Self and Partner Qualities in Emerging Adults’ Heterosexual Romantic Relationships:
A Self-Determination Approach to Individual Well-Being.

Wendy Helen Ducat
BA, UQ, BPsych (Hons), Griff.

School of Psychology
Griffith Health
Griffith University

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Abstract

Extensive research has shown that psychological well-being is associated with high quality romantic relationships (see reviews by Myers, 1999; Reis, Collins & Berscheid, 2000). However, there are many potential reasons for this association. Drawing on Self-Determination Theory (SDT; Deci & Ryan, 2000), the focus of the current thesis was on fulfillment of individual needs as one psychological mechanism accounting for the link between positive relationships and psychological well-being. An integrated model was tested investigating associations between multiple aspects of romantic relationship quality and well-being while also accounting for other close relationship (friend, family) contributions. It was hypothesised that fulfillment of psychological needs for relatedness, competence and autonomy would mediate associations between romantic relationship quality and well-being. Steady romantic relationships sampled during late adolescence and emerging adulthood (17-30 years) were the focus of this study and developmental differences were expected based on maturity comparisons (i.e. age, relationship length and commitment).

Prior to testing this Romantic Relationship Quality and Well-Being Model, a new measure to assess partner contributions to relationship quality was developed in two studies (Study 1 $N = 215$, Study 2 $N = 316$). The Partner Behaviours as Social Context (PBSC) measure was founded on SDT and, as expected, had three positive dimensions of warmth, structure, and autonomy support. It also had three negative dimensions of rejection, chaos, and coercion.

In a third study, structural equation modelling (SEM) was used to test the Romantic Relationship Quality and Well-Being Model in a large sample of young heterosexual couples ($N = 148$ couples; ages 17 to 30 years). Romantic relationships were assessed in terms of contributions from both partner and self in the relationship. Partner contributions included specific partner behaviours (PBSC) while self
contributions to the relationship were voice with romantic partner, attachment security, and self-differentiation. Multiple reporters were used in this model, with one partner reporting on their behaviours towards the other, and the other partner reporting on self variables and well-being. To avoid violating the non-independence assumption, all analyses were conducted for males separate from females.

Two distinct types of well-being, both general well-being and life fulfillment were investigated in separate models. Results showed psychological need satisfaction in the romantic relationship was a positive, strong and unique co-variate with general psychological well-being and life fulfillment when all variables were considered. Findings generally supported need fulfillment as a mediator between partner behaviours and both types of well-being and partial mediator between self contributions and both types of well-being. Unique positive associations were also found between self-differentiation and general well-being, and between attachment security and life fulfillment. Thus, results supported satisfaction of needs in the romantic relationship as one mechanism linking romantic relationship quality to well-being, with self variables also providing unique contributions on well-being when all variables were considered. Relationship quality with parents was not uniquely associated with well-being in the final models. Friend quality remained uniquely and positively associated with both general well-being and life fulfillment for females, though not for males.

Because the nature of romantic relationships can vary greatly during emerging adulthood, the strength of associations between partner behaviours, need fulfillment in the romantic relationship and well-being were compared for different levels of maturity (based on age, relationship length and commitment). Stronger associations were expected for more mature samples based on these indices. For females, associations between partner behaviours, need fulfillment and well-being tended to be more strongly associated for the older group (21-30 years) compared to younger respondents (17-20
years), and for those more committed to the relationship (≥ 80% commitment) compared to less committed. While partner behaviours and need fulfillment (multiple reporters) were more strongly related for males in longer relationships, some associations within reporter were weaker, contrary to expectation. When more mature and less mature males were compared, the association between need fulfillment and well-being was stronger for males in shorter relationships (<12 months); when males were younger; and less committed. Findings partially supported expectations for females but not males. While gender differences were not explicitly tested, associations tended to be stronger for females and weaker for males in more mature groups. Overall, partner behaviours, need fulfillment and well-being tended to be consistently, moderately related for more mature males and females, and inconsistently related for their less mature counterparts.

In sum, a new measure of specific romantic partner behaviours and a model of romantic relationship quality and well-being were developed and supported across three studies. The new measure is expected to have utility for both research and clinical settings. Moreover, through assessing multiple relational covariates of well-being, it was clear that psychological need fulfillment in romantic relationships was a strong, consistent and unique component of both general psychological well-being and life fulfillment making need fulfillment an important target for assessment and intervention when working with young couples. Education on important couple behaviours for well-being, and better recognition of need fulfillment may be specific targets for relationship education and intervention. These may be particularly important for younger respondents and those new to relationships.
STATEMENT OF ORIGINALITY

This work has not previously been submitted for a degree or diploma in any university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

Wendy Helen Ducat

May, 2009
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CHAPTER 1
INTRODUCTION

Good social relationships are important for optimal psychological functioning (e.g. see reviews by Argyle, 1999; Berscheid & Regan, 2005; Lansford Antonucci, Akiyama, Takahashi, 2005; Lucus & Dyrenforth, 2006; Myers, 1999; Reis, Collins et al., 2000; Ryan & Deci, 2001; Ryff, 1995). As Berscheid (1999) stated, “virtually every study of human happiness reveals that satisfying, close relationships constitute the very best thing in life” (p.260). However, the specific reasons why a good relationship leads to greater well-being and happiness remain unclear (Berscheid & Regan, 2005; Lansford et al., 2005; Lucus & Dyrenforth, 2006; Reis & Collins, 2004; Reis, Collins et al., 2000). One potential mechanism is how much relationships fulfil psychological needs. Many prominent writers in psychology have proposed that social relationships differ in how they meet individuals’ psychological needs, and this need fulfillment is important for psychological growth and well-being. For example, Maslow (1943) proposed the salient nature of intrinsic human needs, highlighting that both basic physical needs, for example for food and water, and higher-order psychological needs for safety, love, esteem and self-actualisation require satisfaction to facilitate optimal human well-being and development. Rogers (1967) similarly identified the intrinsic human growth potential and need for acceptance, congruence and positive regard in relationships for psychological well-being.

More recent motivational perspectives on human development and well-being have described how humans are intrinsically motivated to satisfy basic psychological needs and experience personal growth when their social environments and relationships meet these needs (e.g. Connell & Wellborn, 1991; Deci & Ryan, 1985, 1991, 2000). Self-Determination Theory (SDT) is one theoretical framework that assists in
identifying specific factors that account for the association between relationship experiences and individual well-being. SDT provided the foundation for the studies proposed here, and, more specifically, stimulated the concentration on psychological need fulfillment, qualities of the social context of romantic relationships, contributions of the self in the romantic relationship, and psychological well-being among “emerging” adults (those aged 17-30 years).

Overview of the Research Studies

Three studies were conducted. In the first two studies a new measure of romantic relationship quality was developed, which was founded in SDT. This measure was designed to assess six dimensions of partner behaviours that would be observable by partners and by the self, and have been hypothesised to meet psychological needs as suggested in SDT (Deci & Ryan, 1985; Skinner, Johnson & Snyder, 2005). In the third study psychological need fulfillment was tested as a mechanism that could account for the association between romantic partner behaviours, relational aspects of the self, and psychological well-being.

More specifically, a new measure of six dimensions of the quality of romantic partner relationship behaviours was developed, the Partner Behaviours as Social Context (PBSC) scale, in two studies (Study 1 $N = 215$, Study 2 $N = 316$) and was used to provide an assessment of the social contextual factors in a third study. The PBSC was conceptualised as a measure of relationship quality and context, but focused on particular behaviours to better capture the actual content of partner interactions that do or do not meet individual psychological needs. Perceptions of the self in the relationship were individual difference variables that were of interest. A model was proposed in which partner behaviours and self characteristics in the relationship were expected to be associated with perceptions of psychological need fulfillment in the romantic
relationship (see Figure 1.1). As will be described in detail, psychological need fulfillment was hypothesised to mediate between these variables and well-being in adolescents and “emerging” adults who were in a steady romantic relationship. After development of the PBSC, each partner in 148 heterosexual dyads reported his/her partners’ behaviours and his/her own behaviours. Models were tested using one partner’s report of his/her own behaviours and the other partner’s report of self variables and well-being in order to reduce the possibility that associations were inflated because of common method variance. Models were also tested for males separate from females to avoid violating the assumption of non-independence of data.

![Diagram](attachment:image.png)

**Figure 1.1.** A model of Romantic Relationship Quality and Well-Being: An overview of the hypothesised model of partner and self contributions in the romantic relationship and associations with psychological need fulfillment and well-being.

**Note.** Dotted lines will be tested but full mediation by need fulfillment is expected.

Prior to describing the series of studies in detail, background sections are provided to explain the major propositions of SDT and definitions of well-being from an SDT perspective; to describe the importance of examining romantic relationships and well-being in adolescence and emerging adulthood with a particular focus on romantic
partner behaviours; and to summarise the literature on what is known about psychological need fulfillment and well-being in romantic relationships including the potential for age and gender differences in associations. Finally, two more complete models investigating general psychological well-being and life fulfillment separately will be presented, and the study rationale and specific hypotheses will be detailed.

Definitions and Terminology

Brief definitions for commonly used terms throughout this thesis are described here. A description of how constructs were operationalised is also included. While these definitions provide an initial guide, detailed definitions and examples are included in later sections:

Emerging adulthood. A developmental period between adolescence and adulthood identified by Arnett (2000) as 18-25 years and broadened by recent research to include ages up to 29 years (Crouter & Booth, 2006). This period is marked by rapid individual and social development including the transition for many emerging adults from peers to romantic partners as primary supports. Emerging adults are considered distinct from adults as they often do not have the markers of adulthood including marriage, children, steady employment and a mortgage; and are distinct from adolescence in terms of a greater sense of autonomy, independence and growing levels of responsibility (ABS, 2005; Kefalas, Furstenberg & Napolitano, 2005).

SDT (Deci & Ryan, 1985, 1991, 2000). SDT is an empirically supported theory of human behaviour, motivation, psychological growth and well-being, specifying that there are three fundamental psychological needs, namely for relatedness, competence and autonomy, and that fulfillment of these promotes optimal psychological functioning, including positive affect and well-being, experiencing greater meaning, fulfillment, psychological self-control, regulation and vitality; and lower levels of
negative well-being such as depression and anxiety. In accordance with Maslow’s (1943) classic theory of human motivation, SDT proposes that humans have an innate growth potential, that is, they naturally move towards growth and well-being if given optimal social contexts for development.

_Psychological well-being._ Psychological well-being is an umbrella term for optimal mental health and functioning in multiple life domains. Ryan and Deci (2001) identified two broad aspects of psychological well-being, namely hedonic well-being and eudaimonic well-being. Hedonic well-being has been defined in terms of experience of positive emotional affect and lack of suffering, pain or negative affect, whereas eudaimonic well-being refers to the “fully-functioning person” in terms of having meaning, purpose and fulfillment in life, self-actualisation and propensity for psychological growth, strength and flexibility (Ryan & Deci, 2001). In the words of Maslow (1943) self-actualisation is “the desire for self-fulfillment (and)...to become everything one is capable of becoming” (p.382). In the present thesis _general well-being_ will be used to refer to hedonic well-being. _Life fulfillment_ will be used to refer to items that capture eudaimonic well-being.

_Partner behaviours._ This term encompasses the quality of romantic partner relationship behaviours that are proposed to form an important social context for individual well-being in the relationship. Social context is measured via the PBSC scale developed in the first two studies of this dissertation. The investigation of partner behaviours associated with individual well-being was one key component to be investigated in the Romantic Relationship Quality and Well-Being Model.

_Relational self._ The relationship-salient aspects of the self included in this thesis will be referred to as relational self. Relational self is an umbrella term by Andersen and Chen (2002) referring to individual mental schemas or representations of significant
others that an individual has formed based on past experiences in close relationships. These are proposed to become activated in the current relationship context/s. Measures of relational self may refer to representations of a specific relationship, such as romantic partner, or to representations and behaviour in close relationships generally. In order to aid differentiation of measures of partner behaviours in the romantic relationship from relational self contributions in the current program of research, relational self measures were chosen to assess schemas and behaviour in close relationships generally, as opposed to purely in the romantic social context.

Three relational self dimensions were assessed in the present thesis, including voice, attachment security and self-differentiation with significant others. Voice refers to a tendency for an individual to say what they are really thinking and express themselves authentically in significant relationships (Harter, 1999). Attachment security is based on Bowlby’s (1969, 1973) classic theory of human attachment, that is, that infants are predisposed to form attachments in the form of seeking proximity and protesting separation with their primary caregiver. Research has shown that this attachment system is also present in intimate adult relationships (Hazan & Shaver, 1987). Finally, the relational self construct of self-differentiation stems from Bowen Family Systems theory, and is defined as the degree to which one is able to balance both emotional and intellectual functioning; and intimacy and autonomy in relationships (Skowron & Friedlander, 1998). Self-differentiation is marked by an individual’s ability to be resilient in the face of criticisms or moods of significant others (Olver, Aries & Batgos, 1989), and thus those with higher self-differentiation are less susceptible to compromised well-being or self-esteem in their significant relationships.
Summary of Thesis Chapters

This thesis consists of eleven chapters including this introduction (Chapter 1). Chapter 2 is focused on the literature on SDT and psychological well-being. The third chapter details literature on the age period of emerging adulthood and romantic relationship quality at this time with specific focus on measuring partner behaviours in romantic relationships. Chapter 4 details research on the relational self, while Chapter 5 examines psychological need fulfillment from an SDT perspective, with a particular focus on need fulfillment in romantic relationships as a mediator between social contexts and well-being. Chapter 6 outlines the importance of accounting for age and gender when investigating associations between romantic relationship quality and well-being while Chapter 7 summarises the entire Romantic Relationship Quality and Well-Being Model and provides the rationale and aims of the research. The next chapters outline the findings of the first pilot of the new measure of PBSC (Chapter 8), a second study to refine the measure and test overall psychometric properties including factor structure, internal consistency and validity (Chapter 9), and a final study to examine the proposed model in a large sample of emerging adult couples (Chapter 10). Finally Chapter 11 integrates the findings of all chapters and details theoretical, research and clinical implications of the research program.
CHAPTER 2

SELF-DETERMINATION THEORY (SDT) AND WELL-BEING

This chapter provides a summary of key aspects of Self-Determination Theory (SDT), which provide foundations for studying multiple aspects of the social context. In addition, SDT has identified both hedonic and eudaimonic well-being as influenced by social contextual experiences. This perspective on psychological well-being also is introduced in this chapter.

**Self-Determination Theory**

SDT is a motivational theory that describes how personal growth, integrity, self-organisation and regulation, intrinsic motivation and well-being occur through fulfillment of the fundamental psychological needs for autonomy, competence and relatedness (Deci & Ryan, 1985, 1991, 2000). SDT theorists stipulate that psychological need fulfillment is facilitated through experiences in social contexts, with specific types of experiences linked to the meeting of each of the psychological needs. For example, if a relationship partner is loving towards the individual, the individual’s need for relatedness may be satisfied in the relationship context. In addition, SDT argues that humans are active and growth-oriented organisms that manage, select and direct their experiences with the aim of maintaining or promoting psychological well-being (Ryan & Deci, 2002). Ryan and Deci (2000a; 2000b) identify that a primary purpose for the development and empirical evaluation of their theory of self-determination is to understand and promote human well-being.

SDT asserts that both the quality of social contexts and individual difference variables influence the ability to satisfy psychological needs. The term “social context” broadly applies to all experiences within an interaction or ongoing interactions with one or many other humans and refers to proximal contexts, such as interactions with social
partners, as well as more distal contexts, such as societal influences or an individual’s culture or broader environment (Connell & Wellborn, 1991; Deci & Ryan, 2000). An example of a social context variable that has been widely studied in academic, family, occupational and competitive sporting domains is “autonomy support”, or social partners who support the individual’s ability to make decisions about their own behaviour. Findings show that this type of support enhances intrinsic motivation and well-being in experimental settings (see Deci & Ryan, 1985 for a review) and more naturalistic settings (e.g. Pelletier, Fortier, Vallerand & Briere, 2001; Reinboth, Duda & Ntoumanis, 2004; Reis, Sheldon, Gable, Roscoe & Ryan, 2000). The quality of social contexts has been shown to play a significant role in facilitating academic motivation and achievement (e.g. Roeser & Lau, 2002; Skinner, Zimmer-Gembeck, & Connell, 1998; Zimmer-Gembeck, Chipuer, Hanisch, Creed, & McGregor, 2006), sporting achievements and satisfaction (e.g. Reinboth et al., 2004), occupational motivation and satisfaction (e.g. Ilardi, Leone, Kasser, & Ryan, 1993), successful adoption of health practices (e.g. Williams et al., 2006; Williams, McGregor, Zeldman, Freedman, & Deci, 2004) and attachment security and satisfaction in close relationship domains including family, friendship and romantic (e.g. La Guardia, Ryan, Couchman & Deci, 2000).

All humans are expected to intrinsically move towards growth and affiliation with others, yet individual differences may exist. These individual differences have received less specification than the quality of social contexts in SDT, however it is argued that early developmental experiences may either thwart or facilitate the need fulfillment of the developing person and this may lead to relatively persisting patterns of individual differences in the pursuit of intrinsic needs and the aspects of social contexts that may or may not meet an individual’s needs. Early need fulfillment or deprivation is proposed to influence ongoing patterns of individual difference, for example, whether
the adult individual strives towards intrinsic goals, for example, affiliation, personal growth or community, versus extrinsic goals, for example, for fame, wealth or power (Kasser & Ryan, 1993, 1996) and motivations for pursuing goals, for example, intrinsically “interesting” vs. extrinsically “because I have to” (Sheldon, Ryan, Deci & Kasser, 2004). Individual differences in the pursuit of psychological needs and goals (as listed above) can be compensatory for early psychological need deprivation. For example, an adolescent who highly values fame, an extrinsic, visible indicator of their worth, may be compensating for a lack of early need fulfillment within their family social context or school social context. Accordingly, a study by Kasser, Ryan, Zax and Sameroff (1995) found that parents with parenting styles that were coercive andrejecting had children with higher extrinsic aspirations, such as wealth and fame, compared with parents with democratic, non-controlling and warm parenting styles. Early developmental contexts may thus lead to thoughts and behaviours that appear contrary to the innate tendency to satisfy psychological needs. It is however emphasised that the three psychological needs are universal, but individuals’ abilities and methods to get their needs met are not (Deci & Ryan, 2000; Ryan & Deci, 2002).

SDT has been applied in many disciplines of psychology and other fields, and it offers an integrated perspective on human behaviour, psychological growth and well-being. Of interest to the current program of research, early psychological need fulfillment has been proposed to be a salient ingredient of healthy relationship functioning. For example need fulfillment has been proposed to influence a child’s ability to form “secure” attachments with significant others (La Guardia et al., 2000), that is, to expect and achieve reliable support from significant others across the lifespan (Ainsworth, 1989; Bowlby, 1969, 1973; Hazan & Shaver, 1987).
Once an attachment orientation has been formed in a mature adult, attachment security or insecurity within adult romantic relationships is conversely implicated in either the fulfillment or thwarting of psychological needs within these adult relationships (La Guardia et al., 2000; Leak & Cooney, 2001; Ryan, La Guardia, Solky-Butzel, Chirkov & Kim, 2005; Wei, Shaffer, Young & Zakalik, 2005). Psychological need fulfillment has been found to vary across an individual’s significant relationships in tandem with attachment security in each specific relationship (e.g., attachment security may differ across mother, best friend, romantic partner; La Guardia et al., 2000). For example, a person may have a secure romantic attachment and expect consistent provision and support from their romantic partner and thus perceive fulfillment of their needs for autonomy, relatedness and competence in this relationship.

Although this part of SDT is useful conceptually, only a handful of studies have investigated psychological need fulfillment as a mediator between aspects of attachment security and mental health or well-being. Specifically, associations between attachment security and depression, loneliness and shame have been found to be mediated or partially mediated by need fulfillment (Wei et al., 2005). Similarly, associations between attachment security and general well-being have been mediated by need fulfillment (La Guardia et al., 2000; Leak & Cooney, 2001). While this lends preliminary support to need fulfillment as a mediator between one aspect of the self, namely attachment security, and well-being, other important elements of both relational self and romantic relationship quality need to be simultaneously accounted for in models investigating need fulfillment as a mediator. In the Romantic Relationship Quality and Well-Being Model proposed here, psychological need fulfillment will be tested as a mediator between both romantic partner behaviours reported by the romantic partner and individual psychological well-being and also between individual differences
in relational self (i.e. attachment, voice and differentiation of self as will be described in
detail) and psychological well-being (see Figure 1.1). It is expected that individual
differences in relational self will be related to romantic partner behaviours, though both
relational self and partner behaviours will have unique associations with need
fulfillment. It is thus important to emphasise that the focus of the present work is not on
the development of individual differences in psychological needs, but on whether
perceptions of psychological need fulfillment specific to the romantic relationship
mediates associations between current romantic relationship quality (i.e. partner
behaviours, relational self) and psychological well-being.

Psychological Well-Being

Research into psychological well-being or, more broadly, the experience of
optimal psychological functioning has shown that predictors of psychological well-
being are present at biological, social and psychological levels (see Ryan & Deci, 2001
for a review). These factors include heritable personality factors, which are consistently
moderately related to subjective well-being (Diener & Lucus, 1999), and demographic
factors (e.g., income), which have demonstrated consistently weak associations (Argyle,
1999; Lucus & Dyrenforth, 2006). However, interpersonal correlates of well-being are
particularly important areas for research, as findings can guide education programs, and
prevention and intervention efforts, including providing direct advice for individuals as
they develop new relationships.

Definitions of well-being. Measures of psychological well-being that have been
used in previous research can be divided into two categories of hedonic well-being or
“happiness” research, which defines well-being in terms of general satisfaction and both
minimal negative affect and optimal positive affect (e.g. Diener, 1984, 2000), and
eudaimonic well-being, defined in accordance with Roger’s (1967) measure of the
“fully functioning person” and indicative of the presence of life fulfillment, purpose in life, growth goals and self-actualisation (see Ryff, 1995; Ryan & Deci, 2001 and Ryan, Huta and Deci, 2008 for a detailed discussion of these categories of well-being). Considerable research has been conducted in the hedonic tradition in the field of subjective well-being, whereby positive and negative measures of affect are assessed from the respondent’s perspective (Diener 2000; Lucus & Dyrenforth, 2006). Positive and negative emotions are relatively distinct and separable components of well-being (Kahneman, Diener & Schwarz, 1999; Lansford et al., 2005), and are often maintained as separate measures as they appear to result from different processes and correlate with different sets of other constructs (Lucus & Dyrenforth, 2006).

Eudaimonic measures of well-being have received less attention in the literature (Ryan & Deci, 2001; Ryff, 1995). While subjective well-being research has used large representative samples, theoretical grounding is not always made explicit (Ryan & Deci, 2001). In contrast, the construct of eudaimonic well-being has emerged from theory, though empirical research is lagging behind and more research is required to understand the antecedents and processes involved in the development and maintenance of eudaimonic well-being. An integrated approach using both measures has been recommended by Ryan and Deci (2001). Studies investigating well-being from an SDT perspective have measured some eudaimonic factors in addition to hedonic measures, for example, self-actualisation (La Guardia et al., 2000; Ryan et al., 2005) and meaning in life (Bettencourt & Sheldon, 2001). Further research needs to build upon these studies to elucidate the impacts of need fulfillment on both hedonic and eudaimonic types of well-being.

In this thesis, both a hedonic form and a eudaimonic form of well-being were investigated. Hedonic well-being included subscales of positive well-being, self-control,
vitality, anxiety (reverse-scored) and depression (reverse-scored); these are referred to as *general well-being*. Eudaimonic well-being was measured as perceived *life fulfillment*, including aspects of meaning in life, inner strength and connection to others.

**Relationships and well-being.** Close personal relationships are argued to be some of the strongest correlates of well-being, in terms of predictors that are amenable to change (e.g. see reviews by Argyle, 1999, 2001; Lucas & Dyrenforth, 2006; Myers, 1999; Reis, Collins et al., 2000; Ryff, 1995). A recent review of social factors associated with subjective well-being highlighted consistent associations across multiple social factors (Lucas & Dyrenforth, 2006). Specifically, social activity was moderately associated with well-being ($r = 0.20$ to $0.43$ across studies), existence of social relationships and quantity of time with relationship partners was consistently associated (reported across studies as $r = 0.12$ to $0.23$), as was marital status ($r = 0.23$) and extraversion ($r = 0.37$ to $0.80$ across studies). Overall, in a review on the literature on relationships and well-being, Myers (1999) argued that close, supportive relationships may yield the most psychological benefits when compared to other correlates of subjective well-being. This also has been concluded by multiple other researchers in the field (Deci & Ryan, 2001; Berscheid & Regan, 2005; Argyle, 2001; Reis, Collins et al., 2000). While both quality and existence of relationships have been identified as associated with well-being, relationship quality has repeatedly been proposed to be more important to mental and physical health than the sole existence of a relationship (Collins, 2003; Lucus & Dyrenforth, 2006; Regan & Berscheid, 2005; Ryan & Deci, 2001).

In sum, consistent associations between romantic relationship quality and well-being have been found in both specific empirical papers and reviews, however mechanisms linking psychological health and experiences in romantic relationships are
unclear. In order to propose a specific model, the Romantic Relationship Quality and Well-Being Model, the next chapter will introduce and detail current knowledge about the nature of romantic relationships in emerging adulthood and focus on the specific partner behaviours thought to be important social contextual elements to promote individual well-being in romantic contexts at this time.
CHAPTER 3

RELATIONSHIP QUALITY IN EMERGING ADULTHOOD

In the Romantic Relationship Quality and Well-Being Model proposed and tested here, contributions from the romantic partner are distinguished from those contributed by the self and all are expected to be uniquely associated with psychological well-being. Moreover, it is proposed that psychological need fulfillment will explain why partner behaviours and relational self variables are associated with both general well-being and life fulfillment. The focus was on emerging adults because this is a time when romantic relationships emerge as important, close and interdependent relationships. As such, associations between relationship quality and psychological well-being are likely to become significant at this time. It is important to investigate age and other developmental differences further in order to inform optimal couple interventions with younger age groups. Hence, this chapter will provide background on romantic relationships during emerging adulthood, and provide a summary of particular aspects of relationship quality that are important to the Romantic Relationship Quality and Well-Being Model.

Emerging Adults and Romantic Relationships

The focus is on emerging adults in this thesis. In addition, emerging adults’ romantic relationships were the social contextual experience of interest, because research shows that romantic or partner relationships are often the “closest” relationships beginning in emerging adulthood, in terms of self reported intimacy, support and influence (Berscheid, Snyder & Omoto, 1989b, Regan & Berscheid, 2005). These relationships tend to ascend in importance in late adolescence and during the transition to adulthood (Hartup, 1989, 1999; Hazan & Ziefman, 1994; Furman & Wehner, 1997). Studies have shown that parents or best friends are often self-reported
to be the most significant, important, and supportive or close relationships throughout adolescence and these relationships appear to gradually be superseded by romantic relationships throughout the transition to adulthood based on self reports of closeness (Brendgen, Vitaro, Doyle, Markiewicz & Bukowski, 2002; Furman & Wehner, 1997; Zimmer-Gembeck, 1999); in terms of being an attachment relationship (Allen & Land, 1999; Furman, 1999; Furman & Shaffer, 1999; Furman, Simon, Shaffer & Bouchey, 2002; Furman & Flanagan, 1997; Furman & Wehner, 1994; Hazan & Ziefman, 1994), and as assessed by increasing levels of interdependence between romantic partners (Laursen & Williams, 1997; Zimmer-Gembeck, 1999).

The development of romantic relationships during late adolescence and emerging adulthood. A key hypothesis in the studies proposed here is that there is development in the quality and content of romantic relationships that impact on the association between romantic relationships and well-being. In this proposed research program, it is expected that there will be increasing positive associations between individual psychosocial well-being, romantic partner behaviours, and need fulfillment with increasing age (i.e., from early to late emerging adulthood). Furman and Wehner (1994) proposed one model of the development of romantic relationships across the lifespan that supports this hypothesis. They proposed four behavioural systems, including systems of 1) affiliation and 2) sexuality, which are proposed to be first activated in adolescence and primary features of adolescents’ romantic relationships and additional systems of 3) caregiving and 4) attachment that become prominent in adulthood. All four systems are expected to increase in salience as the individual and romantic relationship mature. Of particular interest in the present research is the system of attachment in romantic relationships. It is also recognised that emerging adults’ romantic relationships may not constitute full attachments, especially those earlier in
emerging adulthood (Furman & Shaffer, 1999) and those which are shorter in length (Hazan & Ziefman, 1999).

Although it seems clear that romantic relationships change during the adolescent and emerging adult years, and may differ when comparing relationships of different length and commitment levels, there has been less attention placed upon whether these changes are reflected in how romantic relationships are associated with individual mental health (Collins, 2003; Furman, Brown & Feiring, 1999). This continues to be the case even though prominent theorists in the field argue that the onset and normative age changes in romantic relationships are important to consider and deserving of extra attention from developmental researchers (Collins, 2003; Furman, Feiring & Brown, 1999; Hartup, 1999). Research shows that romantic relationships are increasingly associated with psychosocial outcomes and this appears to increase and change with age. For example, a longitudinal study investigating adolescents from 12 to 16 years of age who were over-involved in dating compared with their peers had more negative psychosocial outcomes, such as poorer academic achievement and higher internalising and externalising symptoms. However reports of involvement in dating and closeness and satisfaction with romantic partners at 16 years was positively associated with self-esteem and adaptive social skills particularly in friendship domains (Zimmer-Gembeck, Siebenbruner & Collins, 2001).

The focus on emerging adulthood. Research on romantic relationships in emerging adulthood has become increasingly important in the last couple of decades. Previous studies have focussed on marital relationships, as marital status can be easily assessed in surveys and because of the significance of this type of relationship to society and the individual (Berscheid & Regan, 2005). Marital relationships are certainly important as demonstrated by the well-established associations between marital status
and happiness. For example, a meta analysis of over 90 studies showed married persons were happier on average than non-married and this was particularly true for women (Wood, Rhodes & Whelan, 1989) and this has been supported by additional reviews (Argyle, 1999; Berscheid & Regan, 2005; Myers, 1999) and across cultures, with similar effect sizes in a large cross-cultural sample of almost 50,000 people (Diener, Gohm, Suh and Oishi, 2000). However, other types of romantic relationships, particularly early, steady romantic relationships warrant research (Zimmer-Gembeck & Gallaty, 2006), particularly due to recent society shifts, such as delaying marriage, extended education and more cohabitation (ABS, 2005; Kefalas, et al., 2004; Osgood, Ruth, Eccles, Jacobs & Barber, 2004).

Developmental theory asserts the importance of romantic relationships in emerging adulthood. The period of emerging adulthood, identified by Arnett in 2000 as 18-25 years and expanded in recent research to 29 years (e.g. Crouter & Booth, 2006), is a particularly important period for investigating romantic relationships and psychological well-being for a number of reasons. Emerging adulthood is marked by heightened exploration and engagement in the social world, where young people normatively experience steady, interdependent romantic relationships. In the United States, up to 80% of 18 year olds report recent involvement in a romantic relationship compared with around 25% of 12 year olds (Carver et al.; cited in Collins, 2003). Romantic relationships are not only more common, but also more salient to the individual in emerging adulthood compared with earlier periods of development. This is demonstrated by increased reports of intimacy goals in emerging adults compared to slightly younger age groups (Arnett, 2000; Zimmer-Gembeck & Gallaty, 2006; Zimmer-Gembeck & Petherick, 2006); reports of romantic relationships as the closest relationship in emerging adulthood (Furman & Wehner, 1997; Paul & White, 1990);
and the evidence that romantic relationships increasingly become an attachment relationship throughout late adolescence and emerging adulthood (Doherty & Feeney, 2004; Hazan & Zeifman, 1994).

Second, romantic relationships emerge when young people are experiencing heightened development and exploration of the self, identity, autonomy, sense of agency and competence in work and social roles (Schwarz, Cote & Arnett, 2005) and intimacy in relationships (Arnett, 2000). As described by Arnett (2000) and others (Chen, Cohen et al., 2006; Schulenberg, Sameroff & Cicchitti, 2004; Shahar, Kalnitzki, Shulman & Blatt, 2006) during these years of life, the self-concept and identity are becoming more clear and consolidated, there is increased planning, goal-setting and commitment to work and social roles, heightened experimentation and exploration, and increased perceptions of personal responsibility. This is often coupled with an absence of responsibility for children or other dependents. Outcomes of the developmental transition to adulthood include positive factors such as achieving educational and career pursuits but also liabilities such as poor mental health and problems with alcohol and drugs (Arnett, 2005).

Emerging adults experience a growth in the capacity to have intimate relationships in the form of providing support to others, being supported by peers, sharing personal information and learning to be authentic with partners and other peers (Paul & White, 1990; Robinson, 2000). All of these experiences may influence and be influenced by the development of romantic relationships. Individual well-being is a particularly important variable to study from a developmental life task perspective with research showing that successful life tasks and goals in current social contexts substantially influence an individual’s well-being (Cantor & Sanderson, 1999). With the
Recent research into romantic relationships and well-being in emerging adulthood has shown that salient life tasks and goals moderate associations between qualities of emerging adults’ romantic relationships and well-being (Zimmer-Gembeck & Gallaty, 2006; Zimmer-Gembeck & Petherick, 2006). Schulenberg, Bryant and O’Malley (2004) investigated how negotiation of the developmentally salient tasks of emerging adulthood in terms of education, work, financial autonomy, romantic involvement, peer involvement, substance abuse, avoidance, and citizenship were associated with well-being in the transition to adulthood, as measured by self-esteem, self-efficacy and social support. Success versus stalling on life tasks was associated with higher indices of well-being, particularly in the realm of romantic relationships and work and citizenship social roles. As such, both the type of life goals and successful completion of life tasks vary with age, also showing the importance of age as a variable to consider when investigating romantic relationships and well-being. Life goals in romantic relationships are particularly important in emerging adulthood.

Within emerging adults’ romantic relationships, Gallaty and Zimmer-Gembeck (2008) recently found that those who reported higher partner maltreatment also reported more daily depressive symptoms, more hassles with partners and friends and less uplifts in a subsequent seven day period. Also, goals in relationships have been shown to change with age and likely impact on individual well-being at this time. Zimmer-Gembeck & Gallaty (2006) demonstrated that emerging adults report increased intimacy as opposed to affiliation goals in their romantic relationships at age 23-24 compared with younger respondents aged 17-18 years, who showed the opposite pattern. Another study by Zimmer-Gembeck and Petherick (2006) showed that the association between
intimacy goals and relationship satisfaction was moderated by age, with a weaker association among younger respondents. Individual well-being appears to systematically vary in romantic relationships, not only based on partner behaviours, but also in association with qualities of the self in these relationships and, on average, these change with age. Overall the contribution of goals and life task negotiation does contribute to associations between romantic relationships and well-being for emerging adults.

While past studies have shown romantic relationships are important for well-being at an early age (e.g. Zimmer-Gembeck et al., 2001), other studies have shown that these may not be as important as quality of relationships with other family members and friends, particularly in early age periods. When specific periods of emerging adulthood were investigated, Zimmer-Gembeck and Gallaty (2006) found no association between romantic quality and well-being after accounting for friendship and family relationships at age 18 or at age 21; this association was not found until age 23.

Other researchers have investigated the covariate of parent relationship quality on associations. Chen, Cohen et al., (2006) investigated associations between relationships and well-being, in terms of predictors of heightened conflict in romantic relationships of emerging adulthood, while Eberhart and Hammen (2006) investigated interpersonal predictors of depression in a longitudinal sample of emerging adults. Chen, Cohen and colleagues (2006) found that individuals’ (M = 29 years; range = 27-31) retrospective reports of conflict in romantic relationships when they were aged 17-27 years were associated with parental divorce and lower parental socio-economic status, suggesting impacts on quality of the parent relationship predicts later romantic relationship deficits. However of note, the concurrent contributions of relationship-specific aspects of self and specific dimensions of current romantic partner behaviours in the relationship were not assessed. A similar research program by Eberhart &
Hammen (2006) in female high school seniors found that poor family relationship quality and anxious attachment style during adolescence and early adulthood predicted prospective depression episodes (over a two year period). In addition, multiple interpersonal predictors (i.e. peer and family relationship quality) and markers of attachment insecurity in terms of self-reported difficulties depending on others and being comfortable with others were found to predict depressive symptoms over a six-month period. Whereas this shows the predictive validity of both relationship quality and attachment with parents and peers for well-being, it is important to note that the impacts of behaviours from current romantic partners were not measured in this study. Finally, Donnellan, Larsen-Rife and Conger (2005) in a prospective study, found that history of nurturant-involved parenting as well as individual personality traits, each contributed to romantic relationship quality and conflict for early adults.

In summary, these researchers showed that relationship quality, parenting and attachment with family and peers are important precursors of well-being, based on longitudinal and retrospective reporting. Neither study simultaneously examined mechanisms between current social experiences with romantic partners and well-being. Accordingly, this was a goal of the present research program, and relationship quality with parents and closest friend was assessed to control for these factors.

Relationship Quality and Romantic Partner Behaviours

Studies focused on romantic relationships during adolescence and emerging adulthood face a challenge in identifying which of the many measures of relationship quality are most relevant and often have to struggle with respondents’ tendency to perceive and present new and close relationships as positive in all ways (see Furman & Flanagan, 1997). Hence, the first two studies were conducted to develop a new measure of dimensions of romantic partner behaviours thought to be indicative of a high quality
relationship according to SDT. The goal was to develop a measure based on observable
behaviours that would be less susceptible to positive bias and to be relevant to
adolescents and emerging adults. This will be referred to as Partner Behaviours as
Social Context (PBSC) throughout the remainder of this thesis.

Romantic relationship quality has been broadly described as the extent to which
the relationship provides or withholds beneficial experiences and interactions (Collins,
2003). Although the examination of romantic relationships may sound relatively
straightforward, there is much ambiguity about the term “relationship” and many
researchers use the term in different ways (Reis, 2001). As such, defining an intimate
relationship with a romantic partner can be a challenge, particularly when including
participants who are in the teens, 20s and 30s. In addition, when the purpose is to study
relationship characteristics and qualities, there are a variety of dimensions that could be
examined. Finally, both characteristics of the self and the partner contribute to romantic
relationship quality, as do interactions between these, and disentangling the
contributions of each can be problematic (Hartup, 1999; Schulenberg et al., 2004).

Qualities of a close relationship have often been poorly defined in previous
studies and measurement is problematic (Berscheid & Regan, 2005). For example,
relationship quality has often been measured on one-dimensional scales such as
relationship satisfaction, and without theoretical underpinnings. In the present study,
quality of the romantic relationship will be assessed through reports of partner
attributes. A new measure of partner characteristics in the relationship that is based on
the important social contextual elements of warmth, rejection, structure, chaos,
autonomy support and coercion in accordance with SDT theory was developed. Well-
established relational aspects of the self, namely adult attachment style, level of voice
with partner, and level of differentiation of self with partner were also assessed.
The focus of the present study was emerging adults (17-30 years) in a “steady” romantic relationship (e.g. dating partner, living together, married) with another person of at least one-month duration. This was defined in accordance with previous studies in young adult populations (e.g. Zimmer-Gembeck & Gallaty, 2006, Knee, Lonsbary, Canevello & Patrick, 2005) and adhered to the broad definition of a relationship as an ongoing association between two persons (Reis, Collins et al., 2000). A primary aim was to compare romantic relationships based on relationship length, commitment and respondent age. Romantic relationships show diversity in length and commitment during emerging adulthood, and there are age-related changes in romance during late adolescence and emerging adulthood (Brown & Feiring, 1999; Connolly & Goldberg, 1999; Crouter & Booth, 2006; Shulman & Seiffge-Krenke, 2001; Zimmer-Gembeck & Gallaty, 2006). Hence comparisons were designed to better understand whether these indices of individual and relational maturity are associated with differences in the importance of romantic relationships for psychological health. Individuals were also expected to have been together long enough to have developed particular ways of behaving that have been honed by their histories of need fulfillment within many interpersonal interactions prior to and within this relationship. With regard to the characteristics of romantic relationships that were chosen, research has shown that multiple domains of relationship quality are important (Fletcher, Simpson & Thomas, 2000), though quality is often studied in one-dimensional terms. For example, some studies focus on a simple measure of relationship satisfaction (e.g. Hendrick, 1988; Knee et al., 2005; La Guardia et al., 2000). Lucus & Dyrenforth (2006) argue that relationship satisfaction ratings are often interpreted as measures of relationship quality, though these measures are likely to tap an underlying tendency to be satisfied with other life domains and, as such, are not necessarily a measure of relationship features.
Research has shown that relationship quality has multiple dimensions. These dimensions have included such factors as satisfaction, intimacy, trust, commitment, passion and love (Fletcher et al., 2000) and factor analysis results showed that each of these loaded on separate factors, but also had reliable loadings on a second order factor of total perceived relationship quality. In other words, people who report higher quality relationships will tend to report higher quality across each of the six domains, but some may demonstrate variability between domains. For example, a person may report a highly committed relationship that is low on passion (Fletcher et al., 2000). While this multidimensional measure assesses more specific features of a romantic relationship than a simple measure of satisfaction, it does not allow specific delineation of contributions from the partner from those of the self in the relationship – and this is needed for the field to progress.

Schaefer and Edgerton (1981; published in Schaefer & Burnett, 1987) developed an autonomy and relatedness inventory as another measure of marital relationship function. Along with multiple studies, these authors found that autonomy and relatedness are positively correlated and significantly related to a satisfying marriage. While this measure assesses specific partner behaviours that support autonomy and/or relatedness, in addition to other subscales including hostile control and hostile detachment; an element of the social context proposed to be essential for competence support, namely structure is not investigated by this scale. Similarly an interpersonal qualities scale (Murray, Holmes & Griffin, 1996) has been used in past research and measures dimensions of warmth-hostility and dominance-submissiveness in self and other, and these may be loosely associated with the needs for relatedness and autonomy respectively, however not conceptually linked to the need for competence. A new measure was developed in the present research program that built upon these earlier
measures by assessing contextual elements that were expected to be associated with autonomy, relatedness and competence as identified within SDT. The present research program is the first to simultaneously investigate partner behaviours that are proposed to support autonomy and relatedness need fulfillment, and the behaviours that provide structure or competence support in the romantic relationship - an area that has recently been identified as needing further investigation (La Guardia & Patrick, 2008).

Adolescent and emerging adult romantic relationships have been described as distinct from adult relationships because of the lower maturity level and experience of the partners, the shorter length, and the lower levels of commitment and interdependence (Laursen & Williams, 1997; Zimmer-Gembeck, 1999). There also are many aspects of relationships among adults that are not as relevant for all adolescents and emerging adults such as shared finances or equitably balancing household duties. These are features of popular relationship assessment scales such as the Dyadic Adjustment Scale (DAS; Spanier, 1976) and the Relationship Closeness Inventory (RCI; Berscheid, Snyder & Omoto, 1989a). Previous, well-established behavioural assessments of marital functioning are not developmentally appropriate measures of emerging adults’ romantic relationship functioning. All measures reviewed, with the exception of Murray and colleagues (1996) have not clearly distinguished between partner and self contributions on quality, and have favoured an overall relationship perspective.

A new measure of PBSC. It is becoming clear that measuring multiple dimensions of relationship quality is better than a single or simple dimensional construct (Fletcher et al., 2000) and suitability across different developmental contexts is also important (Furman & Wehner, 1997). Although there are some existing multidimensional measures of relationship qualities as described here (e.g. Fletcher et
al., 2000; Murray et al., 1996; Schaefer & Edgerton, 1981), SDT suggests six dimensions of the social context as important. Assessment of these dimensions was not available in an existing measure. In addition, SDT points toward including items that are founded in observable behaviours, which is not common in measures of relationship quality. In accordance with these research and theoretical aims, a new six dimensional measure of PBSC was developed which measured the quality of observable partner behaviours received by one member of the couple. A parallel version for self report by partners of their behaviours towards the other was also developed to make the scale applicable for reports by both members of the dyad. This measure was tested and validated in the studies described here.

Dimensions of the romantic social context based on SDT have not been clearly specified in previous literature. Nevertheless, there is literature on other important social relationships that guided the development of the new measure. Focusing on children and adolescents, Deci and Ryan (1985, 1991) originally proposed three bipolar dimensions within the parent social context of Involvement, or provision of warmth and affection supporting the need for relatedness; Autonomy Support, or allowing the young person to develop increasing choice and responsibility thus supporting the psychological need for autonomy; and Structure or being consistent and reliable, thus supporting the development of competence. However, after an extensive review of important contextual qualities of parenting behaviours towards children and adolescents, Skinner, et al., (2005) proposed and found that these three dimensions were more accurately conceived of as six unipolar dimensions. These six dimensions of the parent context included the three proposed by Deci and Ryan, as well as three negative dimensions of Rejection, Coercion and Chaos (see Table 3.1 for descriptions). Using exploratory and confirmatory factor analysis, Skinner et al. (2005) showed that these six dimensions
were separate factors and were associated with psychological well-being, such that they could be aggregated in multiple ways. In extending this line of enquiry, the present study used these dimensions to form the new measure of PBSC, whereby there were six dimensions of romantic relationships expected to be psychometrically sound, and form a composite score that was associated with psychological need fulfillment and well-being among emerging adults.

The PBSC measure was designed to assess these six dimensions of romantic partner behaviour to form a new measure of romantic social context. *Warmth* items were designed to assess a partner’s provision of affection and love. *Structure* items tapped consistent, reliable behaviour that facilitates a sense of predictability in the relationship. *Autonomy Support* items measured encouraging a partner in decision-making, life choices and personal goals, and appreciating a partner’s choices. Turning to the negative dimensions of partner social context, *Rejection* items were designed to measure hostile, detached and cold partner behaviour in the relationship. Items to measure *Coercion* were focused on identifying controlling and demanding partner behaviours. Finally, *Chaos* items tapped inconsistent, unreliable and unpredictable behaviours in the relationship. The new measure was tested in two studies with large, independent samples of emerging adults.

Table 3.1

*Six Core Dimensions of Partner Behaviours in a Romantic Relationship: Partner Behaviours as Social Context (PBSC) Scale* (Adapted from Skinner et al., 2005, p.186)

<table>
<thead>
<tr>
<th>PBSC Dimension</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warmth</td>
<td>Expresses affection, love, nurturance and enjoyment</td>
</tr>
<tr>
<td>Rejection</td>
<td>Aversion, hostility and ignoring</td>
</tr>
<tr>
<td>Structure</td>
<td>Consistent responding, dependability and predictability</td>
</tr>
<tr>
<td>Chaos</td>
<td>Inconsistent, erratic, ambiguous actions</td>
</tr>
<tr>
<td>Autonomy Support</td>
<td>Encourages genuine opinions, supports freedom of expression</td>
</tr>
<tr>
<td>Coercion</td>
<td>Over controlling, intrusive, demanding and high pressure</td>
</tr>
</tbody>
</table>
Another important consideration in development of this measure was the tendency for self-report assessments to be biased by a participant’s propensity to idealise their partner, versus report their actual behaviours. While self-report measures are prone to bias including idealisation, or seeing one’s partner as perfect in spite of objective accounts of behaviour, self-report measures may also have significant predictive validity. Research has shown that idealisation of one’s romantic partner is a prospective predictor of relationship stability and increases in relationship satisfaction at follow-up over a 1-year prospective study (Murray et al., 1996). Specifically, Murray and colleagues asked both individuals in a couple to rate themselves, their partner, their ideal partner and a typical partner on a measure assessing interpersonal qualities. Individuals who reported that their partner was higher on qualities than the partner’s self report were assessed to have positive illusions of their partner and these were in turn found to be associated with positive prospective outcomes in the relationship. Certainly, this provides some support that assessing a respondent’s perceptions of their partner’s behaviour and relationship functioning is valid for understanding an individual’s prospective relationship stability and potentially, well-being. In further support, researchers argue that happiness is more a function of perceptions of a partner’s behaviour than actual behaviour (Bradbury & Fincham, 1988; Fincham & Bradbury, 1992; Schaefer & Burnett, 1987; Blais, Sabourin, Boucher & Vallerand, 1990).

**Personality and PBSC.** In accordance with Murray et al. (1996) additional evidence shows that it is important to concurrently assess personality dimensions that may bias or be associated with reporting of perceptions of partner behaviour (Robins, Caspi, Moffitt, 2000; Nofie & Shaver, 2006). Theories of personality are generally based on biological, stable and global individual differences that may influence self-report of romantic partner behaviours. As the construct of self-report romantic partner
behaviours is designed to be quite separate from the measure of stable personality traits, John and Srivastavas’s (1999) assessment of the big five personality traits was used to assess discriminant validity of the new measure of romantic partner behaviours, with at most, weak associations expected as found in the past studies investigating personality and other relationship quality measures (Robins et al., 2000; Noftle & Shaver, 2006).

Building upon previous research, the current study aimed to assess reports from both members of the dyad including perception of partner behaviours received in the relationships and report of partner behaviours displayed towards the other using two versions of the PBSC. As will be described in the next section, it was hypothesised that partner report of their own behaviours would be a more stringent test of associations between the romantic social context and individual need fulfillment and psychological well-being.

**Multiple Reporters of Partner Behaviours**

A primary aim of this thesis was to develop and evaluate a new model of partner behaviours as a social context for individual well-being. In addition, a main proposition to be tested was that psychological need fulfillment would mediate between romantic relationship quality (i.e. partner behaviour and self contributions) and psychological well-being. In order to optimally differentiate between partner contributions (behaviours of one’s partner) and self contributions (voice, attachment security and self-differentiation) it was necessary to gather reports about partner and self from each member of couples. Models were tested using one partner’s report of their behaviours towards the other and the other partner’s report of their relational self, need fulfillment and well-being. Investigation of agreement of partner behaviours within the couple (Kenny & Acitelli, 2001) and investigation of partner effects (Kenny & Cook, 1999; Kenny, Kashy & Cook, 2006), or associations between one partner’s report of...
behaviour and the other partner’s reports of need fulfillment and well-being were of primary interest. In the next chapter, relational self contributions to the romantic relationship will be further detailed.
CHAPTER 4
THE RELATIONAL SELF

SDT and other related theories describe how individual perceptions and behaviours, such as self-perceptions, goal-setting, planning, intrinsic and extrinsic motivation, engagement, coping and self-regulation are important to consider as correlates of need fulfillment. While some research into individual differences (in terms of intrinsic and extrinsic goals and attachment style) was described earlier, most research has focused on the impact of social environmental features, such as warmth and autonomy support, rather than investigating how individuals’ current perceptions of themselves within their relationships or the relational self (Andersen & Chen, 2002), is correlated with need satisfaction. This is particularly true when the focus is on romantic relationships. There have been no known previous studies of romantic partner behaviours and multiple aspects of the relational self as concurrent correlates of psychological need fulfillment and well-being.

A primary aim of the present investigation is to examine partner behaviours (social environmental features), as well as perceptions of the relational self with reference to romantic relationships as correlates of psychological need fulfillment and psychosocial well-being. The six dimensions of romantic partner behaviours were described in previous sections. In the next sections, three important dimensions of the relational self are identified, namely attachment, voice (also described as authenticity or relational authenticity in some texts) and level of self-differentiation. These have all been implicated as important correlates of individual well-being and, in the following section it is argued that these are aspects of the relational self important to understanding need fulfillment and psychosocial well-being.
A vast body of research describes perceptions of the relational self. This concept has been referred to as the interpersonal self (e.g. Baumeister, 1999), social self (e.g. Harter, 1999), relational self (Andersen & Chen, 2002; Chen, Boucher et al., 2006) and inclusion of other in self (Aron et al., 2005). In general these terms are used to refer to the self as it exists in relation to others (Vohs & Finkel, 2006). However, just as there is no consistent terminology, the literature remains unresolved on a specific operational definition, leaving measurement difficult and varied. Yet, a recent review of the self-in-relationship literature has prompted a clearer conceptualisation. In this review, the term used was “relational self” and the relational self was defined as “conceptions and aspects of the self specifically in the context of relationships with specific or multiple significant others” (Chen, Boucher et al., 2006, p.154). This conception is in accordance with an abundance of reviews of self-system features (e.g. Baumeister, 1999; Harter, 1999; Harter, Bresnick,ouchey & Whitesell, 1997) that argue that relational features of the self-system are multidimensional and exist at domain specific as well as global levels. Chen, Boucher and colleagues (2006) identify attachment orientation, authenticity or level of voice, and level of self-differentiation in relationships as elements of relational self and also propose potential links between relational self and psychological well-being, specifically arguing that the relational self has a direct influence on self-determination. However, no known studies have investigated these propositions using multiple dimensions of relational self.

While a comprehensive definition of all components of the relational self remains elusive, these authors nominated specific criteria to distinguish relational selves opposed to other self-constructs and reviewed existing literature that has supported the importance of relational selves. To define the qualities of the relational self, Chen, Boucher and colleagues (2006) list four components of the relational self, namely 1)
relational self-knowledge is linked to memories of being with significant others, 2) exists at domain specific (i.e. specific relationship) and global levels (relationships in general), 3) is contextually (i.e. within the relationship context) or chronically activated (i.e. that frequent contextual activation leads to chronic accessibility and therefore is linked to the working self concept), and 4) relational selves consist of role-specific knowledge of the self and attributes in the context of relevant significant others. These authors review extensive literature showing support through experimental, observational and self-report measures, providing triangulation and thus robust evidence for the existence of relational selves (see Chen, Boucher et al., 2006). The focus of relational self research has been to demonstrate the existence of relational selves through evoking transference reactions in experimental settings (e.g. Andersen & Chen, 2002). In contrast, the focus of the present study is on the linkages between relational self dimensions and perceptions of psychological need fulfillment and well-being while currently measuring partner reported behaviour in the romantic relationship.

Based on previous evidence, three relational self dimensions were chosen to be investigated in the present thesis. These were chosen because they have all received empirical support and are theoretically linked to psychological growth and well-being; they are also theoretically related to the quality of the social context and to psychological need fulfillment in relationships, yet expected to be conceptually distinct. As will be detailed, studies have provided initial support for the link between well-being and these dimensions, namely voice (e.g. Harter, Waters, Whitesell & Kastelic, 1998; Goldman & Kernis, 2002), attachment security (e.g. La Guardia et al., 2000), and self-differentiation (e.g. Bohlander, 1999; Lopez, 2001).

In addition, it is argued that other recent reviews support the focus on these aspects of the relational self (e.g., Hymel & Moretti, 1999). Hymel and Moretti
described how attachment, authenticity and self-differentiation are intimately connected to the quality of close relationships for the developing person, and normative, age related self-development occurs in these areas. In addition, Leary (2007) recently reviewed evidence for motivational and emotional aspects of the self, with the thesis that the self is fundamentally motivated to maintain social well-being or acceptance by others, and emotions have evolved to regulate interpersonal behaviour, thus promoting chances of social inclusion. “Fundamental motives are aimed at satisfying fundamental needs” according to Leary (2007, p.334). While Leary does not outline the indices of self proposed here, it is argued that attachment orientations, level of voice and self-differentiation are all qualities of the self that form in response to motives to satisfy fundamental needs. In addition, each is argued to conceptually relate to the needs of relatedness, autonomy and competence as will be described further.

In terms of the psychological need for autonomy (i.e., to be an agent of one’s own action), it is argued that an individual’s level of voice in the relationship, or the extent that he or she can express their true self, may be a reflection of the self motivation to be autonomous. The construct of attachment security may represent an individual’s struggle to move towards relatedness and may be a reflection of the motivation to belong or be related. Finally, satisfaction of the need for competence may consist of a successful balance between autonomy and relatedness, with the self motivated to move towards self-differentiation, in terms of balanced intrapsychic and interpersonal functioning in romantic relationships and resilience to chance criticisms or moods of significant others. As such, voice, attachment and level of self-differentiation are expected to be representations of the human motivations to seek autonomy, relatedness and competence in close relationships. While the underpinnings of these relational self constructs is not the focus of this thesis, certainly evidence and theory
suggests they play an important role in need fulfillment and well-being. Associations between these three aspects of the relational self, partner reported behaviour and well-being will be examined in the study proposed here but first, each aspect of relational self and evidence supporting associations between relational self and well-being will be detailed.

**Voice.** Voice is the ability to express oneself openly and authentically with others and is argued to promote healthy relationships and adaptive personal functioning (Goldman & Kernis, 2002; Harter 1999; Kernis, 2000; Kernis & Goldman, 2006; Lopez & Rice, 2006; Neff & Harter, 2002). Research has shown that voice is important for psychological functioning across a range of contexts including parenting, academic and friendship domains (Harter, Bresnick et al., 1997; Harter, Waters, Whitesell & Kastelic 1998). Research has linked lack of voice or inauthentic behaviour in adolescents’ relationships to indicators of compromised well-being, including, low self-esteem, depression and a lack of perceived efficacy in relationships (Harter, 1997, 1999; Neff & Harter, 2002). Goldman and Kernis (2002) presented evidence for strong associations between relational authenticity and psychological well-being in adult populations. While there is some debate whether voice or authenticity precedes need fulfillment or vice versa, consistent, moderately sized associations between these variables have been found in the literature. Initial SDT studies have also shown need fulfillment is associated with authenticity across contexts (e.g. Reis, Sheldon et al., 2000; Leak & Cooney, 2001; Kernis & Goldman 2006).

**Attachment security.** Adult attachment research has a strong empirical literature tradition, based on Bowlby’s (1969, 1973) theory of attachment, that all humans have a innate need for nurturance from significant others, and that early experiences with caregivers shape concurrent and later feelings of security in relationships with others.
Attachment styles both in infancy and in adulthood were originally conceptualised as categorical or discrete in nature (Ainsworth et al., 1978; Hazan & Shaver, 1987). More recent research tends to focus on the dimensional or continuous nature of attachment orientations (Brennan, Clark & Shaver, 1998; Fraley, Waller & Brennan, 2000). Specifically, persons may have related, yet conceptually distinct levels of avoidance and anxiety towards an attachment figure (e.g., a caregiver or romantic partner), as opposed to being a mutually exclusive category of “avoidant” or “anxious” or “secure”. Associations between attachment orientations and psychological well-being for both infants and adults have been well-established in the literature (see reviews by Hazan & Ziefman, 1999; Feeney, 1999; Fraley & Shaver, 2000). In order to investigate attachment in a parsimonious way, a composite measure of attachment security was used based on Bartholomew and Horowitz (1990) measure of attachment. This consisted of a composite measure of ratings of avoidance (or dismissiveness) and anxiety (or preoccupation and fearfulness) which were reverse scored and combined with ratings of comfort with closeness (or security).

Recent conceptualisations of attachment reflect the complexity of relational bonds, and the dynamic nature of attachment, that is both stable and trait like, and varies both between and within-persons (Klohnen, Weller, Luo & Choe, 2005; La Guardia et al., 2000). Attachment research in adulthood is primarily conducted in the realm of romantic or partner relationships based on the early work of Hazan & Shaver (1987). Hazan & Ziefman (1999) and Feeney (1999) reviewed the evidence for the attachment system in adult “pair-bonds” or romantic relationships and concluded that literature consistently supports the presence of an attachment system, with romantic partners the primary attachment partner in adulthood. While extensive research has demonstrated consistent associations between attachment security and both relationship and individual
well-being (e.g. Hazan & Shaver, 1990; see Kafetsios & Sideridis, 2006 for a review), until recently, the implications for adult attachment security as a significant correlate of psychological need fulfillment in the current romantic relationship, has received attention from only a handful of researchers (e.g. La Guardia et al., 2000; Leak & Cooney, 2001; Wei et al., 2005). Specific associations between attachment security and need fulfillment will be further reviewed in detail.

Self-differentiation. Bowen (1978) proposed a model of individual emotional functioning within the context of a set of significant relationships. Contemporary researchers have argued that Bowen identified two factors associated with well-being, namely, relationship quality with emotionally significant others and self-differentiation (Skowron & Friedlander, 1998; Bohlander, 1999). In accordance with this line of research, investigating the levels of self-differentiation concurrently with romantic partner behaviours is an important goal of the present research.

Self-differentiation is defined as the degree to which one is able to balance two interrelated processes (a) emotional and intellectual functioning (emotional maturity) and (b) intimacy and autonomy in relationships (relational maturity) (Skowron & Friedlander, 1998). Skowron and Friedlander reviewed significant evidence demonstrating associations between self-differentiation and mental health, including depression and anxiety. However, assessment of self-differentiation has been limited to studies in systems theory and has not been well-investigated as a within-person construct within an integrated model of romantic relationship quality and well-being, drawing on SDT in addition to attachment theory and other developmental literature.

Self-differentiation is a particularly important construct to investigate, as Bowen Family Systems therapy is widely used in Australia in agencies including Relationships Australia. Enhancing level of self-differentiation is often implicitly targeted in
interventions to enhance psychosocial functioning of individuals within couple relationships (e.g. Schnarch, 1999). The present study aims to integrate this literature with motivational models of development and it is expected that self-differentiation will be related to romantic partner behaviours and the fulfillment of basic psychological needs.

Only two studies have previously investigated self-differentiation and need fulfillment in regards to psychological well-being (Bohlander, J., 1996; Bohlander, R., 1999). Bohlander (1996) investigated married women (N = 136), while Bohlander (1999) investigated married men (N = 95) with both samples aged between 26 and 86 years. The aim of both studies was to test a model that included emotional need fulfillment, sexual need fulfillment and self-differentiation as predictors of psychological well-being. These researchers found that emotional need fulfillment was primary for both men and women, self-differentiation was secondary for men, and sexual need fulfillment was secondary for women followed by differentiation of self.

The final study of this thesis aimed to extend on some elements of this research on self-differentiation, through using an empirically supported definition of needs guided by SDT, and investigating a more restricted age range of participants with attention to developmental issues. In Study 3 it was hypothesised that within the specific context of romantic relationships, need fulfillment would mediate associations between level of self-differentiation and multiple measures of psychological well-being.

Interrelationships between aspects of relational self. While voice, attachment and level of self-differentiation come from distinct theoretical traditions and have differing conceptual foundations, previous research has shown that they are positively associated with each other. For example, attachment security and relational authenticity have been found to be positively associated (Kernis & Goldman 2006; Leak & Cooney,
Similarly, associations between self-differentiation and attachment have been found, with Lopez (2001) reporting that attachment anxiety was significantly, negatively correlated with self-differentiation, and Skowron and Dendy (2004) reporting that attachment anxiety was associated with the self-differentiation subscale of *emotional reactivity* and attachment avoidance was associated with the subscale of *emotional cut-off*, and that both attachment and self-differentiation were unique predictors of level of effortful control, a measure of ability to self-regulate. Yet, in Lopez’s study attachment avoidance was not significantly related to self-differentiation. Skowron & Schmitt (2003) reported that attachment anxiety dimensions of “desire to merge with others” and “fear of abandonment” were negatively associated with levels of self-differentiation (all subscales and total score). Notably, attachment to parents was not associated with self-differentiation in Israeli emerging adults (Scharf, Mayseless, Kivenson-Baron, 2004), suggesting that attachment with romantic partners as opposed to parents may be more important in emerging adulthood.

Attachment theory and theory describing self-differentiation balance each other. Attachment theory states that both attachment and exploration are drives that explain human behaviour (Bowlby, 1969). Similarly, theory describing self-differentiation (Immaloglu, 2003) describes the complementary nature of relatedness (i.e. attachment) and individuation/differentiation (i.e. exploration). Previous research has not explicitly investigated associations between authenticity and self-differentiation, but these constructs are expected to be related, as both constructs are theoretically positively associated with balanced levels of intimacy/relatedness and autonomy in relationships (Harter, 1999; Skowron & Friedlander, 1998).

*Interrelationships between aspects of relational self and partner behaviours.* Extensive literature has demonstrated the positive associations between aspects of the
relational self with relationship quality and partner contributions to the relationship.
There are reports of associations between attachment and relationship quality (Sibley & Liu, 2006) and it has been found that attachment continues to predict relationship quality once personality dimensions are controlled (Noftle & Shaver, 2006). Associations between voice and partner qualities have been reported (Harter, 1999), as have associations between self-differentiation and dyadic adjustment (Skowron & Friedlander, 1998). It is expected that relational self variables (attachment security, voice and self-differentiation) will be positively associated with the quality of partner behaviours in the romantic relationship.
CHAPTER 5

PSYCHOLOGICAL NEED FULFILLMENT

Although the association between qualities of close relationships and psychological well-being has empirical support, there has been less research investigating what might account for this association. Psychological need fulfillment is a potential mechanism, identified by motivational theorists, that has received some recent research attention and support. From a clinical perspective, Rankin-Esquer, Burnett, Baucom & Epstein (1999) concluded that marital therapists should extend their attention beyond a relationship focus in couple interventions to pay attention to each individual’s needs in the relationship to both promote individual well-being and couple relationship functioning. These sentiments are echoed in multiple clinical approaches including approaches advocating the satisfaction and validation of individual needs for intimacy, healthy sexuality, spirituality and growth in marital relationships (Schnarch, 1999). Broader arguments advocate that individual need fulfillment across all relationships is the basis for both relationship quality and conflict-reduction and this is obtained through “non-violent communication”, which is proposed to recognise and validate individual needs (Rosenberg, 2001). However, the theoretical models asserted by Schnarch (1999) and Rosenberg (2001) have not been empirically evaluated.

Previous research into need fulfillment, relationship qualities and well-being outside SDT has substantially contributed to identifying the importance of psychological needs as a fundamental component of relationship functioning in both friendship and romantic domains, (e.g. Buhrmester, 1998, Prager & Buhrmester, 1998; Carbury & Buhrmester, 1998), however, these previous investigations have used less theoretically-grounded definitions of needs. Examples of proposed basic needs are diverse and include for example, needs for self-esteem, identity, self-actualisation, meaning/purpose, as well as
for power/authority, structure/control and even money suggesting that this approach is less parsimonious than an empirically supported theory of three fundamental human needs.

Identifying psychological needs. SDT offers a promising, well-defined and empirically validated research framework for the study of relationships and psychological well-being. This conclusion is founded on a number of studies in the area (Bettencourt & Sheldon, 2001; Knee et al., 2005; La Guardia et al., 2000; Leak & Cooney, 2001; Patrick, Knee, Canavello & Lonsbary, 2007; Reis, Sheldon, et al., 2000; Ryan et al., 2005; Wei et al., 2005). Deci and Ryan (2000) have proposed that, across the lifespan, the basic psychological needs for autonomy, competence, and relatedness must be fulfilled in order for an individual to experience a sense of growth, integrity and psychosocial well-being. Within SDT, the psychological needs have been clearly defined. Autonomy refers to organised, integrated and volitional action, or the experience of “one’s actions as self-endorsed” (Deci & Ryan, 2000; Ryan et al., 2005, p.146). Competence is defined as feeling effective in interactions within the surrounding environment (Deci, 1975; Deci & Ryan, 2000; White, 1959). Finally, relatedness refers to a sense of belonging, security and connectedness (Baumeister & Leary, 1995; Bowlby, 1969, 1973; Deci & Ryan, 2000; Ryan, et al., 2005). Deci and Ryan propose that each of these needs is innate and universal. The cross cultural validity of SDT has received initial empirical support (see Deci & Ryan, 2000), thus supporting the innate versus learned nature of needs for autonomy, competence and relatedness.

SDT places an emphasis on understanding the social context as the foundation for need fulfillment and well-being. More specifically, in accordance with Skinner et al., (2005), particular aspects of relationships are linked to particular needs; the need for autonomy is supported by autonomy support from social partners and undermined by
coercion, the need for relatedness is supported by warmth and involvement from social partners and undermined by rejection, and the need for competence is supported by structure within social contexts/relationships and undermined by chaotic, unpredictable behaviours. Hence, in the current thesis, it is expected that a composite of the six dimensions of relationship quality that are important based on SDT (namely, autonomy support, coercion, warmth, rejection, structure and chaos) will predict the fulfillment of needs for autonomy, relatedness and competence. In turn, need fulfillment will be associated with both general psychological well-being and the broader measure of life fulfillment. Further, associations between partner behaviours and well-being are expected to be fully mediated by need fulfillment.

Taken together, two bodies of evidence support the hypothesis that need fulfillment will mediate associations between partner behaviours and both general well-being (hedonic) and life fulfillment (eudaimonic well-being). First, links between qualities of relationships and psychological need fulfillment have been found, and, second, associations have been reported between psychological need fulfillment and well-being.

*Psychological needs as a mediator: Associations between relationships and need fulfillment.* With regards to this first association, relationship qualities, such as “meaningful talk” or “feeling understood” by partners, have been shown to be a good predictor of daily relatedness need fulfillment (Reis, Sheldon et al., 2000). Specifically this was assessed through daily mood diaries to establish the nature and direction of effects between daily activities and well-being; however these researchers only examined the relatedness need when investigating social contexts. In accordance with La Guardia and colleagues (2000) it is argued that all needs are salient in intimate
relationship contexts, and autonomy and competence needs require concurrent assessment.

In a similar line of research, the extent to which college students felt “authentic self-expression” (autonomy) and a feeling of “connectedness” (relatedness) in their social roles was associated with reported feelings of competence in these roles (Bettencourt & Sheldon, 2001). These authors argued that social role competence might be a second order need that is satisfied through achievement of the needs for autonomy and relatedness. Yet, systematic assessment of qualities of relationships is needed, including other important aspects, for example, levels of consistency of relationship partners’ behaviour (structure), and erratic or unpredictable responding from relationship partners (chaos). Overall, research has shown associations between qualities of the relationship and need fulfillment in intimate relationship contexts, however this research has not systematically studied romantic partner behaviours that are proposed to be important according to SDT.

*Psychological needs as a mediator: Associations between need fulfillment and well-being.* With regards to the second important association, reviews summarise how psychological need fulfillment is associated with a variety of adaptive psychological outcomes, including positive affective experiences, high quality performance, intrinsic motivation, maintenance of health behaviours and enhanced mental health and vitality (see reviews by Deci & Ryan, 2000; Ryan & Deci, 2002; Sheldon & Niemiec, 2006). These associations have been demonstrated across multiple contexts including classrooms, workplaces, nursing homes, sport, experimental settings involving task learning and performance, and more recently, intimate relationships (e.g. Bettencourt & Sheldon, 2001; La Guardia et al., 2000; Ryan et al., 2005). Furthermore, cross-cultural research is promising. Associations between all three psychological needs and well-
being have been found across cultures in both the East and West (e.g., Deci et al., 2001; Sheldon, Elliot, Kim & Kasser, 2001). However, there also have been differences in the cultural expression and interpretation of needs. A person from an interdependent culture may describe autonomy in an interdependent fashion, for example, by effectively voicing the interests of the larger group, or an “our” perspective; whilst an individual from an individualistic culture will describe autonomy from a more independent or “me” perspective (Deci & Ryan, 2000). It is argued that while interpretations may differ across cultures, however, the three needs are universal. While cultural variation is an important area for research, it is not the focus of the present studies and will be measured through assessments of ethnicity, though participants will not have to be from a prescribed culture.

Studies have demonstrated the importance of studying each of the three needs for autonomy, competence and relatedness as related yet different needs. First, recent studies have shown that people reporting balanced need satisfaction across the three needs have higher well-being than those who have greater variability in need satisfaction (Sheldon & Niemiec, 2006). Simultaneous experience of greater autonomy, competence and relatedness need fulfillment has been shown to contribute to people’s perceptions of satisfaction in task completion and social activity (Sheldon et al., 2001), and experience of both autonomy and competence was found to be associated with better daily well-being (Sheldon et al., 1996), and positive experiences and intrinsic motivation in the college classroom (Filak & Sheldon, 2003). Second, it appears that each of the needs for autonomy, competence and relatedness are correlated differentially with indices of well-being. Greater fulfillment of autonomy and relatedness needs have consistently been found to be associated with more positive affect and “vitality”, or psychological energy and alertness (Ryan & Frederick, 1997; Nix, Ryan, Manly &
Deci, 1999; Ryan et al., 2005). Greater fulfillment of the need for competence is associated with reduced anxiety and negative mood (Reis, Sheldon et al., 2000).

In summary, past studies have shown that psychological need fulfillment is positively associated with well-being across social contexts, based on multiple indicators. In addition, negative associations have been found between need fulfillment and measures of negative affect or psychological distress (e.g. Wei et al., 2005). Needs are associated with well-being at both within- and between-person levels of analysis (Reis, Sheldon et al., 2000), and have both longitudinal and cross-sectional predictive validity (Sheldon & Elliot, 1999; Veronneau, Koestner & Abela, 2005). To build on the limited research investigating both hedonic and eudaimonic functioning, and because need fulfillment is expected to be associated with both general well-being (hedonic) and life fulfillment (eudaimonic) measures of well-being (e.g. Ryff, 1995; Ryan & Deci, 2001), a study that simultaneously assesses both of these forms of well-being is needed.

It is an explicit goal of the present research to tap into aspects of well-being, namely general psychological well-being and a measure of life fulfillment. A concurrent assessment of both general psychological well-being and life fulfillment has rarely been examined in the relationship literature, but both aspects of psychological health are expected to be influenced by romantic relationships.

*Psychological need fulfillment in intimate relationships and needs as a mediator.* Investigations into perceptions of psychological need fulfillment in intimate relationships have largely stemmed from La Guardia and colleagues (2000) examination of “within person” variation of attachment security. In these studies, intimate relationship qualities have been associated with psychological need fulfillment. Three studies showed that changes in attachment security in many types of relationships (mother, father, best friend, and romantic partner) were positively related to reports of
need satisfaction across relationships. Of importance to the current proposed studies, La Guardia and colleagues found that need fulfillment mediated associations between adult attachment security and global measures of well-being, and mediation or partial mediation of need fulfillment has been replicated (Leak & Cooney, 2001; Ryan, et al., 2005; Wei, et al., 2005). La Guardia et al. (2000) found that fulfillment of the needs for relatedness and autonomy accounted for unique variance in attachment security across mother, father, best friend and romantic partner relationships in their college student sample. Satisfaction of the need for competence, however, only accounted for additional unique variance in attachment security in mother relationships and inconsistently with best friends and fathers across studies.

Generally, meeting the needs for autonomy and relatedness seems to be particularly important within intimate relationships, but the study of the psychological need for competence in intimate relationships has been somewhat neglected. Bettencourt and Sheldon (2005) found that perceptions of autonomy, relatedness and competence needs in social roles were each significant predictors of well-being, and that perceptions of fulfillment of the needs for autonomy and relatedness needs enhanced perceptions of competence in social roles. Moreover, trait level and relationship level autonomy have been positively associated with adaptive responses to conflict in relationships, though concurrent assessment of competence was not conducted (Knee, et al., 2005). In a similar strain, Harter, Waters and colleagues (1997) and Neff and Harter (2002, 2003) completed a series of studies demonstrating the importance of mutuality in relationship functioning, with mutuality characterised by both autonomy and connectedness and predicting well-being, relationship functioning, and adaptive responses to conflict in relationships.
The most recent study in this area investigated associations between psychological need fulfillment and both individual well-being and relationship well-being (Patrick et al., 2007). In a series of three studies, it was found that need fulfillment and particularly relatedness need fulfillment significantly predicted well-being and relationship outcomes. This study was also the first to report that one’s partner’s need fulfillment predicted one’s own (or self report of) individual well-being. In addition, this study was interested in how autonomous or controlled motivations impacted on need fulfillment and relationship well-being following a disagreement and in accordance with expectation, individuals with higher need fulfillment recovered more quickly and this was partly because they tended to have autonomous reasons for being in the relationship. The present thesis aims to build upon this research by concurrently assessing one’s partner behaviour (as opposed to one’s partner’s need fulfillment) and one’s own report of need fulfillment and well-being, while also investigating one’s own report of relational self; to support an integrated model of romantic relationship quality and individual psychological health.

In summary, in their Dialectical Organismic Theory, Deci and Ryan (2000) argue that people are innately growth oriented organisms that engage with the social environment in an attempt to satisfy their basic needs. Factors associated with need fulfillment are proposed to occur at an individual difference level (e.g. goal pursuits, aspirations, autonomous versus controlled motivations) and at a social context level (e.g. relationship quality, experiences, culture). At a relational level, characteristics of the self in the romantic relationship are the individual difference level variables of interest, while partner behaviours are the social contextual factors; and both are concurrently expected to associate with perceptions of need fulfillment in the romantic relationship. To further support key propositions of this thesis, the next chapter details
expected developmental or age differences in associations, investigates important
covariates of age and summarises key literature on gender differences in romantic
relationships and well-being.
CHAPTER 6
AGE, RELATIONSHIP LENGTH, COMMITMENT, AND GENDER

Recent studies call for further systematic investigation and recognition of age and developmental differences in adolescent and emerging adult romances as findings gather momentum that these types of relationships are varied throughout these periods, and experienced quite differently to those in later adulthood (Shulman, Mayes, Cohen, Swain, Leckman, 2008; Tuval-Maschiach, Walsh, Harel & Shulman, 2008; Welsh & Shulman, 2008). Moreover, investigation of developmental differences in mechanisms linking romantic relationship quality and well-being is important in order to promote healthy romantic relationships for both genders and for individuals in relationships of varied maturity (Barber & Eccles, 2003). In the present program of research, three indices of developmental maturity, namely age, relationship length and commitment were investigated for both female and male members’ of late adolescent and emerging adult couples to determine whether differences in levels of maturity were associated with differences in associations between partner behaviours, need fulfillment and psychological well-being.

Age differences in need fulfillment and psychological well-being. In all parts of this research program, participants were aged 30 years and under by design. This age period of emerging adulthood, is a time when romantic relationships are developing and there is great variability in relationship status and commitments (Connolly & Goldberg, 1999). In addition, up until age 30, it is anticipated that there will be changes in partner behaviours, changes in individuals’ intimacy goals and investment in the relationship, and increasing links between partner behaviours and general well-being. Given the changing nature and importance of romantic relationships during emerging adulthood, it also is expected that associations between an individual’s psychological need
fulfillment and their well-being would be likely to differ as individuals’ progress through emerging adulthood.

Ryan and La Guardia (2000) have identified that while psychological need fulfillment is universal, the propensity to be able to meet one’s needs and conditions associated with need fulfillment and well-being may change as a function of development across the lifespan. Previous studies into need fulfillment have shown that satisfaction of child and adolescent (3rd Grade and 7th Grade students) needs for autonomy, competence and relatedness are differentially associated with well-being, with competence appearing to be a more salient predictor of prospective well-being than the other needs (Veronneau et al., 2005). Research in older adults has been limited, but a related strain of research has shown the changing association between “growth” goals and well-being across the lifespan, suggesting that age is an important factor to consider in examinations of psychological needs and well-being (e.g. Bauer & McAdams, 2000, 2004; Sheldon & Kasser, 2001; Kasser & Ryan, 1999).

Sheldon, Houser-Marko and Kasser (2006) demonstrated that parents of college age children reported greater levels of “goal autonomy” than their children. Specifically, they reported more goals that were based on intrinsic motivations (e.g., “because of enjoyment or stimulation...”), rather than extrinsic motivations (e.g., “because somebody else wanted you to…”) compared to their children, as assessed both cross-sectionally and retrospectively, suggesting significant individual differences in types of goals based on age. These researchers further found that the significant positive correlation between age and subjective well-being was partially mediated by levels of autonomy or self-determination in goal orientations. Most research on need fulfillment and well-being has been conducted on working adult populations, or with college
student populations. The proposed research will purposefully investigate the period of emerging adulthood from an SDT and developmental framework.

*Age differences in quality of partner behaviours and well-being.* While research has supported associations between well-being and relationship variables in adolescence (e.g. Hartup & Stevens, 1997) and has demonstrated that social goals mature and differ across the lifespan (e.g. Carstensen, Isaacowitz & Charles, 1999), Welsh and Shuman (2008) call for increased comparative research between different age groups across adolescence and emerging adulthood. Associations between relationships and well-being are expected to differ by age in accordance with developmental life tasks and the changing nature of romantic relationships. In terms of normative age-related life tasks, emerging adults are more interested in self-exploration and exploration in relationships including developing interdependence and intimacy goals, as compared to older adults, who may be more interested in security, stability and commitment (Arnett, 2000).

Similarly, there are important differences in the normative characteristics of romantic relationships across the lifespan. Significant differences exist particularly between marital relationships, pre-marital steady relationships and dating relationships in terms of length, levels of commitment, interdependence and shared activities (Kefalas et al., 2005).

While consistent associations between relationship quality (e.g., satisfaction) and well-being have been established within many age groups from adolescence to adults, a recent review has prompted an emerging controversy in the adolescent literature. Davila (2008) argued that studies show a consistent link between depression and romantic involvement for adolescents and particularly girls, and this is in contrast to research in adulthood where relationship involvement is generally positively associated with psychological health. Thus, the link between relationships and well-being is
important to compare across multiple age groups to identify whether different associations between partner behaviours, need fulfillment and well-being exist in relation to levels of maturity. Particular partner behaviours that influence well-being have not been clearly identified or optimally investigated with potential age differences in mind. In the current study, early and late emerging adults under the age of 30 years were examined and compared, with age investigated as a moderator of proposed model pathways.

**Relationship length and commitment.** It is salient to note that other significant predictors of current level of relationship functioning are likely to vary with age. Of these, relationship length (as discussed by Weiss, 1998 and more recently by Shulman et al., 2008) and level of commitment in the relationship (as discussed by Connolly & Goldberg, 1999) are particularly important to investigate as potential indices of relational maturity that are expected to be associated with differences in relational experiences, need fulfillment and well-being throughout emerging adulthood. Specifically, in the present thesis it was expected that associations between the quality of partner behaviours and individual well-being would be stronger for more mature compared with less mature respondents based on three separate variables that represent maturity in the relationship. Younger and older respondents were compared, as were those in shorter compared to longer relationships. Finally those who were less committed compared with more committed were also examined to provide a stronger understanding of differing associations between relationship quality and well-being across developmental contexts.

*The Significance of Other Close Relationships*

Other relationships are undoubtedly important throughout development and during the period of emerging adulthood (Connolly & Goldberg, 1999). Also, there has
been a recent criticism of the overly narrow focus of relationship research on one type of relationship to the exclusion of others (Collins & van Dulman, 2006). Nevertheless, the focus of the present study is on identifying mechanisms and developmental differences involved in the associations between romantic relationships and well-being and as such, the focus will primarily be on emerging adults’ romantic relationships. However, relationship quality in other significant close relationships, namely parents and closest friend, will simultaneously be assessed in order to establish the relative salience of these close relationships on well-being across early to late emerging adulthood.

**Gender**

There is much debate about the existence of gender differences in romantic behaviours and development, the importance of relationships for well-being, and perceptions of the relational self (e.g. Berscheid & Regan, 2005; Daley & Hammen, 2002; Gilligan, 1982; Harter, 1999; Williams, Connolly & Segal, 2001). For example, it has been argued that relationship quality has more influence on women’s well-being than men’s, whereas the simple presence of a romantic relationship seems to be more important for men than for women (Berscheid & Regan, 2005). However, other researchers have found that relationship quality is important for both males and females (see Berscheid & Regan for a review). This debate is fuelled by discrepancy in the literature, and has not been investigated in an optimal fashion, as there is often an over-representation of females in samples. Gilligan (1982) made the assertion that women were more interpersonally oriented and thus more susceptible to negative relationship-related outcomes, and this has gained some empirical weight. However, suggestions that women are more relational, or more invested in relationships, has also been heavily criticised due to weak methodologies in prior studies, with Gilligan’s and many other
studies only sampling women and not men, or having overrepresentations of women. Harter, Waters & Whitesell (1998) in their review of gender differences in voice during adolescence argued that previous differences in voice in relationships for women and men appear to be differences in level of gender orientation, or adoption of traditional gender roles of femininity and masculinity rather than a true gender difference. When level of femininity was controlled there was no longer a gender difference in voice.

In support of Gilligan, studies have shown that young women are interpersonally vulnerable and particularly in romantic contexts. Williams et al (2001) found that young girls in low-intimacy romantic relationships were more vulnerable to depression (Williams et al., 2001) and this was replicated and extended by Daley and Hammen (2002) who found that dysphoric emerging adult females had partners who were less supportive, that associations between dysphoria and relationship dysfunction were stronger for romantic contexts compared to close friend contexts. However, while these are important in describing links between relationships and well-being for young women, these studies did not sample males to determine whether associations were unique to females or present for both sexes. Also, both studies had restricted age ranges by design (16-20 years and 18-19 years respectively), though investigation across early and late emerging adulthood and across different levels of relational maturity also have important implications for treatment and education programs.

Past methodological limitations in this area of research and particularly the over-sampling of females, shows the importance of balanced sampling based on gender, for both the development of the new PBSC measure; and optimal comparison of the Romantic Relationship Quality and Well-Being Model based on gender. While this is a brief description of some of the issues in the literature, almost equal numbers of males and females were sampled for two studies in which the PBSC was piloted and validated.
Finally, heterosexual couples were sampled in the final study, with the aim of comparing models for males and females in the couples. While explicitly testing gender differences was not the aim of this study, males and females were compared on measures. Models were also examined to determine whether similar or discrepant patterns of associations were present based on gender. The moderating effect of maturity on associations between partner behaviours and well-being was also investigated separately for each gender.
CHAPTER 7
SUMMARY

In sum, the primary aim of the third study in this thesis was to investigate indices of psychological well-being in emerging adulthood as covariates of romantic relationship qualities measured as multiple dimensions of partner behaviours, relational self in romantic relationships, and psychological need fulfillment (see Figure 7.1). This research builds on existing literature by using a theoretically grounded, integrated model to investigate the distinct associations between multiple relationship factors including both social context and individual difference variables, and well-being, while also controlling for relationship quality with significant others and comparing associations by age, relationship length and commitment level separately for males and females. The Romantic Relationship Quality and Well-Being Model focuses on multiple dimensions of quality and one important mechanism involved in the interface between social experiences, self-perceptions and well-being, namely satisfaction of basic psychological needs.

Prior to conducting the third study a new multidimensional measure of romantic partner behaviours as social context was developed and tested in a series of two studies. This measure included six dimensions that were guided by specific operational definitions and SDT. Such a measure was expected to improve on previous measures of romantic relationship quality by tapping dimensions not often measured in the past (including structure or competence support by a partner); that assesses relationship quality in newer, emerging relationships; and that clearly differentiates partner contributions in the romantic relationship from relational self contributions. SDT was relevant because it describes particular social contextual elements of warmth, rejection, structure, chaos, autonomy support and coercion originally labelled as involvement.
Figure 7.1. Multiple reporters in the Romantic Relationship Quality and Well-Being Model: The hypothesised model showing multiple dimensions of partner behaviours (reported by the partner displaying those behaviours); self report of relational self in the romantic relationship, and proposed associations with self report of psychological need-fulfillment and well-being.

Note. Dotted lines will be tested but mediation by need fulfillment is expected.
structure and autonomy support; Deci & Ryan, 1985, 1991) that should directly correlate with psychological need fulfillment and indirectly account for psychological well-being. Hence, the model to be tested included well-being as a correlate of romantic partner behaviours based on these multiple dimensions, but this association was expected to be an indirect one because of the mediational role of fulfillment of psychological needs for autonomy, competence and relatedness. Satisfaction of needs for autonomy, relatedness and competence were expected to be the mechanisms (i.e., mediators) that fully accounted for associations between the six dimensions of partner behaviours and psychological well-being. The model shown in Figure 7.1 also included aspects of the relational self as correlates of psychological well-being, and it was expected that psychological need fulfillment would also mediate associations. Finally, although not shown on Figure 7.1, friend and family support were included in the model and were expected to be associated with well-being.

In addition to developing a new multidimensional measure of romantic partner behaviours and testing the described model in a large sample of emerging adults between the ages of 17 and 30, maturity differences in the association between romantic relationships and well-being were investigated. The strength of associations between romantic relationships and well-being was expected to differ based on age, relationship length and commitment; and it was hypothesised that romantic relationships in early emerging adulthood would be less likely to meet one’s psychological needs than romantic relationships in later emerging adulthood. In addition, it was expected that partner qualities will be more strongly associated with well-being in participants in longer relationships and when participants report a long-term commitment to their relationships (Zimmer-Gembeck & Gallaty, 2006; Zimmer-Gembeck & Petherick, 2006).
CHAPTER 8
STUDY 1: PILOT STUDY OF THE PARTNER BEHAVIOURS AS SOCIAL CONTEXT (PBSC) SCALE

The aim of the first two studies in this dissertation was to pilot and examine the psychometric properties of a new measure of relationship quality that focuses on positive and negative partner behaviours in adolescent and emerging adult relationships, the PBSC scale. The challenge that is faced when measuring relationship quality via questionnaire measures is well-known, especially when these relationships are new and young people are fairly inexperienced at being a couple (Furman & Flanagan, 1997; Furman & Wehner, 1997). Adolescent and emerging adult romantic relationships have been described as distinct from adult relationships because of the lower maturity level and experience of the partners, the shorter length, and the lower levels of commitment and interdependence (Laursen & Williams, 1997; Zimmer-Gembeck, 1999). There also are many aspects of relationships among adults that are not as relevant for all adolescents and emerging adults such as shared finances or equitably balancing household duties. A primary aim in the development of the PBSC was thus to provide a measure of multiple dimensions of relationship quality that should feature in couple relationships regardless of age and length of relationship.

The PBSC was also developed to assess romantic context and quality via an inventory of multiple social contextual features of romantic partner behaviours prominent during emerging adulthood. SDT (Deci & Ryan, 1985, 1991, 2000) was useful here, and provided a foundation to identify six dimensions of relationship quality, three positive and three negative. The PBSC scale was designed to measure aspects of the romantic social context identified in SDT that were expected to support the provision of relatedness, autonomy and competence needs in the young individual. In
accordance with previous research that has demonstrated that positive and negative behaviours are distinct factors as opposed to opposite ends of a continuum (Skinner et al., 2005), both positive and negative dimensions of behaviour were assessed as outlined below. As a result, the PBSC was designed to be useful in research and clinical settings in terms of assessing aspects of couple relationships that may be important for promoting well-being, but also others that may undermine it.

*PBSC Element 1 - Promoting or Undermining Relatedness: Warmth and Rejection*

Warmth items were developed to measure the construct of partner warmth, that is, provision of affection and love by the romantic partner, which is proposed to support an individual’s need for relatedness. Items were also designed to measure the thwarting of relatedness, or rejection in the romantic partner context. Rejection items assessed levels of hostile, detached and cold partner behaviour in the relationship.

*PBSC Element 2 – Promoting and Undermining Autonomy: Autonomy Support and Coercion*

Autonomy support, or encouraging a partner to make his/her own decisions and appreciating a partner’s choices, is proposed to support need fulfillment of autonomy in the individual. Autonomy support items were developed to measure the construct of autonomy support and additional items, in contrast, were designed to measure coercive behaviour that undermines autonomy need fulfillment, for example, controlling and demanding partner behaviour.

*PBSC Element 3 - Promoting and Undermining Competence: Structure and Chaos*

Structure items were designed to measure the contextual items that support the need for competence, that is, consistent, reliable behaviour that facilitate a sense of mastery in the relationship. To assess contextual items that undermine competence,
chaotic behaviour by the partner was also assessed, for example, items included “my partner is unpredictable”, and “I never know what my partner will do next”.

Method

Participants

Participants were 215 adolescents and emerging adults (aged 16 to 27, $M = 20.22$, $\text{Median} = 22$, $\text{Mode} = 18$, $\text{SD} = 2.39$) in steady romantic partner relationships of one month or longer who were associates of student research assistants. Of the original 218 participants, three were deleted due to excessive missing data ($n = 2$) or an odd pattern of responses ($n = 1$). Just under one-half of participants were female (47.4%). By design, most participants were either 17-18 years (45.3%) or 22-23 years (50.9%). Therefore, only these two age groups were used for age comparisons.

Average relationship length was 20 months (Range 1 to 90 months, $M = 20$ months, $\text{Median} = 13.5$, $\text{Mode} = 24$, $\text{SD} = 19.05$, $\text{Median} = 13.5$, $\text{Mode} = 24$). Few participants were married (3%), 26% were living with their partner and 67% were not living with their girlfriend or boyfriend (4% missing data). Most participants were university students (61.9%), with 22.3% attending high school, 13.2% defining themselves as “other student” and only 2.5% non-students. The sample was primarily White/Caucasian (87%), whereas 6.3% were Asian, 1.4% was Aboriginal and/or Torres Strait Islander, and 5.3% reported a range of other ethnicities. One-half of participants (50%) reported that their romantic partner was their most emotionally supportive relationship, compared with 25% reporting a friend and 14% their mothers. The remaining 11% of reports were divided between fathers, siblings and other relationships.

Measures

Demographics. Information about participants’ gender, age, marital status, sexual orientation, ethnicity, occupation, student/employment status, current romantic relationship length and most emotionally supportive relationship was obtained.
Partner Behaviour as Social Context (PBSC). A 36-item measure of the quality of romantic partner behaviours was developed. These 36-items were expected to tap six dimensions of partner behaviours. These six dimensions were based on theories of social contextual features important for meeting individuals’ psychological needs for relatedness (warmth vs. rejection), competence (structure vs. chaos) and autonomy (autonomy support vs. coercion) in accordance with Skinner et al.’s (2005) measure of parenting quality. Six items were generated for each of the six expected subscales. Items are shown in Table 8.1. Response options ranged from 1 (not at all true) to 6 (very true).

Table 8.1

Initial Items Generated to Measure PBSC

<table>
<thead>
<tr>
<th>WARMTH</th>
<th>STRUCTURE</th>
<th>AUTONOMY SUPPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My partner lets me know he/she loves me.</td>
<td>1. I know my partner would be there for me if I needed him or her.</td>
<td>1. My partner respects my choices.</td>
</tr>
<tr>
<td>2. My partner enjoys being with me</td>
<td>2. I can usually predict how my partner will respond to a problem.</td>
<td>2. My partner appreciates my opinion.</td>
</tr>
<tr>
<td>3. My partner makes me feel I'm important</td>
<td>3. My partner keeps his/her promises.</td>
<td>3. My partner encourages me to do the things I think are important.</td>
</tr>
<tr>
<td>4. My partner shares his/her thoughts and feelings with me</td>
<td>4. My partner is always there to support me.</td>
<td>4. My partner encourages me to decide things for myself.</td>
</tr>
<tr>
<td>5. My partner shows me affection.</td>
<td>5. My partner respects my space and privacy.</td>
<td>5. My partner doesn’t ignore my opinion.</td>
</tr>
<tr>
<td>6. My partner listens to me.</td>
<td>6. I can rely on my partner.</td>
<td>6. My partner supports my interests.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REJECTION</th>
<th>CHAOS</th>
<th>COERCION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sometimes I wonder if my partner likes me.</td>
<td>1. When my partner makes a promise, I don't know if he/she will keep it.</td>
<td>1. My partner tries to control me.</td>
</tr>
<tr>
<td>2. My partner can make me feel like I am not wanted.</td>
<td>2. My partner’s behaviour doesn’t always match what he/she says.</td>
<td>2. My partner makes me feel like I can't disagree with him/her.</td>
</tr>
<tr>
<td>3. Sometimes when I am upset, my partner does not seem to care.</td>
<td>3. I never know what my partner will do next.</td>
<td>3. My partner thinks there is only one right way to do things - their way.</td>
</tr>
<tr>
<td>4. My partner picks on me.</td>
<td>4. My partner is unpredictable.</td>
<td>4. My partner is very demanding in our relationship.</td>
</tr>
<tr>
<td>5. When I make plans for us, my partner does not seem interested.</td>
<td>5. I don't know if I can depend on my partner in times of need</td>
<td>5. My partner can be pushy with his/her opinions.</td>
</tr>
<tr>
<td>6. Sometimes, my partner does not seem to want to spend time with me.</td>
<td>6. My partner always seems to be changing his/her mind.</td>
<td>6. My partner always wants to get his/her way in our relationship.</td>
</tr>
</tbody>
</table>
Procedure

Measure development. A core set of items was developed to parallel items on the Parents As Social Context Measure (Skinner et al., 2005). For example, “My parents let me know they love me,” which assesses parenting warmth, was adapted to “My partner lets me know he/she loves me”. In addition, to modify items and develop new items, undergraduate psychology students facilitated by researchers brainstormed items that would be appropriate when referring to romantic partners. Items were examined for clarity, appropriateness and overall quality, and 36-items were selected to provide equal representation of the six hypothesised subscales.

Data collection. To increase the inclusion of non-students, data were collected by asking 130 students in a psychological research course to recruit two participants from their friends and family, each of a particular age and gender. Questionnaires were completed in the presence of at least one student research assistant. Participation was subject to informed voluntary consent and conducted in accordance with human research ethics guidelines (See Appendix 1).
Results

Inter-item correlations on items on the PBSC were examined and items were required to reveal acceptable inter-item correlations, with correlations of at least .3 with one other variable in the matrix (Conlon, 2004). All items met this criterion and none were discarded prior to factor analysis. The Kaiser-Meyer-Olkin value was .91, exceeding the recommended value of .6 and the Bartlett’s Test of Sphericity reached statistical significance, $\chi^2 = 4122.87 \ (df = 630) \ p < .01$, supporting the factorability of the correlation matrix.

Factor Analysis

Principle axis factoring (PAF) was conducted to establish the suitability of items and the factor structure of the new measure. Since factors were expected to be interrelated and not orthogonal, oblique rotation was used. The number of factors to extract was determined using the criteria of an eigenvalue over 1 and examining the scree plot. In the initial PAF, which included all items, six factors were extracted, explaining 34.57, 10.01, 5.48, 4.41, 3.74, 3.09 percent of the variance, respectively (61.30 % total). Inspecting communalities of the solution demonstrated that the percentage of variance extracted for each of 36-items was acceptable with only three items below 30% (17.4%, 19.7% and 26.2%) and the additional 33-items extracting 40.8% - 72.3% of variance. The three weak items, “When my partner makes a promise, I don’t know if he/she will keep It”; “I can usually predict how my partner will respond to a problem”; and “My partner picks on me” respectively, were retained initially but flagged as potentially poor items. The initial solution is shown in Table 8.2.

The first factor was labelled Warmth/Love and contained three items originally proposed to be warmth, and two originally proposed to be rejection. Items described
Table 8.2

*Study 1 Factor Loadings for Items on the PBSC (N = 215)*

<table>
<thead>
<tr>
<th>Scales and Items</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Factor 1: Warmth/Love (+ve PBSC Element 1)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(W43) My partner shows me affection</td>
<td>.61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(W1) My partner lets me know he/she loves me</td>
<td>.61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(W7) My partner enjoys being with me</td>
<td>.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(R4) Sometimes I wonder if my partner likes me</td>
<td>-.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(R10) My partner can make me feel like I’m not wanted</td>
<td>-.43</td>
<td>-.32</td>
<td></td>
</tr>
<tr>
<td><strong>Factor 2: Coercion (-ve PBSC Element 2)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Co24) My partner is very demanding in our relationship</td>
<td>.76</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Co18) My partner thinks there is only one right way to do things – their way</td>
<td>.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Co36) My partner always wants to get his/her way in our relationship</td>
<td>.74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Co6) My partner tries to control me</td>
<td>.72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Co30) My partner can be pushy with his/her opinions</td>
<td>.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Co12) My partner makes me feel like I can’t disagree with him/her</td>
<td>.65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(R22) My partner picks on me</td>
<td>.31</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Factor 3: Chaos/Unpredictability (-ve PBSC Element 3)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Ch17) I never know what my partner will do next</td>
<td>.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Ch23) My partner is unpredictable</td>
<td>.79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Ch11) My partner’s behaviour doesn’t always match what he/she says</td>
<td>.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(R34) Sometimes, my partner does not seem to want to spend time with me.</td>
<td>-.32</td>
<td>.37</td>
<td>-.35</td>
</tr>
<tr>
<td>(Ch35) My partner always seems to be changing his/her mind</td>
<td>.34</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 8.2 continues on the next page.
Table 8.2, continued

**Study 1 Factor Loadings for Items on the PBSC (N = 215)**

<table>
<thead>
<tr>
<th>Factor 4: Autonomy Support (+ve PBSC Element 2)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A15) My partner encourages me to do the things I think are important</td>
<td>.63</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(A27) My partner doesn’t ignore my opinion</td>
<td></td>
<td>.49</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(A21) My partner encourages me to decide things for myself</td>
<td></td>
<td>.46</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(A9) My partner appreciates my opinion</td>
<td></td>
<td>.44</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(A33) My partner supports my interests</td>
<td>-.33</td>
<td>.43</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(A3) My partner respects my choices</td>
<td>-.38</td>
<td>.40</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(S26) My partner respects my space and privacy</td>
<td>-.30</td>
<td>.35</td>
<td></td>
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</tr>
<tr>
<td>(S8) I can usually predict how my partner will respond to a problem</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Factor 5: Warmth/Interest (+ve PBSC Element 1)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>(R16) Sometimes when I’m upset my partner does not seem to care</td>
<td></td>
<td></td>
<td></td>
<td>-.62</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(R28) When I make plans for us, my partner does not seem interested</td>
<td></td>
<td></td>
<td></td>
<td>-.62</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(W13) My partner makes me feel I’m important</td>
<td>.38</td>
<td>.36</td>
<td>.40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(W19) My partner shares his/her thoughts and feelings with me</td>
<td>.35</td>
<td>.21</td>
<td>.37</td>
<td></td>
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</table>

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<thead>
<tr>
<th>Factor 6: Chaos/Not Dependable (-ve PBSC Element 3)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>(S14) My partner keeps his/her promises</td>
<td>-.30</td>
<td>.30</td>
<td>.35</td>
<td>-.33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(S2) I know my partner would be there for me if I needed him or her</td>
<td></td>
<td></td>
<td></td>
<td>-.82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(S32) I can rely on my partner</td>
<td></td>
<td></td>
<td></td>
<td>-.60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Ch29) I don’t know if I can depend on my partner in times of need</td>
<td></td>
<td></td>
<td></td>
<td>.55</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 8.2 continues on the next page.
Table 8.2, continued

*Study 1 Factor Loadings for Items on the PBSC (N = 215)*

<table>
<thead>
<tr>
<th>Scales and Items</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
<th>Factor 5</th>
<th>Factor 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>(S20) My partner is always there to support me</td>
<td>-0.47</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(W31) My partner listens to me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Ch5) When my partner makes a promise, I don’t know if he/she will keep it</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eigenvalue</td>
<td>12.45</td>
<td>3.60</td>
<td>1.97</td>
<td>1.59</td>
<td>1.35</td>
<td>1.11</td>
</tr>
<tr>
<td>% Variance explained</td>
<td>34.57</td>
<td>10.01</td>
<td>5.47</td>
<td>4.41</td>
<td>3.74</td>
<td>3.08</td>
</tr>
</tbody>
</table>

*Note.* Loadings below .30 were suppressed.

partners’ who showed affection, expressed love and enjoyment in the relationship, and didn’t make their partner feel unwanted or not liked.

The second factor was labelled *Coercion* and contained seven items. Six of the items were originally designed to assess coercion. Items displayed no cross-loading above .20 on any other factor. One item expected to load on rejection also loaded on this factor.

The third factor appeared to relate to *Chaos/Unpredictability* and contained four items proposed to assess chaos and one designed to assess rejection. The rejection item “Sometimes my partner does not seem to want to spend time with me” appeared to primarily assess inconsistency in a partner’s behaviour and cross-loaded with two other factors.

The fourth factor was labelled *Autonomy Support* and contained all six original autonomy support items. In addition, two weakly loading items designed to assess structure cross-loaded on this factor. One item, “My partner respects my space and privacy” was designed to tap whether structured boundaries were present in the relationship; however appeared to better assess provision of autonomy from the partner.
Factor five consisted of four items and was labelled *Warmth/Interest* as negatively loading items described rejection/neglect, that is, partners’ who do not care or do not show interest in their significant other; and positive loading items described warm partner behaviour of making their significant other feel important and sharing thoughts and feelings. Together these items describe partner interest and involvement in the relationship.

The sixth factor was labelled *Chaos/Not Dependable* as four negatively loading items focussed on partner reliability, being there and keeping promises, and two positively loading chaos items described partners who were not dependable and did not keep promises. Finally, one warmth item weakly negatively loaded on this factor.

Based on the result of the initial PAF, it was determined that the pool of PBSC items were lending themselves to a multi-dimensional scale that closely matched the original proposed PBSC elements. It was decided to delete some poor items to determine if this would improve the solution. Items that had weak loadings on multiple factors were deleted, for example “My partner keeps his/her promises” (S14); as were items that were loading on a different dimension, for example, the item designed to assess rejection, “My partner picks on me” (R22) was loading on the coercion factor. Also, some rejection items were deleted to better differentiate between the two factors that appeared to assess warmth/rejection descriptions. Overall seven items were deleted using these criteria (three structure, two chaos and two rejection) resulting in 29 overall PBSC items.

A second, PAF with oblique rotation was conducted. The Kaiser-Meyer-Olkin value was again .91 and the Bartlett’s Test of Sphericity reached statistical significance $\chi^2 = 3357.25 \ (df = 406) \ p < .01$, again demonstrating that the reduced number of items were suitable for factor analysis. Five factors were extracted with eigenvalues
exceeding 1, explaining 36.62, 11.16, 6.49, 4.44, 4.01 percent of the variance, respectively (62.72 % in total). The second solution is shown in Table 8.3.

The first factor consisted of nine items – six items proposed to be warmth and three proposed to be structure - and was labelled Support. This factor focussed on provision of affection, showing interest in the partner, being reliable and providing support. There were four robust items on this factor with loadings $\geq .65$ and no cross-loadings. The second factor was labelled Coercion and was the same structure as the initial solution. All items on this factor were $\geq .68$ and no items cross-loaded. The third factor was labelled Chaos and had two items $\geq .79$ and two weaker items with small cross-loadings on the Coercion factor. The fourth factor was labelled Rejection and had two items with loadings above .69 and one item with a weaker loading. While one item, “My partner can make me feel like I’m not wanted,” cross-loaded with the Rejection factor, it primarily negatively loaded on Support. This item was tentatively included on the Rejection subscale in this study. Finally, the fifth factor was labelled Autonomy Support and had six items, but all had cross loadings with other factors. Nevertheless, the largest loading for each item was on this factor.

Item Distribution

Factor analysis is robust to assumptions of normality, however, if variables are normally distributed; the solution is enhanced (Conlon, 2004). Items were examined to establish whether floor or ceiling effects were present and inspection showed that no item had these patterns of responses. The overall distribution of 29-items was negatively skewed, in the direction of high positive, low negative behaviour. This “halo” effect is widely present in self-report measures of relationship quality (Fletcher et al., 2000, Spanier, 1976).
Table 8.3

Study 1 Factor Loadings for Items on the PBSC with Items Removed (N = 215)

<table>
<thead>
<tr>
<th>Scales and Items</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**Factor 1: Support (+ve PBSC Element 1)**

- (W25) My partner shows me affection .72
- (W1) My partner lets me know he/she loves me .72
- (W7) My partner enjoys being with me .70
- (S2) I know my partner would be there for me if I needed him or her .65
- (S20) My partner is always there to support me .52
- (S32) I can rely on my partner .48
- (W13) My partner makes me feel I’m important .45 -.38
- (W19) My partner shares his/her thoughts and feelings with me .41 -.41
- (R10) My partner can make me feel like I’m not wanted -.41 .30
- (W31) My partner listens to me

**Factor 2: Coercion (-ve PBSC Element 2)**

- (Co36) My partner always wants to get his/her way in our relationship .78
- (Co18) My partner thinks there is only one right way to do things – their way .77
- (Co24) My partner is very demanding in our relationship .72
- (Co30) My partner can be pushy with his/her opinions .71
- (Co6) My partner tries to control me .71
- (Co12) My partner makes me feel like I can’t disagree with him/her .68

**Factor 3: Chaos (-ve PBSC Element 3)**

- (Ch17) I never know what my partner will do next .83
- (Ch23) My partner is unpredictable .79
- (Ch35) My partner always seems to be changing his/her mind .40

Table 8.3 continues on the next page.
Table 8.3, continued

Study 1 Factor Loadings for Items on the PBSC with Items Removed (N = 215)

<table>
<thead>
<tr>
<th>Scales and Items</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
<th>Factor 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Ch11) My partner’s behaviour doesn’t always match what he/she says</td>
<td></td>
<td>.30</td>
<td>.39</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Factor 4: Rejection</strong> (−ve PBSC Element 1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(R16) Sometimes when I’m upset my partner does not seem to care</td>
<td></td>
<td></td>
<td></td>
<td>.71</td>
<td></td>
</tr>
<tr>
<td>(R34) When I make plans for us, my partner does not seem interested</td>
<td></td>
<td></td>
<td>.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(R28) Sometimes my partner does not seem to want to spend time with me</td>
<td>.38</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Factor 5: Autonomy Support</strong> (+ve PBSC Element 2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(A15) My partner encourages me to do the things I think are important</td>
<td></td>
<td></td>
<td></td>
<td>.60</td>
<td></td>
</tr>
<tr>
<td>(A3) My partner respects my choices</td>
<td></td>
<td></td>
<td>.33</td>
<td>.45</td>
<td></td>
</tr>
<tr>
<td>(A27) My partner doesn’t ignore my opinion</td>
<td></td>
<td></td>
<td></td>
<td>.43</td>
<td></td>
</tr>
<tr>
<td>(A33) My partner supports my interests</td>
<td></td>
<td></td>
<td></td>
<td>.42</td>
<td></td>
</tr>
<tr>
<td>(A9) My partner appreciates my opinion</td>
<td></td>
<td></td>
<td></td>
<td>.42</td>
<td></td>
</tr>
<tr>
<td>(A21) My partner encourages me to decide things for myself</td>
<td></td>
<td></td>
<td></td>
<td>.37</td>
<td></td>
</tr>
<tr>
<td><strong>Eigenvalues</strong></td>
<td>10.62</td>
<td>3.24</td>
<td>1.88</td>
<td>1.29</td>
<td>1.16</td>
</tr>
<tr>
<td><strong>% Variance explained</strong></td>
<td>36.62</td>
<td>11.16</td>
<td>6.49</td>
<td>4.44</td>
<td>4.01</td>
</tr>
</tbody>
</table>

*Note.* Loadings below .30 are suppressed.

Reliability Analysis

Reliability analyses were conducted to determine the interitem correlations (Cronbach’s α) of the items that loaded on each of these five factors. For the purpose of reliability estimates there were 29 items on five factors. These included the *Warmth/Structure “Support”* subscale with five nine items (W25, W1, W7, S2, S20, S32, W13, W19 and W31), the *Coercion* subscale with six items (Co36, Co18, Co24,
Co30, Co6 and Co12), the Chaos subscale with four items (Ch23, Ch17, Ch35 and Ch11), the Rejection subscale with four items (R16, R34, R28 and R10), and the Autonomy Support subscale with six items (A15, A3, A27, A33, A9 and A21). The Positive Behaviours subscale included all Warmth/Interest and Autonomy Support items \( (n = 15) \) and the Negative Behaviours subscale included all Coercion, Chaos and Rejection items \( (n = 14) \). The reliability of all scales was adequate and comparable across participant gender and age group (see Table 8.4).

**Summary of Findings**

The results of two factor analyses supported the multi-dimensional nature of the initial pilot of the PBSC, and allowed identification of some items requiring revision in order to optimally assess this construct. Five factors were found in the second analysis, namely Support, Coercion, Chaos, Rejection and Autonomy Support, which both closely matched the original proposed dimensions, and demonstrated good reliability. While there continued to be some items with cross-loadings in the factor solution for Study 1, this was somewhat expected as this was an initial pilot of items represented elements expected to be somewhat correlated yet distinct in the romantic relationship context. Based on two factor analyses it was decided to revise the items that were deleted in the second analyses with the aim of improving the solution. In addition, it was also decided to revise most of the structure items due to weak cross loadings with chaos and autonomy and especially due to loss of the structure subscale in the second factor analysis. A primary goal of item revision for Study 2 was to differentiate items that were designed to capture warmth from those designed to capture structure. Findings from Study 1 suggested it would be beneficial to obtain detailed feedback from interviews with emerging adults to identify potential new structure, rejection and chaos items.
Table 8.4

*Study 1 Descriptive Information and Reliability Coefficients for Initial Pilot of PBSC Items (N = 215)*

<table>
<thead>
<tr>
<th>PBSC subscale</th>
<th>No. of Items</th>
<th>All Participants</th>
<th>Males (n = 112)</th>
<th>Females (n = 102)</th>
<th>Younger (17-21 yrs) (n = 96)</th>
<th>Older (22-23 yrs) (n = 108)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1: Support</td>
<td>9</td>
<td>.89</td>
<td>.89</td>
<td>.89</td>
<td>.90</td>
<td>.88</td>
</tr>
<tr>
<td>Factor 2: Coercion</td>
<td>6</td>
<td>.88</td>
<td>.90</td>
<td>.86</td>
<td>.90</td>
<td>.87</td>
</tr>
<tr>
<td>Factor 3: Chaos</td>
<td>4</td>
<td>.76</td>
<td>.73</td>
<td>.79</td>
<td>.76</td>
<td>.77</td>
</tr>
<tr>
<td>Factor 4: Rejection</td>
<td>4</td>
<td>.78</td>
<td>.73</td>
<td>.80</td>
<td>.76</td>
<td>.80</td>
</tr>
<tr>
<td>Factor 5: Autonomy Support</td>
<td>6</td>
<td>.84</td>
<td>.82</td>
<td>.86</td>
<td>.87</td>
<td>.82</td>
</tr>
<tr>
<td>Positive behaviours</td>
<td>15</td>
<td>.91</td>
<td>.91</td>
<td>.92</td>
<td>.93</td>
<td>.90</td>
</tr>
<tr>
<td>Negative behaviours</td>
<td>14</td>
<td>.88</td>
<td>.88</td>
<td>.88</td>
<td>.88</td>
<td>.88</td>
</tr>
<tr>
<td>Total behaviours</td>
<td>29</td>
<td>.93</td>
<td>.93</td>
<td>.94</td>
<td>.94</td>
<td>.93</td>
</tr>
</tbody>
</table>
CHAPTER 9

STUDY 2: AN INVESTIGATION OF REVISED PBSC ITEMS WITH MEASURES ASSESSING VALIDITY

The primary aim of Study 2 was to revise problematic PBSC items identified in Study 1 and to generate new items based on three semi-structured interviews with emerging adults. In addition, the factor structure, reliability, convergent and divergent validity were examined. In accordance with these aims, the following hypotheses were proposed:

1. a. Warmth will be positively associated with a measure of relatedness.
   b. Rejection will be positively associated with hostile detachment.

2. a. Autonomy Support will be positively associated with autonomy.
   b. Coercion will be positively associated with hostile control.

3. a. Structure will be positively associated with reliable alliance and trust.
   b. Chaos will be negatively associated with reliable alliance and trust.

4. a. Positive partner behaviours will be weakly associated with extraversion.
   b. Negative partner behaviours will be weakly positively associated with Neuroticism.
   c. Partner behaviours will not be correlated with other dimensions of personality, namely agreeableness, conscientiousness and openness to experience.
Method

Participants

Participants were 316 young university students and their associates who were in a steady romantic partner relationship (50% female). Of the original 323 participants, seven had substantial missing data (> 30%) on the new measure of PBSC and were not included in the analyses as recommended by Tabachnick and Fidell (2001). Participants were aged 17 to 30 years, with the highest proportion of respondents 18 years (20%) and the average age of the sample 21.2 years (\(\text{Median} = 20, \text{SD} = 3.55\)). Most participants were university students (85%) and in a steady dating relationship and not living together (65%). Relationship length ranged from 1 - 126 months (\(M = 22.3\) months, \(SD = 22.9\)). A small proportion of the sample identified that they were currently with a same-sex partner who was female \((n = 6)\), or male \((n = 5)\) with same-sex couples constituting 3.5% of the sample. Key demographics are shown in Table 9.1. Romantic relationships were important for this sample of emerging adults. Most of the sample reported relying on their romantic partner as their primary emotional support (63%) followed by a friend (13%), mother (10%) or multiple primary supports (9%). Other reports include father as primary emotional support (1%); sibling (1%); and other (3%; usually another member of family or “myself”).

Measures

Measures consisted of a revised 48-item PBSC based on the peer and expert review process to be discussed shortly. In addition, measures to assess convergent and divergent validity were included. These included widely used measures of romantic relationship quality or partner behaviours in a romantic relationship (convergent) and a measure of personality (divergent).
### Table 9.1

#### Study 2 Demographic Characteristics of Participants ($N = 316$)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>$n$</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>157</td>
<td>49.7</td>
</tr>
<tr>
<td>Females</td>
<td>159</td>
<td>50.3</td>
</tr>
<tr>
<td><strong>Relationship Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>16</td>
<td>5.1</td>
</tr>
<tr>
<td>Engaged</td>
<td>14</td>
<td>4.4</td>
</tr>
<tr>
<td>Partner Living With</td>
<td>79</td>
<td>25</td>
</tr>
<tr>
<td>Partner Not Living With</td>
<td>205</td>
<td>64.9</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>0.6</td>
</tr>
<tr>
<td><strong>Age (years)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17-18</td>
<td>87</td>
<td>27.8</td>
</tr>
<tr>
<td>19-20</td>
<td>83</td>
<td>26.5</td>
</tr>
<tr>
<td>21-22</td>
<td>51</td>
<td>16.3</td>
</tr>
<tr>
<td>23-25</td>
<td>46</td>
<td>14.7</td>
</tr>
<tr>
<td>26-30</td>
<td>46</td>
<td>14.7</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White/Caucasian</td>
<td>247</td>
<td>78.4</td>
</tr>
<tr>
<td>Aboriginal &amp;/or Torres</td>
<td>5</td>
<td>1.6</td>
</tr>
<tr>
<td>Strait Islander</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 9.1 continues on the next page
Table 9.1, continued

Study 2 Demographic Characteristics of Participants (N = 316)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black/African/Caribbean</td>
<td>9</td>
<td>2.9</td>
</tr>
<tr>
<td>Asian</td>
<td>26</td>
<td>8.3</td>
</tr>
<tr>
<td>Hispanic</td>
<td>4</td>
<td>1.3</td>
</tr>
<tr>
<td>Multiple</td>
<td>13</td>
<td>4.1</td>
</tr>
<tr>
<td>Other</td>
<td>11</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Student Status

<table>
<thead>
<tr>
<th>Student Status</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School</td>
<td>4</td>
<td>1.3</td>
</tr>
<tr>
<td>University</td>
<td>269</td>
<td>85.1</td>
</tr>
<tr>
<td>Student (other)</td>
<td>5</td>
<td>1.6</td>
</tr>
<tr>
<td>Not a Student</td>
<td>37</td>
<td>11.7</td>
</tr>
</tbody>
</table>

Note. One participant did not report race/ethnicity and student status. Three participants did not report their age.

Relationship satisfaction. The Relationship Assessment Scale (RAS; Hendrick, 1988) was used to measure general satisfaction with the romantic relationship. The RAS is a widely used, brief measure of relationship satisfaction consisting of seven items (e.g. “I love my partner). Responses to each item range from 1 (strongly disagree) to 5 (strongly agree). The scale has been reported to have high reliability (Cronbach’s $\alpha = .86$; Hendrick 1988). In the current study, the interitem correlation was $\alpha = .87$.

Autonomy and relatedness partner behaviours. The Autonomy and Relatedness Inventory (ARI; Schaefer & Edgerton, 1981 cited in Schaefer & Burnett, 1987) was used to assesses six dimensions of relationship quality through 24-items measuring partner behaviours in marital relationships. Four subscales of the ARI were used in the
present study to assess convergent validity. These subscales were relatedness (e.g. “Talks over his/her problems with me”); hostile detachment (e.g. “Acts as though I’m in the way”); autonomy (e.g. “Gives me as much freedom as I want”), and hostile control (e.g. “Is always trying to change me”). These subscales were expected to converge with the PBSC subscales of warmth, rejection, autonomy support and coercion, respectively. Responses ranged from 1 (not at all like) to 5 (very much like) with four items on each dimension and items were averaged to form total scores. Interitem correlations in the current study were $\alpha = .65$ for relatedness, $\alpha = .69$ for hostile detachment, $\alpha = .79$ for autonomy, and $\alpha = .80$ for hostile control.

Reliable alliance from a partner. One subscale of the Networks of Relationships Inventory (NRI; Furman & Buhrester, 1985; Furman, 2002), reliable alliance, was used to assess convergent validity of the proposed PBSC dimensions of structure and chaos. Three items assessed reliable alliance (e.g. “How sure are you that this relationship with your current partner will last no matter what?”) and responses ranged from 1 (Very Little or Never) to 5 (Extremely Often). Items were averaged to form the overall scale and the interitem correlation in the current study was Cronbach’s $\alpha = .93$.

Relationship quality. The Trust subscale of the Perceived Relationship Quality Component Inventory (PRQC; Fletcher et al., 2000) was used to assess convergent validity of PBSC structure and chaos subscales. Responses are scored on a 0-7 point scale with 0 (Not at All) to 7 (Extremely), e.g. “How much do your trust your partner?” and “How dependable is your partner?” Items were averaged to form total scores and the interitem correlation in current study was Cronbach’s $\alpha = .84$.

Positive and negative quality in marriage. The Positive and Negative Quality in Marriage Scale (PANQUIMS; Fincham & Linfield, 1997) is a brief, global measure of negative and positive dimensions of marital relationship quality and was used to assess
convergent validity of positive and negative subscales of PBSC. Three items assess positive qualities (e.g. “Considering only the positive qualities of your spouse, and ignoring the negative ones, evaluate how positive these qualities are”) and three items assess negative qualities, (e.g. “Considering only the negative qualities of your spouse, and ignoring the negative ones, evaluate how negative these qualities are”). The three items were averaged to form total scores for each subscale. In the current study, the interitem correlations were Cronbach’s $\alpha = .87$ for positive qualities and Cronbach’s $\alpha = .94$ for negative qualities.

**Personality.** The Big-Five Inventory (BFI; John & Srivastava, 1999) was used to measure personality traits and to assess divergent validity. The 44-item BFI assessed *Extraversion* (8 items), described as an “energetic approach” to the social world (p.121); *Neuroticism* (8 items), or negative emotionality such as feeling anxious; *Conscientiousness* (9 items), described as the ability to regulate behaviour and control impulses; *Openness* (10 items) or the depth and breadth of an individual’s experiential and mental life; and *Agreeableness* (9 items) or pro-social orientations to the social world. Response to each items ranges from 1 (*disagree strongly*) to 5 (*agree strongly*). Negative items were reverse-coded and subscales were formed through summing responses on each scale, with higher scores indicating higher levels of that personality trait. Interitem correlations in current study were Cronbach’s $\alpha = .83$ for extraversion, $\alpha = .76$ for agreeableness, $\alpha = .79$ for conscientiousness, $\alpha = .84$ for neuroticism, and $\alpha = .71$ for Openness.

**Procedure**

*Item development for the PBSC.* In order to generate appropriate new items, three emerging adults in romantic relationships were interviewed. These participants were oriented to the intended constructs (warmth, rejection, structure, chaos, autonomy
support and coercion) through a brief passage describing each element. Respondents were then asked to spontaneously generate suitable items (at least three for each category). Following this, they were asked to assess existing items for face validity and specify whether these were i) clear, ii) consistent with the desired construct, and iii) whether they would benefit from revision. Alternative items for each construct were also elicited from the interviewees. Finally, known cross-loading items were highlighted to the respondent to gain feedback on alternative items or means of improving the existing item. Experts in the psychology of relationships were also consulted at two international conferences. Advice was sought on the quality and appropriateness of the items. Discussion and suggestions raised during this process informed the final PBSC items.

A final review of items identified some that could be shortened to improve comprehension by all participants, e.g. “I know my partner would be there for me if I needed him or her” to “My partner is there for me if I need him or her”. Also items were re-worded if it was difficult to distinguish between partner and self contributions to the relationship, to ensure that partner behaviours, as opposed to self contributions, were being assessed, e.g. “I can rely on my partner” to “My partner is reliable” (structure). Responses across interviews and consultation were reviewed by the researchers to form 48-items for the next pilot of PBSC, with eight items proposed for each factor.

Survey data collection. Following approval from the Human Research Ethics Committee of Griffith University recruitment commenced to obtain the desired sample size within the designated age limits, and an equal distribution of males and females. A convenience sample of university students and their friends within the required age, gender and relationship status parameters were recruited. All participants received a prize draw entry for two cinema tickets and some also received course credit or a
chocolate bar. Participants received an information sheet and returned questionnaires were taken as informed consent (See Appendix 2).

The majority of participants completed the survey within 20 minutes. During and following testing, the researcher was available to answer questions regarding the research. While no identifying details were kept with the surveys, all participants were approached regarding their willingness to participate in a further study and those who were interested completed their contact details on a separate sheet to the survey. Participants placed their completed surveys in a box or envelope and their contact details in a separate envelope to maintain anonymity of responses.
Results

Development of the PBSC

Prior to conducting factor analyses, the distributions of individual items were examined. No items demonstrated significant floor or ceiling effects. Inspection of the correlation matrix showed that each item had a correlation of .30 or above on at least one other item suggesting that all items should be included in the analysis. The Kaiser-Meyer Olkin measure of sampling adequacy demonstrated that adequacy was extremely good (.94) and Bartlett’s Test of Sphericity was significant showing that there were multiple significant correlations between the items ($df = 1128; \chi^2 = 7572.53; p < .01$).

Factor Analysis

Initial. Principle axis factoring with oblique rotation was used to examine the entire pool of 48 items. Factors were extracted based on eigenvalues > 1 and an initial solution of seven factors was extracted. The Anti-Image Correlation Matrix was investigated and showed all correlations were high. Inspecting communalities of the solution demonstrated that the percentage of variance extracted for each item was acceptable (minimum 27.8% - 70.01%) with only two items below 30%. This initial PAF accounted for 59.13% of the variance (see Table 9.2).

The first factor consisted of six items describing partners who both appreciated one’s opinion and openness of communication as well as being honest in the relationship and accounted for 35.33% of the variance in items. This factor was labelled Autonomy Support 1 – “Genuine Interest” and consisted of three items designed to measure autonomy support, which described a partner who doesn’t ignore opinions (A27); appreciates opinions (A9) and appreciates things that are important to their significant other (A15). An item designed to measure structure (S26 my partner is honest with me) also loaded highly on this factor. In addition, three items negatively
loaded on this factor that described partners who were rejecting (R40). At times my partner ignores me; Sometimes my partner acts like she/he doesn’t like me (R4) and one item intended to measure coercion which described a partner who does not allow difference of opinion (Co12).

Ten items loaded on the second factor labelled Warmth - “Loving and Supportive.” This factor accounted for 7.90% of the variance in items. Seven items designed to measure warmth loaded on this factor in addition to two items designed to measure structure and one item designed to measure rejection. The structure items S2 “My partner is there for me if I need him or her” and S20 “My partner is always there to support me” described partners’ who were consistently supportive. The rejection item R16 “Sometimes when I’m upset, my partner does not seem to care” described a neglectful, insensitive partner (negative loading).

Seven items loaded most highly on a third factor, five of which were designed to measure autonomy support, one of which was intended to measure rejection, and one which was expected to describe chaotic partner behaviour. In consideration of all these items this factor was labelled Autonomy Support 2 – “Aloof” and accounted for 3.84% of the variance. This factor consisted of items A39 “My partner seeks my opinion and values it”, A3 “My partner respects my choices”, A21 “My partner encourages me to decide things for myself”, A33 “My partner supports my interests” and A45 “My partner encourages me to be myself”. Two items unexpectedly and positively loaded on this factor, (R10) “My partner can make me feel like I am not wanted” and (Ch11) “My partner’s behaviour doesn’t always match what he/she says” suggesting that characteristics of this factor were “lip service” and/or encouraging a partner to partake in their own interests to the extent of being “standoffish” in the relationship.
Table 9.2

*Study 2 Factor Loadings for Items on the 48-Item PBSC with All Items (N = 316)*

<table>
<thead>
<tr>
<th>Factors and Items</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Factor 1: Autonomy Support 1 “Likes Opinion” (+ve PBSC Element 2)</strong></td>
<td></td>
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<tr>
<td>(A27) My partner doesn’t ignore my opinion</td>
<td>.74</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>(A9) My partner appreciates my opinion</td>
<td>.52</td>
<td></td>
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<tr>
<td>(A15) My partner encourages me to do the things I think are important</td>
<td>.38</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(S26) My partner is honest with me</td>
<td>.38</td>
<td>.33</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>(R40) At times my partner ignores me</td>
<td></td>
<td>-.35</td>
<td>.31</td>
<td></td>
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<tr>
<td>(Co12) My partner makes me feel like I can’t disagree with him/her</td>
<td></td>
<td>-.35</td>
<td>.31</td>
<td></td>
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<tr>
<td>(R4) Sometimes my partner acts like she/he doesn’t like me</td>
<td></td>
<td>-.35</td>
<td>.31</td>
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<tr>
<td><strong>Factor 2: Warmth (+ve PBSC Element 1)</strong></td>
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<td>(W25) My partner shows me affection</td>
<td></td>
<td></td>
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<td>.77</td>
</tr>
<tr>
<td>(W43) My partner often hugs me</td>
<td></td>
<td></td>
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<td>.71</td>
</tr>
<tr>
<td>(W1) My partner lets me know he/she loves me</td>
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<td></td>
<td></td>
<td>.64</td>
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<tr>
<td>(S2) My partner is there for me if I need him/her</td>
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<td></td>
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<td></td>
<td>.62</td>
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<td></td>
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<tr>
<td>(W19) My partner shares his/her thoughts and feelings with me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.42</td>
<td>-.31</td>
<td></td>
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<tr>
<td>(W7) My partner enjoys being with me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.41</td>
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<tr>
<td>(S20) My partner is always there to support me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.40</td>
<td>.22</td>
<td>.30</td>
</tr>
<tr>
<td>(W13) My partner makes me feel I’m important</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.31</td>
<td>.38</td>
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<tr>
<td>(W37) My partner helps me when I’m upset</td>
<td></td>
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<td>.38</td>
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<tr>
<td>(R16) Sometimes when I am upset, my partner does not seem to care</td>
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<td></td>
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<td></td>
<td></td>
<td>-.28</td>
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</table>

Table 9.2 continues on the next page.
### Table 9.2, continued

*Study 2 Factor Loadings for Items on the 48-Item PBSC with All Items (N = 316)*

<table>
<thead>
<tr>
<th>Factors and Items</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<tbody>
<tr>
<td><em>Factor 3: Autonomy Support 2 “Supports Interests”</em> (+ve PBSC Element 2)</td>
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<tr>
<td>(A39) My partner seeks my opinion and values it</td>
<td>.47</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.42</td>
</tr>
<tr>
<td>(A3) My partner respects my choices</td>
<td></td>
<td>.43</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>(A21) My partner encourages me to decide things for myself</td>
<td>.43</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>(R10) My partner can make me feel like I am not wanted</td>
<td>.35</td>
<td></td>
<td>-.34</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>(A33) My partner supports my interests</td>
<td>.34</td>
<td></td>
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<tr>
<td>(A45) My partner encourages me to be myself</td>
<td>.28</td>
<td></td>
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<tr>
<td>(Ch11) My partner’s behaviour doesn’t always match what he/she says</td>
<td>.27</td>
<td></td>
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<tr>
<td><em>Factor 4: Structure</em> (+ve PBSC Element 3)</td>
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<tr>
<td>(S14) My partner follows through on things</td>
<td></td>
<td>.62</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>(S44) If my partner says something, he/she means it</td>
<td></td>
<td>.62</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(S32) My partner is reliable</td>
<td></td>
<td></td>
<td>.45</td>
<td></td>
<td></td>
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<tr>
<td>(Ch41) My partner says one thing, but does another</td>
<td></td>
<td></td>
<td></td>
<td>-.36</td>
<td>-.34</td>
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<tr>
<td>(Ch5) When my partner says something, it’s not always true</td>
<td></td>
<td></td>
<td></td>
<td>-.33</td>
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<tr>
<td>(S8) My partner is dependable</td>
<td></td>
<td></td>
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<td>.32</td>
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<tr>
<td>(S38) My partner is trustworthy</td>
<td></td>
<td></td>
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<td>.26</td>
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<tr>
<td><em>Factor 5: Chaos</em> (-ve PBSC Element 3)</td>
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<tr>
<td>(Ch17) I never know what my partner will do next</td>
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<td></td>
<td></td>
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<td></td>
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<td>-.83</td>
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<tr>
<td>(Ch23) My partner is unpredictable</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>-.80</td>
</tr>
<tr>
<td>(Ch29) My partner is not someone who I can always rely on</td>
<td></td>
<td></td>
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<td></td>
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<td>-.42</td>
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<tr>
<td>(Ch35) My partner always seems to be changing his/her mind</td>
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<td>-.33</td>
</tr>
<tr>
<td>(Co18) My partner thinks there is only one right way to do things - their way</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.33</td>
<td>.32</td>
<td></td>
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</tbody>
</table>

Table 9.2 continues on the next page.
Table 9.2, continued

*Study 2 Factor Loadings for Items on the 48-Item PBSC with All Items (N = 316)*

<table>
<thead>
<tr>
<th>Factors and Items</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
<th>Factor 5</th>
<th>Factor 6</th>
<th>Factor 7</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Factor 6: Coercion “Controlling &amp; Critical”(-ve PBSC Element 2)</strong></td>
<td></td>
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<tr>
<td>(Co6) My partner tries to control me</td>
<td>- .68</td>
<td></td>
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<tr>
<td>(Co24) My partner is very demanding in our relationship</td>
<td></td>
<td>- .64</td>
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<tr>
<td>(Co36) My partner always wants to get his/her way in our relationship</td>
<td></td>
<td></td>
<td>- .50</td>
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<tr>
<td>(Co48) My partner often wants to know where I’m going and with whom</td>
<td></td>
<td></td>
<td></td>
<td>- .50</td>
<td></td>
<td></td>
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<tr>
<td>(R46) My partner criticises me at times</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- .47</td>
<td>.39</td>
<td></td>
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<tr>
<td>(R22) My partner can say mean things to me now and then</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- .45</td>
<td>.32</td>
<td></td>
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<tr>
<td>(Co42) My partner expects me to do what he/she says</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>- .44</td>
<td></td>
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<tr>
<td>(Co30) My partner can be pushy with his/her opinions</td>
<td></td>
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<td>- .33</td>
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<tr>
<td><strong>Factor 7: Rejection of Plans and Time Together (-ve PBSC Element 1)</strong></td>
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<tr>
<td>(R34) Sometimes, my partner does not seem to want to spend time with me</td>
<td></td>
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<td></td>
<td></td>
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<td>.72</td>
</tr>
<tr>
<td>(R28) When I make plans for us, my partner does not seem interested</td>
<td></td>
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<td></td>
<td></td>
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<td>.54</td>
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<tr>
<td>(Ch47) My partner doesn’t always stick to our plans together</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- .35</td>
<td>.49</td>
<td></td>
</tr>
<tr>
<td>(W31) My partner listens to me</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>- .28</td>
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**Eigenvalues**

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<tr>
<th>Eigenvalues</th>
<th>16.96</th>
<th>3.79</th>
<th>1.85</th>
<th>1.77</th>
<th>1.51</th>
<th>1.31</th>
<th>1.20</th>
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</table>

**% Variance explained**

<table>
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<tr>
<th>% Variance explained</th>
<th>35.33</th>
<th>7.90</th>
<th>3.84</th>
<th>3.69</th>
<th>3.16</th>
<th>2.72</th>
<th>2.49</th>
</tr>
</thead>
</table>

*Note.* Loadings below .30 were suppressed, except when the highest loading was < .30.
Seven items loaded most highly on the fourth factor, with five items that were expected to measure structured partner behaviours and two items designed to measure chaotic behaviours (negative loading). This factor was labelled *Structure – “Consistent”* and accounted for 3.69% of the variance. Items described partners who follow through (S14), do what they say (S44), are reliable (S32), dependable (S8) and trustworthy (S38) and who don’t say one thing and do another (Ch41) or say things that aren’t true (Ch5).

The fifth factor consisted of five items and was labelled *Chaos – “Unpredictable”* and accounted for 3.16% of the variance. These included four designed to measure chaotic partner behaviours, namely Ch17 “I never know what my partner will do next”, Ch23 “My partner is unpredictable”, Ch29 “My partner is not someone who I can always rely on” and Ch35 “My partner always seem to be changing his/her mind” in addition to an item designed to measure coercive behaviour, namely Co18 “My partner thinks there is only one way to do things – their way”.

The sixth factor consisted of six items designed to measure coercion and two items designed to measure rejection. This factor was labelled *Coercion* and accounted for 2.72% of the variance. Specifically items focussed on partners who were controlling (Co6), demanding (Co24), wanting to get own way (Co36), invasive (Co48) expected compliance (Co42) and were pushy (Co30) in addition to critical (R46) and mean (R22). The final factor consisted of only four items accounting for 2.49% of the variance and was labelled *Rejection of Plans and Time Together* as items described partners who did not want to spend time (R34) were not interested in plans together (R22) and did not stick to plans together (Ch47), and finally did not listen to their significant other (W31).
Factor analysis of remaining 30-items. Items were examined and removed to attempt to provide factors that were more consistent with theory and to reduce the number of items on the PBSC. Criteria for removal of items included removing any items loading < .31 on any factor and to remove cross loading items > .30 on more than one factor. In addition, items that loaded onto factors that accurately assessed PBSC constructs were kept and it was intended to establish at least five items on each scale in order to create robust subscales.

Items were systematically deleted to this end. First S38 and Ch11 were deleted as they did not significantly load on any factors though had weak loadings < .30 across four factors. While W31 and R16 also had this problem in the initial solution, it was hoped that loadings for these would improve with the deletion of other problematic items. R40 was deleted as it appeared to share variance with autonomy and did not clearly delineate rejection traits. Next R34 and R28 were deleted as they were loading on the seventh factor and were predicted to be splitting rejection items. Next Ch5 and Ch47 were removed as they were loading on expected factors (rejection) and/or cross-loading. Co12 was deleted as it was loading on rejection and Co42 as it was cross-loading and causing all negative behaviour items to load together. Co18 was deleted as it was loading on chaos. A27 and A3 were deleted as they were cross-loading. S20 was deleted as it was cross-loading on warmth and chaos. W37 was deleted as it was cross-loading on autonomy; W13 and W7 were deleted due to low loadings and cross-loadings. Finally, A9 was deleted as it was low loading with small cross-loadings and it was deemed practical to establish six factors with 5-items each on each. W31 had a robust loading with autonomy items and thus was retained as an autonomy item. S2 had a robust loading with warmth items so was retained as a warmth item. Ch41 and S26 were retained on Chaos and Structure factors respectively even though they were low-
loading and slightly cross loading. Retaining these items enhanced the reliability of these factors and fitted with theoretical expectations.

To examine the remaining 30-items, an additional PAF with an oblique rotation was used. Again factors were extracted based on eigenvalues > 1 and a solution of six factors was obtained. The Kaiser-Meyer Olkin measure of sampling adequacy demonstrated that adequacy was extremely good (.93) and Bartlett’s Test of Sphericity was significant showing that there were multiple significant correlations between the items ($df = 435; \text{Chi square} = 4140.64; p < 0.001$). Inspecting communalities of the solution demonstrated that the percentage of variance extracted for each item was acceptable (minimum 25.5% - 67%) with only two items below 30%. This analysis provided a satisfactory six factor solution accounting for 61.22% of the variance (see Table 9.3).

The five items loading highly on the first factor tapped Autonomy Support (eigenvalue = 10.4, variance explained 34.9%; see Table 9.3). Four items designed to assess warmth and one item designed to assess structure loaded on the second factor and this was labelled Warmth (eigenvalue = 2.9, variance explained 9.7%). On evaluation, the structure item was describing warm, supportive behaviour rather than consistency and as such it was deemed appropriate to rename this as a warmth item. Five items designed to measure structure loaded on the third factor and this was labelled Structure (eigenvalue = 1.5, variance explained 4.9%). While one item was relatively weak (.3), it was retained as it enhanced reliability of the scale and fitted with the theoretical conceptualisation of structure, namely a partner who responds honestly, consistently and predictably in the relationship. Five items which were designed to assess chaos loaded on the fourth factor and this was labelled Chaos (eigenvalue = 1.4, variance explained 4.5%). One item cross-loaded with the Structure factor, however was retained
Table 9.3

Study 2 Factor Loadings for Items on the 30-Item PBSC (N = 316)

<table>
<thead>
<tr>
<th>Scales and Items</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>Factor 1: Autonomy Support (+ve PBSC Element 2)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(A39) My partner seeks my opinion and values it</td>
<td>-.70</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(A33) My partner supports my interests</td>
<td>-.52</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(W31) My partner listens to me</td>
<td>-.51</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(A15) My partner encourages me to do the things I think are important</td>
<td>-.50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(A21) My partner encourages me to decide things for myself</td>
<td>-.45</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Factor 2: Warmth (+ve PBSC Element 1)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(W43) My partner often hugs me</td>
<td>.73</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(W25) My partner shows me affection</td>
<td>.73</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(W1) My partner lets me know he/she loves me</td>
<td>.58</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(S2) My partner is there for me if I need him/her</td>
<td>.54</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(W19) My partner shares his/her thoughts and feelings with me</td>
<td>.36</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Factor 3: Structure (+ve PBSC Element 3)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(S14) My partner follows through on things</td>
<td>-.81</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(S44) If my partner says something, he/she means it</td>
<td>-.69</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(S32) My partner is reliable</td>
<td>-.45</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(S8) My partner is dependable</td>
<td>-.41</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(S26) My partner is honest with me</td>
<td>-.30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Factor 4: Chaos (-ve PBSC Element 3)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Ch23) My partner is unpredictable</td>
<td>.85</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Ch17) I never know what my partner will do next</td>
<td>.82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Ch29) My partner is not someone who I can always rely on</td>
<td>.37</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Ch35) My partner always seems to be changing his/her mind</td>
<td>.34</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Ch41) My partner says one thing, but does another</td>
<td>.32</td>
<td></td>
<td>.33</td>
<td></td>
</tr>
</tbody>
</table>

Table 9.3 continues on the next page.
Table 9.3, continued

**Study 2 Factor Loadings for Items on the 30-Item PBSC (N = 316)**

<table>
<thead>
<tr>
<th>Scales and Items</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
<th>Factor 5</th>
<th>Factor 6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Factor 5: Rejection (-ve PBSC Element 1)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(R10) My partner can make me feel like I am not wanted</td>
<td>.66</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(R4) Sometimes my partner acts like she/he doesn’t like me</td>
<td></td>
<td>.64</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(R22) My partner can say mean things to me now and then</td>
<td></td>
<td></td>
<td>.63</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(R16) Sometimes when I am upset, my partner does not seem to care</td>
<td></td>
<td></td>
<td></td>
<td>.56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(R46) My partner criticises me at times</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.52</td>
<td></td>
</tr>
<tr>
<td><strong>Factor 6: Coercion (-ve PBSC Element 2)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Co6) My partner tries to control me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.61</td>
<td></td>
</tr>
<tr>
<td>(Co24) My partner is very demanding in our relationship</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.61</td>
<td></td>
</tr>
<tr>
<td>(Co48) My partner often wants to know where I’m going and with whom</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.51</td>
<td></td>
</tr>
<tr>
<td>(Co30) My partner can be pushy with his/her opinions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.36</td>
<td></td>
</tr>
<tr>
<td>(Co36) My partner always wants to get his/her way in our relationship</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.36</td>
<td></td>
</tr>
</tbody>
</table>

Eigenvalues 10.46 2.91 1.46 1.35 1.17 1.02
% Variance explained 34.88 9.70 4.85 4.51 3.89 3.39

*Note.* Loadings below .30 were suppressed.

as removing is substantially reduced the reliability of the Chaos subscale (from .80 to .75). It was reasonable that structure and chaos items would share some variance and these subscales have been barely assessed in romantic relationship literature, hence the importance of capturing these constructs. Five items designed to assess rejection loaded strongly on the fifth factor and were labelled *Rejection* (eigenvalue = 1.2, variance explained 3.9%). Finally, five items designed to assess coercive behaviours loaded on
the sixth and final factor and this was labelled Coercion (eigenvalue = 1.0, variance explained 3.4%).

Although the pattern of loadings for these 28 items was fairly clear and consistent with the theory guiding the identification of six subscales of partner behaviours, two items needed further consideration. These items had high loadings (above .3) on two factors. However, they were retained because their highest loadings were on the factors expected based on the theoretical basis of the PBSC. One item that was expected to assess chaos (Ch41) had a similar loading with items designed to measure structure (.32) and items designed to measure chaos (.33). This item was retained in the Chaos factor as removing it substantially reduced the reliability of the chaos subscale (from $\alpha = .80$ to .75). Similarly a structure item, S26 loaded with items to measure structure (.30) and autonomy (.24). On inspection (and as discussed in the initial solution) this item “My partner is honest with me” is related to items such as “My partner listens to me”, “My partner seeks my opinion and values it”, as these are all related to interpersonal communication and the constructs of support for voice and giving congruent feedback. S26 was retained as a structure item as its highest loading was on structure, and it reduced reliability of the Structure subscale if it was removed (from .81 to .78). Retaining these items also allowed each PBSC element to have at least five items.

*Internal Consistency*

As shown in Table 9.4, the Autonomy Support subscale of the PBSC consisted of the following five items: A39, A15, A33, W31 and A21. The Warmth scale consisted of the following five items: W25, W43, W1, S2 and W19. The Chaos scale consisted of the following five items: Ch23, Ch17, Ch35, Ch29 and Ch41. The Structure scale consisted of the following five items: S14, S44, S32, S8 and S26. The Rejection scale
consisted of the following five items: R4, R10, R22, R46 and R16. The Coercion scale consisted of the following five items Co6, Co24, Co30, Co36 and Co48. Cronbach alpha coefficients demonstrated satisfactory interitem correlations for each of these subscales and for the total PBSC (see Table 9.4). Satisfactory interitem correlations were also found when examined among males only and among females only.

Subscale scores were calculated by averaging the items that loaded on each of the six factors. A grand total partner behaviour score was also calculated by averaging the six subscales (after reverse-scoring the negative subscales). In addition, total positive romantic partner behaviour was calculated as the average of the three positive subscales, whereas total negative behaviour was calculated by averaging scores on the three negative subscales. Correlations between the subscales are shown in Table 9.5. Of note, there was unique variance and overlap between subscales, demonstrating the utility of both composite scores and six separate subscales.

Tests of Univariate Normality, Outliers and Transformation of Data

Prior to conducting further analysis, the data were inspected to determine whether the assumption of normality was met. An investigation of the Mahalanobis distance values indicated that there were three multivariate outliers on the PBSC scale. Standardised scores on each measure that exceeded a z score of 3.29, p < .01, were identified as outliers. Three outliers were found for the total measure of PBSC and these participants reported significantly compromising partner behaviours. As a percentage of all relationships are known to be significantly problematic, this was expected, however to ensure systematic errors were not present, the responses for each of these participants were checked to evaluate whether they appeared consistent and genuine. Outliers were deemed genuine and based on this evaluation it was decided to include all participants in analyses.
Table 9.4  
*Study 2 Descriptive Information and Reliability Coefficients for the 30-Item PBSC Scale and Subscales (N = 316)*

<table>
<thead>
<tr>
<th>PBSC Scale</th>
<th>No. of Items</th>
<th>Observed Range</th>
<th>M (SD)</th>
<th>Reliability, Cronbach’s α</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>All</td>
</tr>
<tr>
<td>Factor 1: Autonomy Support</td>
<td>5</td>
<td>1.8-6.0</td>
<td>5.09 (.71)</td>
<td>.81</td>
</tr>
<tr>
<td>Factor 2: Warmth</td>
<td>5</td>
<td>1.8-6.0</td>
<td>5.24 (.77)</td>
<td>.81</td>
</tr>
<tr>
<td>Factor 3: Chaos</td>
<td>5</td>
<td>1.0-5.8</td>
<td>2.45 (1.05)</td>
<td>.80</td>
</tr>
<tr>
<td>Factor 4: Structure</td>
<td>5</td>
<td>2.0-6.0</td>
<td>4.86 (.77)</td>
<td>.81</td>
</tr>
<tr>
<td>Factor 5: Rejection</td>
<td>5</td>
<td>1.0-5.6</td>
<td>2.52 (1.06)</td>
<td>.83</td>
</tr>
<tr>
<td>Factor 6: Coercion</td>
<td>5</td>
<td>1.0-5.6</td>
<td>2.69 (1.07)</td>
<td>.80</td>
</tr>
<tr>
<td>Pos PBSC</td>
<td>15</td>
<td>2.0-6.0</td>
<td>5.06 (.64)</td>
<td>.90</td>
</tr>
<tr>
<td>Neg PBSC</td>
<td>15</td>
<td>1.0-5.47</td>
<td>2.55 (.91)</td>
<td>.90</td>
</tr>
<tr>
<td>Total PBSC</td>
<td>30</td>
<td>2.3-5.97</td>
<td>4.76 (.70)</td>
<td>.93</td>
</tr>
</tbody>
</table>

*Note. Response options ranged from 1 (not at all true) to 6 (very true).*
Table 9.5

*Study 2 Intercorrelations on the 30-Item PBSC Scale and Subscales (N = 316)*

<table>
<thead>
<tr>
<th>PBSC Scale</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Factor 1: Autonomy Support</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Factor 2: Warmth</td>
<td>.59</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Factor 3: Chaos</td>
<td>-.54</td>
<td>-.42</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Factor 4: Structure</td>
<td>.62</td>
<td>.57</td>
<td>-.54</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Factor 5: Rejection</td>
<td>-.53</td>
<td>-.38</td>
<td>.60</td>
<td>-.41</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Factor 6: Coercion</td>
<td>-.51</td>
<td>-.27</td>
<td>.56</td>
<td>-.33</td>
<td>.68</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Total positive behaviours</td>
<td>.85</td>
<td>.85</td>
<td>-.58</td>
<td>.86</td>
<td>-.51</td>
<td>-.43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Total negative behaviours</td>
<td>-.61</td>
<td>-.41</td>
<td>.83</td>
<td>-.50</td>
<td>.88</td>
<td>.87</td>
<td>-.59</td>
<td></td>
</tr>
<tr>
<td>9. Grand total partner behaviours</td>
<td>.80</td>
<td>.66</td>
<td>-.82</td>
<td>.72</td>
<td>-.81</td>
<td>-.77</td>
<td>.85</td>
<td>.93</td>
</tr>
</tbody>
</table>

*Note.* All correlations were significant at *p* < .01.
Based on published recommendations (Conlon, 2004; Manning, 2003), distributions were considered to be normal if the ratio of skew to standard error of skew is below $\pm 2.58$. Similar to previous research showing non-normal, negatively skewed distributions of measures of relationship quality, the PBSC had a non-normal, negatively skewed distribution. The ratio of skew to standard error of skew was -10.43 for Warmth, -6.98 for Structure, -9.03 for Autonomy, 4.47 for Rejection, 4.37 for Chaos, 3.51 for Coercion, -9.09 for Positive PBSC, 4.32 for Negative PBSC and -4.92 for the Total PBSC. It was decided not to transform the PBSC total scale and subscales as i) this was the first time the measure was used, ii) the skew was not significant enough to justify transformation and iii) this study had a large sample which reduces the effect of the skew.

Composite scores were calculated for relationship quality measures, namely, ARI relatedness, ARI autonomy, ARI hostile detachment and ARI hostile control; PRQC trust; NRI alliance, PANQUIMS positive and negative marital quality scales, and RAS relationship satisfaction. All scores were formed by through the appropriate subscale items. In accordance with expectation, positive relationship quality measures demonstrated weak, negative skew and negative relationship quality measures demonstrated weak positive skew as follows: ARI relatedness (-7.67); ARI autonomy (-5.25); ARI hostile detachment (10.5) and ARI hostile control (8.87); NRI alliance (-3.31); PRQC trust (-10.91); PANQUIMS positive (-11.68) and negative (6.18) marital quality, and RAS relationship satisfaction scale (-10.4). While these existing measures of relationship quality tended to have less skew on positive dimensions compared to the PBSC, the PBSC had comparatively less skew on negative dimensions of partner behaviours and the total PBSC score.
**Convergent Validity**

It was proposed that PBSC subscales and global scores would be significantly associated with relationship quality. Pearson correlations were calculated across the PBSC scale, subscales and multiple measures of relationship quality as shown in Table 9.6. Hypotheses 1 and 2 were supported. As expected, PBSC warmth was positively associated with the ARI subscale of relatedness, PBSC rejection was positively associated with ARI detachment, PBSC autonomy support was positively associated with ARI autonomy, and PBSC coercion was positively associated with ARI hostile control.

As no existing measures were identified that assessed structure and chaos in romantic relationships, similar constructs were sought in existing relationship quality measures and two positively valenced measures were chosen: alliance (NRI subscale) and trust (PRQC subscale). In accordance with Hypothesis 3a, PBSC structure had positive associations with these, while PBSC chaos was negatively associated.

**Divergent Validity**

Pearson correlations between PBSC and personality subscales are shown in Table 9.7. Hypothesis 4a was partially supported as positive PBSC dimensions of warmth, autonomy support and total positive behaviours were weakly but positively associated with extraversion. Supporting divergent validity, no negative PBSC subscale or total scale was associated with extraversion. Hypothesis 4b was partially supported as the PBSC subscales showed only weak to moderate associations with Neuroticism in the directions that would be expected.

Hypothesis 4c was partially supported. Whereas agreeableness and conscientiousness were moderately, positively associated with all positive PBSC subscales and moderately, negatively associated with all negative PBSC subscales including combined scores, divergent validity was demonstrated through non-significant correlations with the openness subscale of
Table 9.6

Study 2 Correlations between PBSC and Convergent Validity Measures (N = 313)

<table>
<thead>
<tr>
<th>PBSC Subscale</th>
<th>Autonomy</th>
<th>Relatedness</th>
<th>Reliable Alliance</th>
<th>Trust</th>
<th>Hostile Detachment</th>
<th>Hostile Control</th>
<th>PANQUIMS Positive</th>
<th>PANQUIMS Negative</th>
<th>Relationship Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warmth</td>
<td>.34</td>
<td>.63</td>
<td>.39</td>
<td>.55</td>
<td>-.41</td>
<td>-.40</td>
<td>.36</td>
<td>-.38</td>
<td>.52</td>
</tr>
<tr>
<td>Autonomy Support</td>
<td>.54</td>
<td>.61</td>
<td>.45</td>
<td>.59</td>
<td>-.51</td>
<td>-.58</td>
<td>.45</td>
<td>-.48</td>
<td>.56</td>
</tr>
<tr>
<td>Structure</td>
<td>.32</td>
<td>.54</td>
<td>.49</td>
<td>.74</td>
<td>-.47</td>
<td>-.42</td>
<td>.40</td>
<td>-.46</td>
<td>.60</td>
</tr>
<tr>
<td>Rejection</td>
<td>-.43</td>
<td>-.29</td>
<td>-.36</td>
<td>-.40</td>
<td>.61</td>
<td>.68</td>
<td>-.34</td>
<td>.48</td>
<td>-.44</td>
</tr>
<tr>
<td>Coercion</td>
<td>-.58</td>
<td>-.24</td>
<td>-.38</td>
<td>-.39</td>
<td>.52</td>
<td>.74</td>
<td>-.39</td>
<td>.51</td>
<td>-.50</td>
</tr>
<tr>
<td>Chaos</td>
<td>-.31</td>
<td>-.35</td>
<td>-.43</td>
<td>-.55</td>
<td>.58</td>
<td>.57</td>
<td>-.46</td>
<td>.47</td>
<td>-.55</td>
</tr>
<tr>
<td>Total positive</td>
<td>.46</td>
<td>.69</td>
<td>.52</td>
<td>.74</td>
<td>-.54</td>
<td>-.55</td>
<td>.47</td>
<td>-.51</td>
<td>.66</td>
</tr>
<tr>
<td>behaviours</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total negative</td>
<td>-.51</td>
<td>-.34</td>
<td>-.45</td>
<td>-.52</td>
<td>.66</td>
<td>.77</td>
<td>-.46</td>
<td>.56</td>
<td>-.58</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grand total</td>
<td>.55</td>
<td>.54</td>
<td>.54</td>
<td>.68</td>
<td>-.68</td>
<td>-.76</td>
<td>.52</td>
<td>-.61</td>
<td>.68</td>
</tr>
<tr>
<td>behaviours</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. All correlations were significant at p < .01.*
### Table 9.7

Study 2 Correlations between PBSC and Divergent Validity Measures (N = 313)

<table>
<thead>
<tr>
<th>PBSC Scale (Element)</th>
<th>Extraversion</th>
<th>Agreeableness</th>
<th>Conscientiousness</th>
<th>Neuroticism</th>
<th>Openness</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Factor 1: Autonomy Support</td>
<td>.13*</td>
<td>.39**</td>
<td>.30**</td>
<td>-.16**</td>
<td>.07</td>
</tr>
<tr>
<td>2. Factor 2: Warmth</td>
<td>.12*</td>
<td>.25**</td>
<td>.23**</td>
<td>-.20**</td>
<td>.13*</td>
</tr>
<tr>
<td>3. Factor 3: Chaos</td>
<td>-.06</td>
<td>-.33**</td>
<td>-.28**</td>
<td>.15**</td>
<td>-.00</td>
</tr>
<tr>
<td>4. Factor 4: Structure</td>
<td>.09</td>
<td>.25**</td>
<td>.21**</td>
<td>-.15**</td>
<td>.09</td>
</tr>
<tr>
<td>5. Factor 5: Rejection</td>
<td>.01</td>
<td>-.35**</td>
<td>-.30**</td>
<td>.13*</td>
<td>.03</td>
</tr>
<tr>
<td>6. Factor 6: Coercion</td>
<td>-.05</td>
<td>-.35**</td>
<td>-.31**</td>
<td>.17**</td>
<td>-.02</td>
</tr>
<tr>
<td>7. Total positive behaviours</td>
<td>.13*</td>
<td>.35**</td>
<td>.29**</td>
<td>-.20**</td>
<td>.12*</td>
</tr>
<tr>
<td>8. Total negative behaviours</td>
<td>-.04</td>
<td>-.40**</td>
<td>-.34**</td>
<td>.17**</td>
<td>.00</td>
</tr>
<tr>
<td>9. Grand total behaviours</td>
<td>.09</td>
<td>.42**</td>
<td>.36**</td>
<td>-.20**</td>
<td>.05</td>
</tr>
</tbody>
</table>

* *p < .05. **p < .01.
the Big-Five Personality Inventory. Openness was only weakly associated with only one
PBSC dimension, the warmth subscale.

Overall, results demonstrate that positively valenced aspects of personality
(agreeableness and conscientiousness) and the negatively valenced personality trait of
neuroticism shared some variance with both positive and negative dimensions of partner
behaviour (in expected directions). Nevertheless, non-significant correlations of PBSC
subscales with the personality dimensions of extraversion and openness provide
evidence of divergent validity.
Discussion

The primary aim of Studies 1 and 2 was to develop and evaluate a new measure of romantic partner behaviours in late adolescent and emerging adult romantic relationships. Two studies showed that the PBSC is a reliable and valid assessment of the quality of partner behaviours in a romantic relationship. Grounded in SDT, the new measure consists of three positive (Warmth, Autonomy Support and Structure) and three negative (Rejection, Coercion and Chaos) dimensions of behaviour, which can be assessed with five items each.

The development of the PBSC addresses a number of limitations with earlier measures of relationship functioning. First, the PBSC is theoretically grounded in the six elements of the social context that have been suggested as most important for psychological well-being and development in SDT (Deci & Ryan, 1985). In addition, the PBSC is 1) appropriate for early, emerging relationships 2) likely to be appropriate for younger and older age groups; 3) multidimensional, but also able to provide more global assessments of relationship quality; 4) suitable for measuring optimal and maltreating partner behaviours through assessing both positive and negative aspects of the romantic social context; 5) relatively short in length (30-items), and 6) novel in terms of measuring a relatively overlooked area of the romantic context, namely competence support by the partner which was recently identified as an significant gap in the SDT literature on close relationships (LaGuardia & Patrick, 2008). A particular strength of the PBSC is that it measures specific partner behaviours (e.g. “My partner often hugs me”) as opposed to assessing non-specific aspects of a relationship, e.g. (“I am satisfied with my relationship”) thus allowing the researcher or clinician to understand the role of particular aspects of behaviour in healthy or maladaptive relationship functioning.
A diverse group of adolescents and emerging adults in romantic relationships were sampled with almost equal numbers of men and women, a good distribution of ages (within the limits of 30-years and under), and a mix of university students and nonstudents. However, it is important to note that respondents were primarily White/Caucasian and the measure should be tested with more diverse groups, and with both younger and older individuals in couple relationships. Results demonstrated that the emerging adults generally perceived their relationship as positive, suggesting some positive bias in accordance with previous findings that people generally report good quality romantic relationships (Fletcher et al., 2000; Spanier, 1976). However, ceiling and floor effects were not apparent in the subscales and the overall PBSC score had less skew than existing relationship quality assessments.

The PBSC scales were found to be reliable and valid through item analysis; exploratory factor analysis, reliability analysis, and significant correlations with other measures of relationship satisfaction and quality in expected directions. Additionally, modest correlations were found between all PBSC subscales. While this suggests some overlap between PBSC dimensions, it is argued to be useful to assess separate PBSC subscales in order to more clearly delineate behaviours that undermine healthy relationship functioning and individual well-being, and to provide more specific targets for intervention than are currently provided by global assessments of relationship functioning. An important finding is that the three positive scales were only modestly negatively correlated with the three negative scales showing that negative and positive behaviours do not share large amounts of variance, in accordance with previous investigations of relationship quality (e.g. Fincham & Linfield, 1997; Skinner et al., 2005). This means that people can be positive towards their partner, (e.g., by demonstrating warmth and affection) while also behaving in problematic ways (e.g. by
being coercive or trying to control their partner). A strength of the PBSC is the concurrent assessment of both healthy and maladaptive elements of relationship functioning, as opposed to an overemphasis on either element to the exclusion of the other. As there was unique variance and overlap between subscales it can be concluded that subscale scores and composite scales of positive, negative and combined behaviours each have utility when using the PBSC scale. Of note, PBSC dimensions were moderately associated with the brief assessment of relationship satisfaction (RAS). This suggests it may be useful to supplement the PBSC with a short measure of satisfaction in both research and clinical settings.

In summary, the PBSC is a reliable and valid six-dimensional measure of relationship quality, which can also provide composite scores for positive and negative partner behaviours in romantic relationships. Assessment using the PBSC will allow identification of specific romantic behaviours that are warm or rejecting, autonomy supportive or coercive, and structured or chaotic. Measuring such dimensions of relationships will assist with future research on how and why relationships may promote or undermine individual well-being, life satisfaction, work satisfaction or other markers of happiness, fulfillment and success. In the future, the PBSC could be used to assess relationships in clinical settings and to guide practical services to help individuals and couples engage in behaviours that build more satisfying relationships.
CHAPTER 10
STUDY 3: THE ROMANTIC RELATIONSHIP QUALITY AND WELL-BEING MODEL

The aim of Study 3 was to test the Romantic Relationship Quality and Well-Being Model (see Figure 7.1 in Chapter 7) in a sample of emerging adult couples. Reports were collected from both members in each romantic dyad. In this study, the primary “dyadic” analysis of interest was to determine whether a partner effect was present in the model. A partner effect occurs when a characteristic, behaviour or report of one partner is associated with an outcome for the other partner in a dyad (Kenny, Kashy & Cook, 2006). An example provided by Kenny et al. (2006) is when the level of housework completed by one partner is associated with level of satisfaction of the other partner. In the present study, the partner effect of interest was whether one dyad member’s report of his/her own behaviours was significantly related to the other members’ reports of relational self, need fulfillment and well-being.

There are multiple approaches to analysing dyadic data, including the Actor-Partner Interdependence Model (APIM; Kenny & Cook, 1999); Multilevel Modelling (MLM; Atkins, 2005); and Structural Equation Modelling (SEM; Byrne, 2001). The APIM model is designed to simultaneously estimate solitary actor (self) effects conjointly with partner effects and shared (dyad) effects on outcome variables. MLM extends this even further to examine hierarchically nested data in dyads or other forms. However, the purpose of this study was to examine how one partner’s behaviours were associated with the other’s need fulfillment and well-being, rather than investigating dyad/group effects, hence SEM was chosen to optimally test hypotheses. Because of the dyadic interdependencies of reports within a couple, analyses were conducted for males separate from females in all parts of Study 3 (presented in three parts 3A, 3B, 3C).
The primary aim of Study 3A was to establish whether partner effects were present. This was done by examining simple correlations of one partner’s report of a composite of their own levels of warmth, structure, autonomy support, rejection, chaos and coercion towards the other with the other partner’s relational self, need fulfillment, and psychological well-being. In addition, correlations between partner reports and self reports of the partner behaviours were examined in order to confirm some agreement between couple members about these behaviours.

The primary aim of Study 3B was to determine whether psychological need fulfillment acted as a mediator in the Romantic Relationship Quality and Well-Being Model. In this study, analyses focused on whether need fulfillment in the romantic relationship fully accounted for associations between 1) partners behaviours and psychological well-being (general well-being, life fulfillment), and 2) between relational self and psychological well-being. This section investigated whether partner contributions and self contributions simultaneously and uniquely contributed to need fulfillment in the romantic context and well-being, and whether need fulfillment is one mechanism explaining associations between romantic relationship quality and well-being.

Finally in Study 3C, it was hypothesised that higher individual and relational maturity as assessed via age, relationship length and commitment to the relationship would moderate associations between aspects of the social context and well-being (i.e. stronger associations between partner behaviours, need fulfillment and individual well-being). Specifically, romantic partner behaviours would be more strongly associated among older compared to younger participants, those in longer compared to shorter relationships, and those who expressed more rather than less commitment.
Method

Participants

Participants were 148 dyads in steady heterosexual relationships of at least one month duration. Of the original 153 couples recruited, five couples were excluded due to being outside the age limit of 30 years, as one member of the dyad subsequently reported being over 30 years (aged 31-34). Participants ranged from 17 to 30 years of age ($M = 20.8$, $Median = 20$, $Mode = 18$, $SD = 3.3$) and consisted of university students (84%) and their associates. Eighteen participants were missing one or two items on a self-report scale however these missing data were randomly distributed and total scores were calculated based on an average of completed items. There were missing data for some entire scales that could not be estimated. Hence, smaller samples were used for analyses that included voice (males $n = 136$ and females $n = 142$); attachment security (males $n = 147$); general well-being (males $n = 147$), life fulfillment (males $n = 147$), parent quality (males $n = 146$), and friend quality (males $n = 147$), relationship length (males $n = 146$, females $n = 145$) and commitment ($n = 147$, females $n = 144$).

Demographic characteristics were similar to Study 2 participants. Average relationship length was 17.4 months ($Median = 12$, $Mode = 12$, $SD = 16.6$). Most participants were not living together (60%). Key demographics are shown in Table 10.1 for the full sample of 296 emerging adults and male ($n = 148$) and female ($n = 148$) members of each dyad. Romantic relationships were important to most participants. On a scale from 0-100, participants reported high average commitment ($M = 73.7$, $Median = 80$, $Mode = 100$, $SD = 27.3$). Most respondents relied on their romantic partner as their primary support (55%) followed by multiple primary supports (16%), mother (13%), or friend (6%). Other reports include father as primary emotional support (4%); sibling (4%); and other (2%) which was usually another member of family or “myself”.

Table 10.1

*Study 3 Demographic Characteristics of All Participants (N = 296), and for Males (n = 148) and Females (n = 148)*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>n (%)</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age (years)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17-20</td>
<td>170 (57.4)</td>
<td>76 (51.4)</td>
<td>94 (63.5)</td>
</tr>
<tr>
<td>21-30</td>
<td>125 (42.2)</td>
<td>42 (48.6)</td>
<td>53 (35.8)</td>
</tr>
<tr>
<td><strong>Relationship Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>10 (3.4)</td>
<td>5 (3.4)</td>
<td>5 (3.4)</td>
</tr>
<tr>
<td>Engaged</td>
<td>12 (4.1)</td>
<td>6 (4.1)</td>
<td>6 (4.1)</td>
</tr>
<tr>
<td>Unmarried, living together &lt;sup&gt;a&lt;/sup&gt;</td>
<td>98 (33.1)</td>
<td>51 (34.5)</td>
<td>47 (31.8)</td>
</tr>
<tr>
<td>Unmarried, not living together &lt;sup&gt;a&lt;/sup&gt;</td>
<td>176 (59.5)</td>
<td>86 (58.1)</td>
<td>90 (60.8)</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White/Caucasian</td>
<td>225 (76.0)</td>
<td>110 (74.3)</td>
<td>115 (77.7)</td>
</tr>
<tr>
<td>Asian</td>
<td>33 (11.1)</td>
<td>17 (11.5)</td>
<td>16 (10.8)</td>
</tr>
<tr>
<td>Aboriginal &amp;/or Torres Strait Islander</td>
<td>4 (1.4)</td>
<td>3 (2)</td>
<td>1 (0.7)</td>
</tr>
<tr>
<td>Other Ethnicity</td>
<td>34 (11.5)</td>
<td>18 (12.2)</td>
<td>16 (10.8)</td>
</tr>
<tr>
<td><strong>Student Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University</td>
<td>248 (83.8)</td>
<td>107 (72.3)</td>
<td>114 (95.3)</td>
</tr>
<tr>
<td>Student (other)</td>
<td>2 (0.7)</td>
<td>2 (1.4)</td>
<td>-</td>
</tr>
<tr>
<td>Not a student</td>
<td>45 (15.2)</td>
<td>38 (25.7)</td>
<td>7 (4.7)</td>
</tr>
</tbody>
</table>

<sup>a</sup> There was some discrepancy in reports of living status between male and female members of the couples.

*Note.* One participant did not report age and one did not report student status.
Measures

Participants reported their gender, age, ethnicity, student status, romantic relationship length, most supportive relationship, and current relationship status (e.g. not living with, living with, engaged, married). In addition, participants completed a number of measures to assess their relationships with their partners and others.

Hedonic well-being: General psychological well-being. Dupuy’s (1984) General Well-Being Schedule (GWB) was used to measure hedonic well-being. Hedonic well-being was defined as optimal functioning in terms of positive mood and functioning in conjunction with a lack of psychological and physical pain or suffering (Ryan & Deci, 2001). The GWB is an 18-item self-report measure of current feelings of general psychological well-being. The GWB includes six subscales: anxiety, depressed mood, positive well-being, self-control, general health and vitality. Participants are asked to answer each question in relation to the “past month” and check one of the responses provided. A sample question is “How happy, satisfied, or pleased have you been with your personal life in the past month?” with possible responses ranging from “extremely happy” to “very dissatisfied”. As some items are scored on 6-point scales and some items on 10-point scales, raw scores were converted to standardised scores, subscale scores were formed, and anxiety and depression subscales were reversed before averaging scores on the six subscales to form a general well-being score. Higher total scores were indicative of higher levels of general well-being. The instrument has been widely used in the literature and has adequate internal consistency (reported between 0.91-0.95) and moderate test-retest reliability (McDowell and Newell, 1987). The interitem correlation in the present study was $\alpha = .92$.

Eudaimonic well-being: Life fulfillment. Life fulfillment is defined as the attainment of personal life meaning, self-realisation and inner strength, balance and
connection with others during challenging times. Ryan and Deci (2001) refer to this construct as eudaimonic well-being. Items from Howden’s Spirituality Assessment Scale (Howden, 1991) were used to assess life fulfillment. As described below, Howden’s assessment of spirituality overlaps with eudaimonic well-being in terms of measuring optimal eudaimonic functioning, including fulfillment in life, balance and connection to others. Items with a mystical or religious connotation were not used. Thus, an abbreviated 10-item form of the original 28-item scale was used. The abbreviated measure consisted of an assessment of three subscales. The first subscale was purpose and meaning in life (4 items), defined as having a sense of worth, hope and or reason for living/existence. A sample item includes, “There is fulfillment in my life”. The second subscale was innerness assessed as having inner resources (3 items). This was defined as discovering wholeness, identity and a sense of empowerment (e.g. “I rely on an inner strength in hard times”). The third subscale was unifying interconnectedness (3 items). This was defined as the feeling of connection to others and all of life (e.g. “I have a general sense of belonging”). The author reports high internal consistency of the overall scale (α = .92; Howden). The Cronbach’s α was similar in the current study, α = .88.

**Romantic partner behaviours.** Two parallel versions of the PBSC measure (described in Study 1 and 2) were completed by each member of the couple. In the first version, each participant reported on the behaviours of his/her partner. Second, each participant reported on his/her own behaviours. This second version required some modification to item wording. For example the item “My partner shows me he/she loves me” was modified to “I show my partner I love him/her”. For the purposes of testing partner effects and the overall model, only composite scores of total behaviours were used in analyses, as opposed to investigating each of the six dimensions of behaviours.
identified in Studies 1 and 2. Total scores were formed by reverse scoring negatively worded items and averaging all items. The Cronbach’s $\alpha$ was .93 for report about the partner and was .92 for self-report.

*Relational self.* Three measures were used to capture relational self, including voice, attachment security and self-other differentiation. The measure of voice developed by Harter and colleagues (Harter, Waters, Whitesell & Kastelic, 1998) was used to measure *voice* defined as how much a participant felt able to express her/his thoughts and feelings with close others. The measure contained five items. A sample item is: “Some people usually don’t say what’s on their mind to other people BUT other people do say what’s on their mind to others”. Respondents first select which kind of person they are most like and then indicate whether that choice is “really true for me” or “sort of true for me”. Negatively worded items were reverse coded and averaging items formed the total score. Previous studies have investigated voice in different types of relationships e.g. parents, teachers, friends and partner however, in accordance with the aims of the present study to measure relational self with close relationships generally, voice was assessed with other people generally. Harter and colleagues reported internal consistency reliabilities as satisfactory, ranging from .86-.91. Cronbach’s $\alpha$ for the present study was .77.

The Relationship Questionnaire (RQ; Bartholomew & Horowitz, 1991) was used to measure *attachment security* in close relationships. The RQ consists of descriptive paragraphs of four attachment styles (secure, dismissive, preoccupied and fearful). The secure prototype is distinguished by comfort with emotional closeness in relationships and an absence of worries about being alone; the dismissive prototype is marked by comfort without emotionally close relationships and a preference to feel independent; the preoccupied prototype is marked by desire for emotional closeness and
worries about not being accepted by others; and the fearful prototype is marked by discomfort with closeness, worries about getting hurt and a desire for emotional closeness with others. Respondents indicate how much each prototype describes their orientation to close relationships generally on a seven-point scale ranging from 1 (not at all like me) to 7 (very much like me). The RQ has demonstrated moderate stability over an 8-month period, with 59% of respondents retaining their RQ classification (Scharfe & Bartholomew, 1994). In order to create a single score reflecting more security in close relationships, scores on insecure dimensions (dismissive, preoccupied and fearful) were averaged and reverse scored before being averaged with the response to the secure attachment description. High scores indicated high security and low insecurity, whereas low scores indicated low security and high insecurity.

*Self-differentiation* in close relationships was measured with 11 items that assessed the extent to which a participant felt influenced by approval, criticism and mood of others close to them in contrast to having a clearly demarcated sense of an agentic self (Olver, Aries & Batgos, 1989). Items were slightly revised to ensure that participants responded in regards to romantic partners and close relationships generally (rather than mother or close friends predominantly as in Olver et al.’s original version). A sample item is “I find it difficult to feel good about myself when I don’t get affirmation from my romantic partner” and “I find myself depressed and anxious if someone close to me is feeling that way”. The scale was originally designed to require a forced choice response (yes, no) for each item. For the current study, response options ranged from 1 (*not or rarely true*) to 6 (*almost always true*). The total score consisted of an average of all items. Olver and colleagues reported satisfactory internal consistency (.72 to .76) and the internal consistency in the present study was Cronbach’s $\alpha = .91$. 
Psychological need fulfillment in romantic relationships. LaGuardia et al.’s (2000) nine item self-report measure was used to assess each participant’s perceptions of basic psychological need fulfillment in his/her romantic relationship. This measure has three subscales with three items on each. Each subscale reflects one of the basic psychological needs of autonomy, competence and relatedness proposed by Deci and Ryan (2000). Sample items include “When I am with my (partner) I feel free to be who I am” (autonomy); “When I am with my (partner), I feel like a competent person” (competence); and “When I am with my (partner), I feel loved and cared about” (relatedness). Each question is rated on a Likert-type scale ranging from 1 (not at all true) to 7 (very true). Negative items were reverse coded. Averaging all items created a total need fulfillment score. Higher scores were indicative of higher perceptions of need fulfillment. Cronbach α’s were reported to range from .85 to .94 across the several types of relationships studied by La Guardia et al (2000). In the present study Cronbach’s α = .89.

Relationship quality for parents and closest friend. Relationship quality/support from the respondent’s parents was assessed with four items from the Network of Relationships Inventory (NRI; Furman & Buhrmester, 1985; Furman, 2002). A sample item is “How satisfied are you with your relationship with your parents?” The same four items also were used to assess quality/support within a closest friendship. Responses ranged from 1 (not satisfied) to 5 (extremely satisfied). Items on each scale were averaged to form an overall parent quality scale and an overall friend quality scale. The inter-item correlation was high for both parent (α = .89) and closest friend (α = .88) relationships.

Commitment. Cate, Huston & Nesselroade’s (1986) measure of commitment to marriage was adapted to assess level of commitment in the current steady partner
relationship. Each participant was asked to rate how certain they were that they would be with their partner for the rest of their life. Participants were asked to respond on a scale of 0-100%, with higher scores indicating higher levels of commitment to the relationship. Cate and colleagues found that respondent “rapidity of movement” towards commitment (as assessed by newlyweds retrospective reports of changes in commitment from 0% (first met) to 100% (married/engaged) could be used to calculate component scores that were significantly associated with factors such as age when met partner, relationship length, and levels of conflict throughout the pre-marital relationship.

Procedure

Following ethical approval, participants were a convenience sample of university students and their associates recruited using two methods. Almost half the sample (75 couples) were recruited on University campuses (Nathan, Mt Gravatt and Gold Coast) through stalls advertising the study and offering an incentive of a chocolate bar and prize draw entry for one of two $100 vouchers to popular stores. Second, 69 psychology students and their romantic partners were recruited through the school of psychology participant pool for course credit. An additional nine couples were recruited by asking friends and snowballing techniques via asking friends to refer others. To maintain control over the data collection and assist with dyads’ confidentiality of answers, a researcher was present during completion of surveys. Each dyad was allocated a number, which was imprinted on each survey to ensure participant anonymity and allow responses to be matched for analysis purposes. Participants received an information sheet and returned questionnaires were taken as informed consent (See Appendix 3). Most participants completed the survey in 30 minutes.
Study 3A

The purpose of Study 3A was to establish whether there was self-other agreement about partner behaviours; and whether partner effects were present to support testing the proposed Romantic Relationship Quality and Well-Being Model. Therefore, associations were investigated between partner behaviours, relational self, need fulfillment in the romantic relationship, psychological well-being, and the covariates of parent and friend quality. The following hypotheses were proposed and, to overcome data dependencies because of the participation of dyads (Kenny et al., 2006), all analyses were conducted for males separately from females:

1. Partner behaviours will be positively associated with relational self (voice, attachment security, and self-differentiation).
2. Partner behaviours will be positively associated with need fulfillment and well-being.
3. Relational self will be positively associated with a) need fulfillment in the romantic relationship and b) well-being.
4. Need fulfillment will be positively associated with well-being.
5. Parent relationship quality and friendship quality will be positively associated with well-being.
Study 3A Results

Tests of Univariate Normality, Outliers and Transformation of Data

Data were examined to establish whether assumptions of correlational analyses were met. Self-report of behaviours had significant but modest negative skew (-4.97) using the KS-Lillifors test, \( p < .01 \). In addition, report about partner’s behaviours was also slightly negatively skewed (-3.44), as were measures of voice (-1.68), attachment security (-1.61), psychological need fulfillment (-7.99), general well-being (-4.88), and life fulfillment (-6.80). Data were inspected for floor and ceiling effects and these were not observed. Data were also inspected for outliers and none were detected. Because skew was not severe and no outliers were detected, data were not transformed and raw scores for all measures were used in all of the following analyses.

Means and Standard Deviations for Relationship Variables and Well-being

Table 10.2 provides means and standard deviations for the primary study variables by gender. T-tests were conducted to examine whether there were significant gender differences. The Levene’s test for equality of variances was calculated and all tests met this assumption. In general, results showed some significant differences between male and female respondents, and provided initial support that models would benefit by analysing results separately for each gender.

Females reported significantly better relationship behaviours than males, \( t (296) = 2.42, p < .05 \). Females’ report of their partners’ relationship behaviours was also more positive compared with males’ report of their partners’ relationship behaviours \( t (296) = -2.16, p < .01 \). This demonstrated that female participants thought that they both demonstrated more warmth, structure, autonomy support and less rejection, coercion and chaos in the relationship and received more positive and less negative behaviours.
Table 10.2

Study 3 Independent Groups t-tests and Descriptive Statistics for Partner Behaviours, Relational Self, Need Fulfillment, and Well-being

<table>
<thead>
<tr>
<th></th>
<th>Independent groups t (df)</th>
<th>Males M (SD)</th>
<th>Females M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Partner Behaviours</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Report of own behaviour</td>
<td>2.42 (296)*</td>
<td>4.82 (0.62)</td>
<td>4.99 (0.58)</td>
</tr>
<tr>
<td>Report of partner’s behaviour</td>
<td>-2.61 (296)**</td>
<td>4.76 (0.64)</td>
<td>4.95 (0.60)</td>
</tr>
<tr>
<td><strong>Relational Self</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voice</td>
<td>-0.60 (276)</td>
<td>2.93 (0.66)</td>
<td>2.98 (0.67)</td>
</tr>
<tr>
<td>Attachment Security</td>
<td>2.04 (293)*</td>
<td>4.68 (1.22)</td>
<td>4.39 (1.25)</td>
</tr>
<tr>
<td>Self-Differentiation</td>
<td>1.92 (294)</td>
<td>4.00 (1.08)</td>
<td>3.76 (1.00)</td>
</tr>
<tr>
<td>Psychological Need Fulfillment</td>
<td>-3.19 (294)**</td>
<td>5.04 (0.80)</td>
<td>5.32 (0.70)</td>
</tr>
<tr>
<td><strong>Well-being Measures</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Well-being</td>
<td>0.64 (293)</td>
<td>0.01 (0.60)</td>
<td>-0.04 (0.66)</td>
</tr>
<tr>
<td>Life Fulfillment</td>
<td>-0.93 (293)</td>
<td>4.70 (0.72)</td>
<td>4.77 (0.69)</td>
</tr>
<tr>
<td><strong>Other Close Relationships</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent Quality</td>
<td>-2.11 (292)*</td>
<td>2.64 (1.05)</td>
<td>2.90 (1.04)</td>
</tr>
<tr>
<td>Friend Quality</td>
<td>-3.54 (293)**</td>
<td>3.33 (1.02)</td>
<td>3.75 (0.98)</td>
</tr>
</tbody>
</table>

*Note. There were missing data for some entire scales that could not be estimated. All variables had n =148 for males and females except voice (males n = 136 and females n = 142); attachment security (males n = 147); general well-being (males n = 147) and life fulfillment (males n = 147), parent quality (males n = 146) and friend quality (males n = 147).*  
* *p < .05. **p < .01.*
from their partner. Males reported higher attachment security \( t \) (293) = 2.04, \( p < .05 \), showing that they felt more comfort with closeness, less anxiety about the relationship and less avoidance of intimacy compared with females. Females reported higher psychological need fulfillment \( t \) (294) = -3.19, \( p < .01 \), parent \( t \) (292) = 2.11, \( p < .05 \) and close friendship quality \( t \) (293) = -3.54, \( p < .01 \), showing that they felt that their needs for autonomy, competence and relatedness were more fulfilled, and that they were closer and more satisfied with their relationships with parents and friends when compared with their male partners. No significant differences were found between male and female dyad members’ self-differentiation and psychological well-being (both general well-being and life fulfillment).

**Agreement between Couple Members about their Behaviours**

To examine the agreement between couple members about behaviours, correlations were examined. Table 10.3 shows correlations for males below the diagonal and correlations for females above the diagonal. The association between self and partner report was significant regardless of whether reports were about the male or the female in the couple, \( r = .43 \) and .48, respectively, both \( p < .01 \).

**Associations between Relational Self and Partner Behaviours**

It was expected that relational self would be significantly associated with romantic partner behaviours (Hypothesis 2). This hypothesis was partially supported for both males and females. When partner behaviours and relational self were reported by the same person, one’s view of the partner was associated with their own voice, attachment, and self-other differentiation, and this was found for both male and females, \( r \) ranged from .20 to .44, all \( p < .01 \) (see Table 10.3). Thus, males and females who reported a greater ability to express themselves authentically in relationships (voice),
Table 10.3

*Study 3 Correlations between Multiple Reporters: Partners Behaviours, Relational Self and Close Relationship Quality*

<table>
<thead>
<tr>
<th>Measure</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Report by partner of their own behaviour</td>
<td></td>
<td>.48**</td>
<td>.02</td>
<td>.09</td>
<td>.08</td>
<td>-.02</td>
<td>.09</td>
</tr>
<tr>
<td>2. Report about the partner’s behaviour</td>
<td>.43**</td>
<td></td>
<td>.20**</td>
<td>.33**</td>
<td>.31**</td>
<td>.07</td>
<td>.15</td>
</tr>
<tr>
<td>3. Voice a</td>
<td>.16</td>
<td>.39**</td>
<td></td>
<td>.34**</td>
<td>.46**</td>
<td>.16</td>
<td>.20*</td>
</tr>
<tr>
<td>4. Attachment Security a</td>
<td>.10</td>
<td>.44**</td>
<td>.29**</td>
<td></td>
<td>.35**</td>
<td>.03</td>
<td>.16*</td>
</tr>
<tr>
<td>5. Self-Differentiation</td>
<td>.22**</td>
<td>.33**</td>
<td>.37**</td>
<td>.28**</td>
<td></td>
<td>.10</td>
<td>.10</td>
</tr>
<tr>
<td>6. Parent Quality a</td>
<td>.15</td>
<td>.16</td>
<td>.09</td>
<td>.27**</td>
<td>-.01</td>
<td></td>
<td>.21*</td>
</tr>
<tr>
<td>7. Friend Quality a</td>
<td>-.12</td>
<td>.16</td>
<td>.11</td>
<td>.16</td>
<td>.11</td>
<td>.28**</td>
<td></td>
</tr>
</tbody>
</table>

*Note. Correlations for males are below the diagonal, correlations for females are above the diagonal.*

*aThere were some missing data across scales. All variables had $n = 148$ for males and females except voice (males $n = 136$ and females $n = 142$), attachment security (males $n = 147$), parent quality (males $n = 146$) and friend quality (males $n = 147$).*

*p < .05. **p < .01.
more attachment security, and more differentiation between self and other in the
relationship, also reported that their partner engaged in more positive and fewer
negative relationship behaviours.

In contrast, when data were from two different reporters with one couple
member reporting relational self and the other reporting about his/her behaviours,
males’ self-differentiation was significantly associated with partner behaviours, $r = .22$, $p < .01$, but no associations were found among females (see Table 10.3). Thus, males
who were higher in self-differentiation (i.e., with a clearer demarcation of self in the
relationship and less sensitive to criticism from their partners) also had female partners
who reported that they showed behaviours that were more positive and less negative.
Because of these differences in findings when reports from one person versus multiple
reporters were used, only findings when data were collected from two different
reporters are described in the model analyses in Study 3B. Specifically, in these
following analyses one member of the dyad reported on his/her own romantic
behaviours (warmth, structure, autonomy support, rejection, chaos, and coercion) and
the other member reported relational self, need fulfillment, and well-being. However,
for comparison, simple associations when reports of all measures came from the same
person are also provided in Table 10.4.

Associations between Relationship Variables and Well-being

Romantic behaviour of one partner was associated with the other partners’ need
fulfillment, general well-being and life fulfillment for males and partly for females
(Hypothesis 3, see Table 10.4). All associations were significant as expected ($r$’s ranged
from .23 to .37, all $p < .05$), except that male’s behaviour was not associated with
females’ life fulfillment. Thus males and females who had higher need fulfillment in
Table 10.4

*Study 3 Correlations between Multiple Reporters: Partner Behaviours, Relational Self, Close Relationships and Well-Being*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Need Fulfillment</th>
<th>General Well-Being *</th>
<th>Life Fulfillment *</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Males</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner Behaviours</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner’s report of own behaviour</td>
<td>.37**</td>
<td>.26**</td>
<td>.23**</td>
</tr>
<tr>
<td>Report of partner’s behaviour</td>
<td>.82**</td>
<td>.55**</td>
<td>.57**</td>
</tr>
<tr>
<td>Relational Self</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voice *</td>
<td>.43**</td>
<td>.33**</td>
<td>.34**</td>
</tr>
<tr>
<td>Attachment Security *</td>
<td>.46**</td>
<td>.32**</td>
<td>.46**</td>
</tr>
<tr>
<td>Self-Differentiation</td>
<td>.41**</td>
<td>.45**</td>
<td>.35**</td>
</tr>
<tr>
<td>Close Relationship Quality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent Quality *</td>
<td>.18*</td>
<td>.15</td>
<td>.21*</td>
</tr>
<tr>
<td>Friend Quality *</td>
<td>.21*</td>
<td>.13</td>
<td>.20*</td>
</tr>
<tr>
<td><strong>Females</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner Behaviours</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner’s report of own behaviour</td>
<td>.31**</td>
<td>.22**</td>
<td>.08</td>
</tr>
<tr>
<td>Report of partner’s behaviour</td>
<td>.73**</td>
<td>.49**</td>
<td>.39**</td>
</tr>
</tbody>
</table>

Table 10.4 continues on the next page.
Table 10.4, continued

*Study 3 Correlations between Multiple Reporters: Partner Behaviours, Relational Self, Close Relationships and Well-Being*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Need Fulfillment</th>
<th>General Well-Being</th>
<th>Life Fulfillment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relational Self</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voice*</td>
<td>.25**</td>
<td>.35**</td>
<td>.35**</td>
</tr>
<tr>
<td>Attachment Security</td>
<td>.35**</td>
<td>.43**</td>
<td>.39**</td>
</tr>
<tr>
<td>Self-Differentiation</td>
<td>.30**</td>
<td>.40**</td>
<td>.35**</td>
</tr>
<tr>
<td>Close Relationship Quality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent Quality</td>
<td>.15</td>
<td>.19*</td>
<td>.21*</td>
</tr>
<tr>
<td>Friend Quality</td>
<td>.21**</td>
<td>.29**</td>
<td>.29**</td>
</tr>
</tbody>
</table>

*There were some missing data across scales. All variables had \(n = 148\) for males and females except voice (males \(n = 136\) and females \(n = 142\)); attachment security (males \(n = 147\), general well-being (males \(n = 147\)), life fulfillment (males \(n = 147\)), parent quality (males \(n = 146\)) and friend quality (males \(n = 147\)).

\(*p < .05. **p < .01.\)

...their romantic relationship and higher general psychological well-being (including less anxiety and depression, and more positive well-being, vitality and general health), also had partners who reported fewer negative and more positive relationship behaviours.

It was expected that relational self would be associated with need fulfillment in the romantic context and well-being (Hypothesis 4). This was supported for both males and females, \(r\)'s ranged from .30 to .46, all \(p < .01\) (see Table 10.4). Individuals who
reported more voice, higher attachment security, and greater self-differentiation
reported more psychological need fulfillment in the romantic relationship, general well-
being and life fulfillment.

In support of hypothesis 5, need fulfillment in the romantic relationship was
strongly related to males’ general well-being and life fulfillment, $r = .53$ and .65,
respectively, both $p < .01$ (see Table 10.4). These correlations also were found for
females, $r = .58$ and .50, respectively, both $p < .01$.

Finally, hypothesis 6 proposed that parent and friend quality would be
significant correlates of well-being, and this was generally supported. Parent and friend
relationship quality were positively correlated with life fulfillment, $r$’s were .20 and .21
respectively, both $p < .05$, but not general well-being for males ($r$’s were .15 and .13).
For females however, parent relationship quality was significantly associated with both
general well-being and life fulfillment, $r$ was .19 and .21, respectively, both $p < .05$ and
close friendship quality was also positively correlated with both general well-being and
life fulfillment, both $r$’s = .29, $p < .01$. As the quality of other close relationships (i.e.
parent, friend) was generally correlated with well-being for both males and females,
these were included as covariates when testing the Romantic Relationship Quality and
Well-Being Model.
Study 3A Summary of Findings

In summary, results showed that when one partner reported more positive partner behaviours, in terms of more warmth, structure and autonomy support, and less rejection, chaotic behaviour and coercion, the other couple member reported more psychological need fulfillment in the romantic relationship, general well-being, and life fulfillment. In addition, relational self, defined as voice, security of attachment and self-differentiation, was positively associated with need fulfillment and well-being. These simple associations supported further testing of the proposed Romantic Relationship Quality and Well-Being Model in order to test unique associations of partner behaviours and relational self with need fulfillment and individual well-being, to examine need fulfillment as a mediator of these pathways, and to account for family and friend support.

In addition, there was moderate agreement between couple members about romantic behaviour. Although it is impossible with these data to determine which report is more accurate, only data from different reporters (i.e., reports of own behaviour from one partner and reports of other constructs from the other partner) were used in Study 3B. This was done to test the presence of partner effects, while reducing the possibility that common method variance would inflate correlational findings.
Study 3B

The purpose of Study 3B was to test the Romantic Relationship Quality and Well-Being Model (see Figures 10.1a and 10.1b). In order to investigate general psychological well-being and life fulfillment separately, two models were examined, namely the Romantic Relationship Quality and General Well-Being Model and the Romantic Relationship Quality and Life Fulfillment Model. Quality of relationships with parents and friends also were accounted for when testing each of these models. As in Study 3A, analyses were conducted for males separate from females, because of the participation of heterosexual couples. The following hypotheses were tested:

1. Partner behaviours and relational self (attachment security, voice and self-differentiation) will significantly and uniquely co-vary with well-being (general well-being, life fulfillment) after accounting for their parent quality and friend quality.

2. Partner behaviours and relational self will significantly and uniquely co-vary with psychological need fulfillment in the romantic relationship.

3. Psychological need fulfillment will fully mediate associations between partner behaviours and well-being, and between relational self and well-being. Direct associations between independent variables (partner behaviours, relational self) and the dependent variable of well-being will become non-significant once need fulfillment is added to the model as a mediator.
Figure 10.1a. The Romantic Relationship Quality and General Well-Being Model.
Figure 10.1b. The Romantic Relationship Quality and Life Fulfillment Model.

Note. Multiple reporters were used in these models. One couple member reported his/her behaviour (warmth, autonomy support, structure, rejection, coercion, and chaos); the other couple member completed measures of all other constructs in the model. Unexplained variance is indicated by e1 and e2. Dotted lines will be tested but full mediation by need fulfillment was expected. Lines with an arrow at one end represent a hypothesised path, whereas curved lines with arrows at both ends represent hypothesised correlations between variables. Models were tested separately for males and females.
Study 3B Results

Overview of Analyses

Structural equation modelling (SEM) was used to test models and associated hypotheses. SEM is a statistical method for analysing whether data collected confirms, or “fits” a proposed theoretical model (Byrne, 2001). In contrast to other statistical tests where researchers propose to reject the null hypothesis, SEM models propose to accept the null hypothesis, that is, that the data and the proposed model are the same. Byrne (2001) identifies that users should select an appropriate subset of goodness-of-fit indexes from the many provided by SEM programs. AMOS was used in the present research. Research studies investigating goodness-of-fit for theoretical models were consulted (e.g. Fletcher et al., 2000; Skinner et al., 2005; Wei et al., 2005) to determine an appropriate analysis strategy and selection of fit indices. In addition, Byrne (2001) and other statistical texts were consulted.

Sample size is known to potentially adversely affect the significance of the chi-square test, which may be used to establish the goodness of fit of the data to a model. Smaller sample sizes are more susceptible to type II error, or inaccurately determining that the proposed model and data fit, thus supporting inaccurate models (Fan, Thompson & Wang, 1999). As such it is important not to rely on the test for statistical significance but rather use fit indices that are not adversely affected by sample size. In accordance with Fletcher et al. (2000), levels of fit were assessed by the significance levels of the robust chi-square, the comparative fit index (CFI) and the root mean square error of approximation (RMSEA). The CFI is not adversely affected by sample size and is usually considered to show a good fit when it is .90 or higher (Bentler, 1995) or the more conservative estimate of .95 (Byrne, 2001; Hu & Bentler, 1999). RMSEA values
at or below .08 (Browne and Cudek, 1993) or the more conservative .05 (Byrne, 2001) have been argued to demonstrate an adequate fit.

The two models shown in Figure 10.1 were tested for males separately from females. First, models to examine direct effects of predictor variables, namely friendship quality, parent relationship quality, partners’ report of behaviours, voice, attachment security and self-differentiation on well-being were estimated, before the final models shown in Figure 10.1 and including psychological need fulfillment in the romantic relationship as a mediator were estimated. Psychological well-being and life fulfillment were examined in separate models as it was not the focus of this thesis to investigate one aspect of well-being while accounting for the other. On the contrary, it was a primary aim to understand how relationships and need fulfillment uniquely contributed to each type of psychological well-being, separate from the other type, in order to inform the literature about the impacts of romantic relationship variables on these distinct aspects of psychological functioning.

It was expected that the data would fit the Romantic Relationship Quality and Well-Being Models as evidenced by 1) non-significant chi-square tests and 2) good-to-excellent fit indices as described above. Moreover, in order to demonstrate mediation it was proposed that direct associations between independent variables and well-being would be non-significant when need fulfillment was entered as a mediator between these and well-being. Significant but reduced associations between predictor variables and well-being would demonstrate partial mediation in accordance with guidelines for mediation provided by Holmbeck (1997). It was hypothesised that full mediation would occur, with need fulfillment the only unique predictor of well-being (both general psychological well-being and life fulfillment) when all variables were considered.
**Males’ Romantic Relationship Quality and General Well-being Model**

Two models were fit to investigate the romantic relationships and general well-being of males. The first model tested direct effects of all independent variables except need fulfillment. Specifically, paths were estimated to males’ general well-being from partner behaviours (reported by female partners), relational self, parent quality, and friend quality. In this model (and all models to follow), the correlations between exogenous variables (i.e., partner behaviours, relational self, friend quality, and parent quality) that were significant for either males or females were freed for both genders. This ensured the model was comparable between genders.

This direct effects model showed a good fit with the data, $\chi^2(5) = 5.11, p = .40$, $\chi^2/df = 1.02$, CFI = 1.00, and RMSEA = .01, and path coefficients for the direct effects model are shown in parentheses in Figure 10.2. In total, the model explained 29% of the variance in general psychological well-being. Most hypothesised direct paths were significant, that is partner behaviours ($\beta = .15, p < .05$), attachment security ($\beta = .15, p < .05$), and self-differentiation ($\beta = .31, p < .01$) were each uniquely associated with general well-being. After other measures were accounted for, voice ($\beta = .13, ns$), parent quality ($\beta = .06, ns$), and friend quality ($\beta = .06, ns$) were not significantly associated with males’ well-being.

To test need fulfillment as a mediator, the second model involved six exogenous variables (partner behaviours, voice, attachment security, self-differentiation, parent quality, and friend quality), a mediating variable (need fulfillment in romantic relationship) and a dependent variable (general psychological well-being (see Figure 10.2). This model also showed a good fit with the data, $\chi^2(7) = 10.71, p = .15, ns, \chi^2/df = 1.53$, CFI = .98, and RMSEA = .06. In total, the model explained 42% of the variance.
Figure 10.2. Standardised path coefficients for the Romantic Relationship Quality and General Well-being Model for males (N = 136).

Note. Model fit was $\chi^2(7) = 10.71, p = .15, \chi^2/df = 1.53$, CFI = .98, RMSEA = .06. Path coefficients from the direct effects model (before need fulfillment was added to the model) are shown in parentheses. The fit of the direct effects model was $\chi^2(5) = 5.11, p = .40, \chi^2/df = 1.02$, CFI = 1.00, and RMSEA = .01.

*p < .05. **p < .01.
in need fulfillment in romantic relationships and 36% of the variance in general psychological well-being, with $\Delta R^2 = .07$ (7%) compared with the first direct effects model.

As expected, there were significant paths to need fulfillment from partner behaviours ($\beta = .27, p < .01$), voice ($\beta = .24, p < .01$), attachment security ($\beta = .31, p < .01$) and self-differentiation ($\beta = .17, p < .05$). In addition, need fulfillment was significantly uniquely associated with general well-being ($\beta = .34, p < .01$). When accounting for all other variables, self-differentiation was uniquely and significantly associated with general well-being ($\beta = .26, p < .01$). Other paths were not significant. Hence, parent quality, friend quality, partner behaviour, voice, and attachment security were not directly associated with well-being after including other variables in the model.

Table 10.5 provides a summary of the findings of the model testing the Romantic Relationship Quality and General Well-Being Model with need fulfillment as a mediator for males. In this model, partner behaviours (with female partners reporting their own behaviours) and males’ relational self were associated with males’ general psychological well-being, with three paths fully mediated by need fulfillment and one path partially mediated by need fulfillment. In particular, as expected, need fulfillment fully mediated the association between partner behaviours and general well-being. The unique association between partner behaviours and general well-being was not significant once need fulfillment was added. In addition, the indirect effect of partner behaviours on well-being through need fulfillment was greater than the direct effect. A similar pattern of results emerged for attachment security and self-differentiation. However, the association between attachment security and general well-being
Table 10.5

**Study 3 Standardised Total, Direct and Indirect Effects from Romantic Relationship Quality and General Well-being Model for Males with Need Fulfillment as a Mediator**

*(see Figure 10.2; N = 136)*

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Paths to Males’ Need Fulfillment</th>
<th>Paths to Males’ General Well-being</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Direct</td>
<td>Direct via Need Fulfillment</td>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner Behaviours</td>
<td>.27**</td>
<td>.05</td>
<td>.09</td>
<td>.14</td>
<td></td>
</tr>
<tr>
<td>Voice</td>
<td>.24**</td>
<td>.05</td>
<td>.08</td>
<td>.13</td>
<td></td>
</tr>
<tr>
<td>Attachment Security</td>
<td>.31**</td>
<td>.05</td>
<td>.11</td>
<td>.16</td>
<td></td>
</tr>
<tr>
<td>Self-Differentiation</td>
<td>.17*</td>
<td>.26**</td>
<td>.06</td>
<td>.32</td>
<td></td>
</tr>
<tr>
<td>Need Fulfillment</td>
<td>-</td>
<td>.34**</td>
<td>-</td>
<td>.34</td>
<td></td>
</tr>
<tr>
<td>Parent Quality</td>
<td>-</td>
<td>.06</td>
<td>-</td>
<td>.06</td>
<td></td>
</tr>
<tr>
<td>Friend Quality</td>
<td>-</td>
<td>.01</td>
<td>-</td>
<td>.01</td>
<td></td>
</tr>
</tbody>
</table>

*Note. Empty cells indicate paths that were not estimated or applicable in the model.*

*p < .05. **p < .01.

was fully mediated via need fulfillment showing a larger indirect than direct effect, whereas the association between self-differentiation and general well-being was partially mediated with a stronger direct than indirect effect. In contrast, unexpectedly, voice was not uniquely associated with males’ general well-being when other independent variables and need fulfillment were considered, but voice was associated with need fulfillment, resulting in larger indirect than direct effect of voice on well-being via need fulfillment. Thus, males’ fulfillment of psychological needs for
autonomy, competence and relatedness in their romantic relationships was found to be one mechanism that may explain why males’ romantic relationships - as well as their self-differentiation and security of attachment - are associated with better general psychological well-being.

**Females’ Romantic Relationship Quality and General Well-being Model**

The modelling procedure for males was replicated for females. The direct effects model showed a good fit to the data for females, $\chi^2 (5) = 8.62, p = .13 \, \chi^2 /df = 1.72$, CFI = .97, and RMSEA = .07, and standardised path coefficients are shown in parentheses in Figure 10.3. In total, the model explained 32% of the variance in females’ general well-being. Similar to males, all hypothesised paths from romantic variables to well-being were significant except for voice ($\beta = .10, ns$). Specific path coefficients were as follows for partner reported behaviour ($\beta = .17, p < .05$), attachment security ($\beta = .29, p < .01$) and self-differentiation ($\beta = .22, p < .01$). While parent quality and well-being were not significantly associated ($\beta = .12, ns$), friend quality was significantly uniquely associated with females’ well-being ($\beta = .17, p < .05$).

The second model adding females’ need fulfillment as a mediator also had a good fit to the data, $\chi^2 (7) = 13.56, p = .06, \chi^2 /df = 1.94$, CFI = .96, and RMSEA = .08 (see Figure 10.3). In total, the model explained 23% of the variance in need fulfillment in romantic relationships and 43% of the variance in general psychological well-being, with $\Delta R^2 = .11 (11\%)$ compared with the first model. Hypothesised paths to need fulfillment from partner reported behaviour ($\beta = .27, p < .01$) and attachment security ($\beta = .24, p < .01$) were significant, but those from self-differentiation ($\beta = .15, p = .07$) and voice ($\beta = .08, ns$) were not. Need fulfillment was uniquely and positively associated with general well-being ($\beta = .41, p < .01$). In accordance with expectations,
Figure 10.3. Standardised path coefficients for the Romantic Relationship Quality and General Well-Being Model for females (N = 142).

Note. Model fit was $\chi^2 (7) = 13.56, p = .06, \chi^2 /df = 1.94$, CFI = .96, RMSEA = .08. Path coefficients from the separate direct effects model (before need fulfillment was added) are shown in parentheses for comparison purposes. The fit of the direct effects model was $\chi^2 (5) = 8.62, p = .13 \chi^2 /df = 1.72$, CFI = .97, and RMSEA = .07

*p $\leq .07$, *p < .05, **p < .01.
direct paths for the exogenous variables of parent quality, partner reported behaviour and voice with well-being were all non-significant in the final model ($\beta$’s = .06 to .08, ns). As found for males, self-differentiation again was a significant unique correlate of females’ general well-being ($\beta$ = .16, $p < .05$). In contrast to findings for males, however, females’ attachment security ($\beta$ = .19, $p < .01$), and friendship quality ($\beta$ = .12, $p = .053$) remained associated with general well-being.

Table 10.6 provides a summary of the findings after testing the Romantic Relationship Quality and General Well-Being Model with females’ need fulfillment as a mediator. In this model and similar to the model for males, partner behaviours and females’ relational self were associated with females’ general psychological well-being. However, for females, only the path from partner behaviours to general well-being was fully mediated by need fulfillment. The unique association between partner behaviours and general well-being was not significant once need fulfillment was added. In addition, the indirect effect of partner behaviours on well-being through need fulfillment was greater than the direct effect. In contrast, paths to well-being from attachment security and self-differentiation were partially mediated by need fulfillment. For each of these variables the direct effects were significant and larger than the indirect effects via need fulfillment. Overall, voice was not uniquely associated with females’ general well-being or need fulfillment when other independent variables were considered, Thus, similar to the findings for males, females’ fulfillment of psychological needs for autonomy, competence and relatedness in their romantic relationships was found to be one mechanism that may explain why females’ romantic relationships, as well as their self-differentiation and security of attachment are associated with better general psychological well-being.
### Table 10.6

**Study 3 Standardised Total, Direct and Indirect Effects from the Romantic Relationship Quality and General Well-being Models for Females with Need Fulfillment as a Mediator (see Figure 10.3, N = 142)**

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Paths to Females’ Need Fulfillment</th>
<th>Paths to Females’ General Well-being</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Direct</td>
<td>Direct</td>
</tr>
<tr>
<td>Partner Behaviours</td>
<td>.27**</td>
<td>.06</td>
</tr>
<tr>
<td>Voice</td>
<td>.08</td>
<td>.08</td>
</tr>
<tr>
<td>Attachment Security</td>
<td>.24**</td>
<td>.19*</td>
</tr>
<tr>
<td>Self-Differentiation</td>
<td>.15a</td>
<td>.16*</td>
</tr>
<tr>
<td>Need Fulfillment</td>
<td>-</td>
<td>.40**</td>
</tr>
<tr>
<td>Parent Quality</td>
<td>-</td>
<td>.08</td>
</tr>
<tr>
<td>Friend Quality</td>
<td>-</td>
<td>.12*</td>
</tr>
</tbody>
</table>

*Note.* Empty cells indicate paths that were not estimated or applicable in the model.

*p ≤ .07. *p < .05. **p < .01.

### Males’ Romantic Relationship Quality and Life Fulfillment Model

Two additional models for males were fit after replacing general psychological well-being with life fulfillment (see Figure 10.4). First, the direct effects model showed a good fit with the data, $\chi^2 (5) = 5.13, p = .40, \chi^2 / df = 1.03, CFI = 1.00, \text{ and } \text{RMSEA} = .01$, and standardised path coefficients are shown in parentheses in Figure 10.4. In total, the model explained 31% of the variance in life fulfillment. Most hypothesised paths were significant, that is partner reported behaviour ($\beta = .15, p < .05$), attachment
security ($\beta = .33, p < .01$), and self-differentiation ($\beta = .17, p < .05$), were each uniquely associated with life fulfillment.

Second, the model incorporating males’ need fulfillment as a mediator of associations between relationship variables and life fulfillment also showed a good fit to the data, $\chi^2 (7) = 10.71, p = .15, \chi^2 /df = 1.53, CFI = .98, \text{ and RMSEA} = .06$. Standardised parameter estimates are shown in Figure 10.4. In total, the model explained 42% of the variance in need fulfillment in romantic relationships and 46% of the variance in life fulfillment, with a $\Delta R^2 = .15$ (15%) compared with the model without need fulfillment. Need fulfillment was significantly uniquely associated with life fulfillment ($\beta = .51, p < .01$), as was attachment security ($\beta = .18, p < .05$). All other exogenous variables were not significantly associated with life fulfillment ($\beta$’s = .00 to .08, ns).

Table 10.7 provides a summary of the direct and indirect effects in the Romantic Relationships and Life Fulfillment Model with males’ need fulfillment as a mediator. As can be seen in Figure 10.4 and Table 10.7, need fulfillment was a unique correlate of males’ life fulfillment. In addition, need fulfillment fully mediated paths to life fulfillment from partner behaviours and self-differentiation, and partially mediated the path to life fulfillment from attachment security. When need fulfillment was added to the model as mediator, associations of partner behaviours and self-differentiation with life fulfillment were no longer significant, and indirect effects of partner behaviours and self-differentiation on life fulfillment via need fulfillment were larger than the direct effects. The association between attachment security and life fulfillment also was partially mediated by need fulfillment, and in this case the direct effect was larger than the indirect effect. Thus, both attachment security and need fulfillment made significant
Figure 10.4. Standardised path coefficients for the Romantic Relationship Quality and Life Fulfillment Model for males (N = 136).

Note. Model fit was $\chi^2 (7) = 10.71$, $p = .15$, $\chi^2 /df = 1.53$, CFI = .98, RMSEA = .06. Path coefficients from the separate direct effects model before need fulfillment was added are shown in parentheses for comparison purposes. Model fit for the direct effects model was $\chi^2 (5) = 5.13$, $p = .40$, $\chi^2 /df = 1.03$, CFI = 1.00, and RMSEA = .01

*p < .05, **p < .01.
Table 10.7

Study 3 Standardised Total, Direct and Indirect Effects from the Romantic Relationship Quality and Life Fulfillment Model for Males with Need Fulfillment as a Mediator (see Figure 10.4, N = 136)

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Paths to Males’ Need Fulfillment</th>
<th>Paths to Males’ Life Fulfillment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Direct</td>
<td>Indirect via Need Fulfillment</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner Behaviours</td>
<td>.27**</td>
<td>.14</td>
</tr>
<tr>
<td>Voice</td>
<td>.24**</td>
<td>.12</td>
</tr>
<tr>
<td>Attachment Security</td>
<td>.31**</td>
<td>.16</td>
</tr>
<tr>
<td>Self-Differentiation</td>
<td>.17*</td>
<td>.09</td>
</tr>
<tr>
<td>Need Fulfillment</td>
<td>-</td>
<td>.51**</td>
</tr>
<tr>
<td>Parent Quality</td>
<td>-</td>
<td>.05</td>
</tr>
<tr>
<td>Friend Quality</td>
<td>-</td>
<td>.04</td>
</tr>
</tbody>
</table>

Note. Empty cells indicate paths that were not estimated or applicable in the model.

*p < .05. **p < .01.

unique contributions to male life fulfillment when all variables were considered.

Finally, voice was not associated with life fulfillment, but was associated with need fulfillment resulting in an indirect effect that was larger than the direct effect.

Females’ Romantic Relationship Quality and Life Fulfillment Model

The direct effects model testing paths to females’ life fulfillment from partner reported behaviours, relational self, and parent and friend quality showed a good fit with the data, $\chi^2(5) = 8.35, p = .14, \chi^2/df = 1.67, CFI = .97, and RMSEA = .07$ (see values in parentheses in Figure 10.5). In total, the model explained 26% of the variance in life fulfillment. Similar to the model for males, two hypothesised paths were significant,
that is, both attachment security ($\beta = .25, p < .01$) and self-differentiation ($\beta = .17, p = .05$) were uniquely associated with life fulfillment. In contrast to expectation, partner reported behaviour was not significantly associated with life fulfillment ($\beta = .03, p = .71$) and neither was voice ($\beta = .15, ns$). In addition, different than the model for males, the path from females’ friend quality to life fulfillment was significant ($\beta = .18, p < .05$). The associations between parent quality and life fulfillment approached significance ($\beta = .14, p = .06$).

The second model incorporating females’ need fulfillment as a mediator had a good fit to the data, $\chi^2 (7) = 13.35, p = .06, \chi^2 / df = 1.91, CFI = .96, \text{and RMSEA} = .08$. Standardised paths in this model are shown in Figure 10.5. In total, the model explained 23% of the variance in need fulfillment in romantic relationships and 35% of the variance in life fulfillment, with a $\Delta R^2 = .09 \ (9\%)$ compared with the model without need fulfillment. In accordance with expectation, need fulfillment was significantly uniquely associated with life fulfillment ($\beta = .37, p < .01$). For female respondents two other variables were uniquely associated with life fulfillment, namely attachment security ($\beta = .17, p < .05$) and friend quality ($\beta = .14, p < .05$). All other exogenous variables were not significantly associated with life fulfillment after need fulfillment was considered ($\beta$’s = -.07 to .13, ns).

As summarised in Table 10.8, need fulfillment was a unique correlate of females’ life fulfillment as it was for males. However, contrary to hypotheses and findings for other models, partner reported behaviours did not significantly contribute to females’ life fulfillment when other independent predictors were considered. Thus, male partners’ reports of their warmth, autonomy support and structure, and absence of rejection, coercion and chaos had no significant association with life fulfillment for this group of emerging adult females.
Figure 10.5. Standardised coefficients for the Romantic Relationship Quality and Life Fulfillment model for females (N = 142).

Note. Model fit was $\chi^2 (7) = 13.35$, $p = .06$, $\chi^2 /\text{df} = 1.91$, CFI = .96, and RMSEA = .08. Path coefficients from the separate direct effects model before need fulfillment was added are shown in parentheses for comparison purposes. Model fit for the direct effects model was $\chi^2 (5) = 8.35$, $p = .14$, $\chi^2 /\text{df} = 1.67$, CFI = .97, and RMSEA = .07.

* $p \leq .07$. ** $p < .05$. *** $p < .01$. 
Table 10.8

Study 3 Standardised Total, Direct and Indirect Effects from the Romantic Relationship Quality and Life Fulfillment Model for Females with Need Fulfillment as a Mediator

(see Figure 10.5, N = 142)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Paths to Females’ Need Fulfillment</th>
<th>Paths to Females’ Life Fulfillment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Direct</td>
<td>Direct</td>
</tr>
<tr>
<td>Partner Behaviours</td>
<td>.27**</td>
<td>-.07</td>
</tr>
<tr>
<td>Voice</td>
<td>.08</td>
<td>.13</td>
</tr>
<tr>
<td>Attachment Security</td>
<td>.24**</td>
<td>.17*</td>
</tr>
<tr>
<td>Self-Differentiation</td>
<td>.15a</td>
<td>.11</td>
</tr>
<tr>
<td>Need Fulfillment</td>
<td>-</td>
<td>.36**</td>
</tr>
<tr>
<td>Parent Quality</td>
<td>-</td>
<td>.10</td>
</tr>
<tr>
<td>Friend Quality</td>
<td>-</td>
<td>.14*</td>
</tr>
</tbody>
</table>

Note. Empty cells indicate paths that were not estimated or applicable in each model.

*p = .053. *p < .05. **p < .01.

Other findings were similar for females when compared to the results for males.

As found for males, females’ need fulfillment fully mediated the path to life fulfillment from self-differentiation, and partially mediated the path to life fulfillment from attachment security. When need fulfillment was added to the model as mediator, the association of self-differentiation with life fulfillment was no longer significant, but the direct effect of self-differentiation on life fulfillment via need fulfillment remained larger than the indirect effect. The association between attachment security and life
fulfillment also was partially mediated by need fulfillment, and again the direct effect was larger than the indirect effect. Thus, attachment security, self-differentiation and need fulfillment made significant unique contributions to female life fulfillment when all variables were considered. Finally, voice was not associated with life fulfillment or need fulfillment.
Study 3B Summary of Findings

The findings of this study confirm previous research showing how warmth and support and a lack of rejection and coercion in romantic relationships are important for better individual well-being (e.g. Argyle, 1999; Berscheid & Regan, 2005; Reis, Collins et al., 2001). Yet, there are many theories regarding why people “feel good” and report life fulfillment when in good quality romantic relationships. One such theory is SDT (Deci & Ryan, 1985, 1991, 2000), which identifies need fulfillment as the critical element linking social contextual experiences and relational aspects of the self to well-being. Such pathways were investigated in Study 3B. Basic psychological need fulfillment was defined as a composite of feeling autonomous, feeling wanted and related to one’s partner and feeling competent and effective in the romantic relationship. After testing a series of path models, the fundamental finding was that need fulfillment in the romantic relationship was a consistent, strong and unique correlate of well-being, in terms of both general well-being, including positive affect, vitality and happiness, and a broader measure of life fulfillment including elements of meaning in life, balance and belonging. This was shown to be true for both males and females. Moreover, need fulfillment remained associated with well-being even when aspects of romantic relationships that are well-established as key markers of healthy functioning (including attachment security and self-differentiation) were included in the model. In sum, males and females who felt that their basic psychological needs were more fulfilled in their romantic relationship reported better general well-being and greater life fulfillment. Results suggest that basic psychological need fulfillment in romantic relationships is one clear and significant co-variate of individual functioning among emerging adults.

Need fulfillment played another important role in these models. It either fully or partially mediated associations between social contextual experiences and well-being
and relational self variables with well-being. In fact, in all cases except for females’ life fulfillment, need fulfillment fully mediated the link between quality of partner reported relationship behaviours (specifically warmth, structure, autonomy support and reverse-scored rejection, chaotic behaviour and coercion) and well-being. Nevertheless, some aspects of the relational self continued to have direct associations with well-being even after accounting for the mediational role of need fulfillment. For males unique associations were clear between their propensity to differentiate themselves from their partner, and their general well-being, including positive well-being, and lower levels of depressive and anxiety symptoms. It was also clear that there were unique contributions of males’ attachment security, defined as feeling safe, secure and without anxiety or avoidance in their close relationships, for their fulfillment and balance in life. For females, the unique contribution of attachment was found for both general well-being and life fulfillment, while a distinct role of self-differentiation was clear only for general well-being. Moreover, for females, unique contributions of friend quality persisted for both general well-being and life fulfillment when all other variables were considered. For females, close friendships and general aspects of relational self consistently had a unique association with their well-being, whether general psychological well-being or life fulfillment, and these associations were not clearly mediated by their psychological need fulfillment with romantic partner.

In the final component of Study 3 (Study 3C), the focus was on between-group differences in responses and associations based on maturity of respondents and their relationships (age, relationship length, and commitment to the romantic partner). These were tested to determine whether associations between partner behaviours and well-being differed for more mature compared with less mature subgroups.
Study 3C

Romances in late adolescence and emerging adulthood are marked by the tendency to be shorter in length and less committed (e.g. Collins, 2003). Although there is some variability, relationships during this time of life are also less interdependent when compared to the relationships of older individuals, with partners’ reporting less closeness to romantic partners than in more mature samples (e.g. Brendgen et al., 2002; Furman & Wehner, 1997) as well as less interdependence (e.g. Laursen & Williams, 1997) and attachment (e.g. Allen & Land, 1999; Furman, 1999; Furman & Shaffer, 1999; Furman, Simon, Shaffer & Bouche, 2002; Furman & Flanagan, 1997; Furman & Wehner, 1994; Hazan & Ziefman, 1994). Relationships in late adolescence and early emerging adulthood also may be less intimate or serve different goals, with studies showing less intimacy goals in romantic relationships compared with older emerging adults (e.g. Zimmer-Gembeck & Petherick, 2006). Hence, in Study 3C, the primary aim was to examine developmental differences, in terms of age, relationship length and commitment, in associations between partner behaviours, need fulfillment, and well-being. Partner behaviours and need fulfillment were the focus of Study 3C in order to narrow down specific similarities and differences in associations between aspects of the social context, need fulfillment and well-being between less developmentally mature and more mature samples. The following hypotheses were tested.

1. Relationship length and commitment will be positively correlated with age.

2. Associations between partner behaviours, need fulfillment and well-being (general well-being and life fulfillment) will be stronger among participants who:
   a. are older compared with younger emerging adults
b. express more commitment to their relationships compared with less commitment; and

c. are in longer relationships compared with shorter partnerships.
Study 3C Results

Age, Relationship length and Commitment

As predicted in the first hypothesis, age, relationship length and commitment to
the relationship were significantly correlated for both males and females (see Table
10.9). However, the correlations were not so high that analyses of one variable would
be expected to be redundant with the analyses of another. Hence all were examined as
possible moderators of associations between partner behaviours, need fulfillment, and
well-being.

Table 10.9

Study 3 Correlations between Age, Relationship Length and Commitment

<table>
<thead>
<tr>
<th>Measure</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age in months</td>
<td>--</td>
<td>.41**</td>
<td>.26**</td>
</tr>
<tr>
<td>2. Current relationship length</td>
<td>.39**</td>
<td>--</td>
<td>.30**</td>
</tr>
<tr>
<td>3. Commitment to relationship (0-100 scale)</td>
<td>.29**</td>
<td>.23**</td>
<td>--</td>
</tr>
</tbody>
</table>

Note. Correlations for males are below the diagonal, correlations for females are above
the diagonal. There were some missing data across scales. Relationship length (males n
= 146, females n = 145) commitment (n = 147, females n = 144).

*p < .05. **p < .01

Comparisons of Younger and Older Participants

Correlations between measured variables were compared between younger and
older participants. As in previous analyses, correlations were estimated for males
separately from females. Two groups were formed to compare younger and older
participants using a median split. In the 17-20 years age group, there were 76 males (M
= 18.59, \( SD = .98 \)) and 94 females (\( M = 18.41, SD = 1.00 \)) and in the 21-30 years age group, there were 72 males (\( M = 24.30, SD = 2.87 \)) and 53 females (\( M = 23.28, SD = 2.31 \)).

**Males.** Hypothesis 2a proposed that associations between partner behaviours, need fulfillment and well-being would be stronger for older emerging adults than younger emerging adults. Hypotheses were generally not supported for males (see Table 10.10). Correlations were generally similar for younger and older males, with the exception of the correlation between need fulfillment and life fulfillment. This correlation was significantly stronger for younger males (\( r = .79 \)) compared with older males (\( r = .55 \)), \( z(75, 72) = 2.69, p < .01 \).

**Females.** For females, Hypothesis 2a was generally supported, with three out of six possible associations significantly stronger in the older subgroup compared to younger females (See Table 10.10). Associations between partner behaviour and general well-being was \( r = .03 \) (ns) for the younger group compared with \( r = .46 \) for 21 to 30-year-old females, \( z(94, 53) = -2.65, p < .01 \). Perception of need fulfillment in the romantic relationship was moderately associated with general well-being for younger females (\( r = .36 \)) and this association was almost double the size (\( r = .73 \)) for older females, \( z(94, 53) = -3.13, p < .01 \). Similarly need fulfillment and life fulfillment were more strongly correlated in older (\( r = .69 \)) compared to younger females (\( r = .25 \)), \( Z(94, 53) = -3.37, p < .01 \).

**Summary of age differences.** Only one difference was significant for males, namely, that life fulfillment was more strongly related to need fulfillment in romantic relationships for younger versus older male respondents. In contrast multiple associations were stronger for older emerging adult females, compared with younger females. First, male partner reported behaviour was not associated with younger
### Table 10.10

**Study 3 Correlations between Partner Behaviours, Need Fulfillment and Measures of General Well-being and Life Fulfillment for 17-20 year old \( n = 76 \) and 21-30 year old Males \( n = 72 \), and 17-20 year old \( n = 94 \) and 21-30 year old Females \( n = 53 \)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Correlation for 17-20 years (21-30 years)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Partner Reported Behaviours</td>
<td></td>
<td></td>
<td>.23* (.40**)</td>
<td>.03 (.46**)</td>
<td>-.03 (.22)</td>
</tr>
<tr>
<td>2. Need Fulfillment in Romantic Relationship</td>
<td>.33** (.42**)</td>
<td></td>
<td>-</td>
<td>.36** (.73**)</td>
<td>.25* (.69**)</td>
</tr>
<tr>
<td>3. General Well-being</td>
<td>.25* (.27*)</td>
<td>.62** (.45**)</td>
<td>-</td>
<td>.47** (.65**)</td>
<td></td>
</tr>
<tr>
<td>4. Life Fulfillment</td>
<td>.22 (.24*)</td>
<td>.79** (.55**)</td>
<td>.59** (.61**)</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Correlations for males are below the diagonal. Correlations for females are above the diagonal. Correlations that were significantly different between the age groups are in bold. One female participant did not report her age hence a smaller sample size of \( n = 147 \) for females in these comparisons. All associations for 17-20 year old females were \( n = 94 \) and for 21-30 year old females \( n = 53 \). All associations were \( n = 76 \) for 17-20 year old males and \( n = 72 \) for 21-30 year old males except for associations with general well-being and life fulfillment for 21-30 year old males \( n = 75 \)

* \( p < .05 \). ** \( p < .01 \).
females’ well-being, though was moderately to strongly associated with well-being for older emerging adult females. This suggests significantly higher salience of the quality of partner behaviours in terms of a composite of warmth, affection, consistency and provision of support for choice (as reported by their male partners) for female well-being in 21-30 year old females compared with their younger counterparts. In addition, need fulfillment in romantic relationships and both general well-being and life fulfillment were more strongly linked for the older sample compared with younger.

Comparisons of Participants with Shorter and Longer Length Romantic Relationships

Hypothesis 2b predicted that associations would be stronger for participants in longer compared to short length relationships. For these comparisons, two groups were formed again using a median split of the data. The first group included those in relationships of length 12 months or less ($n = 76, M = 7.05, SD = 3.65$ for males and $n = 75, M = 7.00, SD = 3.62$ for females). The second included participants in relationships greater than 12 months in length ($n = 72, M = 28.81, SD = 17.83$ for males and $n = 73, M = 28.30, SD = 17.95$ for females). Correlations among those in shorter and longer relationships are shown in Table 10.11.

**Males.** In support of Hypothesis 2b the association between female partner reported behaviour and need fulfillment was stronger among those in longer relationships, with $r = .23$ for shorter and $r = .53$ for longer relationships, $z (76, 72) = -2.04, p < .05$. However, in contrast to expectation, there was a weaker association between males’ need fulfillment and their own general well-being for males in longer relationships compared to dyads of shorter length, $r = .71$ for shorter and $r = .37$ for longer relationships, $z (75, 72) = 2.96, p < .01$. 
Table 10.11

Study 3 Correlations between Partner Behaviours, Need Fulfillment and Measures of General Well-being and Life Fulfillment for Males in Relationships ≤ 12 months (n = 76) and > 12 months (n = 72), and for Females in Relationships ≤ 12 months (n = 75) and > 12 (n = 73)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Correlation for ≤ 12 month relationships (&gt; 12 month relationships)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1. Partner Reported Behaviours</td>
<td>-</td>
</tr>
<tr>
<td>2. Need Fulfillment in Romantic</td>
<td>.23* (.52**)</td>
</tr>
<tr>
<td>3. General Well-being</td>
<td>.22 (.30*)</td>
</tr>
<tr>
<td>4. Life Fulfillment</td>
<td>.22 (.24*)</td>
</tr>
</tbody>
</table>

Note. Correlations for males are below the diagonal. Correlations for females are above the diagonal. Correlations that were significantly different between shorter and longer relationships are in bold. All associations for ≤ 12 month females were n = 75 and for > 12 month females were n = 73. All associations were n = 76 for 1-12 month males and n= 72 for > 12 month males except for associations with general well-being and life fulfillment for ≤ 12 month males (n = 75)

*p < .05. **p < .01.
**Females.** For females, Hypothesis 2b was not supported. In contrast to age
group comparisons, no associations significantly differed when associations among
females in shorter and longer relationships were compared.

*Summary of results for relationship length.* Relationship length was an
important variable to consider for males but not females, with two out of six
associations different for males. In accordance with expectation, the association
between female partners’ reported behaviour and male reports of their own need
fulfillment, was stronger for males in longer compared with shorter relationships.
Findings suggest that partner behaviours may be more important for male need
fulfillment for those in more established relationships compared with less established.

In contrast, the association between male need fulfillment in romantic
relationships and general well-being was stronger for males in shorter versus longer
relationships. These findings suggest that male general well-being is particularly tied to
their own sense of need fulfillment early in a relationship, however this sense of need
fulfillment with the romantic partner is not as strongly related to partner report of their
behaviours at this time. No differences in associations were found for females based on
the length of their relationship.

*Comparisons of Participants with Low and High Relationship Commitment*

Hypothesis 2c predicted that associations would be stronger for emerging adults
who reported more relationship commitment compared with those who were less
committed to their partners. For these analyses, two groups were again formed using a
median split of the data. The first group reported 80% or less commitment to their
partner (on a 0-100 % scale) with 78 males ($M = 51.47, SD = 25.21$) and 75 females ($M
= 55.71, SD = 21.44$) in this group, and the second group reported greater than 80%
Table 10.12

Study 3 Correlations between Partner Behaviours, Need Fulfillment and Measures of General Well-being and Life Fulfillment for Males who were Less Committed (≤ 80% commitment; n = 78) and More Committed (> 80% commitment; n = 69), and Females who were Less Committed (n = 75) and More Committed (n = 70)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Correlations for ≤ 80% committed (≥ 80% committed to relationship)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1. Partner Reported Behaviours</td>
<td></td>
</tr>
<tr>
<td>2. Need Fulfillment in Romantic Relationship</td>
<td>.26* (.44**)</td>
</tr>
<tr>
<td>3. General Well-being</td>
<td>.23* (.19)</td>
</tr>
<tr>
<td>4. Life Fulfillment</td>
<td>.24* (.17)</td>
</tr>
</tbody>
</table>

Note. Correlations for males are below the diagonal. Correlations for females are above the diagonal. Correlations that were significantly different between less and more committed groups are in bold. All associations for ≤ 80% commitment females were n = 75 and for > 80% commitment females were n = 70. Three females did not report commitment. All associations were n = 78 for ≤ 80% commitment males and n = 69 for > 80% commitment males except for associations with general well-being and life fulfillment for ≤ 80% commitment males (n = 77). Two males did not complete the commitment item.

* p < .05. ** p < .01.
commitment with 69 males ($M = 95.75, SD = 5.17$) and 70 females ($M = 96.01, SD = 4.71$) in this group. Correlations for these two groups are shown in Table 10.12.

*Males.* Hypothesis 2c was not supported for males. Similar to findings regarding age, only one correlation differed and indicated a stronger association among less committed males. For *less* committed males the perception of more need fulfillment in their romantic relationship was more strongly linked to their life fulfillment than for more committed males ($r = .74$ for low commitment and $r = .48$ for high commitment), $z (77, 69) = 2.52, p < .05$. Of note, associations between their need fulfillment and life fulfillment were still moderate to strong in more committed males, though these associations were simply stronger in the less committed sample.

*Females.* Hypothesis 2c was partially supported for females. One association was significantly stronger for more committed females. Namely, the association between male partners’ reported behaviours and female general well-being was more strongly associated for more committed compared with less committed females ($r = .01$ for low commitment and $r = .39$ for high commitment), $z (75, 70) = 2.37, p < .05$. Of note, there was virtually no association between partner reported behaviours and general well-being for low committed females.

*Summary of results for commitment.* For males, significant differences were apparent between need fulfillment in the romantic relationship and life fulfillment only. For males, commitment was not implicated as a moderator of associations with general well-being. This suggests that less committed males are highly sensitive to their sense of fulfillment of autonomy, competence and relatedness needs with their romantic partner overlapping and this strongly overlaps with their meaning in life, inner strength and sense of belonging.
Romantic relationships were more tied to general well-being for more committed compared to less committed females. Partner behaviours of more committed females were more strongly associated to their general well-being. Thus for females, being committed to one’s partner also means the qualities of their partner brings to the relationship significantly overlaps with their general levels of depression, anxiety, vitality and positive well-being. This is in contrast to less committed females where no significant association between well-being and partner report of behaviours was found.

Together, findings comparing groups on indices of maturity including age and relationship investment in terms of length and relationship commitment, indicated that maturity differences were important moderators of associations between partner behaviours, need fulfillment and both general psychological well-being and fulfillment in life. For males, need fulfillment in the romantic context was more strongly related to life fulfillment for both younger compared with older emerging adults, and for those in more committed relationships compared to less committed. Males in shorter relationships reported significantly stronger associations between their need fulfillment in the relationship and their day to day mood including positive well-being and lack of depression or anxiety, compared with those in relationships greater than 12-months duration. Only relationship length moderated associations between their partners’ reported behaviour and male need fulfillment, with associations stronger for males in relationships more established relationships, compared to those in newer relationships less than 12 months.

For females, age was an important moderator of associations, with three out of six possible associations stronger for older emerging adult females compared with their younger counterparts. Partner reported behaviour was not significantly related to younger females’ well-being, though these were moderately to strongly related for older
emerging adult females. Similarly need fulfillment was more strongly linked to both
general well-being and life fulfillment for older compared to younger females in the
sample. Relationship length did not moderate any associations for females, with the size
of correlations between partner behaviours, need fulfillment and well-being similar for
those in both newer and more established relationships. Higher levels of commitment,
however, mimicked findings for age, with stronger, significant associations between
partner reported behaviour and well-being for more committed females, and weaker or
non-significant associations for less committed. No other associations were different
across these indices of maturity.
Study 3C Summary of Findings

Calls for further investigation of developmental differences in the importance of romantic relationships for well-being have appeared in the literature in recent years (e.g. Collins, 2003; Furman, Feiring & Brown, 1999; Welsh & Shulman, 2008). Study 3C described maturity (i.e. age, relationship length and commitment) differences in the associations between reports from one relationship partner about his/her behaviour and the other partner’s report of individual need fulfillment in the romantic relationship and both general well-being and life fulfillment. Stronger associations between partner behaviours, need fulfillment and well-being were expected for older males and females compared younger participants, and for more mature relationships compared to less mature (i.e., longer and with partners who expressed more commitment).

Hypotheses were generally rejected for males and partially supported for females. For males, only one association met expectation with partner reported behaviour more strongly associated with male general well-being for those in more established compared with newer relationships. All other associations were not significantly different across indices of maturity, or significantly stronger for less mature groups, as was the case for need fulfillment in the relationship and well-being for males in shorter relationships, and need fulfillment and life fulfillment for both younger males and for more committed males compared with there younger and less committed counterparts respectively. In contrast, females’ age was an important moderator with stronger associations found between partner behaviours and general well-being and need fulfillment and both general well-being and life fulfillment for older compared with younger females. Commitment also moderated one association, between partner reported behaviours and general well-being. While results generally did not support hypotheses for males, and only partially for females, one overarching...
finding is important to highlight here. While gender differences were not explicitly tested, comparisons of associations between less mature samples (i.e. younger, shorter relationships and less committed) and more mature samples (i.e. older, longer relationships and more committed) showed that associations between partner behaviours and individual well-being variables were generally comparable for more mature males and females. While it does not seem that associations are simply stronger for more mature samples, results support that they are more consistent and moderate for older emerging adults and for those in more mature relationships.
CHAPTER 11
GENERAL DISCUSSION

Extant literature demonstrates the salient role of both the existence and quality of romantic relationships for adult psychological well-being, general health and even longevity (e.g. see Lucus & Dyrenforth, 2006; Reis, Collins et al., 2000 and Regan & Berscheid, 2005 for reviews). There is agreement among experts that a focus on understanding mechanisms (Lucas & Dyrenforth, 2006; Lansford et al., 2005) and examining associations between romantic relationship quality and well-being across the lifespan is needed for the field to advance (e.g. Collins & van Dulman, 2006; Zimmer-Gembeck & Gallaty, 2006). The focus of the current dissertation was threefold. The first objective was to develop and validate a new measure of the romantic relationship context grounded in SDT, which investigated six dimensions of partner behaviours in the relationship proposed to be important for well-being. Two studies supported the new PBSC measure as will be discussed further. Second, an overall model of romantic relationship functioning and individual well-being was tested. This was grounded in seminal theory including SDT in conjunction with attachment theory and family systems theory, and both members from a large sample of heterosexual emerging adult couples reported on all variables. SEM showed the proposed models were a good fit with the data and full or partial mediation was shown between romantic relationship quality (partner behaviours, relational self) and both types of well-being (general, life fulfillment).

The final aim was to investigate age and relationship maturity differences in associations between key aspects of romance and well-being. This was undertaken to begin to illuminate potential developmental trajectories of the connection between human partner relationships and healthy individual functioning. Comparisons showed
some associations between partner behaviours, need fulfillment and well-being were stronger for more mature females, compared with less mature; though associations were generally not stronger for more mature males. Together, these findings support the new measure of Partner Behaviours as Social Context (PBSC) and the proposed model of Romantic Relationship Quality and Well-Being in an emerging adult population. Specific findings will now be discussed in more detail.

**Partner Behaviours in Emerging Adult Romantic Relationships**

The first two studies were focussed on developing a new multidimensional measure of six dimensions of partner behaviours in the romantic context that are proposed to be important for psychological well-being based on SDT. Specifically, the final PBSC scale was shown to have a good factor structure with five items reliably loading on each of the six dimensions, namely Warmth, Autonomy Support, Structure, Rejection, Coercion and Chaos. The 30-item PBSC provides a psychometrically sound, multidimensional self-report measure of the quality of partner relationship behaviours received in the relationship. Factor analysis supported all six proposed dimensions in accordance with findings for a parenting measure of social context within parent-child relationships (Skinner et al., 2005). In accordance with other assessments of romantic relationship quality, the PBSC showed distinct negative and positive dimensions of partner behaviours (Fincham & Linfield, 1997). The PBSC has a reliable factor structure, adequate internal consistency, and sound convergent and divergent validity. The PBSC scales and subscales diverged from the Openness and Extraversion dimensions of personality traits. Moderate associations were found between PBSC and Agreeableness, Neuroticism and Conscientiousness, showing some overlap between one’s personality and the one’s assessment of partner contributions to romantic relationship quality.
Multiple reporters of partner behaviours. In the third and final study, the participation of heterosexual romantic couples provided a way to capture reports of romantic partner behaviours the perspective of both reporters, and to test the Romantic Relationship Quality and Well-Being Model using reports of partner behaviours from one couple member and reports of need fulfillment and well-being from the other. Prior to testing this model in Study 3B, Study 3A examined associations between reports from both the partner receiving PBSC behaviours and the partner reporting those behaviours. First, Study 3A focussed on assessing agreement of respondent reports and showed significant co-variance between couple members’ reports of one person’s behaviour in the dyad. Correlations between partner reported behaviours and individual need fulfillment and well-being showed initial evidence for a partner effect or a characteristic of one partner related to an outcome for their partner, as defined by Kenny et al. (2006).

When both members’ reports of one partner’s behaviour were correlated with measures of voice, attachment style and self-differentiation (relational self) of the other partner, only partner behaviour reported by the individual receiving the behaviours was associated with all three measures of relational self. In contrast, when individuals reported their own behaviours they were not significantly associated with their partners’ relational self measures, with the exception of higher quality female romantic behaviours being positively associated with their male partners’ levels of self-differentiation. Hence, associations among measures gathered from the same reporter were stronger than those across reporters and independence between the constructs of the social context of partner behaviours and individual difference variable of relational self was demonstrated, supporting the separate measurement of these constructs in the model.
On the one hand, these results suggest that an individual’s perception of her/his partner may be intertwined with relational self qualities, including attachment security and self-differentiation, and with personality variables, such as agreeableness (as shown in Study 2). Alternatively, an individual’s perception of their partner may significantly influence their ability to feel secure in the relationship, maintain a separate sense of self and express themselves authentically. A partner’s report of their own behaviour was generally not significantly associated or only weakly related to these aspects of self in the other member of the dyad. Hence, it is one’s report of their partner filtered through one’s own perceptions that is linked with relational self. The perception of a partner’s warmth, structure, autonomy support, and lack of rejection, chaotic behaviour and coercion is associated with an individual’s own report of more voice, more security, and greater self-differentiation in the romantic relationship for both males and females. Partners may also be biased in reporting their own relationship behaviours (e.g., because of a halo effect or wanting to present themselves in a positive light). However, their report compared to their partners’ report is clearly more independent from their partners’ relational self. Thus, their report can be considered a more robust assessment of the effect between their behaviour (the social context) and their partner’s need fulfillment and well-being, and demonstrative of a partner effect.

_Simple associations between variables._ In Study 3A, simple associations were calculated between all model variables to determine initial support for SEM of the larger model. Both self reports and partner reports of romantic behaviours were associated with need fulfillment and well-being. Of note, compared to self reports by partners, individuals’ reports about their partners were more strongly associated with their own need fulfillment, with almost double the association with need fulfillment.
One’s report of their partner explained almost double the variance in well-being compared with partner report and one’s well-being.

Both partners’ reports of one partner’s behaviours were found to be important co-variates of psychological well-being in terms of positive associations with composite scores of positive mood, self control and energy; and in terms of meaning and fulfillment in life, feeling able to cope with stressful situations and feeling connected to others. Strong associations were found between partner behaviours perceived by the receiver and well-being, whereas moderate associations were found between partner reported behaviours and well-being. Hence, what a person thinks about their partner may be more important for their well-being than how their partner thinks he/she behaves in the relationship. These findings are supported by previous literature demonstrating that happiness is more a function of perceptions of a relationship (Bradbury & Fincham, 1988; Fincham & Bradbury, 1992; Schaefer & Burnett, 1987; Blais, et al., 1990). Further, in the current research, it was found that this was true for both general well-being and the eudaimonic measure of fulfillment in life.

These findings support therapeutic approaches that include challenging the individual’s sole desire for specific changes in their partner. Results advocate that interventions need to encourage both specific behavioural changes from a partner to include more warmth, autonomy supportive and structured behaviours and reduce negative behaviours; and need to focus on raising awareness and modifying self-perceptions of a partner’s actions (e.g. this may be through using cognitive behavioural, emotion focussed or mindfulness based approaches).

Simple associations were also examined between relational self and well-being, relational self and need fulfillment, and need fulfillment and well-being. Relational self measures were each significantly associated with both aspects of well-being for both
genders in support of previous findings for voice (e.g. Harter, Waters et al., 1997; Harter, 1999), attachment security (e.g. Kafetsios & Sideridis, 2006) and self-differentiation (e.g. Skowron & Friedlander, 1998). A person’s ability to autonomously and authentically express themselves (voice), to feel comfortable with emotional closeness (attachment security) and to be able to separate their sense of self from opinions and behaviours of their partner (self-differentiation) accompanies greater general well-being and life fulfillment. Finally, in Study 3A it was demonstrated that psychological need fulfillment in the romantic relationship was strongly associated with both types of well-being for males and females in accordance with extant literature (LaGuardia et al., 2000; Leak & Cooney, 2001; Patrick et al., 2007; Ryan et al., 2005; Wei et al., 2005). A person who feels loved by their partner (relatedness need fulfillment), feels effective with their partner (competence need fulfillment) and feels free to be oneself (autonomy need fulfillment) also has greater general well-being, in terms of reporting positive well-being, experiencing a sense of self-control, vitality and general health and not experiencing anxiety and depression; in addition to more life fulfillment in terms of experiencing a sense of fulfillment and meaning in life, an inner strength and connection to others.

The Romantic Relationship Quality and Well-being Model

Need fulfillment in the romantic relationship as a mediator. The primary aim of Study 3B was testing the new model of Romantic Relationship Quality and Well-Being. Overall all models fitted the data well, and highlighted the unique, strong and consistent role of need fulfillment in the romantic relationship as a covariate of general psychological well-being and life fulfillment for emerging adult couples. Partner behaviours, attachment security and self-differentiation were shown to be unique associates of need fulfillment in the romantic context for both males and females. For
males, voice was also significantly related to need fulfillment, though did not uniquely contribute to needs or well-being for females once other variables were included in models.

Both male and female emerging adults had better general psychological well-being when their partner reported they displayed a composite of behaviours that were warmer, more structured and autonomy supportive, and less rejecting, chaotic and coercive. In addition, need fulfillment fully mediated associations between partner behaviours and general well-being for males and females. Previous studies have shown associations between aspects of romantic relationships and need fulfillment in romantic relationships, for example attachment (LaGuardia et al., 2000), and emotional reliance (Ryan et al., 2005). Other studies have shown good evidence for associations between need fulfillment and well-being (e.g. Patrick et al., 2007). Nevertheless, the current study expands this previous research by identifying specific social contextual factors in romantic relationships that are important to both general well-being and life fulfillment. The current study is the first known examination of associations between multiple, specific qualities of the social context - in terms of dimensions of partner behaviours based on SDT - and need fulfillment of the individual in the romantic relationship. Findings show that general well-being related to high quality partner behaviours can be explained by considering how social contextual factors can promote or undermine the satisfaction of psychological needs for relatedness, competence, and autonomy.

*Associations between relational self and well-being.* Of note, need fulfillment was not found to completely account for co-variance between attachment security and life fulfillment for male and females. Need fulfillment also did not fully mediate the association between self-differentiation and general well-being. Hence, individuals with higher attachment security report more life fulfillment, and those with higher self-
differentiation report higher general psychological well-being even after need fulfillment is considered. This makes it clear that some aspects of the relational self continue to play significant roles in general psychological well-being and life fulfillment even after considering the partner social context and need fulfillment in romantic relationships. Humans’ propensity to feel secure and without anxiety or avoidance in their partner relationship are particularly uniquely important for the broader measure of fulfillment, belonging and balance in life. Moreover, individual ability to balance emotional and intellectual functioning, and recognise one’s separateness and yet maintain connection with others, including not being overly influenced by others’ moods, beliefs, and criticisms is particularly associated with individual well-being.

One possible explanation for the unique association between relational self and well-being when need fulfillment was included is that relational self variables of attachment security and self-differentiation were general to significant, close relationships due to a concern about overlap of constructs with partner behaviours if these was specific to the romantic relationship. This was in contrast to need fulfillment and partner behaviours which were measured with specific reference to the current romantic relationship. Like relational self, well-being and life fulfillment were also general measures, and as such the unique contributions between relational self and both types of well-being may be reflective of association between these constructs outside of the romantic relationship. While relational self was intentionally designed to be a general rather than relationship specific measure in the present program of research, future research would benefit from exploring features of attachment security, voice and self-differentiation specific to the romantic context to determine whether need fulfillment may simultaneously, fully meditate associations in this instance. Also,
previous research has shown that need fulfillment partially mediates between attachment anxiety and depression, and provides full mediation between attachment avoidance and depression, loneliness and shame (Wei et al., 2005). As such, the reason for partial mediation in the present research may be related to the composite measure of attachment security used, which incorporated both anxiety and avoidance simultaneously.

Previous studies have focussed on attachment security to the exclusion of other variables that have been shown here to significantly uniquely contribute to well-being even when attachment security is included. This is the first known documentation for need fulfillment as a mediator between multiple relationship variables and both general well-being and fulfillment in life. Findings regarding self-differentiation, with unique associations between this measure and general well-being for both genders, while accounting for both attachment security and need fulfillment are particularly novel. These findings are in accordance with other research demonstrating associations between self-differentiation and well-being (Skowron & Friedlander, 1998; Bohlander, 1999) and add to this literature through investigating the mediational role of need fulfillment.

While unique associations between voice and well-being were not found once other variables were considered, this does not necessarily undermine the importance of being authentic in the relationship for individual well-being. Rather, correlations suggest that voice overlaps in variance with both attachment security and self-differentiation. As voice focuses on the single behaviour of expressing oneself in close relationships, while the constructs of attachment security and self-differentiation measure underlying schemas of feeling secure (attachment) and balancing separateness and connectedness (self-differentiation) which incorporate aspects of behaviour,
cognition and emotion, the multi-component nature of these measures may have suppressed unique associations between voice and well-being in the multivariate models.

Summary. In summary, a significant and original contribution of Study 3B was the investigation of need fulfillment as a mediator of *multiple, concurrent* correlates of well-being in romantic contexts. Findings support previous research demonstrating the need fulfillment mediated between attachment and well-being (e.g. LaGuardia et al., 2000; Leak & Cooney, 2001; Wei et al., 2005) with full mediation found for male general well-being; and partial mediation found for female general well-being, and both male and female life fulfillment models.

As highlighted by Wei and colleagues (2005), the finding that satisfaction of basic psychological needs is one mechanism accounting for associations between romantic relationship quality and well-being has valuable implications for therapeutic settings, whereby need satisfaction can become an explicit therapeutic goal (to enhance well-being) as opposed to the less tangible task of trying to modify attachment security or self-differentiation per se. Future research would benefit from evaluating therapies aimed at enhancing individual need fulfillment as a mechanism to promote well-being. This program of research shows that promoting positive partner behaviours including providing warmth, structure and autonomy support to one’s partner and actively reducing rejecting, chaotic and coercive behaviours towards the other, is a promising basis for such interventions.

*Age and Relational Maturity*

Taken together, between-group comparisons based on indices of maturity suggested *different processes* connecting romantic partner behaviours, need fulfillment and well-being for younger and less committed males and females and for those in
newer relationships. In contrast, findings supported consistent, moderate connections between well-being and romantic relationships for more mature emerging adults of both genders (i.e. those in established, committed relationships and older in age). While sex differences were not explicitly tested, maturity differences will be described for males separate from females. In particular, romantic partner behaviours were more strongly associated with well-being for both older and more committed females compared to younger and less committed females. Additionally, associations of need fulfillment with both general psychological functioning and life fulfillment were also stronger for older emerging adult females compared with their younger counterparts.

For males, only one association was significantly stronger, namely need fulfillment in the relationship and partner reported behaviours for males in longer relationships. Unexpectedly, associations between need fulfillment and life fulfillment were stronger for younger males and those less committed to their partners; while associations between need fulfillment and general psychological well-being were stronger for those in shorter relationships. Well-being for males seems particularly tied to a romantic relationship when a male is lower in commitment and the relationship shorter in duration.

Biologically based processes underlying relationship initiation, development and dissolution (e.g. Fisher, Aron, Maschek, Li & Brown, 2002; and discussed by Barber, 2006) might help to explain these findings. Available research supports a biological connection between new stage love and well-being. Literature has shown that euphoria in early stage love is cross-cultural and biologically based (Aron, Fisher, Maschek, Strong, Li & Brown, 2005). These authors have argued that this may be caused by a developed mammalian drive to pursue desired mates. In the present research, high correlations between well-being and need fulfillment for males in shorter relationships
suggests that male well-being may be particularly susceptible and/or influential to relationship processes early in a relationship to either secure or abandon a potential mate. Male behaviours often play a key role in relationship initiation. In contrast, for younger and less committed females there were weaker or non-significant associations between their romantic relationship and well-being, compared with their older and more committed counterparts. Again this may be explained from a biological perspective, with female well-being more susceptible and/or influential to relationship processes as females mature in terms of age and commitment. Increasing interdependence between well-being and relationship quality for females as they mature may influence their propensity to remain in a good relationship or abandon a problematic relationship, and thus ultimately ensure protection for themselves and any offspring.

Of note, associations between romantic relationships and well-being were similar between the genders in the older emerging adult age group, more committed group and for those in longer relationships, suggesting that there may be similar underlying processes connecting romantic relationship quality and well-being for both males and females in these more mature groups. While male well-being may be more invested early versus late in the relationship, and female well-being more invested late compared with early, similar biological processes may underlie male and female experiences of love at later stages of the relationship or as they become more mature in terms of age and commitment to their partners. A promising area for research would be to map the associations found here over time to investigate whether these processes do in fact develop as suggested by these cross-sectional comparisons.

Limitations and Future Research Directions

Limitations and future directions have been suggested through this chapter and will be summarised here. First, the development and validation of the PBSC was
primarily on convenience samples that were white/Caucasian, attending university and
generally high functioning. While equal distribution of males and females were
recruited, which is an important contribution to the literature, this sampling may not be
representative of all emerging adults. While it seems unlikely that sampling bias would
disrupt the psychometric properties of the measure, testing the PBSC in other groups
would provide further validation for its use broadly. Also, no norms were developed for
the PBSC and as such, conducting a study of its use with a nationally representative
sample would facilitate this and its subsequent use in clinical settings as an outcome
evaluation tool.

While the participation of couples allowed the investigation of agreement in
multiple reports of one partner’s behaviours, and the investigation of partner effects,
some associations, namely those between relational self, need fulfillment and well-
being were susceptible to common method variance. Methodologies employing
observation of couples, structured interviews and observer reports outside the dyad (i.e.
friends, parents) would provide triangulation and a more robust assessment of partner
behaviours, and relational self attributes, such as attachment security, in future studies.

Due to the interdependencies within couples, further research may wish to
investigate multiple dyadic variables and shared relational well-being as an outcome
variable of interest, as opposed to individual well-being which was the focus of this
research program.

Finally, the research designs were cross-sectional. Additional research using a
longitudinal design should be conducted to confirm the direction of effects reported
here. Whereas a partner effect was illuminated through significant associations between
one partner’s report of behaviours and the other partner’s individual well-being, it may
also be the case that well-being and need fulfillment in one partner can change romantic
behaviours of the other over time. Overall, prospective designs over multiple time points would facilitate optimal investigation of the direction of effects and establish causality and particularly whether qualities of partner behaviours and need fulfillment cause positive or negative changes in well-being over time.

Notwithstanding this need for longitudinal research in the future, support for the proposed Romantic Relationship Quality and Well-Being Model provided here leads the way for the design of future prospective studies which will have an empirically validated and successfully integrated framework with known unique co-variates and mediators to investigate across time. Finally, in line with other proponents of SDT, future researchers may wish to evaluate therapies to enhance basic psychological need fulfillment as a mechanism to promote well-being, particularly in romantic relationships as investigated here.

*Theoretical Implications*

These results make a significant theoretical contribution to the literature regarding how to describe, explain and understand specific dimensions of romantic partner behaviour as a social context for individual development with the new introduction of the PBSC measure. Previous measures of context within SDT have focussed on supporting one element of need fulfillment such as autonomy support without reference to other simultaneous, positive and negative impacts of the social environment that have important implications for individual fulfillment of needs, general well-being and life fulfillment. Moreover no previous multidimensional measure of specific elements of the romantic relationship context defined as important by SDT has previously been developed. Through testing multiple components of partner behaviour and relational self contributions, it was observed that these were distinct components of romantic relationship quality with unique associations on need
fulfillment. Findings support concurrent assessment of self contributions and partner contributions in future research.

Knowledge of maturity differences in associations between dimensions of romantic partner behaviour, need fulfillment and well-being provides guidance for developmental theory of romantic relationships. In particular it was demonstrated that there were stronger associations between partner reported behaviours and well-being for older emerging adult females than younger females, thus supporting other studies showing developmental differences in female participants (e.g. Zimmer-Gembeck & Gallaty, 2006; Zimmer-Gembeck & Petherick, 2006). Consistent associations were found in more mature emerging adult age groups in accordance with literature showing consistent associations between close relationships and well-being for adults (e.g. Reis, Collins et al., 2000). Future research would benefit from deliberately investigating age and gender groups through a prospective design to elaborate direction of effects, with an awareness of other maturity differences in relationships such as relationship length and commitment.

Prevention/Intervention Implications

Findings from this research provide information on potentially modifiable correlates of psychological well-being, namely partner behaviours and need fulfillment. Findings particularly illustrate the importance of perception of partner behaviours by the partners’ receiving behaviours and thus support cognitive, emotion focussed and mindfulness approaches. As need-fulfillment was found to mediate associations between social context and well-being, interventions may be targeted at enhancing individual’s need-fulfillment in relationships. The clear association between self-determination variables and well-being supports the evaluation of therapies focussed on promoting need fulfillment and healthy social contexts.
Differences in associations based on maturity (i.e. age, relationship length and commitment) found here, have implications for the content of interventions that need to contain developmentally appropriate and targeted strategies in early romantic relationships, whether early in commitment, length, or participant age. As associations between partner behaviours and well-being was found to be stronger in older emerging adult females compared with younger; and weaker in males in longer relationships compared to shorter; different targets for intervention may be important based on gender to ensure treatment success. For example, younger males and females may benefit from skills in more accurately judging how their partner’s behaviour meets their needs. For females, there may be a focus on building associations between the quality of partner behaviours and how they feel about themselves, allowing females to better judge negative and positive partner behaviours. For males in the early stages of romantic involvements, the focus may be on disentangling the high correlations between general well-being and their need fulfillment, thus facilitating more differentiation from romantic partners in the early stages of steady dating. Certainly study findings alert relationship education programs to the relative importance of psychological need fulfillment, partner behaviours in romantic relationships and individual characteristics that are associated with psychological well-being.

Conclusion

In conclusion, key propositions of the Romantic Relationship Quality and Well-Being Model were supported in a sample of emerging adults in steady heterosexual relationships. More positive romantic behaviours promoted both need satisfaction and well-being in these couples. The cumulative findings from this thesis highlight the strong, consistent and unique links between need fulfillment in the romantic relationship and both general well-being and life fulfillment, when multiple aspects of romantic
relationship quality were simultaneously considered. Satisfaction of basic psychological needs for relatedness, competence and autonomy in the romantic context largely explained associations between romantic relationship quality and well-being. However, other aspects of relational self and close relationships were significantly associated with psychological health, even after the important contribution of need fulfillment with romantic partners was considered. Particularly, unique associations for both genders linking attachment security and fulfillment in life and linking self-differentiation and general well-being were found; and for females, unique associations between attachment security and general well-being, and between close friend quality and both general well-being and life fulfillment were also robust. Findings for less mature respondents in terms of age, relationship length and commitment suggest relationships and well-being are less consistently associated for less mature males and females, with some associations weaker or non-significant for less mature females, and some associations stronger for less mature males. Romantic partner behaviours, need fulfillment and well-being were consistently associated for older emerging adults.

Overall, in accordance with the extant literature arguing that SDT may explain links between romantic relationship quality and both relational and individual well-being (LaGuardia & Patrick, 2008; Patrick et al., 2007), partner behaviours defined by SDT, in addition to characteristics of relational self, were found to have unique associations with both types of well-being, with associations largely mediated by need fulfillment in the romantic relationship. SDT and other seminal theories of individual development and relationship functioning including attachment theory and Bowen family systems theory were found to effectively complement each other and together explained substantial variance in associations between romantic relationship functioning and the psychological health and fulfillment of the individual in the relationship. These
findings support the importance of need fulfillment for healthy relationship functioning and well-being. A promising area for future research is the development of couple interventions based on SDT with explicit evaluation of these programs targeted at different stages of individual and relational maturity.
REFERENCES


Ryan, R. M., & La Guardia, J. G. (2000). What is being optimized over development?: A self-determination theory perspective on basic psychological needs across the


Appendix 1: Study 1 Information and Consent Materials

(Printed on University Letterhead)

Relationship Quality, Need Fulfillment and Well-being Pilot Study for 3003APY

Contact Details:
Associate Professor Melanie Zimmer-Gembeck, School of Psychology, Griffith University, Gold Coast, Ph: (07) 5552 9085, email: m.zimmer-gembeck@griffith.edu.au
Ms Wendy Ducat, BA, BPsys (Hons), PhD Candidate, School of Psychology, Griffith University, Mt Gravatt, Ph: 3735 3305, email: w.ducat@griffith.edu.au
Ms Deannah Jang, BPsych (Hons), Tutor “Research Methods”, School of Psychology, Griffith University, Gold Coast, email: d.jang@griffith.edu.au

Dear Participant,
You are invited to participate in a study investigating your experiences in your current romantic relationship, your sense of self and your sense of wellbeing. In this study, you will be asked whether some statements about relationship experiences and feelings apply to you.

Sample statements/questions include:
“When I am with my partner, I feel like a competent person”
“I often worry that my partner does not really love me”
“How happy, satisfied, or pleased have you been with your personal life in the past month?”

Data collection and analysis in this study is part of the course requirement for 3003APY “Research Workshop” at Griffith University, Gold Coast. Deannah Jang is the tutor for the students involved in collecting this data. In addition Wendy Ducat is assisting with the data collection. The course lecturer is Associate Professor Melanie Zimmer-Gembeck.

Important information:
1. Participation is completely voluntary.
2. You can withdraw from the study at any time without giving any reasons, and without any consequences.
3. Do NOT write your name or other identifying information on the survey. You will remain anonymous and all your answers will be kept confidential; only the above listed researchers will have access to the anonymous questionnaire data.
4. Once the study is completed, the results will be posted at Griffith University GO1, 3rd floor, and will be available to all participants upon request by contacting one of the individuals at the top of this information sheet.
5. You may skip questions that you do not wish to answer.

If you choose to participate, the survey will take approximately 20 minutes to complete. You have been given an envelope along with this form and the questionnaire. Please seal your completed questionnaire in the envelope provided. If you have any questions about the research or the survey, you may ask the researcher before filling out the questionnaire. If you have questions after participating in this survey, please contact any of the investigators listed at the top of this letter.
Informed Consent Form

Relationship Quality, Need Fulfilment and Well-being Pilot Study for 3003APY

I have read and understood the information sheet provided and have retained a copy of this information. I understand my rights as a participant in this study and I have had all my questions answered to my satisfaction. I have no further questions regarding the study at this point in time. I am over the age of 18, or I am a university student and I hereby legally give my consent voluntarily and agree to participate in the research project titled, “Relationship Quality, Need fulfilment and Wellbeing Pilot Study for 3003APY”.

Signatures:

Participant __________________________ Date _____________

Investigator __________________________ Date _____________

Thank you for taking the time to participate in this study.
Appendix 2: Study 2 Information and Consent Materials

(PRINTED ON UNIVERSITY LETTERHEAD)

“Relationships and You” Information Sheet

Chief Investigator: Ms Wendy Ducat (PhD Candidate)
School of Psychology
Griffith University
Ph. (07) 3735 3305
Email: w.ducat@griffith.edu.au

Primary Supervisor: Assoc Prof Melanie Zimmer-Gembeck PhD
School of Psychology
Griffith University
Ph. (07) 5552 9085
Email: m.zimmer-gembeck@griffith.edu.au

Associate Supervisor: Dr Analise O’Donovan PhD
School of Psychology
Griffith University
Ph. (07) 3735 3373
Email: a.odonovan@griffith.edu.au

My name is Wendy Ducat and I am seeking your participation in research that will contribute towards my Doctor of Philosophy in Clinical Psychology. Assoc Professor Melanie Zimmer-Gembeck (Primary Supervisor) and Dr Analise O’Donovan (Associate Supervisor) are supervising my research.

The purpose of this study is to examine young adults’ experiences in romantic relationships and how they see themselves. Participants must be aged 30 years and under and in a romantic relationship (either heterosexual or non-heterosexual, and dating, cohabiting or married) of at least one-month length to participate in the study.

Participation will involve the completion of a self-administered questionnaire that addresses your experiences in romantic relationships. The questionnaire will take between 30 and 45 minutes to complete. Sample items include "My partner lets me know he/she loves me"; "My partner tries to control me" and “I see myself as someone who worries a lot”. Consent to participate in the questionnaire will be assumed if you return the completed questionnaire.

Participation is voluntary and refusal to participate will involve no penalty or loss of benefits to which you might otherwise be entitled. You may discontinue participation at any time without penalty or without providing an
explanation. All responses will be anonymous and will be treated confidentially. Results may be published, however individual responses will not be reported.

Participants are offered the opportunity to enter into a draw to win two cinema tickets as a thank you for their participation. If you wish to enter, please complete your contact details on the attached sheet. This form will be separated from your survey (through either a separate sealed box or a separate sealed envelope) to ensure that your participation is anonymous. The prize will be drawn on 31 October 2007. In addition, participants who are part of the School of Psychology Participant Pool are eligible to receive one-hour course credit for their participation.

I will be conducting a future study further investigating young adults’ romantic relationships and their well-being in the next 12 months. This research will also be a self-report, anonymous survey taking approximately 45-60 minutes to complete. Please indicate on the attached “contact details” form whether you are willing to be contacted to participate in a future research project.

Please note that ALL participants have an equal chance of winning the cinema tickets no matter whether they wish to participate in the future study. Only winning participants will be contacted about the prize.

Feedback in the form of a summary of the overall outcome of the research will be available to all participants once both studies have been completed. In order to receive these results, please indicate this on the attached “contact details” form. Alternatively, please retain this form and email Wendy Ducat (on the contact details provided) to receive a summary of the results of the study. Should you have any further questions or require clarification on the information provided, you may contact Wendy Ducat on the contact details provided.

The University requires that all research participants be informed that if they have any complaints concerning the manner in which a research project is conducted it may be given to the researcher, or, if an independent person is preferred, either:

Manager, Research Ethics, Office for Research, Bray Centre, Griffith University, Kessels Road, Nathan, Qld 4111, telephone (07) 3735 5585 or email research-ethics@griffith.edu.au; or
Appendix 3: Study 3 Information and Consent Materials

(PRINTED ON UNIVERSITY LETTERHEAD)

Chief Investigator: Ms Wendy Ducat (PhD Candidate)
School of Psychology
Griffith University
Ph. (07) 3735 3305
Email: w.ducat@griffith.edu.au

Primary Supervisor: Assoc Prof Melanie Zimmer-Gembeck PhD
School of Psychology
Griffith University
Ph. (07) 5552 9085
Email: m.zimmer-gembeck@griffith.edu.au

Associate Supervisor: Dr Analise O’Donovan PhD
School of Psychology
Griffith University
Ph. (07) 3735 3373
Email: a.odonovan@griffith.edu.au

My name is Wendy Ducat and I am seeking your participation in research that will contribute towards my Doctor of Philosophy in Clinical Psychology.

Why is the research being conducted?
The purpose of this study is to examine young adults’ experiences in relationships (particularly romantic relationships) and their “wellbeing”, that is, their experience of positive and negative feelings and meaning in life. This study will contribute to understanding what people can do to enhance their relationships and wellbeing. Participants must be aged 30 years and under and in a romantic relationship (either heterosexual or non-heterosexual, and dating, cohabiting or married) of at least one-month length to participate in the study. If you are 30 years or under but your partner is over 30, you both will still be eligible to participate.

What you will be asked to do
Participation will involve you and your romantic partner each completing a questionnaire that takes between 30 and 45 minutes. You will be asked to sit separately from your partner and not to discuss your answers while completing the questionnaire. Your survey will have a number on it (e.g. 151) that matches a number on your partner’s survey so that your responses will be linked. While this allows us to look at responses as a couple, you and your partner will remain anonymous.

Risks to you
There are no anticipated risks in participating in this study. There are some questions that might be sensitive to some people, e.g., “my partner tries to control me” or “…have you felt so sad, discouraged, hopeless, or had so many problems that you wondered if anything was worthwhile?” Although adverse consequences are not anticipated, participants may wish to contact one of the following services to discuss any concerns or to receive support:

For Griffith University Students:
Griffith Student Counselling Services
Ph. (07) 3735 5669 (Mt Gravatt Campus)
Ph. (07) 3735 7470 (Nathan Campus)
Ph. (07) 5552 8734 (Gold Coast Campus)

For all participants:
Lifeline Counselling Centre
for 24 hour counselling: 13 11 14
**Prize Draw**
As a thank you for your participation, you will be eligible to enter a draw to win a **$100 Coles Group and Myer gift card OR a $100 JB Hi-Fi gift voucher** – There are TWO draws and you can choose! Your contact details will be separated from your survey (through either a separate sealed box or envelope) to ensure that your questionnaire responses are anonymous.

**Follow up questionnaire**
We would also like to send you a follow-up questionnaire asking about changes in your romantic relationship and wellbeing in the next 12 months. Because we would like to measure changes over time, we ask you to provide a code on the questionnaire that will be used to link your responses over time. This code is based on letters and numbers that can easily be duplicated by you in the future but which others cannot identify.

**Your anonymity and confidentiality**
As discussed above, your answers are anonymous and all responses will be treated confidentially. You cannot be identified by the questionnaire answers you provide. All data will be kept in locked computers, offices and filing cabinets. Only the investigator will have access to these.

**Your participation is voluntary**
Participation is voluntary and refusal to participate will involve no penalty or loss of benefits to which you might otherwise be entitled. You may discontinue participation at any time without penalty or without providing an explanation. Also, please note that ALL participants have an equal chance of winning a $100 gift voucher no matter whether you wish to participate in the follow-up study. Only winning participants will be contacted about the prize.

**Feedback to you and questions/future information**
We will mail you a summary of the findings of this research using the contact details you provide. Should you have any further questions or require clarification on the information provided, you may contact Wendy Ducat on the contact details provided.

The University requires that all research participants be informed that if they have any complaints concerning the manner in which a research project is conducted it may be given to the researcher, or, if an independent person is preferred: Manager, Research Ethics, Office for Research, Bray Centre, Griffith University, Kessels Road, Nathan, Qld 4111, telephone (07) 3735 5585 or email research-ethics@griffith.edu.au

**Expressing consent**
Consent to participate will be assumed if you return the completed questionnaire.

*Terms and conditions of entry*
1. When you enter the prize draw, you accept these terms and conditions of entry.
2. The research team and their immediate families are ineligible to enter.
3. Entry into the competition is by giving a completed contact details form, indicating your desire to be entered into the prize draw to the researcher from Griffith University.
4. The first random drawn entry from each draw will receive the $100 gift voucher.
5. The decision of the University is final and no correspondence will be entered into.
6. The prize is not transferable and cannot be redeemed for cash. The prize is not refundable.
7. The winner releases the University from any and all causes of action, losses, liability, damage, expense (including legal expenses) cost or charge suffered, sustained or in any way incurred by the winner as a result of any loss or damage to any physical property of the winner, or any injury to or death of any person arising out of, or related to or in any way connected with the University or the prize.
8. Any winner drawn for the prize who is unable to fulfill all of these terms and conditions will forfeit the prize and another winner will be drawn.
9. The winner will be notified by email or a telephone call no later than 30th June 2008.
10. The competition opens to entries at 25th February 2008 and the competition closes on 30th June 2008 or before if data collection is complete. The competition will be drawn at Griffith University on this day. You do not have to be present at the draw to win.
11. The prize will be posted to the winner or available for collection by the winner at Griffith University after the draw.