orientation (Reis et al., 2004). Research has shown that when individuals perceive that their partners are supportive, they are more likely to experience feelings of security within their relationship (B. C. Feeney & Collins, 2001). In line with this reasoning, more recent research suggests that partner support and responsiveness can be a source of promoting attachment security resulting in more satisfying relationships (Arriaga et al., 2018). Thus, attachment orientations are dynamic and can change under certain dyadic interpersonal processes. For example, some longitudinal findings show that anxious individuals become more secure if they perceive encouragement of personal goals that contrasts with their working models involving an incompetent self (Arriaga et al., 2014). Along these lines, another study showed that expectant parents became more secure when they received responsive support, possibly because it allowed them to revise negative expectations of support and dependence (Rholes et al., 2020). The transition to parenthood is a period in which relationship dynamics can shift (Nelson-Coffey et al., 2019; Twenge et al., 2003) and new parents may be more reactive to their partner's behaviors, which may contribute to changes in working models and attachment orientations (Bowlby, 1988).

The current study

The current study examines the trajectories of perceived responsiveness and attachment insecurities across the transition to parenthood, two relational domains that are likely to mutually affect each other. To test associations between attachment orientations and changes in perceived partner responsiveness we collected self-report measures of attachment orientations and overall assessments of perceived responsiveness during pregnancy (T0), at 6 months (T1), 12 months (T2) and 18 months (T3) after the birth of the first child. We predicted that (H1) an anxious attachment orientation predicts perceptions of lower responsiveness both at the prenatal (T0) and the postnatal (T1, T2, T3) measurements. Furthermore, a higher avoidance orientation predicts perceptions of less responsiveness both at the prenatal (T0) and postnatal (T1, T2, T3) measurements (H2). Additionally, based on recent findings suggesting that attachment orientations can change over time and to address the gap in the literature of empirical research directly examining the impact of responsiveness on attachment tendencies, we examined whether perceiving more partner responsiveness predicts decreases in attachment anxiety (H3) and attachment avoidance (H4) across the transition to parenthood.

Material and Method

Participants

Participants were recruited from flyers and word-of-mouth advertisement. Eligible couples had to speak German or French, be over 18 years old, live in the same household and expecting their first child. The current sample consisted of 151 mixed-gender couples at Time 0 ($N = 302$), 120 mixed-gender couples at Time 1 ($N = 241$), 104 mixed-gender couples at Time 2 ($N = 209$) and 80 mixed-gender couples at Time 3 ($N = 161$). The mean age was 31.55

years for women ($SD = 3.66$) and 33.19 years for men ($SD = 4.06$). The mean relationship duration was 6.73 years ($SD = 3.01$).

Procedure

The data for this study are part of a longitudinal study with four measurements (pregnancy, 6, 12 and 18 months after the birth of the first child). Data collection was scheduled for the second and third trimester of pregnancy, and for months six, 12 and 18 after birth. Each participant completed an online survey that included questions on demographic characteristics, mental health, well-being, interpersonal dispositions, attachment orientation, perceived responsiveness and on evaluations of the relationship. Other assessments of the study included a diagnostic telephone interview on mental health, home visits with interaction tasks, physiological measures and an evaluation week which included a three-day assessment of physiological measures and the seven-day momentary assessment. All participants completed and signed the informed consent form and after each assessment point, they received a value of approximately 180 \$ per couple. The project was approved from the ethics review board of the regional government.

Measures

Attachment orientation

The Experiences in Close Relationships-Revised (Fraley et al., 2011) in its French (Favez et al., 2016) and German version (Neumann et al., 2007) was used to assess individual attachment on two dimensions: anxiety and avoidance. The questionnaire constitutes of 36 items, of which 18 assess attachment anxiety (e.g., “I am afraid that I will lose my partner’s love”) with a high internal consistency for women ($\alpha = .87$) and for men ($\alpha = .88$), and another 18 items assess attachment avoidance the degree to which individuals avoid closeness and intimacy (e.g., “I prefer not to show how I feel deep down”) with a high internal

consistency for women ($\alpha = .87$) and for men ($\alpha = .81$). Participants responded to each item using a 7-point scale from 1 (*strongly disagree*) to 7 (*strongly agree*), rating the extent to which each item is descriptive of how they usually feel and behave in romantic relationships. Ratings were averaged to compute scores for each dimension. Higher scores reflected more anxious and more avoidant attachment orientations.

Perceived partner responsiveness

Participants answered to 3 items, used in previous investigations using the MIDUS data (Slatcher et al., 2015). We adapted these items to match the three core components of responsiveness (i.e., understanding, validating, and caring) (“In general my partner understands me”, “my partner appreciates my opinion and capacities”, “how important am I for my partner”) answering on a 6-point scale from 1 (*not at all*) to 6 (*really a lot*). The scale yielded a moderate internal consistency for women ($\alpha = .68$) and for men ($\alpha = .62$).

Data analysis

For the analyses of results, we used Multilevel Modeling (MLM) to separately model variance within individuals and dyads and variance occurring between individuals and dyads. At Level-2 we captured the differences between dyads and at Level-1 we captured the differences within individuals. Our models were run with R Studio (RStudio Team, 2020) and the package nlme (Pinheiro et al., 2018) following suggestions for momentary assessments by Bolger and Laurenceau (2013). Attachment as an independent variable was centered around the grand mean. Our equation was:

$$\text{Perceived partner responsiveness}_{\chi\psi} = \pi_{0\gamma} + \pi_{1\gamma}(\text{Anxiety}_{\chi\psi}) + \pi_{2\gamma}(\text{Avoidance}_{\chi\psi}) + \pi_{3\gamma}(\text{Time}_{\chi\psi}) + \pi_{4\gamma}(\text{Anxiety}_{\chi\psi} * \text{Time}_{\chi\psi}) + \pi_{5\gamma}(\text{Avoidance}_{\chi\psi} * \text{Time}_{\chi\psi}) + \upsilon_0 + \upsilon_1 + \epsilon_{\chi}$$

Perceived partner responsiveness $_{\chi\psi}$ reflects a person’s current perceptions of responsiveness from the partner $_{\chi}$ at time $_{\psi}$, modeled by a slope representing the extent to which

perceived partner responsiveness changes as a function of the four different time points of measurement (Time 0, Time 1, Time 2, and Time 3. Then, $\pi_{0\gamma}$ denotes the intercept (a person's mean level of perceived partner responsiveness), $\pi_{1\gamma}$ and $\pi_{2\gamma}$ represent the mean score of anxiety and avoidance of person χ at time ψ , $\pi_{3\gamma}$ (time) was included as a covariate at Level-1 and reflects the time that has passed from the first recorded date that the participant completed the questionnaire. This is how we captured the time across the transition to parenthood and we measured changes in perceived responsiveness from Time 0 (before birth of child), Time 1 (6 months after birth), Time 2 (12 months after birth) and Time 3 (18 months after birth) of each individual. The estimates $\pi_{4\gamma}$ (Anxiety * Time) and $\pi_{5\gamma}$ (Avoidance * Time) represent the interaction effects between attachment and time passed from Time 0 to Time 3, which indicates to what extent anxiety and avoidance are associated with changes in responsiveness over time. The error term v_0 shows the error term for the intercept at Level-2. The error term v_1 denotes the residual variance for the slope level 2. The error term ϵ_χ shows the error term for time at Level-1.

Each report across time (Level-1) was modelled as nested within the female or male partner of a couple (Level-2), and partners' residuals were allowed to be correlated.

We ran 2 models reflecting the attachment orientation, transition to parenthood and perceived partner responsiveness. One model for anxiety and one for avoidance, reflecting the perceived partner responsiveness assessed through the questionnaire at Time, Time 1, Time 2 and Time 3 respectively.

For the dyadic analyses predicting changes in attachment orientation across time our equation was:

$$\text{Anxiety}_{\chi\psi} = \pi_{0\gamma} + \pi_{1\gamma}(\text{Perceived partner responsiveness}_{\chi\psi}) + \pi_{2\gamma}(\text{Time}_{\chi\psi}) + \pi_{3\gamma}(\text{Perceived partner responsiveness}_{\chi\psi} * \text{Time}_{\chi\psi}) + v_0 + v_1 + \epsilon_\chi$$

Anxiety reflects a person's χ current anxiety level at time t , $\pi_{0\gamma}$ denotes the intercept, a person's mean level of anxiety, $\pi_{1\gamma}$ reflects a person's χ mean score of perceived partner responsiveness at time ψ , $\pi_{2\gamma}$ was included as a covariate at Level-1 and reflects the time that has passed from the first recorded date that the participant completed the questionnaire. Last, $\pi_{3\gamma}$ reflects the interaction effects between perceived partner responsiveness and time passed from Time 0 to Time 3. The error term v_{0i} shows the error term for the intercept at Level-2. The error term v_{1i} denotes the residual variance for the slope level 2. The error term ε_{χ} shows the error term for time at Level-1. The same model applies for avoidance too.

Results

Descriptive statistics

Mean scores for anxiety, avoidance, and perceived partner responsiveness, within and between subjects, at each time point across the transition to parenthood are presented in Table 2.1. The minimum mean score from the questionnaire measure of perceived partner responsiveness was $M = 4.62$ ($SD = .71$) for women at time 2, and the maximum score was $M = 4.87$ ($SD = .53$) at time 0. For men the minimum average score was $M = 4.76$ ($SD = .63$) at time 3 and the maximum score was $M = 4.83$ ($SD = .51$) at time 0. Correlation matrix for time 0 (during pregnancy) and time 3 (18 months post-partum) is presented at Table 2.2.

Table 2.1.*Prenatal (Time 0) to Postnatal (Time 1,2,3) Mean Changes*

Variable	Time 0 During Pregnancy	Time 1 6 Months Post-Partum	Time 2 12 Months Post-Partum	Time 3 18 Months Post-Partum
Women's anxiety				
<i>M</i>	2.51	2.91	2.97	2.87
<i>SD</i>	0.91	0.84	0.84	0.85
Men's anxiety				
<i>M</i>	2.38	2.86	2.77	2.63
<i>SD</i>	0.88	0.82	0.80	0.74
Women's avoidance				
<i>M</i>	1.82	2.81	2.87	2.82
<i>SD</i>	0.70	0.78	0.76	0.67
Men's avoidance				
<i>M</i>	1.99	2.89	2.89	2.84
<i>SD</i>	0.60	0.66	0.69	0.67
Women's perceived partner responsiveness				
<i>M</i>	4.87	4.77	4.62	4.77
<i>SD</i>	0.53	0.61	0.71	0.63
Men's perceived partner responsiveness				
<i>M</i>	4.83	4.73	4.76	4.73
<i>SD</i>	0.51	0.65	0.63	0.71

Note: M = Mean; SD = Standard deviation

Table 2.2.*Correlation Matrix for Anxiety, Avoidance and Perceived Partner Responsiveness at Pregnancy and 18 Months Post-partum*

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Anx T0 Women	-											
2. Av T0 Women	.426**	-										
3. PPR T0 Women	-.367**	-.534**	-									
4. Anx T0 Men	.292**	.211**	-.197*	-								
5. Av T0 Men	.173*	.223**	-.328**	.458**	-							
6. PPR T0 Men	-.141	-.260**	.320**	-.311**	-.540**	-						
7. Anx T3 Women	.479**	.270*	-.277*	.158	.234*	-.126	-					
8. Av T3 Women	-.022	.413**	-.238*	-.078	.057	-.071	.533**	-				
9. PPR T3 Women	-.395**	-.546**	.736**	-.388**	-.265*	.443**	-.382**	-.302**	-			
10. Anx T3 Men	.095	.178	-.246*	.444**	.267*	-.166	.373**	.389**	-.273*	-		
11. Av T3 Men	-.155	-.152	.041	-.133	.248*	-.085	.254*	.399**	.130	.542**	-	
12. PPR T3 Men	-.275*	-.229*	.348**	-.333**	-.502**	.526**	-.228*	-.102	.403**	-.346**	-.245*	-

Note: **.Correlation is significant at the 0.01 level (2-tailed).*.Correlation is significant at the 0.05 level (2-tailed).

Anx =Anxiety; Av = Avoidance; PPR = Perceived partner responsiveness. T0 = Pregnancy; T3 = 18 months post-partum.

Attachment insecurities predicting changes in perceived partner responsiveness

Our H1 and H2 were confirmed, and results suggested that individuals with more anxious and with more avoidant attachment orientations perceived their partners to be less responsive than did their more securely attached counterparts across the transition to parenthood. Additionally, examining changes of perceived partner responsiveness across the transition to parenthood as a function of attachment, we found significant interactions of attachment and time for both men and women.

Anxiety – Perceived partner responsiveness

The upper section of Table 2.3. presents these results. H1 was confirmed as we found significant interactions, which showed that for anxious women and men, perceived partner responsiveness decreased more strongly across time. Time alone was significantly associated with less perceived partner responsiveness for women ($b = -.001, p = .000$) but not for men ($b = -.001, p = .082$). Interactions of time and attachment anxiety showed that, across the transition to parenthood anxiety was negatively associated with perceived partner responsiveness for both women ($b = -.004, p = .000$) and men ($b = -.002, p = .000$). Thus, during the 18 months across the transition to parenthood both women and men decreased in perceived partner responsiveness and especially if they were anxious.

The main effect of attachment anxiety was significantly associated with less perceived partner responsiveness for women ($b = -.142, p = .004$) and men ($b = -.152, p = .007$).

Avoidance – Perceived partner responsiveness

The lower section of Table 2.3. presents these results. Our H2 was confirmed as we found significant interactions between attachment avoidance and time. Time alone, did not predict changes in perceived partner responsiveness neither for women ($b = -.000, p = .162$)

nor for men ($b = -.000, p = .799$). However, we found significant interactions between attachment avoidance and time during the transition to parenthood. Specifically, results revealed that across the transition to parenthood avoidance was negatively associated with perceived partner responsiveness for both women ($b = -.005, p = .000$) and men ($b = -.005, p = .000$). Thus, perceived partner responsiveness decreased more during the 18 months across the transition to parenthood for both women and men and especially if they were avoidants.

Main effects showed that both women ($b = -.217, p = .000$) and men ($b = -.183, p = .004$) higher in attachment avoidance on average perceived less partner responsiveness.

Table 2.3.*Attachment Orientations Predicting Changes in Perceived Partner Responsiveness Across the Transition to Parenthood*

	Women					Men				
	<i>B</i>	<i>SE</i>	<i>p</i>	<i>Lower CI</i>	<i>Upper CI</i>	<i>B</i>	<i>SE</i>	<i>p</i>	<i>Lower CI</i>	<i>Upper CI</i>
Intercept	4.841***	.043	.000	4.757	4.926	4.792***	.049	.000	4.695	4.890
Anxiety	-.142**	.049	.004	-.239	-.044	-.152**	.056	.007	-.264	-.041
Time indicator	-.001***	.000	.000	-.002	-.000	-.001	.000	.082	-.002	-.000
Transition x Anx	-.004***	.000	.000	-.004	-.004	-.002***	.000	.000	-.002	-.001
Intercept	4.789***	.046	.000	4.698	4.880	4.845***	.051	.000	4.745	4.945
Avoidance	-.217***	.054	.000	-.324	-.109	-.183**	.064	.004	-.310	-.055
Time indicator	-.000	.000	.162	-.001	-.000	-.000	.000	.795	-.001	-.000
Transition x Av	-.005***	.000	.000	-.005	-.004	-.005***	.000	.000	-.006	-.005

Note. PPR = Perceived Partner Responsiveness. Transition = Transition to Parenthood. Anx = Anxiety, Av = Avoidance.

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

Perceived partner responsiveness predicting changes in attachment orientation during the transition to parenthood

Overall, greater perceived partner responsiveness was associated with increases in attachment anxiety and avoidance across their transition to parenthood and H3 and H4 were not confirmed.

Anxiety. Table 2.4. presents estimates of changes in attachment anxiety. H3 was not confirmed. The time trend became significantly more positive with greater perceived partner responsiveness for women ($b = .002, p = .000$) and men ($b = .003, p = .000$) increasing in attachment anxiety. Testing the interaction of time and perceived partner responsiveness suggested that both women ($b = .002, p = .000$) and men ($b = .004, p = .000$) who perceived their partner to be more responsive on average during the transition to parenthood, increased in attachment anxiety over time.

However, main effects suggested that participants who reported more responsiveness were less anxious overall, across the four measurements, for both women ($b = -.596, p = .000$) and men ($b = -.408, p = .000$).

Avoidance. Table 2.4. presents estimates of changes in attachment avoidance. H4 was not confirmed. The time trend became significantly more positive with greater perceived partner responsiveness for women ($b = .011, p = .000$) and men ($b = .010, p = .000$) increasing in attachment avoidance. Testing interactions of time and perceived partner responsiveness showed significantly more increases in attachment avoidance for both women ($b = .000, p = .000$) and men ($b = .003, p = .000$) across the transition to parenthood.

However, main effects showed that participants who reported more responsiveness were less avoidant. Results revealed that women's ($b = -.077, p = .000$) and men's ($b = -.291,$

$p = .000$) perceived partner responsiveness was negatively associated with attachment avoidance.

Table 2.4.*Perceived Partner Responsiveness Predicting Attachment Orientations Across the Transition to Parenthood*

	Anxiety					Avoidance				
	<i>B</i>	<i>SE</i>	<i>p</i>	<i>Lower CI</i>	<i>Upper CI</i>	<i>B</i>	<i>SE</i>	<i>p</i>	<i>Lower CI</i>	<i>Upper CI</i>
<i>Women</i>										
Intercept Woman	2.684***	.062	.000	2.561	2.807	2.039***	.059	.000	1.923	2.155
PPR	-.596***	.017	.000	-.630	-.562	-.077***	.013	.000	-1.033	-.052
Time	.002***	.000	.000	.001	.004	.011***	.007	.000	1.018	.013
Transition x PPR	.002***	.000	.000	.001	.002	.000**	.000	.015	7.668	.007
<i>Men</i>										
Intercept Man	2.558***	.065	.000	2.430	2.685	2.247***	.057	.000	2.135	2.360
PPR	-.408***	.013	.000	-.435	-.381	-.291***	.009	.000	-3.105	-.271
Time	.003***	.000	.000	.001	.004	.010***	.000	.000	8.970	.011
Transition x PPR	.004***	.000	.000	.003	.004	.003***	.000	.000	3.164	.003

Note. PPR = Perceived Partner Responsiveness. Transition = Transition to Parenthood.

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

Discussion

The present study examined changes in perceived partner responsiveness in individuals with attachment insecurities during their transition to parenthood. We hypothesized that individuals high in anxiety (H1) and individuals high in avoidance (H2) perceive less responsiveness from their partner during the transition to parenthood and results confirmed these hypotheses. We also hypothesized that higher perceived partner responsiveness predicts decreases of attachment anxiety (H3) and avoidance (H4), but results showed that during time perceived partner responsiveness predicted increases in anxiety and avoidance.

Research has so far shown that anxious individuals have received, or they believe they have received, inconsistent care and support in past relationships (Cassidy & Berlin, 1994). Thus, they doubt their worth as intimate relationships' partners and they are hypervigilant to cues of being abandoned. Bowlby suggested that one of the most powerful cues of being abandoned should be diminished support in times of need (Bowlby, 1973). In line with these findings, anxious people's perceptions are formulated based on the assumption that they do not have enough support from their partners in a stressful period like the transition to parenthood, when support is mostly needed (Simpson & Rholes, 2008). The same study also found that anxious women perceived less support than their husbands claimed to offer. Working models of highly anxious individuals may distort their perceptions of partner responsiveness and support and could explain such results. Research has so far shown that insecure individuals have a difficulty recognizing support and perceiving responsiveness provided by their partners (Simpson & Rholes, 2008). They are inclined to interpret enacted support as unhelpful even in cases when support seems to be responsive and sensitive to their specific needs (Collins & B. C. Feeney, 2000). On the one hand, highly anxious individuals are sensitive to threats of rejection and they need approval, which may explain why they tend

to evaluate support attempts and responsiveness from their partner negatively (Mikulincer & Shaver, 2005). Past research has consistently shown that partners of anxious women tend to be dissatisfied mainly because of the realization that they are not able to meet the needs and demands for support of their partners, or because they are never granted with sufficient credit for the support they give (Cassidy & Berlin, 1994). On the other hand, individuals high in avoidance orientation prefer support that allows them to feel autonomous and that de-emphasizes closeness and intimacy (Mikulincer & Shaver, 2005). So, if they do not get this type of support, they might fail to recognize and perceive their partner's responsiveness. These findings could account for the result that individuals high in anxiety perceived less support from their partners during the transition to parenthood.

Another element which influences perceptions of responsiveness in intimate relationships is motivated reconstrual. Due to reciprocity in close relationships, partners may project beliefs about their own levels of responsiveness onto their partners. Consequently, they perceive a mirror of their own behaviour or intentions (E. P. Jr. Lemay, & Clark, 2008; E. P. Lemay, & Neal, 2013). This motivation bias was reflected in the current results confirming that during the transition to parenthood, individuals high in attachment insecurities perceived less caring and responsiveness from their partner than their more secure counterparts, maybe because they themselves would provide less responsiveness. However, other authors emphasized that perceptions of responsiveness reflect actual partner-enacted behaviour. For example, daily diaries have found substantial correspondence between one partner's reports of enacted responsiveness and the other partner's reports of perceived responsiveness (Reis et al., 2014). However, it is likely that perceptions of responsiveness are influenced by both the partner's actual behaviour and the perceiver's motivated construal (Reis & Clark, 2013). It may be that working models of self and others are more powerful because, as Bowlby argued,

social perceptions would be dysfunctional if they were not accurate impressions of the real experiences those individuals have really had (Bowlby, 1973).

It is important to consider that the current assessments of perceived responsiveness were taken during a period characterized by high levels of stress. When partners behave in a responsive way under high levels of stress, their behaviours may be perceived as inauthentic or compelled (E. P. Jr. Lemay & Clark, 2008) and thus responsiveness may not be properly evaluated especially from highly insecure individuals. A study on couples during the transition to parenthood found that anxious individuals were more pessimistic than would be expected on the basis of their support environment (Simpson, Rholes, Campbell, Tran & Wilson, 2003). On the one hand, anxious individuals have negative models of the self, which may affect support perceptions by leading one to doubt the partner's unconditional regard and good intentions toward the self. On the other hand, avoidant individuals have negative models of others and may affect support perceptions by leading one to doubt the responsiveness and good will of others (Collins & B. C. Feeney, 2004).

Perceived partner responsiveness predicting changes in attachment

Results confirmed that attachment tendencies can change over time (Chopik et al., 2019). Previous studies have suggested that individuals who perceive their partners to be responsive are more likely to experience feelings of security within their relationship (B. C. Feeney & Collins, 2001). However, the current data suggest that this holds true only for some individuals. Greater perceived partner responsiveness during the transition to parenthood was associated with greater anxiety. A possible explanation is that perceived support is not always beneficial as it can undermine self-esteem and self-efficacy (Shrout et al., 2006). Maybe anxious women perceived more responsiveness because they are a bit more anxious, and

because they are more vulnerable to the stresses of the transition to parenthood, felt unable to cope with these stresses and they became even more anxious. It has been found that insecure individuals express more negative perceptions of parenting and parent-child relationship (Rholes et al., 1997). It has also been found in previous studies that the relentless needs and demands for support of individuals high in anxiety are never satisfied enough with the support they get from their partners, probably because expression of neediness and weakness is in line with their attachment goals as they get the attention they need from their partner (Cassidy & Berlin, 1994). Another explanation might be that individuals with more responsive partners may be lower in anxiety to begin with and therefore there is more room to increase in anxiety during the transition to parenthood. It has been found that anxious women who perceived their spouse as more responsive before childbirth had some beneficial effects. Specifically, these positive perceptions of responsiveness seemed to assuage the worries and concerns harboured by highly anxious individuals, allowing them to deal effectively with the challenges of the transition to parenthood more effectively (Rholes et al., 2001). Accordingly, positive experiences with partners during the transition to parenthood may lead high anxious people to feel more secure (Treboux et al., 2004).

We also found that greater perceived partner responsiveness during the transition to parenthood was associated with increases in attachment avoidance. This possibility is also linked to another finding which suggests that the type and amount of support provided, plays a vital role in being beneficial or not. If the type of support provided is not in accordance with the specific needs of an anxious or avoidant individual, then even if it is perceived it might not be beneficial and it might not contribute to the ways that individuals can potentially become more secure in their intimate relationships (Overall et al., 2022). Specifically, the type of partner support that seems most effective of a person high in attachment anxiety is one that addresses the underlying fear of rejection or abandonment by the attachment figure (e.g.,

expressing empathetic words). In contrast, effective and beneficial responsiveness and support for individuals high in avoidance orientation is one that addresses the distrust in partner by supporting their autonomy, and providing instrumental support like giving helpful information (Collins & Ford, 2010).

Another interesting aspect is that support may paradoxically focus the recipient's attention on the stressor that it is supposed to be alleviated. This increased bias might generate increased distress as it would interfere with their coping strategies, including their goal to 'inhibit the experience of aversive emotional states and exclude these states from awareness' (Mikulincer, Gillath, et al., 2003, p. 88). In this case, maybe individuals who perceived more partner responsiveness were simultaneously paying more attention to the increased needs of parenthood and this can possibly account for the increased levels of anxiety and avoidance. Another factor which could have impacted the present findings, is whether individuals themselves asked for support from their partners. A study on couples during their transition to parenthood found that women who sought more prenatal support became less avoidant across the transition, while those who sought less support became more avoidant. What is interesting is that women's prenatal perceptions of spousal support did not explain this change in avoidance (Simpson, Rholes, Campbell & Wilson, 2003). Furthermore, social support is not sought, expected or valued by avoidant individuals because they focus on maintaining their autonomy and psychological independence in an intimate relationship in an effort to show personal and psychological strength (Crittenden & Ainsworth, 1989). Thus, responsiveness alone may be insufficient in promoting decreases in avoidance and increases in feelings of security.

Limitations and future directions

The current results should be interpreted with caution. One limitation of this study is that it measured perceived partner responsiveness globally and did not assess what specific

behaviours may be perceived as responsive. Perceiving responsiveness can vary by context (Reis et al., 2004). Considering that insecure individuals perceive less responsiveness, future research should examine more specifically the type of partner behaviours that insecure individuals consider as responsive and as beneficial for their well-being in the relationships, as well as their felt security. Another limitation is that this study is of a correlational nature, which means that making definitive causal interpretations of the results is not possible, and any such conclusions should be approached with careful consideration. Moreover, insecure individuals may be underrepresented in this sample, which consisted of young healthy couples with rather high levels of relationship satisfaction, potentially leading to an inaccurate representation of the impact of attachment insecurity in the current data. Consequently, obtaining data from another sample comprising individuals with pronounced anxiety and avoidance tendencies could yield contrasting outcomes. Last, our findings cannot generalize to diverse groups of individuals, cultural contexts, or other relationship types. This sample represented young individuals living in Switzerland, being in an intimate relationship and expecting their first child. In addition, they are highly educated, and low-income families are not adequately represented. Future studies should examine if these findings can apply to other groups of people and to intimate relationships under different conditions, for example, couples in a later stage of their life cycle.

Conclusion

The current study provides empirical support for how attachment insecurities during the transition to parenthood affect perceptions of responsiveness from the intimate partner. It is one of a few studies providing results of perceived partner responsiveness predicting changes in attachment anxiety and avoidance over time in an intimate relationship. It seems that attachment insecurities do not enhance perceived partner responsiveness and even when responsiveness is perceived, it seems that attachment insecurities are difficult to change and

promote a sense of security in the relationship. If the current findings prove to be reliable in future studies, they may have important implications to practitioners working with couples on perceiving responsiveness from the partner, changing the internal working models, recognizing supportive behaviours, and building trust and security in the relationship, especially under stressful periods like the transition to parenthood. Responsiveness has a central role in building intimacy and well-being in romantic relationships. These findings help to better understand the mechanisms of it and its interplay with romantic attachment orientations, which seem to affect and to be affected by specific behaviours in relationships.

11. Study 3: Building security in couples across the transition to parenthood: The role of commitment and caregiving behaviours

Abstract

In intimate relationships, committed individuals engage in constructive behaviours and can thus maintain the longevity and stability of their relationship. Positive behaviours enhance felt security, which has been identified as a central feature of healthy romantic relationships. The current study aimed to examine if committed individuals would exhibit more caregiving, which in turn would predict decrease in attachment insecurities, and explore whether caregiving mediates the association between commitment and attachment insecurities across the transition to parenthood. Both partners of 120 couples completed questionnaires within the second or third trimester of pregnancy and at six, months postpartum. We analysed associations of commitment with caregiving during pregnancy and attachment insecurities at six months post-partum. Analyses based on the Actor-Partner Interdependence Model revealed actor and partner effects of commitment on caregiving and on anxiety. Particularly, commitment was significantly associated with caregiving for women and men. Caregiving was found to be associated with actor anxiety for women and with actor avoidance for men. Men's commitment was associated with women's caregiving. No significant mediation paths were found.

Introduction

The transition to parenthood is an important event in a couple's life (Simpson & Rholes, 2019) as it can be a stressor and bring new challenges to the relationship (Trillingsgaard et al., 2014). Overall, couples may adapt better to stressful events if they have fewer vulnerabilities and more personal resources (Karney & Bradbury, 1995). One such resource is commitment to the relationship. Commitment—the tendency for people to feel psychologically attached to a relationship (Rusbult, 1983; Rusbult & Buunk, 1993)—can

increase couples' resilience against detrimental effects of everyday stress. It promotes pro-relationship transformation and relationship maintenance (Rusbult et al., 2006), such as caregiving behaviours, which protect relationships from the negative impact of challenges and threats (Lydon & Quinn, 2013). Caring is a fundamental property of a communal relationship and a hallmark of closeness (Clark & Mills, 2012). Healthy and secure intimate relationships are only possible when partners recognize the vital role of caregiving to one another as caregiving has been found to be the foundation of a sense of felt security in adult relationships (Holmes, 1991). A crucial element of relationship security involves being capable of utilizing the partner as a safe haven and a secure base, while also fulfilling this role for the partner (B. C. Feeney, 2004). Attachment security has been linked to relationship quality (J. A. Feeney et al., 1996), and this association may in part be due to secure attachment fostering support and positive evaluations, allowing for the effective management of challenging situations (B. C. Feeney & Collins, 2015).

Commitment in intimate relationships

In romantic relationships, partners sometimes exhibit behaviours that undermine relationship growth and that are detrimental to relationship's quality (Menzies-Toman & Lydon, 2005). Partners' inclination to suppress negative or retaliatory reactions and, instead, opt for positive actions when one's partner has displayed negative behaviour has been conceptualized as accommodation (Rusbult et al., 1991). Understanding the motivations that drive accommodation perhaps hinges on commitment (Rusbult et al., 1991), which involves caring about the future and steadfastness of the relationship, along with the wish for the relationship to persist (Etcheverry & Le, 2005). Recognizing the factors that influence commitment holds significant importance in nurturing lasting connections between individuals. The investment model of commitment (Rusbult, 1980) suggests that commitment

is a product of three aspects: 1) of the dependence that builds between romantic partners (Rusbult et al., 1986), 2) the availability of relationship alternatives, 3) the degree of investment they have in the relationship (Rusbult, 1983; Rusbult & Buunk, 1993; Rusbult et al., 1999). In particular, commitment mirrors people's psychological dedication to maintain their relationship (Fletcher et al., 2000). It is continually constructed through everyday communication (Ballard-Reisch & Weigel, 1999) and constitutes an important part of successful relationships (Clements & Swensen, 2018). Optimal commitment should promote the investment of interest and energy in the relationship, and efforts to maintain the relationship (Brault-Labbé et al., 2017). Research has shown that individuals with stronger commitment tend to be in more stable relationships, show better relational adjustment and experience higher relationship quality (Rusbult, et al., 1998). Committed individuals are highly invested in their relationships (Rusbult, 1983) and show relationship maintenance behaviours and caregiving (Schoebi et al., 2015; Rusbult & Buunk, 1993). Indeed, being supportive is a characteristic of committed partners. They tend to listen to their partners, encourage them, treat them with common courtesy, help them feel better about themselves, and are attentive to their needs and interests (Weigel, 2008). Longitudinal findings suggest that when partners are not committed to engage in routine maintenance behaviours, the quality of the relationship drops (Schoebi et al., 2012), rendering commitment an important tenet of relationships maintenance throughout challenging periods, such as the transition to parenthood.

Caregiving and its association with commitment in intimate relationships

The caregiving system notifies individuals about the needs of others and encourages them to offer security, solace and aid to those who rely on them or who are momentarily in a state of need (Collins & B. C. Feeney, 2000). Caregiving behaviours that display interpersonal

sensitivity and suitable responsiveness to the needs of the care seeker should also be recognized as being supportive (Collins et al., 2010). However, responding to the needs of others is often difficult and sometimes relationships fall short of it (Coyne & Smith, 1991). Generally, the caregiving system serves two major goals: the first one is to provide a safe haven, that is, to meet the other person's security needs. The second goal is to provide a secure base, that is, to support autonomy and exploration of the attached person (Simpson et al., 2003; Bowlby, 1988). Effective caregiving is characterized by sensitivity to the partner's signals and by interpersonal responsiveness (Collins et al., 2006), which refers to the manner in which support is provided so that the partner feels understood, validated and cared for (Reis & Patrick, 1996). According to interdependence theory, commitment promotes relationship maintenance behaviours. Two tenets of the theory are the central role of dyadic interaction and the interdependent nature of close relationships. In this vein, partners influence one another's experiences and need each other to obtain valued relationship outcomes (Rusbult & Buunk, 1993). Committed individuals are assumed to focus more on the well-being of the partner and the relationship than on their immediate self-interest. Therefore, they engage more in pro-relationship behaviours like promoting the well-being of the relationship, by sacrificing their own interest (Hui et al., 2014; Ogolsky, 2009; Powell & Van Vugt, 2003). A recent study by Kuppler & Wagner, (2022) found that commitment between romantic partners was positively associated with supportive coping. Along this line, it has been suggested that as people become increasingly committed in their relationship, they come to think of their partners as part of self and regard themselves as part of a collective unit that includes the partner (Agnew et al., 1998). Accordingly, strongly committed partners have a stronger sense of "we-ness" and consequently they pursue the objective of a long-term relationship (Finkel et al., 2002). As a consequence, their relationships are more stable and they are more willing to maintain their relationship and to engage in efforts of mutual adjustment (Rusbult, 1983). Indeed, greater commitment predicts more constructive and fewer destructive behaviours

(Campbell & Foster, 2002; Etcheverry & Le, 2005; Menzies-Toman & Lydon, 2005; Rusbult, et al., 1998). In summary, the current literature suggests that a lack of commitment may potentially lead individuals to show less caregiving behaviours towards their partner in times of need.

Romantic attachment, commitment, and caregiving

Attachment, as described by John Bowlby, is an instinctive system for seeking security through proximity to a caregiver, shaping lifelong attachment orientations (Bowlby, 1969), which in turn shape how individuals relate to significant others (Waters et al., 2000). In adulthood, romantic partners often become each other's attachment figure (Hazan & Shaver, 1987), influencing their behaviour in a "shared dyadic program" (Bowlby, 1982) in which the behaviour of one partner meshes with that of the other.

Research has shown that people with a history of supportive and responsive interactions are more likely to be securely attached (Fraley et al., 2013). Securely attached individuals are comfortable with closeness, feel valued and loved, and are capable of approaching challenging situations with the confidence that they themselves can manage them (Mikulincer & Shaver, 2003). Adults with a more anxious anxiety orientation tend to intensify negative emotions (Campbell et al., 2005; J. A. Feeney, 1995). Attachment anxiety is associated with excessive worry about losing the partner's love, and even losing the partner (Mikulincer & Shaver, 2007). Individuals with higher attachment anxiety also perceive more conflict, which undermines satisfaction and closeness in their relationship (Campbell et al., 2005). Adults with a more avoidant attachment orientation expect their attachment figure to be unavailable or incapable of supporting them in times of need (Brodie et al., 2019; Mcneil, 2012). Therefore, in order to protect themselves from appearing vulnerable (Nielsen et al.,

2017), they seek autonomy and deactivate attachment-related needs. Hence, they avoid closeness to and dependence on their partner (Mikulincer, & Shaver, 2007). Negative patterns of interactions that potentially undermine relationship quality may be maintained across multiple relationships (Snyder & Stukas, 1999).

We propose that actor and partner commitment could act as a protective factor for insecurely attached individuals by enhancing feelings of security in the relationship, ultimately increasing attachment security in anxious or avoidant individuals. Commitment may directly protect against insecurities in a relationship. Greater commitment may offer a long-term perspective which can help insecurely attached individuals build more stable relationships (Kelley, 1983). A recent study showed that men and women reporting higher levels of optimal commitment during pregnancy experienced a decrease in their attachment avoidance four months postpartum (Lapoliche Thériault et al., 2022). Optimal commitment in a relationship involves enthusiasm, persistence in maintaining the relationship despite difficulties, and a willingness to reconcile commitment's disadvantages with its benefits (Brault-Labbé et al., 2017).

The partner's commitment might have a particularly strong effect on an individual's emotions and behaviours (Attridge et al., 1995). Accordingly, (Simpson, 1990) found that women higher in security were dating men who reported greater commitment in the relationship. Greater partner commitment should promote a sense of greater felt security and closeness especially to anxiously attached individuals, who desire and aim for them (Mikulincer, 1998a). Furthermore, in a study of married couples discussing a conflict, anxious individuals were more likely to react to conflict with negative emotions, with the exception of couples in which the anxious person's partner was highly committed (Tran & Simpson, 2009). The partner's commitment, to the extent that it is perceived, might therefore constitute a vital

element for promoting feelings of confidence to insecurely attached individuals, that they are loved, respected and cared for (Tran & Simpson, 2009).

Alternatively, commitment could reduce attachment insecurities through promoting caregiving and other relationship maintenance behaviours. Interestingly, Rholes et al. (2020) found that individuals whose behavior was rated as more supportive and responsive during discussions experienced decreases in avoidance. In addition, that same study revealed that individuals who perceived giving more support and care to their partners experienced declines of avoidance across time. Similarly, men who reported providing more support to their spouses became less avoidant across the first six months of the transition to parenthood (Simpson et al., 2003).

Insecure partners of caregivers may also be benefited from the care they receive as their attachment orientations might be shaped and they may become more secure. Individuals who perceive their partners to be responsive feel more secure in their relationship (B. C. Feeney & Collins, 2001). Specifically, Collins & B. C. Feeney (2000) found that when discussing personal worries, care recipients experienced immediate improvements in emotional well-being. Furthermore, individuals who perceived receiving more support and more proximal care showed declines in avoidance in the next assessment level (Rholes et al., 2020). Another study showed that expectant parents became more secure when they received responsive support, probably because they revised negative expectations of support and dependence (Rholes et al., 2020). Finally, individuals who perceived their partners to be more responsive showed lower partner-specific attachment anxiety (Rice et al., 2020).

Individuals who are more committed in their relationship should feel a greater responsibility for their partner's need and should provide more help when needed (Rusbult & Buunk, 1993). As a consequence, in committed relationships, where partners are motivated to maintain their relationship, partners also find a secure relational environment (Arriaga et al.,

2014; Tran & Simpson, 2009). It may be that in committed relationships, where partners convey pro-relationship motives, interpersonal interactions contrast with, and thereby disconfirm negative working models of others (Holmes, 2002; Simpson, 2007; Wieselquist et al., 1999). We therefore expected that committed individuals and their partners increase in their security in their relationship and that this association would be mediated by caregiving.

The current study

This study aims to examine cross partner effects of commitment and caregiving behaviors on attachment security across the transition to parenthood. We sought to better understand the importance of commitment and caregiving behaviors, and their putative importance for felt security during this challenging life event. We collected data from 120 heterosexual couples and examined associations of commitment and caregiving during pregnancy and attachment insecurities at six months postpartum. We also explored whether caregiving mediated the association between commitment and attachment insecurities. Based on findings that commitment can directly or indirectly- through the enactment of caregiving behaviors - increase felt security in intimate relationships, we expected that:

Hypothesis 1: Commitment during pregnancy (T0) is negatively associated with anxiety (H1a) and avoidance (H1b) at six months post-partum (T1).

Hypothesis 2: One's own commitment during pregnancy (T0) is positively associated with caregiving during pregnancy (T0).

Hypothesis 3: Caregiving is negatively associated with one's own anxiety (H3a) and avoidance (H3b).

Hypothesis 4: Caregiving during pregnancy (T0) mediates the association of commitment during pregnancy (T0) and attachment anxiety (H4a) and avoidance (H4b) at six months post-partum (T1).

Partner effects for commitment and caregiving were tested exploratively.

Material and Method

Participants

The current sample consisted of 151 mixed-gender couples at Time 0 ($N = 302$) and 120 mixed-gender couples at Time 1 ($N = 241$) experiencing their transition to parenthood. To participate in the study couples had to be in their second or third trimester of pregnancy expecting their first child, 18 years old or older, living together and speak French or German. The mean age was 31.55 for women ($SD = 3.66$) and 32.20 for men ($SD = 4.06$). At the time of recruitment, the mean relationship duration was 6.73 years ($SD = 3.01$). Additionally, 65% of the participants reported having a university degree, 11.9% held a diploma of another advanced training, 10.5% completed an apprenticeship, 5.6% were students, 5% completed high school, and 2% had the secondary school degree.

Procedure

Data are part of a project on couples expecting their first child, which was approved by the ethics review board of the regional government. First, participants completed an online survey on demographic characteristics, mental health, well-being, attachment orientation and on evaluations of the relationship. Second, they completed a smartphone-based momentary assessment for seven consecutive days, four times per day, which included questions on emotional states and interpersonal relational experiences. A reminder message was sent to participants before every assessment. All participants were provided with instructions related to the use of the momentary assessment. The study also included a diagnostic telephone interview on mental health, home visits with interaction tasks, physiological measures and an

evaluation week which included a three-day assessment of physiological measures and the seven days of diary study. This longitudinal study included four measurements (pregnancy, 6, 12, and 18 months postpartum). The data used for our analyses were collected at the first measurement (second or third trimester of pregnancy) and at six months postpartum. All participants completed and signed the informed consent form before their participation and after every assessment point, they received approximately 180\$ per couple.

Measures

Commitment

Commitment was measured with the maintenance-oriented relationship commitment scale (Schoebi et al., 2015). This measure partially draws from earlier commitment measures (Schoebi et al., 2012; Stanley & Markman, 1992) and assesses commitment as a person's motivation to routinely engage in relationship maintenance. Participants completed the questionnaire which consisted of six items (e.g., "When I make decisions, I always consider their implications for my partner and my relationship"). Participants responded to each item using a 7-point scale from 1 (*not at all true*) to 7 (*completely true*), rating the extent to which each item is descriptive of how they usually think and feel in romantic relationships. Higher scores reflected greater commitment. Ratings were averaged to compute one score of commitment per participant and consistency was satisfactory (females: $\alpha = .706$; males: $\alpha = .782$).

Caregiving

Caregiving was assessed using three items (e.g., "During our last contact I was with my partner: caring, supportive, affective"). For each item participants reported on their own perceptions about their behaviours towards their partner by means of a 10-point scale. Higher scores reflected greater caregiving behaviours. Within persons internal consistency was high

(females: $\alpha = .895$; males: $\alpha = .889$) and between persons internal consistency as well (females: $\alpha = .957$; males: $\alpha = .950$).

Attachment orientation

The Experiences in Close Relationships-Revised (Fraley et al., 2011) French version (Favez et al., 2016) and German version (Neumann et al., 2007) was used to assess individual attachment on two dimensions: anxiety and avoidance. The questionnaire includes 36 items, of which 18 assess attachment anxiety with high consistency (females: $\alpha = .878$; males: $\alpha = .890$) (e.g., “My romantic partner makes me doubt myself”), and another 18 items assess attachment avoidance, with satisfactory consistency (females: $\alpha = .870$; males: $\alpha = .754$) the degree to which individuals avoid closeness and intimacy (e.g., “I find it difficult to allow myself to depend on romantic partners”). Participants responded to each item using a 7-point scale from 1 (*strongly disagree*) to 7 (*strongly agree*), rating the extent to which each item is descriptive of how they usually feel and behave in romantic relationships. Ratings were averaged to compute scores for each dimension. Higher scores reflected more anxious and more avoidant attachment orientations. Relatively secure individuals score low on both dimensions.

Data analyses

We conducted data analyses using the actor-partner interdependence model (APIM; Kenny, 1996; Kashy & Kenny, 2000); with mediation (Ledermann & Bodenmann, 2006; Ledermann et al., 2011) to examine the effects of one’s own commitment during pregnancy (T0), on one’s own and partner caregiving behavior during pregnancy (T0) and attachment insecurities at six months postpartum (T1). The APIM is appropriate to use when the dyad (in this case the couple) is the unit of analysis, because it incorporates nonindependence of data between members of the same couple (Kashy & Kenny, 2000). In addition, it allows testing of actor

and partner effects within a couple. Actor effects reflect an association between two variables of the same individual (e.g., effect of one's own commitment on one's own caregiving behaviour) while partner effects reflect an association between two variables of different partners (e.g., effect of one's own commitment on the partner caregiving behaviour). Models were computed using SPSS, AMOS 28 software.

We ran five models, to test our hypotheses. We first tested for direct actor and partner effects of commitment on attachment anxiety (H1a) and avoidance (H1b). We then ran two separate APIMs for the two outcomes (Model 1: Anxiety, Model 2: Avoidance) to test direct effects of commitment on caregiving (H2), and of caregiving on anxiety (H3a) and avoidance (H3b). Then, we examined whether associations between commitment and attachment insecurities were mediated by caregiving. To test for mediation, we ran two models and estimated indirect effects of commitment via the own or the partner's caregiving on the own or the partner's attachment anxiety or avoidance. Full mediation is identified when the direct relationship between commitment and attachment variables becomes non-significant upon incorporating the caregiving into the model, while partial mediation is observed when this relationship remains significant (Baron & Kenny, 1986).

To improve the robustness and validity of our analyses we controlled for attachment at T0 (during pregnancy). Specifically, we controlled for actor effects anxiety and avoidance at T0 when predicting anxiety and avoidance at T1. Including these variables as covariates, we accounted for their potential influence on the outcome variable.

Results

Table 3.1. presents means and standard deviations of all variables between women and men at different time points. Table 3.2. presents correlations of all independent variables at T0 (during pregnancy) and dependent variables at T1 (6 months post-partum).

Table 3.1.*Participants Mean Ratings of Commitment, Caregiving and Attachment*

	Women		Men	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Commitment T0	5.745	.772	5.745	.789
Caregiving T0	7.745	1.270	7.666	1.323
Anxiety T1	2.865	.843	2.877	.845
Avoidance T1	2.795	.778	2.898	.668

Table 3.2.*Correlation Matrix for Commitment, Caregiving, Attachment Orientation*

	1.	2.	3.	4.	5.	6.	7.	8.
1.Commitment W T0	-							
2.Commitment M T0	.267**	-						
3.Caregiving W T0	.257**	.238**	-					
4.Caregiving M T0	.193*	.304**	.506**	-				
5.Anxiety W T1	-.048	-.139	-.327**	-.245**	-			
6.Anxiety M T1	-.049	-.033	-.137	-.093	.345**	-		
7.Avoidance W T1	-.331**	-.240**	-.293**	-.196*	.447**	.299**	-	
8.Avoidance M T1	-.231*	-.404**	-.190*	-.294**	.282**	.419**	.522**	-

Note. W = Women; M = Men.

*. Correlation is significant at the 0.05 level (2-tailed). **. Correlation is significant at the 0.01 level (2-tailed).

Commitment predicting anxiety (H1a) and avoidance (H1b) at 6 months postpartum.

Results are presented on Table 3.3. Hypothesis 1a was not confirmed as commitment at T0 was not directly associated with anxiety at T1 neither in women ($B = .00, p = .99$) nor in men ($B = -.01, p = .85$). No significant partner effects were found.

Hypothesis 1b was confirmed as commitment at T0 was significantly and negatively associated with avoidance at T1 both for women ($B = -.20, p = .01$) and men ($B = -.23, p = .00$). No partner effects were found.

Model 1: Direct effects between commitment T0, caregiving T0 (H2) and anxiety T1 (H3a).

In line with our second hypothesis, two significant actor effects were found (see table 3.3.). Specifically, actor's commitment at T0 was significantly associated with actor's caregiving at T0. This effect was found for both women ($B = .34, p = .01$) and men ($B = .49, p = .00$). So, more committed individuals engaged in more caregiving behaviours. One partner effect was also found. Men's commitment was positively associated with women's caregiving ($B = .290, p = .02$).

Partially confirming our third hypothesis (H3a), caregiving significantly predicted less anxiety in women ($B = -.12, p = .03$) but not in men ($B = -.07, p = .20$). No significant partner effects were found neither in women ($B = -.06, p = .27$) nor in men ($B = .00, p = .90$).

Table 3.3.

Unstandardized Estimates for Predicting Anxiety

Source	Path	<i>B</i>	<i>SE</i>	<i>p</i>
Commitment T0 → Caregiving T0				
W → W	a	.34*	.13	.01
M → M	b	.49***	.13	.00
W → M	c	.17	.14	.22
M → W	d	.29**	.13	.02
Caregiving T0 → Anxiety T1				
W → W	e	-.12*	.05	.03
M → M	f	-.07	.05	.20
W → M	g	.00	.06	.90
M → W	h	-.06	.05	.27
Anxiety T0 → Anxiety T1				
W → W	m	.39***	.06	.00
M → M	n	.47***	.06	.00

Note. T0 = during pregnancy; T1= six months postpartum; W=Women; M = Men. Paths refer to Figure 1.

+*p* < .10; **p* < .05; ***p* < .01; ****p* < .001.

Model 2: Direct effects between commitment T0, caregiving T0 (H2), and avoidance T1 (H3b).

In line with our second hypothesis, two significant actor effects were found (see Table 3.4.). Specifically, actor's commitment at T0 was significantly associated with actor's caregiving at T0. This effect was found for both women ($B = .35, p = .00$) and men ($B = .50, p = .00$). So, more committed individuals engaged in more caregiving behaviours. One partner effect was also found. Men's commitment was positively associated with women's caregiving ($B = .29, p = .02$).

Partially confirming our third hypothesis (H3b), caregiving significantly predicted less avoidance in men ($B = -.12, p = .01$) but not in women ($B = -.09, p = .11$). No partner effects were found, neither in women ($B = -.02, p = .70$) nor in men ($B = .01, p = .71$).

Table 3.4.

Unstandardized Estimates for Predicting Avoidance

Source	Path	<i>B</i>	<i>SE</i>	<i>p</i>
Commitment T0 → Caregiving T0				
W → W	a	.35***	.13	.00
M → M	b	.50***	.13	.00
W → M	c	.16	.14	.23
M → W	d	.29*	.13	.02
Caregiving T0 → AvoidanceT1				
W → W	e	-.09	.06	.11
M → M	f	-.12*	.04	.01
W → M	g	.01	.05	.71
M → W	h	-.02	.05	.70
Avoidance T0 → Avoidance T1				
W → W	m	.36***	.07	.00
M → M	n	.37***	.07	.00

Note. T0 = during pregnancy; T1= six months postpartum; W=Women; M = Men. Paths refer to Figure 1.

+*p* < .10; **p* < .05; ***p* < .01; ****p* < .001.

Caregiving mediates the association between commitment and anxiety (H4a; Model 3) and avoidance (H4b: Model 4) at six months postpartum.

To test the mediating effect of caregiving between commitment and attachment insecurities, we examined the indirect effects between our variables (see table 3.5.). No significant actor or partner mediating paths were found neither for anxiety nor for avoidance.

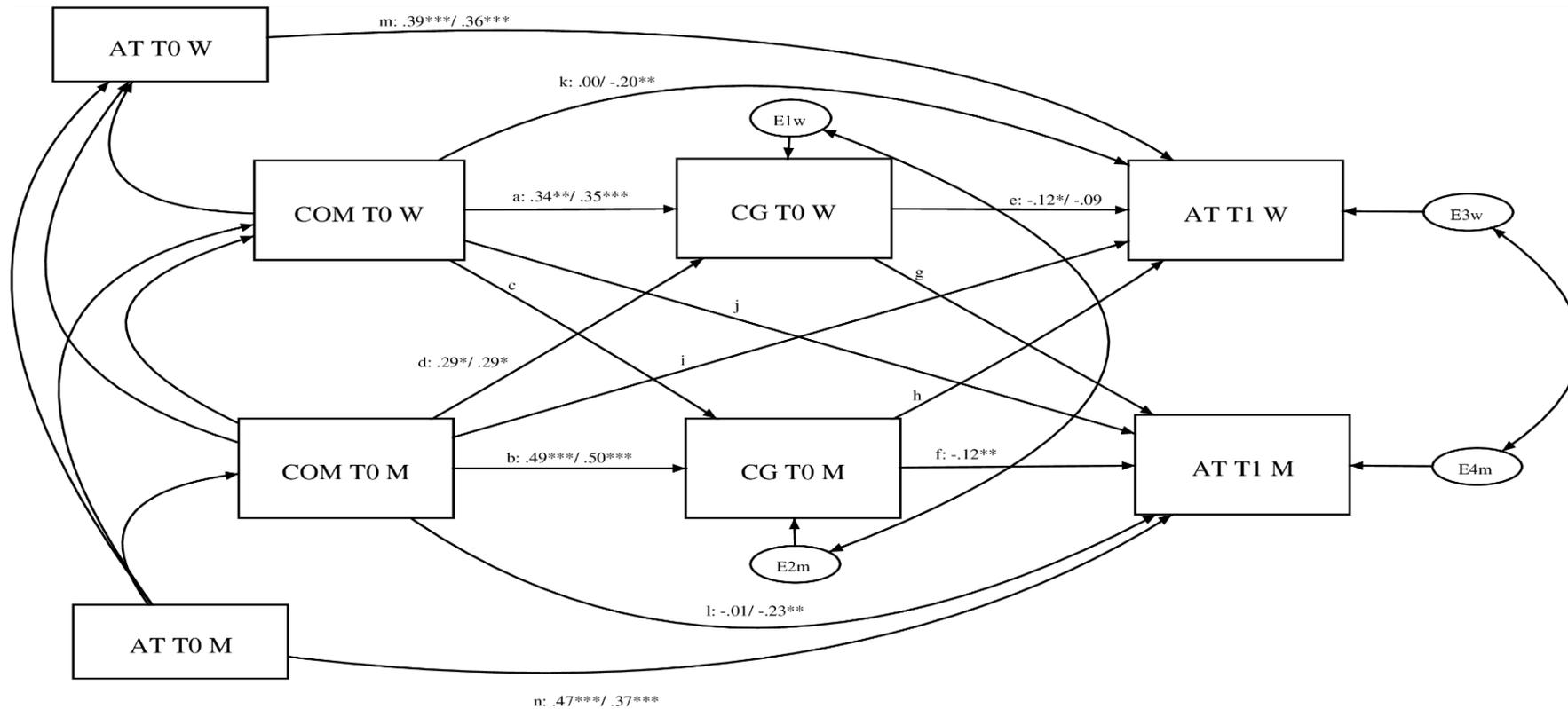


Figure 1. Actor-Partner Interdependence Model with commitment (COM) as independent, caregiving (CG) as mediator and attachment (AT) as dependent variables.

a-l represent paths, E1, E2, E3, E4 represent residuals. Significant unstandardized estimates are presented (first value for Model 1: Anxiety, second value for Model 2: Avoidance)

Note. T0 = during pregnancy; T1= six months postpartum. W = Women, M = Men, T0. +p < .10; *p < .05; **p < .01; ***p < .001.

Table 3.5.*Indirect Effects: Caregiving at T1 Mediating the Association of Commitment at T0 and Attachment at T1*

Effect	Path	<i>B</i>	<i>SE</i>	<i>P</i>
Model 1: Anxiety (<i>df</i> = 6)				
Commitment T0 _w → caregiving T0 _w → anxiety T1 _w	a*e	-1.60	.02	.10
Commitment T0 _w → caregiving T0 _w → anxiety T1 _m	a*h	.44	.02	.65
Commitment T0 _w → caregiving T0 _m → anxiety T1 _w	c*g	-.75	.01	.44
Commitment T0 _w → caregiving T0 _m → anxiety T1 _m	c*f	-.86	.01	.38
Commitment T0 _m → caregiving T0 _m → anxiety T1 _m	b*f	-1.17	.03	.24
Commitment T0 _m → caregiving T0 _m → anxiety T1 _w	b*g	-.93	.02	.35
Commitment T0 _m → caregiving T0 _w → anxiety T1 _m	d*h	.44	.01	.65
Commitment T0 _m → caregiving T0 _w → anxiety T1 _w	d*e	-1.43	.02	.15
Model 2: Avoidance (<i>df</i> = 6)				
Commitment T0 _w → caregiving T0 _w → avoidance T1 _w	a*e	-.82	.02	.41
Commitment T0 _w → caregiving T0 _w → avoidance T1 _m	a*h	.93	.02	.35
Commitment T0 _w → caregiving T0 _m → avoidance T1 _w	c*g	-.15	.00	.87
Commitment T0 _w → caregiving T0 _m → avoidance T1 _m	c*f	-1.02	.01	.30
Commitment T0 _m → caregiving T0 _m → avoidance T1 _m	b*f	-1.72	.02	.08 ⁺
Commitment T0 _m → caregiving T0 _m → avoidance T1 _w	b*g	-.16	.02	.87
Commitment T0 _m → caregiving T0 _w → avoidance T1 _m	d*h	1.05	.01	.29
Commitment T0 _m → caregiving T0 _w → avoidance T1 _w	d*e	-.80	.01	.42

Note. T0 = during pregnancy; T1= six months postpartum. W=Women; M = Men. Paths refer to Figure 1.

+*p* < .10; **p* < .05; ***p* < .01; ****p* < .001.

Discussion

The aim of the current study was to examine commitment, caregiving, and attachment insecurities associations and to investigate whether caregiving mediates the association of commitment and attachment insecurities in intimate relationships across their transition to parenthood. Results showed that commitment was negatively associated with avoidance for men but not for women. No significant association of commitment with anxiety was found. Moreover, commitment was positively associated with caregiving for both women and men. Caregiving negatively associated with attachment anxiety for women and attachment avoidance for men. One partner effect was also found. Specifically, men's commitment positively associated with women's caregiving. No significant mediation paths were found.

Hypothesis 1 predicted that actor commitment would be negatively associated with actor anxiety (H1a) and avoidance (H1b). We explored possible partner effects, but no significant associations were found. The results partially confirmed the hypothesis since no significant actor effects were found for anxiety, neither for women nor for men. However, actor commitment was negatively associated with actor avoidance for both genders. One possible explanation is related to the timing of the outcome assessment. Specifically, individuals who perceive more comfort from their spouse during a stressful life event (e.g., transition to parenthood) reported lower attachment anxiety at the same assessment, but not at the following assessment six months later (Arriaga et al., 2021). Therefore, since we assessed commitment during pregnancy and attachment anxiety six months postpartum maybe the effects of commitment were not captured. Thus, our results confirm that actor's commitment buffers against actor's attachment avoidance but not against attachment anxiety. Another possibility is that even the most committed individuals might eventually feel depleted if they have to maintain their relationship, which can possibly explain why actor commitment during

pregnancy was not negatively associated with actor anxiety at 6 months postpartum (Finkel & Campbell, 2001; Rusbult et al., 1991).

Hypothesis 2 predicted that commitment would be positively associated with actor caregiving, and we wanted to explore the association of actor commitment with partner caregiving. Data confirmed our hypothesis as actor commitment was positively associated with actor caregiving for both women and men, both for anxiety and avoidance, which confirm previous findings showing that commitment enhances constructive behaviours (Campbell & Foster, 2002; Etcheverry & Le, 2005) and is associated with enactment of caregiving (Simpson & Campbell, 2013). It has been suggested that commitment promotes the enactment of responsive behaviour for three reasons: first, because of reciprocity norms; second, because responsiveness nurtures an affectionate bond between the partners; third, because committed partners are interested in ensuring that their partners' needs are met (Simpson & Campbell, 2013). In this line of thinking, it is plausible to suggest that when individuals in fulfilling relationships, such as those in our sample, undergo the transition to parenthood, they may become more attuned to their partner's requirements and more eager to fulfill those needs, thus fostering a deeper and more affectionate connection. Interestingly, one partner effect was found. Specifically, men's commitment was positively associated with women's caregiving highlighting the importance of partner effects and verifying that partners' commitment can be the base of security in intimate relationships (Attridge et al., 1995). However, women's commitment was not associated with caregiving of their partner. Possibly, for women, having a more dedicated partner could serve as a motivating factor that encourages them to be more supportive and display greater care. This finding confirms previous studies, which have shown that wives give more support than they receive from their husbands (Vinokur & Vinokur-Kaplan, 1990). Moreover, women are more likely to provide support to their partner following a stressful event (Bolger et al., 1989). A more recent study showed that although husbands and wives exhibit equal proportions of positive behaviours

during support interactions, they differ in their tendency to provide support when their partner discussed more severe problems. In this case, women were rated as better support providers than men (Neff & Karney, 2005).

The third hypothesis predicted that actor's caregiving would be negatively associated with actor's attachment anxiety (H3a) and avoidance (H3b), and data partially confirmed it. Specifically, women who reported caring more for their partner showed decreases in anxiety six months post-partum. Conversely, men who reported caring more for their partner became less avoidant themselves at six months post-partum. Actor effects suggest that people can shape their own attachment orientations through their own behaviours, highlighting that individuals can actively change their own states and not just passively be affected by their partners behaviours. Caring can have immediate effects on well-being and relationship functioning (Collins & B. C. Feeney, 2000). For instance, on the one hand, as individuals become less anxious, they trust their partner to respond to their needs, and they feel more confident and their preoccupation with overdependence is reduced. On the other hand, avoidant individuals feel more comfortable with closeness and feel less inclined to be self-reliant (Cassidy & Kobak, 1988). These results are in line with the Dyadic Regulation Model of Insecurity Buffering, which suggests that certain types of buffering behaviours improve the relationship behaviours of insecure people (Simpson & Overall, 2014).

No partner effects between caregiving and anxiety were found and there are some plausible explanations for this. According to E. P. Lemay, (2014) insecurities should be assuaged if partners can immediately soothe their worries (E. P. Jr. Lemay & Dudley, 2011). Since the transition to parenthood is a demanding period, particularly for new mothers, it is possible that the timing or the quality of women's caregiving was not appropriate during pregnancy and across the transition and fathers felt even neglected, thus not being able to reduce their anxiety toward the relationship (Yuan Ling Marjorie et al., 2021). Accordingly,

anxiously attached individuals are more likely to perceive their partner's care when their partners exaggerate their expressions of affection (E. P. Jr. Lemay & Dudley, 2011; Murray et al., 2006). So it might be that in this sample of new mothers who are occupied a lot with themselves and with the baby, they did not show enough care to their partner. Quality of partner's care is also of vital importance and requires skills and resources, which might be difficult for some couples and especially during a stressful period like the transition to parenthood. Quality of care is associated with relationship functioning because it reflects the extent to which the partner provides a safe haven of comfort and security (Shaver & Hazan, 1993). Accordingly, Arriaga et al., 2021) found that anxiously attached spouses who perceived reassurance from their partners felt less concurrent attachment but not less anxiety across time. In our study, caregiving was measured for seven consecutive days four times a day during pregnancy, but attachment was measured at six months postpartum. It might be that caregiving is negatively associated with concurrent anxiety, but not with anxiety across time like in this study.

Women who reported more caregiving did not exhibit decreases in avoidance nor did their partners and several reasons might shed light on this finding. First, because avoidant individuals are concerned with discomfort related to closeness and with depending on partners, preferring emotional distance and self-reliance (Fraley & Waller, 1998) caregiving might interfere with their autonomy needs. Second, avoidant individuals are intimacy-averse (S. M. Hudson & Ward, 1997) as they doubt about the benefits of intimacy or trusting others to meet their needs (Brennan et al., 1998). Third, avoidant attachment leads to a depreciation of the partner's positive behaviour like caregiving (Beck & Clark, 2010). This means that although women and men provided care to their partner, this was not perceived or appreciated, probably because it could promote interpersonal closeness and might be

interpreted by their partner as investment in the relationship, which avoidants prefer to shun (Cassidy, 1994).

Hypothesis 4 predicted that caregiving would mediate the association between commitment and attachment insecurities and our hypothesis was partially confirmed. Although it has been found that avoidant people's lack of responsiveness to their partner was mediated by lack of knowledge about how to provide support, lack of prosocial orientation and lack of commitment (B. C. Feeney & Collins, 2001) our findings did not confirm that caregiving mediates the association between commitment and attachment insecurities. We speculate that committed individuals need their relationship and feel connected to their partner (Rusbult & Buunk, 1993), hence they engage in prosocial behaviours and supportive coping (Kuppler & Wagner, 2022), however, other factors might also account for this.

We can make some general speculations such that avoidantly attached individuals desire to maintain emotional distance in their relationships (Mikulincer, 1998b) and hence caregiving behaviours from themselves or their partner are not beneficial and cannot promote security in the long run. Another possibility is related to the transition to parenthood, during which the data have been collected: it might be that women are so absorbed by their new duties and challenges that will soon come and they do not engage in more caregiving to their partner (Yuan Ling Marjorie et al., 2021). Maybe women during pregnancy are already absorbed with the upcoming changes and duties in their role as mothers that they do not engage in caregiving behaviours. Also, the physical changes and challenges that they face may put them to first take care of themselves and not their partners. During this period, commitment, caregiving as well as attachment insecurities can vary due to the challenges that the couples have to face. For instance, attachment insecurities could be increased and caregiving or commitment from the partner might not be positively appraised or perceived due to the extra stressor that the couples had to face. Attachment theorists (Mikulincer &

Florian, 1998) contend that specific types of insecurity can increase the susceptibility of certain individuals to the challenges brought about the transition to parenthood.

The validity and generalizability of this research is constrained by important limitations. Our sample consisted of young couples expecting their first child, thus the current results may not generalize beyond this particular period in life or to other couples. Second, due to the correlational nature of the analyses it is not possible to draw strong causal inferences. Third, the use of self-reports measures can be subject to distortions by individual characteristics, such as reporting style, a lack of introspection, or social desirability, and lead to biased results when studying individual differences variables. Observer rated assessments, during supportive interactions between partners, could be used for behavioural variables in the future.

Taken together, this study suggests the importance of further investigating the commitment, caregiving and attachment insecurities dynamics and further explore the mechanisms behind care provision and beneficial outcomes for the relationship. Future research may shed more light on factors which contribute to building security in relationships. Indeed, individuals might recover quicker from distressed moments (Salvatore et al., 2011), which enable them to reengage in positive interactions with their partner (B. C. Feeney & Collins, 2015) by increasing their caregiving levels (Mikulincer et al., 2001; Mikulincer et al., 2003) and by becoming more compassionate and helpful (Mikulincer et al., 2005). It is important to note that while being commitment and providing care offer numerous benefits, they also require effort to maintain. Investing time into nurturing and cultivating romantic relationships is often well worth for the positive impact that they have on people's lives.

12. General discussion and conclusions

The primary goal of the studies in this thesis was to expand upon the existing body of literature regarding the examination of adult attachment on the experience of emotions, perceptions of responsiveness and caregiving, along with its implications for both individuals and couples. Moreover, two contributions examined changes of attachment orientations across the transition to parenthood. The subsequent section begins by providing a concise overview of the key findings and contributions made by the studies, followed by a discussion. Then, certain strengths and limitations encountered during the research are presented along with potential avenues for future investigations. Lastly, the practical implications derived from these contributions are delved into.

12.1. Summary of main results and contributions of the studies

The aim of study 1 was to investigate differences in the daily affective experiences and affective dynamics of individuals with insecure attachment orientations, compared to those with more secure attachment orientations, with a particular focus on moments of reported stress. Overall, the data presented in this study supported the notion that individuals with an anxious attachment orientation tend to report lower levels of positive and higher levels of negative affect. The data also indicated that this pattern is particularly prominent when they experienced moments of stress. No significant associations were found between attachment avoidance and decreased positive affect or increased negative affect neither in general nor when stress was reported. Only partial support was found for the association of attachment insecurities with emotional inertia, suggesting that avoidant men featured more inert positive affect dynamics generally and in times of stress.

This study contributes to the existing literature by illuminating the complex and dynamic nature of emotions in everyday life. For a long time, research on emotion has largely

overlooked the temporal dynamics of emotions. Rather, it has focused primarily on studying emotions as enduring traits or momentary states that quickly emerge, persist, and dissipate in response to events or experimental interventions, akin to the switching on and off from a lightbulb (Kuppens & Verduyn, 2017). The current findings confirm that attachment anxiety is associated with the experience of more negative affect and that avoidance in men is associated with more positive inert affect, reflecting signs of emotional dysregulation that may create vulnerability to maladjustment. Therefore, the existence of dynamic patterns that enable adjustments, such as lower inertia, may play a role in promoting overall well-being and may serve as a protective buffer for couples during stressful periods (Kashdan & Rottenberg, 2010). A crucial distinction however may exist in terms of the timing of inertia measurement. Emotion dynamics may exhibit significant variations during the anticipation of a stressor compared to the dynamics observed during the actual stressful event (Koval & Kuppens, 2012). In this study, inertia was measured in general and when participants reported stress. However, it was not known whether felt stress was during or in anticipation of the stressor and how this could have affected the experience of positive or negative affect as well as emotional inertia.

Another possible key explanation for these results revolves around the role of working models in the experience of emotion and the dynamics of affective states. Working models are automatically activated in memory in response to attachment-relevant events, directly impacting emotional responses (Collins, 1996). Especially during times of stress these beliefs and expectations are activated, affecting how individuals relate to their romantic partner in interpersonal contexts (Bowlby, 1973,1980), and how they experience affective states. However, the transition to parenthood may have not activated avoidants' attachment system in this study. This finding is consistent with previous findings suggesting limits on deactivating strategies because avoidantly attached individuals have shown that under specific conditions

they show emotion-focused coping (Birnbaum et al., 1997; Lussier et al., 1997; Shapiro & Levendosky, 1999).

Lastly, it is important to acknowledge that some new parents experience increases in both marital and personal well-being during the transition to parenthood (Cowan & Cowan, 2000). This possibility should not be underestimated because it may have greatly affected emotional responses in general and when they felt stressed. Greater well-being is expected to be associated with more positive affect and less emotion inertia (Kiken & Fredrickson, 2017).

The focus of study 2 was to investigate changes in perceived partner responsiveness among individuals with attachment insecurities during the transition to parenthood. Results showed that insecurely attached individuals perceived less responsiveness from their partner across the transition. Moreover, changes in attachment orientations predicted by perceptions of partner responsiveness were also observed.

The role of the quality of support in predicting long term changes in attachment orientations should be underscored. Quality of partner's care is of vital importance and requires skills and resources which might be difficult for some partners. It is associated with relationship functioning because it reflects the extent to which the partner provides a safe haven of comfort and security (Shaver & Hazan, 1993). Accordingly, Arriaga et al., (2021) found that anxiously attached spouses who perceived reassurance from their partners felt less concurrent attachment but not less anxiety across time. These findings suggest that other factors might play a role in predicting changes in attachment insecurities in the long run. Another important implication is the various ways that perceptions of responsiveness from the partner can promote well-being at both an individual and couple levels. Given that perceived partner responsiveness lies at the heart of many important processes (Reis et al., 2004), perceived partner responsiveness may influence other closely related constructs (e.g., trust, responsive goal support), which in turn, may help bolster attachment security. However, this

process may differ for attachment anxiety and avoidance at different points in the relationship and at different points of a transitional period.

Attachment theory posits that support recipients with an insecure attachment are at risk of experiencing a support gap. Particularly, recipients high in attachment avoidance are more likely to report an over-provision of support, whereas those high in attachment anxiety an under-provision of support (Collins & B. C. Feeney, 2000). A review (McLeod et al., 2020) confirmed that support recipients with an anxious attachment reported an under-provision of support, and it may be that their support need is so high that it could be impossible to meet (Brock & Lawrence, 2014; Ditzen et al., 2008; Hunter et al., 2006; Martin et al., 2010) Discrepancies between avoidant and anxious individuals should be at the centre of attention, especially during times of stress, as the mechanisms that are activated when insecure individuals encounter stressful situations differ greatly.

The third study of this thesis emphasized the importance of commitment in caregiving behaviours, which in turn promote attachment security in intimate relationships across the transition to parenthood. Actor and partner effects were also explored. Actor commitment was consistently associated with actor caregiving. Partner effects were also found. Men's commitment was found to be associated with women's caregiving.

One can thus presume that individuals who are highly committed tend to exhibit a more pronounced sense of togetherness and actively pursue the goal of a long-lasting relationship. Consequently, these partners are more likely to cultivate patterns of mutual pro-relationship behaviour (Finkel et al., 2002). Commitment was negatively associated with avoidance, but not with anxiety. Interestingly, as avoidant individuals gradually build trust in others, they may experience a shift away from their strong desire for independence, ultimately leading to increased feelings of security (B. C. Feeney, 2007). Conversely, anxious individuals tend to remain distressed long after actual threats have abated (Rholes et al., 1999). This

suggests that especially during the transition to parenthood, which may be a source of increased dyadic stress (Cowan & Cowan, 1995), anxious individuals are not satisfied enough with their partner's commitment and the pro-relationship acts because they tend to believe that their partners are unresponsive (Collins, 1996). Hence, they do not benefit from their partner's commitment.

Caregiving was negatively associated with anxiety for women and with avoidance for men confirming previous research, which suggests that caregiving is beneficial also for the care provider (Erikson, 1993). No partner effects were found, suggesting that partners are not always benefited from the caregiving. Regarding avoidantly attached individuals, they desire to achieve and maintain emotional distance in their relationships (Mikulincer, 1998b), therefore they do not provide enough care and they do not benefit much from provided care. Anxious men did not benefit from women's caregiving. Anxiously attached individuals, even if they place trust that others care for them and support them, they continue to grapple with dependency, and, at their core, struggle with issues related to self-confidence and self-worth (i.e., I am not worth of been taken care of) (Collins, 1996). Anxious people's negative models of self and worries may pollute the positive effects of receiving support and care with discomfort and anxiety. For anxious people the generous behaviour of their partner may also recall previous positive experiences that began well but ended painfully. Therefore, negative memories and feelings are elicited and the positive effects of care are blocked mainly because they cannot feel gratitude and in turn more secure and happy (Mikulincer et al., 2006).

The context of providing support should also be taken into consideration. Providing care to a partner under conditions of stress might be viewed as an obligation rather than a choice, which may limit benefits that often come with choosing to provide support (Inagaki & Orehek, 2017). If caregiving works properly, it benefits the person being cared for, increasing that person's sense of safety and security (Collins et al., 2010). In this study this was not

always observed. Dealing with another person's suffering may evoke two different kinds of emotional reactions: empathic compassion and personal distress (Batson, 2010). In the first state, the main focus is the other person's needs and the effort for the distress to be alleviated. However, in the second state the focus is one's self own discomfort and help will be offered only if it is the best way to reduce the caregiver's own discomfort (Batson, 2010). Hence, no security is promoted neither for the care provider nor for the care recipient. It may be very probable that during the transition to parenthood personal distress is elevated for both partners (Cowan & Cowan, 2000) and caregiving is not beneficial.

Last, women are so absorbed by their new duties and challenges soon to come after birth that they might have not engaged in more caregiving to their partner (Yuan Ling Marjorie et al., 2021). Hypothesizing that caregiving would be beneficial for the partners during this transition might be wrong in the first place.

An alternative avenue in prospective research might be to measure proximal care, which differs from general caregiving by involving, physical comfort, closeness, and touch (Kunze & Shaver, 1994) because it can trigger different reactions from avoidant individuals.

Two of the three contributions of this thesis examined changes in attachment orientations across the transition to parenthood. The second study showed that attachment insecurities increased through time. The third study illustrated that attachment anxiety in women and avoidance in men decreased with more caregiving. According to attachment theorists (e.g., (Bowlby, 1973; Fraley & Brumbaugh, 2004) working models are not fixed; even in adulthood, they are open to change in response to new attachment-relevant experiences, especially with current attachment figures. However, they do not change easily (Bowlby, 1980; Fraley et al., 2011), with several factors making them resistant to change. One is the tendency to dismiss information that is inconsistent with their attitudes, beliefs, or values (e.g., Bowlby, 1980). Other tendencies that sustain existing working models are to

ignore, deny, or distort incoming information, to suppress activation of the attachment system (Bowlby, 1980; Collins et al., 2006). The increasingly automated nature of working models over time renders them less open to inspection and reflection, which makes change even more difficult (Bowlby, 1980; Bretherton & Munholland, 2008) also biasing their perceptions of partner support in a negative direction (Rholes et al., 2001) and impacting the adjustment of the dyad to parenthood. The Attachment Diathesis-Stress Model (Simpson & Rholes, 2019) may shed light in better understanding these findings. It is argued that attachment insecurities are likely to be more pronounced during the transition to parenthood, influencing perceptions of the partner, emotions, and behaviours. Therefore, during this period, even in the presence of positive relational factors, which can benefit both individuals and their partner, attachment insecurities may persist, not allowing responsiveness and caregiving to buffer the negative effects of anxiety and avoidance. One must not forget that across the transition to parenthood couples may also spend less time together bringing changes in several aspects of their relationship like divisions of tasks, degree of irritability, or communication (Cowan & Cowan, 2012). Couples may thus, not clearly communicate their needs, or they may not pay so much attention to their partner's efforts to act supportively and benefit from them.

Likewise, these results highlight the interdependent nature of intimate relationships. Interestingly no partner effects were found in the third study with only one exception, suggesting the possibility that partner effects may only work indirectly via actor effects (Lozano et al., 2021). Questions about the attachment orientations of both partners and their role in the experience of emotions, perceptions of support and caregiving behaviours are raised. Previous research suggests that a relationship that includes an anxious partner may be at high risk for a vicious cycle of insecurity among both partners (Davila & Kashy, 2009). On the one hand, perhaps, people modify their attachment insecurities intentionally so that they fit more closely with their partners. On the other hand, there is a possibility that partners

gradually develop similar attachment orientations unintentionally due to the synchronicity they experience over time (Lozano et al., 2021). This synchronicity refers to the degree the couple demonstrates responsiveness, reciprocity, engagement, and shared affect during their interactions. This notion aligns with previous research on the co-regulation of attachment security within romantic relationships, where changes in security were found to be coordinated between partners (N. W. Hudson et al., 2014), emphasizing the interdependent nature of intimate relationships.

In conclusion, in the three contributions the maladaptive influence of attachment insecurities in the experience of emotions and emotion dynamics, the perceptions of partner responsiveness and in engaging in caregiving in young couples expecting their first child is apparent. Moreover, it is apparent that insecure adult orientations in intimate relationships tend to be relatively resistant to change and that security it is not impossible but rather difficult to be built. Extensive research suggests that these orientations, rooted in early life experiences exhibit a certain level of stability over time. Attachment orientations do change in theoretically meaningful ways—partially confirmed with the third study—and that change is systematically related to how individuals perceive themselves (e.g., caregiving behaviors) and/or their partner (e.g., perceptions of partner responsiveness) (Simpson, Rholes, Campbell, & Wilson, 2003). However, for this change to occur it is often required dedicated effort and potentially therapeutic interventions. Recognizing the complexities involved in modifying attachment orientations can inform the development of more effective interventions and strategies, aimed at promoting healthier and more secure attachment dynamics within intimate relationships. In the next section the strengths and limitations of these contributions are discussed, followed by some practical implications for couples.

12.2. Strengths, limitations, and implications for future research

The current contributions of this thesis possess some notable strengths. First, the utilization of a longitudinal design allows for the examination of changes and developments over an extended period. In the second study, data was collected from four different time points, and in the third study from two time points, reflecting the transition to parenthood. This approach provides a deeper understanding of the dynamics and processes involved in the transition to parenthood and enables the identification of trends and patterns over time (Bolger & Laurenceau, 2013). Another strength of these contributions is the dyadic nature of analyses. Both partners participated, providing a more complete and accurate understanding of the couple's dynamics as the interplay between individuals within the relationships was considered (Kenny et al., 2006; Ledermann & Kenny, 2017).

Although the current findings offer valuable insights, it is important to acknowledge and address several limitations that may impact the validity of these studies. First, the sample used in these three studies is not representative of the population. Participants were young individuals in intimate relationships, expecting their first child, overall healthy and having an above average income and education. Therefore, results may not be easily applicable to a larger population. To enhance the generalizability of the findings, it would be beneficial to include participants with varying levels of education, as well as individuals experiencing severe individual or relationship distress. Future work should also consider examining a more diverse cultural sample because the experience of emotions and emotional inertia, as well as supportive behaviors differ greatly in different cultures with different prescribed rules as to what is considered appropriate in interpersonal relationships (Ekman et al., 1987).

Second, the data was mostly collected during the COVID-19 pandemic, which has had a profound impact on couples and their emotions, leading to a range of experiences and challenges. The pandemic brought an emotional burden on couples' lives (Bacon & Corr,

2020) and its impact should not be underestimated. Social distancing routines have brought increased stress levels within relationships (Schokkenbroek et al., 2021) and have contributed to a decline in the quality of life and mental health of people (Kaparounaki et al., 2020). Many parents have experienced greater role overload and stress as family life has been disrupted and couples' relationship quality has been challenged (Mousavi, 2020). Some external stressors like job losses and caregiving responsibilities have further impacted couples' well-being (Falconier & Jackson, 2020). However, in couples with more positive functioning, satisfaction increased, and maladaptive attributions decreased (Williamson, 2020). Some other couples exhibited adaptability, effective communication and reported high dyadic adjustment and improved family dynamics amidst these challenging circumstances (Günther-Bel et al., 2020). All these potential changes might have exerted a considerable influence on the relationship dynamics and hence on the studies' results.

Third, it is crucial to acknowledge that the utilization of longitudinal data and diary studies also comes with certain limitations. In the first and third study participants had to regularly report on their emotions and their caregiving behaviors, which is a method requiring highly motivated people. Moreover, compliance issues and participant engagement are common issues in this method. Some individuals may not consistently complete the diary entries or may provide incomplete or inaccurate information, leading to potential biases and missing data (Bolger et al., 2003). Additionally, the reliance on self-report measures in diary studies introduces the possibility of memory biases as participants may not accurately report on specific events and interactions (e.g., supportive acts from partner), social desirability bias or subjective interpretation of events. Objective raters could, in upcoming studies, assess supportive behaviors during conversations between couples because perceptions of support should be at least partially grounded in actual support behaviors (Rholes et al., 2020). Finally, diary studies are typically conducted over a relatively short duration and with a fixed-schedule

design (Bolger et al., 2003)—in the contributions of this thesis four times per day for one week—, which may not capture long-term trends or changes. Subsequent investigations should consider incorporating a greater number of time points in the evaluation and assessment process. By expanding the temporal coverage, researchers can capture a more comprehensive picture of participants’ experiences and behaviors over time. Despite these limitations, they remain a valuable research method that provides rich insights into daily experiences and behaviors.

Fourth, it is important to recognize that there are still many unknown factors regarding the transition to parenthood. Although these studies included four time-points of examination (pregnancy, six, 12- and 18-months post-partum), the timing and significance of specific periods within the transition remain uncertain. This limitation raises methodological concerns related to the funding obtained for this research project and data collection. It is impossible to guarantee that the results would have been identical if data had been collected before the first six months after childbirth or if additional data points had been included. The studies’ findings should, therefore, be interpreted within the context of these limitations, highlighting the need for future research to explore a broader range of time points and examine other critical periods within the transition to parenthood.

Finally, researchers can extend this dyadic approach that has been used in these contributions to three or four members of the family by including for instance grandparents or other family members. The Social Relations Model may be used to unravel the distinct influences of family, individual actors, partners, and the dynamics of the relationship (Kenny & La Voie, 1984). It aims to answer questions about how individuals’ behaviors and perceptions are shaped by both their own characteristics and the characteristics of people they interact with. Therefore, it may be employed to acquire insights into the couple’s surroundings and assess the impact on them as they go through the transition to parenthood. Moreover,

excluding children (in the case of these contributions, the first child of the couple) from examination also carries several drawbacks. First, it neglects the influence and impact of children on the dynamics and experiences of the couple relationship. Children play a significant role in shaping the family system and have the potential to influence the well-being and functioning of both partners. Thus, omitting children from the studies fails to capture the complexities and challenges faced by couples as they navigate the demands and responsibilities in their new role as parents (Doss & Rhoades, 2017). Moreover, excluding children may limit the generalizability of the findings to real life scenarios, because the findings may have not fully captured the complexities and nuances of the transition to parenthood as it occurs in naturalistic settings. Future research stands to gain considerable benefits by incorporating children and extended family into the examination of changes that take place in intimate relationships during the transition to parenthood.

12.3. Implications for clinical practice

The current studies extend prior research on the role of attachment in intimate relationships during the transition to parenthood, which is a significant and often a stressful real-life event when partners become more interdependent (Cowan & Cowan, 2000) and more vulnerable to mental disorders (Mitchell et al., 2019; Paulson et al., 2006; Zaers et al., 2008). Furthermore, the importance of utilizing dyadic models when investigating the role of attachment in relationships, is exemplified. Insecure working models play a central role in the genesis of emotional and relational difficulties (Mikulincer & Shaver, 2007). Therefore, interventions to promote relationship well-being can be applied at both a therapeutic and preventive level.

Bowlby (1988) believed that the beneficial therapeutic outcomes depend on the extent to which pathogenic mental representations are identified, questioned, revised, and transformed into more flexible models. During this process, the therapist plays a vital role in

providing a secure base to the client for self- exploration and revision of disruptive working models and there is growing evidence that effective therapy can move clients from insecure to secure orientations (Johnson, 2004). Exploration of past attachment experiences helps clients understand how they construe and distort current relationships, while exploration of current relationships helps them reflect on earlier attachment injuries. This dual process encourages reconstruction of working models and initiation of a security cycle, which in turn promotes change and personal growth. Specifically, studies have shown that during group psychotherapy self-reports of attachment insecurities decreased, predicting improvement in clients' emotional states and interpersonal functioning up to 12 months after therapy (Maxwell et al., 2014). Couples during the transition to parenthood are more vulnerable to develop mental disorders, such as depression or anxiety (Grant et al., 2008; Paulson et al., 2006; Zaers et al., 2008). Thus, therapeutic interventions should consider attachment orientations of couples in therapy, because they are likely to have implications on how individuals use partner support and manage their well-being, especially in the context of stressful events. Clinicians can emphasize on helping partners be more responsive and act as a secure attachment figure for their partner, leading to an increase of positive and a decrease of negative emotions, which can be beneficial for both partners (Schade & Sandberg, 2012). Prior research has interestingly shown that accepting one's needs fosters empathy and understanding (Johnson, 2004) and therapists can use this process to help couples express their emotional needs and increase attachment security in their relationship (Cordova et al., 1998). For instance, insecurely attached individuals may at first be conflicted about accepting efforts of responsiveness by their partner because of their internal working models, which imply that they will be abandoned or that they are not truly loved. However, through therapy these perceptions may change importantly and in ways that are beneficial for the relationship.

Narrative therapy (Gehart, 2014) or Emotion Focused Therapy (EFT) (Johnson, 2004) use therapeutic interventions which help individuals to accept attachment behaviours and feel safe and secure with them so that they build trust. Narrative therapy emphasizes the importance of stories and narratives in shaping people's lives. The goal is to help individuals rewrite their narratives in ways that empower them and promote positive change (Gehart, 2014). Therefore, couples can collaboratively explore how their attachment narratives intersect and impact their relationship dynamics. EFT helps couples improve their relationship functioning by creating a more secure attachment bond (Johnson, 2004). This type of therapy combines the intrapsychic and the interpersonal systemic perspective and assists distressed partners to shape their emotional accessibility, responsiveness, and engagement—all of which are key elements of attachment security—in their intimate relationships (Johnson, 2004; Moser & Johnson, 2008). It explicitly focuses on emotions and uses them to shape new interactions in couples. Many studies have provided evidence for the efficacy of EFT with couples experiencing higher levels of satisfaction after therapy (Denton et al., 2000; Johnson & Greenberg, 1985) higher intimacy, empathy, and self-disclosure (Dandeneau & Johnson, 1994) as well as better relationship adjustment (James, 1991). Moreover, a meta-analysis showed the efficacy of EFT in couples facing concerns like coping with depression and emotional injuries with a recovery rate from 70 to 73% (Johnson et al., 1999). Particularly during the transition to parenthood secured bonds may help partners become able to help each other through the managing of emotional turmoil (Johnson, 2004).

At the preventive level, specific programs can be highly beneficial for couples as they navigate the transition to parenthood. Couples may and should learn to communicate openly, express their concerns, and be equipped with new tools and strategies for resolving conflicts, which may be increased in this challenging period (Cowan & Cowan, 1995). Home visiting programs have been shown to enhance maternal adjustment and child outcomes when targeted

at high-risk (e.g., low income, low education) pregnant women (Olds, 2006). Preventive programs before and after birth with a strategic focus on enhancing the coparenting relationships have also been found to be effective (Feinberg et al., 2007). Parents need to support and coordinate with each other in their roles as parents so that they promote well-being in their relationship.

Parenthood often comes with idealized expectations and factors that are not known before birth and that may not align with the reality of caring for a child (Kochanska et al., 2004). Therapeutic interventions and preventive programs can help couples to manage these expectations, handle stress, feel secure in the relationship, and be prepared to face the challenges of parenthood (Doss et al., 2009).

13. Conclusion

This current dissertation aimed at, offering a thorough examination of the role of attachment insecurities on emotions and perceptions of responsiveness and how these perceptions may alter attachment orientations across time. Moreover, it aimed at investigating how commitment is associated with attachment insecurities and how it influences caregiving and its potential effects on alterations in attachment insecurities.

The transition to parenthood marks a transformative juncture in the lives of couples, demanding for adaptation and resilience. Understanding the profound impact of attachment insecurities on couples' emotional experiences yields invaluable insights into the dynamics of relationships, amidst critical situations. This thesis highlighted the guiding role of attachment theory in emphasizing the importance of secure emotional bonds in influencing partners' feelings and their ability to confront the challenges of parenthood. Moreover, it illustrated that perceptions of partner responsiveness, which are crucial for nurturing these bonds and fostering a sense of security and connection, may be disrupted during this transformative phase. Commitment—a vital element of lasting relationships—is linked to caregiving, an expression of support to one another, which becomes a shared responsibility, particularly in times of need, underscoring the depth of connection between intimate partners.

Taken together it is clear that the complex interplay of various factors and emotional needs affects emotions, perceptions of responsiveness, and caregiving, all of which play unique roles in the transition of intimate relationships into parenthood.

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Curriculum vitae

Education

Oct. 2017 – Present	PhD student, Clinical Family Psychology, University of Fribourg
Sep. 2014 – June 2016	Master of Science in Clinical and Health Psychology, University of Fribourg
Sep. 2004 – June 2005	Master of Science in Health Psychology, University of Surrey, United Kingdom
Sep. 1998 – June 2003	Bachelor of Arts, Psychology, The American College of Greece
Sep. 2012 – June 2013	Advance Diploma in Personal and Executive Coaching
Jan. 2012 – Dec. 2013	Systemic Family Therapy, Athenian Center of Anthropos
Oct.2017 – Dec. 2019	Systemic Family Therapy, Athenian Center of Anthropos
Oct. 2008 – May 2010	General Systems Theory: Sensitization to Systemic thinking, Athenian Center of Anthropos
Sep. 2002 – June 2004	Diploma in Counselling & Therapy

Professional experience

Oct.2017 - Present	Research assistant/PhD student, Clinical Family Psychology, University of Fribourg
Sep. 2012 – Oct. 2013	Together for Children: Psychologist
Sep.2010 – Oct.2013	Human Resources Coordinator
May 2008 – Aug.2010	Novartis Pharmaceutical: Medical representative
Nov.2007 – May 2008	Fairy Tale Test Society: Researcher assistant
July 2007 – July 2008	Alter Channel: Researcher at socio-psychological program
Sep.2003 – June 2004	Tzeranis Psychiatric Clinic: Assistant psychologist

Teaching

MSc Level: Family Therapy (English, Lecture, SP 2020, FA 2021, FA 2022, FA 2023)

MSc Level: Emotion Regulation (English, Lecture, SP 2022, Co-teaching with MSc Joel Everett, and Prof. Dr. Dominik Schöbi)

MSc Level: Transition to Parenthood (French, Seminar, SP 2021, Co-teaching with MSc. Marianne Richter)

Talks

Kouri, G., Meuwly, N., Richter, M., & Schöbi, D. (2023). Perceived Partner Responsiveness across the transition to parenthood: the role of attachment insecurity. Paper presented at the 11th Conference of the European Society on Family Relations (ESFR). June 13th-17th, Roskilde University, Denmark.

Kouri, G., Schöbi, D. (2022). Attachment Style, the Experience of Emotion and Emotional Inertia: How Do Highly Insecure Individuals Regulate Their Emotions in Intimate Relationships. Paper presented at the 17th Conference of the Swiss Psychological Society 2022. September 4th -6th, Zurich, Switzerland.

Kouri, G., Schöbi, D. (2021). Attachment Style, the Experience of Emotion and Emotional Inertia: How Do Highly Insecure Individuals Regulate Their Emotions in Intimate Relationships. Paper presented at the 37th Annual Meeting of Society for the Exploration of Psychotherapy Integration, June 10th-12th, Virtual Format.

Institutional responsibility

Representative of the scientific collaborators (corps intermédiaire), Psychology department Council, University of Fribourg (2021 – present)

Representative of the scientific collaborators (corps intermédiaire) at the Faculty Council, University of Fribourg (2021 – present)

Je déclare sur mon honneur que ma thèse est une œuvre personnelle, composée sans concours extérieur non autorisé, et qu'elle n'a pas été présentée devant une autre faculté.

Georgia Kouri