SWINBURNE UNIVERSITY OF TECHNOLOGY

Predicting Infidelity: The Role of Attachment Styles, Lovestyles, and the Investment Model

Julie Fricker

B. Ed.

B. A. Hons (Psych)

A thesis submitted in partial fullfilment of the requirements for the award of the Professional Doctorate in Psychology (Counselling Psychology) by Swinburne University of Technology.

March 2006

DEDICATION

This thesis is dedicated to my father
Lawrence Fricker
(1925 – 2003)
always my inspiration, my rock,
and my friend.

DECLARATION OF ORIGINALITY

I declare that this dissertation is my own account of my research and does not contain any work that has been previously submitted for a degree at any institution, except where due reference is made in the text. To the best of my knowledge this dissertation contains no material published by another person, except where due reference has been made. The ethical principles for research as stipulated by the Australian Psychological Society and Swinburne University of Technology have been adhered to in this research.

Several papers have been presented at conferences and published during the process of completing the thesis. A list of the published papers is included for interest in Appendix E.

Signed:

Julie Fricker
17 March, 2006

ACKNOWLEDGEMENTS

Many thanks go to several people. Firstly I would like to express my sincere gratitude to Sue Moore, my primary supervisor, for her efforts and support over the last five years. Her professionalism and enthusiasm has enabled me to maintain perspective and confidence throughout this venture. To my second supervisor, Bruce Findlay, whom I have known since my first year in the undergraduate psychology course (10 years ago!), thanks for his input and support. And heartfelt thanks go to Peter Reggars, who read the thesis and offered valuable feedback and encouragement.

I would also like to thank Glen Bates and Roger Cook for their support along the way and the library staff for their friendly assistance, particularly Mez, for often going the extra mile to be of help. As well, I am most grateful to the members of the focus group for graciously giving up their time. Their open and honest participation provided valuable input into this research.

To my mother and best friend, Marie, who was always there to lend a hand or an ear. She made an excellent (unpaid!) research assistant, too. Her unswerving encouragement and support helped me to remain steadfast to my goal. Appreciation also goes to special people, both family members and friends, for their interest and extra care when times were tough.

Finally, to my study buddy and dear friend, Monica, I'll never be able to thank her enough. The time we have spent together, the laughs, the frustrations, the cups of tea and chocolate, and of course the lunches will be among my fondest memories. We'll head into our professional future, the foundations of which we've laid together, with confidence.

ABSTRACT

Infidelity violates a western norm that a range of interpersonal behaviours should remain exclusive in committed romantic relationships. Once exposed, the aftermath can be detrimental to all concerned. However, despite a cultural majority endorsing this belief and apprised of the potential consequences of its violations, infidelity or extradyadic relationships are widespread. Furthermore, individual differences in beliefs about what constitutes infidelity blur the boundaries of acceptable behaviour, making the concept of unfaithfulness difficult to fully describe. This variation in attitudes and behaviour, along with the consistent media attention infidelity attracts affirms the enigmatic nature of the behaviour. In response, an aim of the study was to clarify the construct of infidelity among a contemporary Australian sample. This was achieved in two ways. Firstly, the study examined beliefs and behaviours associated with unfaithfulness using qualitative (focus group) and largely quantitative (survey) data. Secondly, the study involved investigation of the association between infidelity and several individual, relationship and environmental variables. Differences in relationships and environmental conditions can be conceptualised within the theoretical framework of the investment model, while adult attachment theory and a lovestyles typology offer theoretical underpinnings to the study of individual differences. Specifically, the aim of this stage of the study was to examine how adult attachment styles (anxious, avoidant), lovestyles (eros, ludus, storge, mania, pragma, agape), relationship variables (satisfaction, investment, commitment), and an environmental variable (perceived alternatives) predicted infidelity.

The sample comprised 243 women and 69 men between the ages of 18 and 60 years (M = 31.3 years, SD = 11.9) who were currently in a romantic relationship of at least one year or who had recently been in such a relationship. Participants completed measures pertaining to attachment, lovestyles and various aspects of relationship quality in addition to several measures of extradyadic behaviour. The study found that infidelity, as defined by respondents, was engaged in by 20% of individuals in their current relationships and by 42% of individuals in their previous relationships. Regarding the nature of infidelity, the current findings indicated that various sexual and emotional behaviours carried out with someone other than one's primary partner were considered unfaithful by the vast majority, while fantasy and flirting behaviours were generally seen as acceptable. It was noteworthy, however, that a substantial minority

also viewed fantasy as unfaithful, underlining the inherent complexity of the construct. The hypotheses concerning the variables predicting infidelity were partially supported. Results suggested that individuals most likely to engage in extradyadic behaviour were those with an avoidant attachment style or a Ludus lovestyle, more perceived alternatives to their relationship, and most unexpectedly, higher levels of investment in their relationship. Conversely, those least likely to engage in these behaviours were those with an Eros Lovestyle and greater levels of commitment to their relationship.

The study confirmed the prevalence of infidelity and emphasised the differential attitudes, behaviours and motivations associated with it. These differences are discussed in relation to the theories presented and an argument is made for research on infidelity to take a broader focus, one that includes the combined aspects of individuals, their relationships and the environment. Implications of these findings for individuals and couples and for the professionals who work with them are discussed, along with suggestions for future research.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE: INTRODUCTION AND OVERVIEW

Infidelity impacts strongly on relationship functioning and stability (Drigotas, Safstrom, & Gentilia, 1999; Whisman, Dixon, & Johnson, 1997), making the study of this phenomenon a crucial and timely endeavour. Various factors have been found to influence the occurrence of infidelity. These include the nature of the relationship, for example dissatisfaction (Atkins, Baucom, & Jacobson, 2001), the context of the relationship, such as opportunity (Treas & Giesen, 2000), and factors relating to the individual, including beliefs about love and sex (Wiederman & Hurd, 1999). However, as yet researchers have been unable to present a complete account of the behaviours, other than sexual intercourse, that correspond to this construct.

A very recent review of infidelity in committed relationships by Blow and Hartnett (2005) found that the particular behaviours seen to constitute infidelity are under-researched. This along with the media attention infidelity attracts testifies to the palpable appeal and perplexing nature of the topic. The present research was an investigation of the beliefs and behaviours associated with unfaithfulness among a contemporary Australian sample. Correlates and predictors of infidelity in intimate relationships were examined, using theoretical frameworks relating to individual characteristics, relationship quality and environmental conditions.

What are current Australian beliefs about which behaviours comprise infidelity? How are individual characteristics, specifically those concerned with how we relate to others, associated with infidelity? What characteristics of relationships are associated with the tendency towards unfaithfulness? This study used a self-report questionnaire-based methodology, informed by theory, past research, and focus group discussion data to examine these and related questions.

Western culture reflects and reinforces the view that love, sex and commitment are strongly related in romantic relationships and sexual exclusivity is one of the norms considered integral to relationships encompassing these elements (West & Fallon, 2005). This appears to be especially true of marriage (Buunk & Dijkstra, 2000). Physical intimacy outside this partnership is viewed as unacceptable by the cultural majority, yet research confirms that the occurrence of this behaviour is in fact widespread (Allen et al., 2005; Atkins, Baucom, & Jacobson, 2001; Treas & Giesen, 2000). It thus appears that attitudes and intentions regarding infidelity do not necessarily equate to behaviour. Moreover, the notion of exclusivity is not limited to sexual behaviour. It encompasses a range of relationship behaviours, and research suggests

there are individual differences in attitude and values which blur the boundaries of what is considered acceptable and unacceptable. This variability in the description of behaviour, short of intercourse, which is considered permissible with someone other than one's primary partner, makes the concept of infidelity difficult to define. It is therefore important to begin by clarifying terminology.

Various terms have been used in this type of research to describe relationships or encounters of a sexual or romantic nature that occur outside the primary relationship. Terms include extramarital, extradyadic, extrapremarital, affairs, infidelity and unfaithfulness. This proliferation of terms reduces the clarity of the behaviours under investigation. A common theme in the literature is that certain behaviours carried out with a person or persons other than one's primary dating or marriage partner violate the boundaries of loyalty and trust and are thereby unacceptable. It is acknowledged that sexual jealousy and rivalry may result from such violations, and indeed in some cultures they may even be considered a legitimate excuse for violence (Wilson & Daly, 1992). Intrinsic to the concept of infidelity then, is the understanding that some relationship norm regarding exclusivity has been breached (Hansen, 1987; Thompson, 1984; Weis & Slosnerick, 1981).

Norms in this context refer to generally accepted expectations regarding what others do and what others think one should do. Western norms for committed relationships suggest that some behaviours are expected to remain solely within the primary dyad (between the two partners involved in the relationship). The term ‘extradyadic’ refers to behaviours that occur outside this dyad whether they are extramarital or extra-relationship. The use of this term allows for the inclusion of individuals in dating, cohabiting, or married relationships in the study. For the purposes of the current research, the term ‘infidelity’[1] will be used for the most part to describe a range of behaviors occurring in extradyadic relationships, that is, behaviours carried out with a person or persons other than one’s primary partner. The specific nature of these behaviours will be part of the exploration of this research, and the study will include an analysis of adults' beliefs about whether various behaviours do indeed constitute infidelity.

---

[1] When describing previous studies, the researchers’ terminology has been used when deemed appropriate.

Research on infidelity has previously focused largely on married persons, however an increasing amount is now centering on individuals in cohabiting and dating relationships and these newer studies are identifying comparable and even greater levels of infidelity (Drigotas et al., 1999; Forste & Tranfer, 1996; Oikle, 2003; Roscoe, Cavenaugh, & Kennedy, 1988; Treas & Giesen, 2000). In fact, Forste and Tranfer's (1996) study found that dating women were more likely to have an extradyadic partner compared to married women, and that cohabiting women were the most likely to have such a partner. Further, Roscoe et al. (1988) studied a dating population and contend the behaviours, including extradyadic behaviours, established in these relationships continue into marriage. Thus, in order to establish a comprehensive view of infidelity, the current study includes not only married respondents but also those who are in long term (one year or more) partnerships or dating relationships, and those who have recently been in such a relationship.

Prevalence of Infidelity

Reported rates of infidelity vary greatly across studies due to the type of infidelity included in the survey (many studies only concentrate on sexual infidelity) and the sample utilised (Blow & Hartnett, 2005). Very high rates of infidelity, for example generally stem from nonrandom samples. On the other hand, large representative samples include younger cohorts who may not yet have engaged in infidelity but might do so at a later stage. Moreover, the sensitive nature of the topic is a deterrent to disclosing this information for some individuals, so the figures generated from representative samples may be underestimates (Allen et al., 2005).

With regard to sexual infidelity, in the United States, 25% of men and 15% of women reported ever having had extramarital sex in the National Health and Sexual Lifestyle Survey (NHSLS: Laumann, Gagnon, Michael, & Michaels, 1994). In this survey 4% of married participants stated having had extramarital sex in the previous year. Similarly, using a representative sample of Australian adults, the Australian Study of Health and Relationships found that in the previous year 4.9% of men and 2.9% of women in committed relationships reported extradyadic sexual partners. The latter figures for recent sexual infidelity are noted to be relatively low due to possible underreporting, but are consistent with the recorded expectations of exclusivity in committed relationships (97%: Rissel, Richters, Grulich, deVissor, & Smith, 2003).

In two recent US reviews of the infidelity literature, Blow and Hartnett (2005) and Allen et al. (2005) concur that infidelity (more broadly defined) has occurred in around 25% of committed relationships, including approximately 22% to 25% of men and 11% to 15% of women. A less conservative review of the literature, however, indicates rates of approximately 25% to 50% of men and 10% to 25% of women (McAnulty & Burnette, 2004).

This relatively high incidence of extradyadic behaviour is interesting considering the problematic nature of infidelity and the stigma attached to it (Linquist & Negy, 2005). Barash and Lipton (2001) propose, in their book 'The Myth of Monogamy', that because humans are part of the animal kingdom, they may have a predisposition to pursue, or fantasise about, extradyadic partners, as monogamous sexual relationships are not common among most living organisms. This is purportedly because there may be evolutionary benefits by way of continuing the species. Still, aside from possible biological motives, several reasons for the incidence of infidelity have been put forward, some healthy, most unhealthy. The bulk of research asserts infidelity has detrimental effects on individuals and relationships.

In response to this, Linquist and Negy (2005) argue that the infidelity phenomenon is so varied and complex in terms of personalities, needs and situations, that it should not be dichotomized in terms of its acceptability or unacceptability. This being so, they recommend that therapeutic advances can be made by assessing the behaviour in terms of its consequences, rather than the extent to which cultural norms have been transgressed; a point that will be taken up in a discussion of the implications of the present study in Chapter 7. These consequences underpin the importance of the current research.

Rationale for the Study

The harmful effects of infidelity, and even the suspicion of infidelity, have been well documented (Atkins, Eldridge, Baucom, & Christensen, 2005; Shackleford, Buss, & Weekes-Schackleford, 2003; Schackelford, LeBlanc, & Drass, 2002; Vandello & Cohen, 2003). It is a serious threat to the stability and longevity of relationships and constitutes the most common cause of divorce in many cultures (Betzig, 1989). Whisman et al. (1997) surveyed couple therapists and found infidelity was reported as one of the most damaging issues in a relationship and one of the hardest to treat in therapy. It is thus worthy of note that approximately 50 - 65% of couples in therapy are

there subsequent to the exposure of infidelity (Glass & Wright, 1988). Once uncovered the consequences for the noninvolved partner can be far reaching. Various emotional reactions may ensue, not the least of which include depression, anger, humiliation and anguish. Of specific concern is the growing number of people suffering clinical depression consequent to the revelation of a partner's infidelity (Cano & O'Leary, 2000). Similarly, in many cases the partner who has engaged in infidelity often experiences negative feelings of anger, guilt, shame or depression making this event traumatic for the couple as a whole, and a serious threat to ensuing interactions (Gordon, Baucom, & Snyder, 2005). The emotional, psychological and physiological well being of both partners is further threatened if the divorce process is set in motion (Kitson & Sussman, 1982).

Relationship jealousy is activated when the behaviour of a partner in a valued relationship is perceived as violating an established (albeit often implicit) relationship boundary (Hansen, 1985). In the case of infidelity, the boundary crossed is exclusivity, the central premise, as noted, of the majority of romantic relationships. The sexual jealousy that is evoked in response to a partner's infidelity appears to be widely encountered across cultures, although it may vary in its manifestations (Drigotas et al., 1999). This type of jealousy has been associated with threats to individual self-esteem, the destabilisation of the primary relationship (Nadler & Dotan, 1992), and violence (Shackleford et al., 2003; Vandello & Cohen, 2003). In fact, in many societies wife battery and homicide are most frequently cited as a result of actual or suspected sexual infidelity by a woman (Daly & Wilson, 1988).

Violence within romantic relationships is also evident across all cultural groups. The beating and sometimes even murder of a wife has been defended in the legal traditions of several cultures (Wilson & Daly, 1992). The use of violence is frequently seen as a way of restoring a man’s honor which is believed to be lost as a result of a female partner’s infidelity (Vandello & Cohen, 2003). Vandello and Cohen’s questionnaire studies of university students from two cultures focused on how a woman’s infidelity reflects upon her male partner and how it impacts on perceptions of the woman. They found systematic within-culture variation and advised against generalizing about a particular culture. This has not prevented some theorists however, from citing male sexual jealousy as a major risk factor in violence towards a wife (Daly & Wilson, 1988; Shackleford et al., 2003).

In contrast to the negative impact on individuals and relationships generally assumed to result from infidelity, an affair may be a positive turning point in marriages experiencing conflict. The shock of infidelity turns some couples towards therapy; and provides a fruitful exit from what might otherwise be a continued downward spiral towards the dissolution of the union. Atkins et al. (2005) assessed 134 married couples who sought therapeutic help following marital discord. Couples who entered therapy subsequent to a partner's infidelity were significantly more distressed than those without the issue of infidelity. However, those couples progressed positively at a greater rate and ended therapy with similar outcomes to couples who had not experienced an affair. Issues other than those surrounding the affair were also addressed and reportedly focusing on the relationship as a whole proved particularly beneficial.

Another positive slant on infidelity can be seen in some early studies (Blumstein & Schwartz, 1983; Spanier & Margolis, 1983) showing that dissatisfaction with the primary relationship does not account for all unfaithful acts. Thompson (1983) posited a "personal growth model" to account for the extradyadic behaviour of partners who are reportedly satisfied with the primary relationship yet also engage in these behaviours. A wider range of companions and activities is seen by proponents of this model as expanding self-discovery and is thereby a more satisfactory arrangement. With regard to this, Thompson points out that individuals in these types of relationships need to clearly define boundaries and expectations, and explicitly focus on developing a union that is both open and flexible. This is no small feat considering the intricacies surrounding this behavioural domain. These findings, though exemplifying a minority within the culture, highlight the differential attitudes that exist regarding extradyadic behaviour.

The Current Study

The current study is based on three theoretical approaches – adult attachment theory, a lovestyles typology and the investment model of relationships. Each of these is explained in detail in Chapter Three. The theoretical approaches of adult attachment and the lovestyles typology are about how and why individuals differ in the way they relate to others, particularly in intimate relationships. These variations manifest in particular styles, or approaches, to romantic relationships. The investment model shows, via the interconnection of a number of relationship variables, the way relationships might differ in their level of commitment and how satisfying they are to the partners.

A number of relationship variables have been linked to infidelity in previous research. Some of these include relationship and sexual satisfaction (Atkins et al., 2001, Buunk, 1987), commitment (Drigotas et al., 1999; Seal, Agostinelli, & Hannett, 1994), sexual frequency (Edwards & Booth, 1976), and communication (Roscoe et al., 1988). Studies using the investment model (Rusbult, 1983) suggest that the level of a partner's commitment to the relationship can be used as a diagnostic tool for predicting infidelity. These studies propose that greater levels of commitment might reduce the likelihood of infidelity.

The investment model has demonstrated that commitment to a relationship is dependent on an individual's perceived level of satisfaction, the availability of attractive alternatives, and the degree of investment an individual has made in the relationship. In this context, 'investment' means things such as time spent away from family and friends, money, and shared memories. Inherent in the model is an individual's subjective account of the rewards and costs incurred in a relationship. The respective levels of these are in turn postulated to determine satisfaction, continuing investment in, and commitment to the relationship. The sexual components of a relationship encompassed by the model appear to have important implications for the study of infidelity, as sexual satisfaction forms a part of the rewards/costs balance that impinges significantly on overall relationship satisfaction (Fricker & Moore, 2002; Strube & Davis, 1998). The extent to which individuals perceive they have sexual alternatives to the relationship, and the extent to which they view monogamy as an important investment are likely to be important in the understanding of infidelity. The variables included in the model have successfully predicted infidelity in previous research (Drigotas et al., 1999).

While these relationship variables can thus be shown to strongly impact on infidelity, the complexity of the construct also demands consideration of other factors. A strong belief in the connection between love and sex for example has been found to deter the occurrence of unfaithful behaviour (Wiedermen & Hurd, 1999). Similarly, individuals vary in their perception of factors that impact on satisfaction in relationships and feelings of love or being 'in love' tend to increase individuals' perception of relationship satisfaction (Contreras, Hendrick, & Hendrick, 1996). It follows then that the construct of 'love' will underpin research on infidelity.

The theoretical assertion that love is a unidimensional construct dominated much of the early work in this area (Bersheid & Walster, 1974; Rubin, 1970; Sternberg & Grajeck, 1984). Rubin (1970) described one kind of true love, distinguished the idea of

'loving' from 'liking', and devised the first scale to measure the intensity of these domains. Love has since been approached from different angles empirically, for example; as a 'type', such as passionate love (Hatfield & Sprecher, 1986); as having 'components' such as intimacy, passion and commitment (Sternberg, 1986); and as a set of 'styles' including Eros, Ludus, Storge, Mania, Pragma and Agape (Lee, 1973). Taken in their totality, theories on love reflect commonalities as well as unique contributions, yet it remains apparent that love "means different things to different people in different relationships at different points in time" (Hendrick & Hendrick, 1989, p. 793). It seems, therefore, that a more complete understanding of the nature of love necessitates achieving a more integrated theoretical approach.

The theory of adult attachment (Hazan & Shaver, 1987) and the lovestyles typology (Lee, 1973) are good examples of multidimensional perspectives on love. These differences in approach to romantic love may be especially relevant to the study of infidelity as they can account for particular types of sexual behaviour, including multiple partners. In essence the current contention is that an individual's beliefs and attitudes about love and relationships will impact on the decision to engage in unfaithful behaviour/s with a person/s other than one's primary partner.

Aims of the Study

The present study aims to further delineate the factors that contribute to a susceptibility to infidelity. There are three general influences on close relationships: factors relating to the person, the other, and the environment (Kelley et al., 1983). Based on this, Wiederman and Hurd (1999) postulated that extradyadic relations would be associated with individual differences (e.g., personality traits, attitudes), differences between relationships (e.g., commitment, satisfaction) and environmental conditions (e.g., opportunity, attractiveness of potential partners). These authors focused on individual differences and suggested that future research should incorporate the remaining variables: the other, and the environment. Differences in relationships and environmental conditions can be illuminated within the theoretical framework of the investment model, while an adult attachment perspective and a lovestyles perspective offer theoretical underpinnings to the study of individual differences. To date these theories have been studied separately in conjunction with infidelity, but no attempt has been made to combine them. Doing so presents an opportunity to incorporate all three

facets of close relationships to further explain and predict infidelity. This accordingly constitutes a major aim of the current study.

Specifically, this study aimed to explore the nature of infidelity by way of identifying the dimensions that make up this construct. Another aim was to investigate the way in which attachment styles and lovestyles relate to the investment model variables of satisfaction, investment, commitment and alternatives in predicting infidelity. To meet these aims the thesis adopts the following structure.

Chapter Two explores the nature of infidelity in previous research. The main focus is on the extent to which attitudinal and relationship variables relate to infidelity. Chapter Three provides an in depth discussion and rationale for the utilisation of adult attachment theory, the lovestyles typology, and the investment model in contemporary research on infidelity and the implications of these theories for the current research. Chapter Four describes the aims and hypotheses central to the study. Chapter Five outlines the methodology employed for the collection of data. Chapter Six presents results found, including descriptions of respondents, views about the nature of infidelity, gender differences, and hypothesis testing with respect to the association between infidelity and individual, relationship, and environmental variables. Finally, in Chapter Seven these results are discussed, their implications drawn out, limitations of the study described, and suggestions for future research are made.

CHAPTER TWO: REVIEW OF THE INFIDELITY LITERATURE

Evolutionary theorists have argued that infidelity has always existed in one form or another among human couples and research has addressed a growing number of issues surrounding this phenomenon. The literature encompasses three areas: descriptions of who is unfaithful and how often; responses to the discovery of infidelity; and perceived causes for the behaviour. But for any of this to be useful it is first necessary to understand the different ways infidelity has been conceptualised.

What Constitutes Infidelity?

In a previous effort to differentiate what constitutes infidelity, Yarab, Sensibaugh and Allgeier (1998) used a sample of 219 university undergraduates to investigate the behaviours men and women viewed as 'unfaithful'. They included a relatively wide range of possible behaviours, such as sexual activity, sexual fantasy and social activities. Notably, results showed sexual fantasy was considered unfaithful leading to the notion that 'mental' exclusivity may be seen as important in addition to sexual exclusivity. Some respondents also considered some activities, such as studying together, to be unfaithful which the authors interpreted as expressing the respondents' concern that this behaviour might provide a greater opportunity for future sexual interaction. Fantasising about another person was also regarded as unfaithful among an older adolescent sample in Feldman and Cauffman's (1999) study. However, this study also found that everyday activities with the opposite sex were seen as acceptable. In contrast, the element of fantasy was not considered unfaithful in Roscoe et al.'s (1988) study. In this case, descriptive data was compiled from 257 unmarried university students and responses were divided into categories. The behaviours associated with infidelity ranged from flirting and kissing to sexual relations or emotional involvement with a person outside the primary relationship. These studies were all US based and comprised younger cohorts with ages ranging from 17 to 24 years.

Another form of unfaithful behaviour gaining attention more recently is internet infidelity. Whitty (2003) found a number of interactions occurring online were considered unfaithful by a large Australian sample (N = 1,117) of men and women aged between 17 and 70 years, recruited both online and offline. Sexual acts online were seen as more unfaithful than viewing pornography. It was concluded that the notion of infidelity involves a desire for contact with a person other than one's primary partner

rather than sexual gratification in other ways. Whitty also notes that this is consistent with the idea that the more threatening a fantasy is to the relationship the more likely it is to be considered unfaithful (Yarab & Allgeier, 1998). These results demonstrate that exploration of the behaviours considered unfaithful by the dominant population is central to the study of infidelity.

Types of Infidelity

Much of the infidelity literature to date categorises unfaithful behaviour into two distinct types: sexual and emotional. Sexual infidelity has been defined as behaviours of a sexual nature carried out with someone other than one's primary partner. Emotional infidelity refers to expending resources, such as spending time with someone other than one's primary partner. This can include talking or going on outings, where a romantic attachment may result but no sexual activity takes place (Shackelford et al., 2000). Sexual versus emotional infidelity has been the focus of mounting research aimed at identifying gender differences in sexual jealousy (e.g., Buss et al., 1999; Glass & Wright, 1985; Harris & Christenfeld, 1996; Schackelford & Buss, 1996)

One such early study extended traditional sex roles to extramarital involvement using a sample of 300 men and women, and found men were more concerned about their partner's sexual infidelity than women, while women were more concerned than men with their partner's emotional infidelity (Glass & Wright, 1985). These authors also described a type of extramarital involvement they termed a ‘combined-type’ that encompassed both sexual and emotional facets of extramarital relationships. The particular type of extramarital involvement entered into was found to depend on satisfaction in the primary relationship.

Of those who were unfaithful, more satisfied individuals tended to pursue primarily sexual affairs, while less satisfied individuals sought primarily emotional affairs. Dissatisfaction with the relationship was found to be greatest among those involved in the combined-type of extramarital relationship. Women generally reported higher levels of dissatisfaction as a precursor to infidelity, however when men were equally as emotionally involved with the extramarital partner they reported similar levels of dissatisfaction with the primary dyad. This study is one of the early attempts to classify unfaithful behaviours suggesting there could be overlapping but differential 'codes' (implicit assumptions) concerning extramarital involvement for men and women.

In support of this, a number of studies have since found a significant difference in subjective distress between the sexes when asked to imagine a partner engaged in sexual or emotional infidelity. Men have shown greater distress in response to a partner's sexual infidelity while in contrast, women have shown greater distress in response to a partner's emotional infidelity (e.g., Buss, 2000; Buss, Larsen, Westen, & Semmelroth, 1992; Cramer, Abraham, Johnson, & Manning-Ryan, 2000; Schakelford, Voracek, Buss, Weekes-Schakelford, & Michalski, 2004). Within this abundant research there is ongoing debate as to which theoretical framework best accommodates the findings generated.

The issue of sexual jealousy is an excellent platform for proponents of an evolutionary theory (Buss & Schmitt, 1993). The distinction between sexual and emotional infidelity is proposed to elicit differential jealousy responses according to gender because of the biological consequences of each. Males are reportedly more distressed as a result of their partner's sexual infidelity, because they cannot be certain about the paternity of offspring. On the other hand, females are reportedly more threatened by the emotional infidelity of their partner as this signals the possible reallocation of a mate's resources to another woman's offspring at the expense of her own. The theory espouses this sex specific difference as a biological adaptation to the major threat that infidelity poses (Buss et al., 1999).

An alternative explanation for these sex differences has been posited by DeStano and Salovey (1996) and Harris and Christenfeld (1996). These authors proposed that the presence of emotional or sexual infidelity implies that the other type of infidelity will likely occur. This hypothesis stems from the belief that our expectations of the opposite sex are formed as a result of social learning over many years, which accompanies any genetic predisposition that may exist.

In line with this, Nannini and Meyers (2000) studied the joint effects of gender and jealousy tendencies on the cognitive appraisal and degree of emotional upset resulting from three types of infidelity: sexual, emotional, and sexual/emotional combined. An undergraduate sample ($N = 322$) with roughly equal numbers of men and women participated in the study. Results supported the argument that disparity between men’s and women’s cognitive appraisals of infidelity are likely to account for distinctive experiences in sexual jealousy. In addition, a study by Cann, Mangum and Wells (2001) found that attitudes towards sexual activity and romantic relationships

influenced responses to both emotional and sexual infidelity, again indicating the importance of socialisation.

A number of versions of a socialisation perspective have also been put forward to explain sex differences in the occurrence of infidelity, and in responses to it. Common to all is the premise that gender differences in specific behavioural domains result from society's differential treatment of the sexes, although the specific psychological or social mechanisms involved may differ. Also consistent under the umbrella of socialisation theory are the findings that the intensity of response to emotional or sexual infidelity is different for men and women and that this can be accounted for by socialisation, rather than evolutionary, processes. Underlying these theories is the contention that the differential sex-role behaviours of men and women in primary relationships are also evident in extradyadic relationships (Glass & Wright, 1985; Seal et al., 1994; Simpson & Gangestad, 1991).

Studies that lend support to an evolutionary perspective have generally made use of forced-choice self report methodology. Respondents in these studies have been asked to consider hypothetical infidelity situations, rather than actual infidelity situations. These factors raise concern as to the validity of results and the capacity to generalise from them. Following a review of sex differences in sexual jealousy, Harris (2003a) found several studies are demonstrating conflicting results. For example, in some studies sexual infidelity has been reported as more distressing by both sexes while, in others emotional infidelity has been rated as more distressing by both men and women and in still others, with the use of continuous measures of infidelity, no differences have been found. Harris subsequently questions just how much of a sex difference actually exits.

According to Wiederman and Allgeier (1993), these mixed results may be accounted for by the combined influences of evolution and culture. A tendency towards differential jealousy cues and responses may stem from early evolutionary demands, but any such tendencies operate within a cultural context so the sociological factors affecting the outcomes of infidelity for each sex cannot be ignored. In this regard it is noteworthy that historically men have more often been excused and even rewarded for extradyadic sexual exploits (Buunk & Dijkstra, 2000) than women who have commonly been punished, quite severely in many cultures, for the same behaviour (Daly & Wilson, 1988).

With the distinction between sexual and emotional infidelity thus important to all competing theories regarding relationship behaviours of men and women, it is clear that the study of infidelity requires the inclusion of both these elements. The specific behaviours that make up each one, apart from whether or not sexual intercourse has taken place, are not clear cut, rendering further investigation of these elements advantageous.

The Role of Gender, Age, and Relationship Status

As described above, gender differences are apparent in a substantial number of the studies exploring infidelity, indeed gender is one of the most frequently studied variables in infidelity research (Atkins et al., 2001). Traditionally men have reported a greater frequency of infidelity compared to women; however this disparity is lessening within younger cohorts. These cohorts are even showing a higher incidence of infidelity (Allen et al., 2005; Rissel et al., 2003), which appears to decrease with age for women, but remain constant for men (Allen et al.).

Significant differences have not been found in several studies of 'actual', as opposed to 'potential', extradyadic behaviour (Feldman & Cauffman, 1999; Harris, 2002; Roscoe et al., 1988; Seal et al., 1994; Wiederman, 1997; Whitty, 2003). Further, studies including aspects of infidelity apart from sexual behaviours are another example where significant differences between the sexes have not generally been found. Wiederman (1997), for example, found that there were no differences in the type of infidelity entered into or in the incidence of infidelity for men and women under the age of 40. Clear gender differences in the incidence of infidelity are difficult to determine in the light of such inconsistent research.

Attitudes towards infidelity also differ according to gender. However, an important distinction, as with the incidence of infidelity, is that these gender differences have often been found in research exploring attitudes to 'potential' rather than 'actual' infidelity (Wiedermen & Allgeier, 1993). Women are reportedly more likely to associate sex with love and affection than are men (Hendrick, Hendrick, Foote, & Salpion-Foote, 1985), while men, compared to women, have been found to be more accepting of infidelity (Feldman & Cauffman, 1999; Hansen, 1987; Roscoe et al., 1988). In contrast, Harris (2003b) found no gender differences in responses to a mate's actual infidelity. The 358 men and women in this study had experience with two prior relationships and 36% of these participants reported experience with an unfaithful

partner. Both genders reported more distress over the emotional aspects of their partner's infidelity. Of interest, women were more likely than men to end the relationship as a consequence of their partner's infidelity. Similarly, an earlier study by Wilson and Medora (1990), which used 641 university undergraduates, the majority of whom (98%) were under 23 years of age and sexually experienced (75%) found that the attitudes of males and females towards various forms of sexual behaviour were converging. This apparent shift in attitudes has been followed closely by rates of infidelity that reflect increasing similarity, as noted by Oliver and Hyde (1993) and substantiated in several more recent studies cited above.

Whitty (2003) suggested that variations in attitudes towards unfaithful behaviour according to gender may be the result of sampling issues. The relationship experience of participants and whether or not they are currently in a relationship is likely to impact results. Younger respondents in Whitty's (2003) study rated sexual acts as more unfaithful than older respondents. Many studies in the area of infidelity use university students, which is likely to influence how unfaithful acts are perceived. Less experience in married or cohabiting relationships and less experience over all mean findings are harder to generalise to a more mature population. Harris (2002) also refers to relationship experience as an important factor in the gender debate. This author used an older sample and found no significant gender differences in sexual jealousy in response to either sexual or emotional infidelity. Apart from the sample, a noteworthy difference in these studies compared to previous studies on sexual jealousy was that the methodology used involved responding to infidelity that had actually occurred, as opposed to responding to hypothetical unfaithful situations.

Taken together, these studies suggest the advantages of exploring differences in age and relationship status in studies of infidelity. Further support for this view is found in the work of Amato and Rogers (1997) and Atkins et al. (2001). These studies found that younger age when starting a relationship was associated with greater likelihood of infidelity occurring in the relationship. Similarly, Treas and Giesen (2000) found that early sexual experience prior to a committed relationship was also associated with a greater likelihood of infidelity. It is worth noting, however, that cohort effects cannot be distinguished from developmental effects in cross-sectional studies, which makes results regarding age somewhat problematic (Atkins et al.). With regard to relationship status, dating has been posited as a time that may include less tolerance of violations in trust (Whitty, 2003).

Apart from gender, age and relationship status, a number of other factors can influence the occurrence of infidelity. For instance, in some studies longer relationships have been associated with higher levels of infidelity (Glass & Wright, 1985; Spanier & Margolis, 1983). In addition, previous research has found that higher levels of education, income (Atkins et al., 2001), and employment (Treas & Giesen, 2000), and a history of divorce (Amato & Rogers, 1997) are also associated with a greater occurrence of infidelity. Interestingly, education and employment were not significant correlates of infidelity in Rissel et al.'s (2003) national sample of 19,307 Australians, and for men neither was income. However, lower levels of income were associated with greater infidelity for women.

Ethnicity is another factor, with attitudes and practices varying widely across some ethnic groups but relatively similar across others (Blow & Hartnett, 2005). Religiosity, defined as regular attendance at church services leading to greater affiliation with a religious community, has also been found by some researchers to lower the likelihood of infidelity (Atkins et al., 2005; Treas & Geisen, 2000). Moreover, Blow and Hartnett's review of infidelity in committed relationships concluded that attitudes toward infidelity vary as a result of interaction effects involving gender, culture, relationship type, prior experience with infidelity and the particular behaviour that is defined as constituting infidelity.

Attitudes and Behaviours Associated with Infidelity

There are many expectations that exist in romantic relationships. The issue of fidelity appears to be central to the longevity and integrity of the relationship (West & Fallon, 2005). However, a closer look at differential attitudes and societal norms surrounding fidelity goes a long way to clarifying the motivating factors contributing to extradyadic relations.

Many of the norms associated with relationship exclusivity have begun to change over the past thirty years leaving substantial uncertainty as to the particular behaviours partners should expect to remain restricted. For instance, research has indicated an association between more liberal attitudes and a greater likelihood of engaging in unfaithful behaviours (Buunk & Bakker, 1995; Oikle, 2003; Seal et al., 1994; Simpson & Gangestad, 1991; Treas & Geisen, 2000). The situation is then further complicated by Weis and Slosnerick's (1981) suggestion that individuals have "scripts", derived from particular family experiences, for sexuality, love, marriage and

extramarital involvement and that these scripts are brought into the partnership. Problems arise, they maintain, where the scripts of the partners in the union differ. The often implicit nature of exclusivity expectations leading to indistinct and ambiguous assumptions (Boekhout, Hendrick, & Hendrick, 2003) leaves individuals uncertain as to which particular extradyadic activities a partner may consider a violation. Many partners are likely to disagree on this issue (Weis & Felton, 1987) leaving relationships vulnerable to significant misunderstanding and conflict. Open communication regarding relationship boundaries often occurs only after a transgression (Thompson, 1984) when it is entangled with high levels of emotion.

The difficulty in confronting issues of relationship exclusivity is further illustrated in Boekhout et al.'s (2003) findings that, compared to men, women had higher expectations of relationships and favoured greater exclusivity. These authors found that many participants did not discuss the issue of exclusivity in their relationship yet reported having engaged in both emotional and sexual infidelity, despite endorsing these behaviors as unacceptable. Adding to the complexity is their further noteworthy finding that many respondents who had not engaged in unfaithful behaviours, in spite of having had opportunities to do so, reported desiring a sexual encounter with someone other than their primary partner at some stage. Whether or not this desire ever manifests into reality, the study indicates a lack of close alignment between attitudes or intentions, actual behaviour and fantasies.

The association between sexual attitudes and extradyadic behaviour is clearly in need of investigation. Individuals with a strong interest in sex and those with sexual experience prior to a committed relationship involving cohabitation or marriage were found by Treas and Giesen (2000) to be more likely to engage in infidelity. An earlier study by Wiedermen and Allgeier (1996) examined perceptions of infidelity associated with individuals' beliefs about the interrelationship of love, sex and marriage. Forty-five young married couples were interviewed and findings suggested that those with strong beliefs about a love-sex-marriage association were least likely to engage in extramarital sex and if they did they were most likely to do so in response to relationship dissatisfaction. Almost all respondents expected strict monogamy and had communicated this, believing extramarital sex was always unacceptable. A few felt that dissatisfaction or deficits in love may be an acceptable condition for the occurrence of extramarital sex.

Wiederman and Hurd (1999) administered a battery of questionnaires to a large sample of undergraduate psychology students (299 men and 392 women), the majority of whom reported having had extradyadic relations despite general disapproval of respondents for the behaviour. Variables relating to the behaviour included a game-playing approach to love, a self-perceived ability to deceive a dating partner, greater sexual sensation-seeking, and reduced adherence to the belief in a sex-love-marriage association. In line with this latter finding regarding beliefs are the results of Weis and Slosnerick's (1981) earlier study that indicated individuals less inclined to endorse an association between love, sex and marriage were more accepting of extramarital sexual and non-sexual involvement.

Adding to the factors that differentiate individuals who are more willing to involve themselves in extradyadic relations are the findings from a study by Seal et al. (1994). Participants were undergraduates between the ages of 18-25 who were reportedly in exclusive dating relationships. Gender and sociosexuality (an individual's restricted or unrestricted attitude towards sex) were the variables expected to moderate these tendencies across two experiments. Sociosexuality, if unrestricted, indicates a propensity for uncommitted sexual relationships which, based on the work of Simpson and Gangestad (1991), has been associated with the likelihood of establishing concurrent sexual relations. Results of the first experiment using 76 participants indicated that males and those with unrestricted sociosexual orientations were more willing to disregard relational boundaries in order to engage in extradyadic relations than those with a restricted sociosexual orientation.

In the second study, the researchers administered a behavioural measure to 88 participants and, again, males and those with unrestricted sociosexual orientations demonstrated a greater willingness to pursue extradyadic relations. Increased commitment to a relationship was found to inhibit the willingness to engage in extradyadic sexual behaviour for restricted individuals but not for unrestricted individuals. Interestingly, all respondents were less inclined to pursue extradyadic relations if the potential partner was involved in their own exclusive relationship. This latter study suggests that levels of commitment to a relationship interact with individual characteristics and both experiments highlight the influence of personality and relationship factors on infidelity.

Personality Variables

Several studies attest to the value of including both personality and relationship variables in future research into the underpinnings of infidelity. One example is Buss and Shackelford (1997) who, in an attempt to delineate the factors that make individuals susceptible to infidelity, obtained self-report, spouse-report and interview-report data from 107 married couples. Personality factors, relationship context and relative 'mate value' (how attractive a potential partner is perceived to be) were used as predictors of infidelity. Results suggested the personality variables of low conscientiousness, high narcissism, high psychoticism, and the relationship variables of sexual dissatisfaction and specific sources of conflict (such as jealousy, possessiveness and sexual withholding) were most strongly linked to a susceptibility to infidelity.

Schmitt and Buss (2000) related personality variables to infidelity as part of a larger study. Their research used the exploration of adjectives to determine how English-speaking people describe sexuality and found seven sexuality factors. One of the largest groups contained a theme of descriptors surrounding faithfulness to romantic partners. This factor was termed Relationship Exclusivity. When the factors were related to McCrae and Costa's (1986) Big Five model of general personality traits, low levels of Relationship Exclusivity were related to high levels of extraversion (especially in men). High levels of Relationship Exclusivity were related to higher levels of agreeableness and conscientiousness (especially in women). Relationship Exclusivity was not found to be significantly related to neuroticism or openness.

Similarly, one of the aims of a large-scale study by Schmitt (2004) was to further explore the way in which the Big Five personality traits are related to relationship infidelity. A total of 16,363 men and women from 52 national backgrounds living in 10 world countries were surveyed. Results demonstrated that relationship infidelity is universally associated with low levels of agreeableness and low levels of conscientiousness. However, results were more robust among Western cultures.

Finally, there is a body of research relating infidelity to the personality variables inherent in attachment theory and the lovestyles typology. This is discussed in detail in the next chapter. The facets of trust and reliability are encompassed in these perspectives.

Relationship Variables

A number of researchers assert the belief that patterns of behaviour established in dating relationships continue into more permanent partnerships (e.g., Roscoe et al., 1988; Wiederman & Hurd, 1999). Roscoe et al. (1988) explored the attitudes of an older adolescent dating population (aged between 18-23 years) regarding causes and consequences of infidelity, and this resulted in comparable findings to previous studies utilising married populations. Reasons for infidelity included dissatisfaction (the most frequently cited), revenge/anger/jealousy, the need for variety, and sexual incompatibility. There were noteworthy differences from adult responses in that the adolescent sample included boredom, insecurity, immaturity, and lack of communication as significant factors disposing toward infidelity. In addition, compared to married partners, dating partners in monogamous relationships were found to be more likely to consider ending the relationship as a result of infidelity. This bears an interesting similarity to Glass and Wright's (1977) early study where it was found that young married women were more likely to get divorced following infidelity than were older married women.

In another early study of sexual behaviour in and out of marriage, Edwards and Booth (1976) assessed the effects of eighteen demographic variables pertaining to social background and the marital relationship on marital and extramarital sexual behaviour. A total of 294 women and 213 men were interviewed and results revealed sexual behaviour in this sample was largely contextual for both men and women. It was found that as the level of marital conflict increases the frequency of sexual relations decreases. In turn the greater the decline in sexual frequency, the more likely is the occurrence of extramarital involvement.

Subsequent to an early review of ten studies on infidelity, Thompson (1983) deduced that deficiencies in the primary relationship are often a precursor to infidelity and play a major role in maintaining it. A ‘Deficit model’ was proposed as a major factor contributing to the occurrence of infidelity. Following this early work, a number of other studies have highlighted marital conflict and relationship dissatisfaction as significant contributing factors (e.g., Treas & Giesen, 2000; Wiederman & Allgeier, 1996). Buunk (1987) explored marital dissolution after exposure of infidelity and found couples in marriages that ended consequent to a partner's unfaithfulness were significantly more dissatisfied with the primary relationship and experienced more

conflict as a result of the affair. Of note, young married couples have been found to be more susceptible to infidelity consequent to conflict (Shackelford & Buss; 1997).

A recent study by Atkins et al. (2001) of 4,118 married individuals[2], confirmed that relationship satisfaction is significantly related to infidelity. Dissatisfaction with marital sex was a predictor of susceptibility to brief affairs for men and women, while marital dissatisfaction and a perceived lack of love and affection were also associated. Participants in "not too happy" relationships, for example, were four times more likely to report extramarital sex than those in reportedly "very happy marriages". However, the correlation between relationship satisfaction and infidelity is not clear cut as the study also found respondents in reportedly "pretty happy" marriages were twice as likely to engage in extramarital sex as those in the "very happy" group. Certainly satisfaction in the primary relationship is correlated with infidelity; however, this and a number of previously mentioned studies indicate that factors other than satisfaction play a part in the decision to be unfaithful. Moreover, and as noted previously, satisfaction is not always a variable implicated in infidelity (Thompson, 1983).

Much of the literature in this area suggests that factors relating to the individual and the marital relationship are associated with extramarital sex. Treas and Giesen (2000) integrated a set of determinants (personal values, sexual opportunities, marital relationship) using a sample of 2,598 respondents from the NHSLS (1992) who were either married or living together. The sample also included 45 same-sex cohabitors. Tastes and values (permissive), gender (male), greater interest in sex, central city living, opportunities in the workplace to meet others, and subjective dissatisfaction were all positively associated with infidelity.

The study also found that the sharing of social networks and the befriending of a partner's family were linked with a reduced likelihood of infidelity. In addition, cohabiting couples were more likely to be unfaithful than married couples, which is consistent with Forste and Tanfer's (1996) previously mentioned results for women. According to Treas and Giesen, these findings suggest that cohabitors are not as highly invested in their relationships and that higher commitment, as indicated in this case by marriage, is likely to influence extradyadic sexual behaviour. Overall, their study highlights the relevance of attitudes towards sex and romantic relationships, relationship

---

[2] Atkins et al.'s sample was accessed from the General Social Surveys conducted by the National Opinion Research Center at the University of Chicago.

factors such as satisfaction and commitment, as well opportunities for extradyadic interactions to research on infidelity. Indeed, lower levels of commitment have been found in other studies to be an important predictor of infidelity (Buunk & Bakker, 1997; Drigotas et al., 1999; Oikle, 2003).

In sum, the literature reveals that the construct of infidelity encompasses sexual and emotional behaviours, as well as fantasy. Issues of exclusivity expectations and the apparent lack of alignment between attitudes, intentions, and actual behaviour complicate the task of clarifying this construct. Extradyadic behaviours that involve both sexual and emotional elements appear to pose a greater threat to the primary relationship as indicated by reports of higher levels of subjective distress in response to a partner's infidelity. Historically men have engaged in infidelity at higher rates than women, however, this discrepancy is disappearing in contemporary research. Liberal attitudes towards sex and less adherence to the belief that love, sex and marriage are interrelated is associated with a greater incidence of infidelity. Personality, attitudinal and behavioural characteristics of the individual are important factors for infidelity research, as are relationship factors. The following chapter explores the application of relevant theories to infidelity that encompass aspects of the individual, the relationship and the environment.

CHAPTER THREE: THEORETICAL UNDERPINNINGS

This chapter discusses several major theories used to explain infidelity. These include an evolutionary theory, adult attachment theory, a lovestyles typology, and the investment model. The current study draws most heavily on the latter three models, but as the evolutionary perspective has gained increasing attention within the psychological research arena and has been popularised in the media it also merits discussion.

The Evolutionary Perspective

In evolutionary theory it is argued that the forms and function of living things that survive are those adapted to exploit environmental opportunity. Species survival is maximised by such adaptation. Courtship, mating, and reproductive and child-nurturing practices are important to evolutionary success, as adaptive practices are more likely to lead to the next generation being born and flourishing to in turn reproduce (Buss & Schmitt, 1993).

Inherent in the evolutionary/sexual strategies theory is the differential investment in parenting required by the sexes (Trivers, 1972). The number of children a woman may have is limited and the time necessary for gestation and lactation is lengthy. Conversely, men need only contribute sperm to this process so their reproductive potential is considerably greater. As a consequence, it is argued by evolutionary theorists (e.g., Buss & Schmitt, 1993) that women tend to be more selective than men with regard to mating partners. According to the theory, men and women have long faced different constraints on successful reproduction. Men are constrained by the number of women they can inseminate with success. Women, on the other hand, have the problem of finding a mate who is willing and able to invest resources in themselves and their children. Hence, men and women have different preferences for particular characteristics in the opposite sex.

Studies conducted by Buss and Schmitt (1993) suggest that compared to women, men are more oriented towards short-term sexual strategies, are not as stringent about the standards a short-term mate must meet, require less time before sexual relations and desire a larger number of sexual partners. Men pursuing a long-term sexual strategy incur the costs of lost opportunities for sexual access to other women. According to the theory, men would be inclined to reduce these costs by pursuing short-term sexual strategies. However, long-term mating is a viable option as a more desirable

mate may be found thereby reducing the effort expended for each viable offspring and paternity certainty is increased. In addition, a woman's lifetime reproductive capacity is gained along with sustained economic cooperation. Throughout evolutionary history, some men have sought extramarital affairs to avoid the opportunity cost of long-term mating, while maintaining its other advantages.

For women, long-term sexual strategies have the advantage of providing prolonged access to the resources and parental investment of a man. Again, while this is the preferred general strategy according to the theory, short-term sexual strategies are also utilised and are advantageous in that they provide immediate resources and act as a means of evaluating long-term mate prospects. They may also provide protection from abuse by males without mates and the possibility of accessing a more adaptive gene pool.

In two studies testing the value men place on the characteristics of faithfulness, sexual loyalty and chastity, Buss and Schmitt (1993) found that for a long-term mate, faithfulness stood out as the most valued characteristic. Faithfulness is seen as an adaptive solution to paternity certainty within this framework. In a separate study, women were also found to judge this characteristic as desirable in a long-term mate. Women found it considerably more desirable in short-term mates, which arguably lends support to the notion that short-term sexual strategies aid women in assessing the potential level of commitment of a mate for the long term.

As long-term mating strategies incur costs for both sexes, Buss and Schmitt (1993) contend there must be compensating reproductive advantages. Consequently, they believe that signs of commitment will be sought by men and women pursuing this strategy. They note future research should be directed towards identifying cues to commitment and cite Johnson and Rusbult's (1989) finding that as an individual becomes more committed to one mate, potential alternative mates begin to be derogated, which could be a cue to commitment.

The theory is consistent with a good deal of research data. However, there are some noteworthy shortcomings inherent in this perspective. Firstly, the core premise of the standard evolutionary model is that sex differences in mating behaviour exist as a consequence of the differential costs for each sex to reproduce their genes (Buss & Schmitt, 1993). Infidelity can be efficiently explained this way by advocates of this theory in the light of higher rates of male infidelity historically (Allen et al., 2005). The theory acknowledges that members of both sexes pursue extra-pair/short term strategies,

however, recent research findings show that rates of female infidelity are rapidly closing the gap (Allen et al.; Blow & Hartnett, 2005) and the theory at present does not appear to adequately address this.

Secondly, attachment processes, observed in pair bonds, are not effectively accounted for within this framework (Hazan & Diamond, 2000). Hazan and Diamond argue that human anatomy and physiology lend support to the notion that a propensity to bond with our mating partners is part of the evolutionary process. Sex in our species goes beyond simply meeting reproductive challenges. Hidden ovulation and female receptiveness to sex at any stage in the reproductive process are testament to this. In addition, the length of the penis enables multiple sexual positions, which is unlike other species and increases the likelihood of orgasm, and in turn greater female interest in sex. This and positions that are face to face are said to encourage bonding between partners.

In addition, these authors maintain that most samples in studies supporting the evolutionary theory are made up of young adults asked to identify the qualities that will make up eventual mate selection. Physical attractiveness is proposed to be highly valued by men and social status is proposed to be highly valued by women; however, this does not correspond strongly to actual mate selection. The highest-ranking qualities across studies for both sexes include understanding, kindness and intelligence, which translate into the kinds of attributes desired in attachment figures.

The argument presented by Hazan and Diamond (2000) that places emphasis on the shortcomings of evolutionary theory because it does not account for the typical mating patterns within the species appears cogent. Reproductive success is only part of an intricate picture that accounts for the establishment and maintenance of human sexual relationships. The attachment system facilitates the formation of an enduring bond that promotes survival and reproductive fitness. Hazan and Zeifman (1999) elegantly describe the pair bond as involving "a profound psychological and physiological interdependence, such that the absence or loss of one partner can be literally life-threatening for the other." (p. 351).

As already stated, the evolutionary perspective is one viewpoint from a number of approaches that offer theoretical underpinnings to the study of infidelity. Discussion of three other theories follows, and here it should be noted that adherence to one explanation does not necessarily negate another. For example, the adaptive challenges faced by the species as set out in evolutionary theory - mate acquisition, infant survival, and offspring care - are also at the core of attachment theory. As argued by Hazan and

Diamond (2000), any evolutionary theory of mating devoid of attachment is incomplete; the two are indeed complementary, rather than mutually exclusive. In addition, both the evolutionary approach and the investment model are based on the fundamental nature of relationships, namely the importance of an exchange of resources and the attractiveness of alternatives. These theories offer a similar explanation for the occurrence of infidelity, in so far as benefits are gained from a partner outside the primary relationship (Drigotas & Barta, 2001), but what constitutes a benefit is dependent on the approach. From an evolutionary perspective it is an individual's unconscious attempt to heighten reproductive success, whereas the investment model explains benefits as greater material and emotional wellbeing.

Attempts to reject the 'general' explanatory power of each theory about human behaviour are likely to be unproductive, as various aspects of competing theories can explain the outcomes of plentiful past research. Nonetheless, previous research acknowledges the benefit of further delineating the impact of particular theories to 'specific' human behaviours (Fenigstein & Peltz, 2002). To this end, the current research is designed to utilise the theoretical framework of adult attachment and a lovestyles typology, as components of its attempt to further delineate the construct of infidelity. The focus of another component in the study is to relate these individual styles to the investment model of relationship functioning, in an effort to test the variables within the model that have successfully predicted infidelity in previous research (Drigotas et al., 1999).

The Theory of Attachment

A chief component in the current study addresses individual differences in motives for unfaithful behaviour. The theories of adult attachment and a lovestyles typology provide an umbrella within which to partly explicate these motives. Adult attachment theory (Hazan & Shaver, 1987; Shaver & Hazan, 1988), stemming largely from the theoretical work of Bowlby (1969, 1973, 1980), describes an underlying mechanism that can account for crucial interpersonal behaviours through specific variation in emotional and cognitive responses to others. For example, in the theory it is argued that close physical contact is the basis upon which human attachments are formed, with infants and caregivers spending considerable time physically connected and engaged in mutual gazing. Adult attachment theory proposes that this is the same process that fosters enduring emotional bonds between adults.

Romantic infatuation facilitates this attachment mechanism in adults by eliciting a similar desire for close physical contact, along with other commonly acknowledged behaviours, such as idealisation of the partner (Tennov, 1979). This is arguably the channel by which a pair is held together long enough to form a lasting romantic attachment. This idealisation of a partner induced by infatuation impacts on perception, making the partner, whether male or female seem more attractive than he/she might be rated by objective observers, and this in turn helps promote bonding between partners (Hazan & Diamond, 2000).

The theory of attachment (Bowlby, 1980) goes on to explain how social experiences in the formative years can result in healthy or unhealthy adaptations to specific situations. A tendency to seek proximity to a nurturing adult and emotional reactions signaling distress upon unexpected separation exemplify an attachment behavioural system that is integral to survival. Proximity to an attachment figure provides the infant with a source of comfort and a secure base from which to explore surroundings. The emotional availability and responsiveness of parents to their infant's needs in stressful situations, especially before and after separation, provides a safe haven and becomes the standard by which infants learn to view the world. Beliefs and expectations about the trustworthiness of others and whether the self is worthy of care and attention stem from these early experiences of parental care. Within this framework it is postulated that infants and children create inner working models representing the self and others that become relatively stable components of personality, and subsequently influence future relationships.

In an effort to clarify how these mental models function, Collins and Read (1994) proposed an explanation based on current theory and research in social psychology and personality. It argues working models are automatically accessed in memory in response to events related to attachment. This directly affects the processing of social information, guiding cognitive and emotional responses and consequent behavioural patterns in distressing/anxiety provoking situations. The assumption is that the consistent and automatic activation of the attachment process allows the individual to maintain a coherent appraisal of the self and the environment. It is the persistence of these inner-working models, where rules are set in place to regulate emotion and govern behaviour that accounts for the continuity of attachment, according to the theory.

Using empirical methods, Ainsworth, Blehar, Waters and Wall (1978) identified three primary attachment styles: secure, avoidant and anxious/ambivalent, later renamed

anxious/resistant. As a result of responsive caregiving, the secure style involves infants using the caregiver as a secure base successfully when distressed. This level of success is not reflected in the two insecure styles. An avoidant attachment style, postulated as deriving from a lack of warmth or neglectful care giving, is manifested by infants displaying signs of detachment when distressed. The anxious/resistant style results in attachment behaviour that is marked by overt displays of protest and anger postulated to result from inconsistent caregiving.

Another style of childhood attachment was later reported (Main, Kaplan & Cassidy, 1985) and characterised as the most insecure. Termed disorganised/disoriented, the style is thought to lead children to display a number of confused and apprehensive behaviours, which are held to be associated with various forms of neglect or abuse. The efforts of these infants to attach to the caregiver, which persist despite repeated punishment from the attachment figure (Bowlby, 1979), are not satisfied and this results in confusion. Only about five percent of the children sampled displayed this and it is not often referred to in studies using attachment theory.

Following this pioneering work, the consistency of these styles of attachment has been observed in longitudinal studies, through to the initial school years (Main et al., 1985) and into the adolescent years (Kobak & Sceery, 1988). Secondary attachment figures can influence working models, particularly during the adolescent years where a sense of one's own identity is being formed. Bosnjak and Winkelman (2003) found attachment, along with self-esteem, contributed to identity formation during adolescence. This is a time where attachment functions tend to shift from parents to peers. The first attachment behaviour thought to transfer to peers is proximity seeking. Seeking comfort and support, a 'safe haven', follows this. The same process has been evidenced in adult romantic relationships. As a person demonstrates support for their partner in times of stress and responds generally to the needs of their partner on a day to day basis, a safe haven is provided, and in time a secure base is established (Feeney, 2004).

Self-disclosure, including sharing personal vulnerabilities not known to others, has been found to play an integral part in the development of close relationships (Berg & Derlega, 1987). Mikilincer and Nachshon (1991) postulated a logical progression from the working models formed in the attachment process to experiences of self-disclosure and the interaction goals of the individual. If intimacy is the goal, then the disclosure of intimate information is necessary, along with an adequate level of

responsiveness to a partner's disclosure to encourage mutual care and understanding. Longer relationships and increasing closeness, factors likely associated with greater self-disclosure, are significant elements in the development of attachment to romantic partners; certainly necessary to establishing a safe haven (Feeney, 2004).

The goal of the attachment system according to Bowlby (1973) is 'felt security'. This provides protection and facilitates procreation and is attained via the interconnection of exploration, caregiving and sexual mating. Thus, the theory posits the functions of attachment bonds are essentially the same for infants and adults. Adults may have a network of attachment figures that vary in order of significance however a romantic partner is generally viewed as the primary attachment figure (Doherty & Feeney, 2004). A large scale study ($N = 812$) by Doherty and Feeney found that in committed relationships romantic partners served the four functions of attachment: proximity seeking, safe haven, separation protest and secure base, thereby providing the strongest source of adult attachment.

One factor that lends weight to the pervasive effect of attachment, beginning in infancy and developing throughout the life span, and its subsequent relevance to the study of romantic relationships, is the comparable grief responses observed between infants and adults. These responses were, again first described by Bowlby who argued that separation distress signifies attachment. It is therefore significant that the death of a romantic partner is classified as the most stressful event on the Social Readjustment Rating Scale, followed by divorce and separation. These events are held to be potentially threatening to the physical and psychological well being of an individual (Holmes & Rahe, 1967). A lengthy response of initial anxiety and panic, followed by lethargy and depression has been observed in individuals who have lost their primary attachment figure, indicating an active attachment system in adults (Hazan & Zeifman, 1999).

Research into the meaning and significance of attachment behaviours contributes to a greater understanding of close relationships in adulthood. Significant differences in emotions, behaviour and cognitive processing, namely attributions, have been observed according to attachment style (e.g., Collins & Read, 1994). Love relationships provide many benefits, not the least of which include the mutual fulfillment of needs, attention, affirmation and satisfaction. The close union of partners reflecting an intimacy not shared with others is also proposed to provide protection from the environment. This special relationship could arguably be seen as underpinning the establishment of

exclusivity in romantic relationships and hence contribute to the painful consequences amid the revelation of infidelity.

Adult Attachment

Hazan and Shaver (1987) used attachment theory as a foundation for building an understanding of adult love. The three original styles of attachment, secure, avoidant and anxious/resistant, were used as the focus of two questionnaire studies. The first study included 620 men and women responding to a newspaper 'love quiz' and the second study involved 108 university undergraduates. Respondents were asked to choose one of three attachment descriptions that best characterised their feelings about romantic relationships. Results indicated support for similar attachment styles in adulthood as described in infancy and predictable differences in the way love is experienced. Moreover the frequencies of attachment styles observed in infants were similarly reflected in this adult sample. These attachment styles also related to memories of childhood experiences with parents and to the inner working models of the self and others.

Hazan and Shaver (1987, 1988) provided descriptions of romantic processes typical in adults and differentiated between particular styles of relating. However, as these authors noted, the studies were limited in so far as the descriptions centered on one romantic relationship and therefore lacked the perspective of different partners and circumstances. In addition, the measures were simplistic. Initial studies designed to replicate Hazan and Shaver's descriptions attempted to address these limitations. The first of these was a study by Levy and Davis (1988) that utilized a rating scale to indicate the significance of each category and highlight patterns of scores across attachment styles. A number of multi-item measures followed allowing researchers to more accurately apply attachment theory to relationship outcomes (Feeney, 1999). The original studies resulted in the following descriptions of each adult attachment style and have been supported in a number of subsequent studies (Collins & Read, 1990; Feeney & Noller, 1990; Kirkpatrick & Hazan, 1994; Levy & Davis, 1988; Mikilincer & Nachshon, 1991; Scharfe & Bartholomew, 1994).

Secure adult attachment is characterised by trust and a desire for closeness without the need to merge completely with another. In securely attached adults, the self is considered worthy of care and the partner is esteemed and expected to be responsive. These individuals report feeling comfortable depending on others and being depended

upon and are not often plagued with concerns of abandonment. This tends to lead to relationships described as positive and happy (Hazan & Shaver, 1987; Hendrick & Hendrick, 1989), with greater levels of trust, satisfaction and commitment (Collins & Read, 1990; Simpson, 1990). In times of distress, secure individuals are more likely to seek out and offer support to their partners, which may facilitate more positive and interdependent relationships (Simpson, Rholes, & Nelligan, 1992).

Anxiously attached people, on the other hand, are described as having an unconscious desire to merge with another. Partners are often idealised, yet the partner's responsiveness is uncertain, so their relationships are characterised by clinging and neediness. Self worth is low and the anxious individual is habitually concerned about abandonment. They report feeling undervalued, believing their partners do not love them enough and subsequently, they report recurrent negative affect, and lower levels of trust, satisfaction, commitment and interdependence (Simpson, 1990).

Avoidantly attached adults report discomfort with closeness and an expectation that partners will be unresponsive. They find it difficult to trust and depend on others and have a need to keep emotions at low levels of intensity. Avoidant individuals have a negative global perception of their relationships and report lower levels of trust, satisfaction and commitment (Collins & Read, 1990; Simpson, 1990). Early experiences of rejection in times of distress lead the avoidant individual to defensively retract from seeking or giving support in times of heightened anxiety/stress. This is thought to lower feelings of interdependence and heighten negative affect in the relationship. It is important to note that avoidant people still require and benefit from support and proximity, but seek and give it in times of lower emotional distress. Elevation of perceived threat activates defensive attachment behaviour. In this case, because early attachment figures have been inadequately available the need for proximity is frustrated and becomes associated with anger. The resultant conflict leads to fear of proximity and, in turn, avoidant behaviour (Simpson et al., 1992).

Feeney and Noller (1990) conducted another notable early study supporting Hazan and Shaver's (1987) analysis of attachment history and working models. Several measures of love were also used to explicate differences in attachment style. The study used 374 undergraduates, more than two thirds of whom were between the ages of 17 and 19. Results described differences in attachment styles and exemplified the significance of these styles in the study of romantic relationships. These authors found that mental models of self and others were more representative of a particular

attachment style than were ‘beliefs’ about romantic love. Attachment styles may thus have a powerful influence on openness to, or fear of interpersonal relationships and this may be particularly important within romantic relationships. The theory can explain how at least some forms of love develop, with different relationship styles stemming from a common set of underlying dynamics that are then shaped by social experience.

Around the time this early work was being carried out with the three categories of attachment, Bartholomew (1990) posited a four-category conceptualisation of attachment styles described as secure, preoccupied (anxious), fearful (avoidant) and dismissive (avoidant). The first three styles, secure, preoccupied and fearful, show meaningful overlap with Hazan and Shaver’s original descriptions, as noted.

The four categories stem from the underlying dimensions, anxiety and avoidance. These dimensions were labelled as ‘model of self’ and ‘model of other’ where the former is associated with anxiety about abandonment and the latter with avoidant behaviour. These dimensions represent a dichotomy of positive and negative elements, so that the ‘self’ is viewed as worthy (positive) or unworthy (negative) of love, and the ‘other’ can similarly be viewed as responsive (positive) or unresponsive (negative). This conceptualisation is more clearly understood diagrammatically. Figure 3.1, from Bartholomew and Horowitz (1991), represents this conceptualisation.

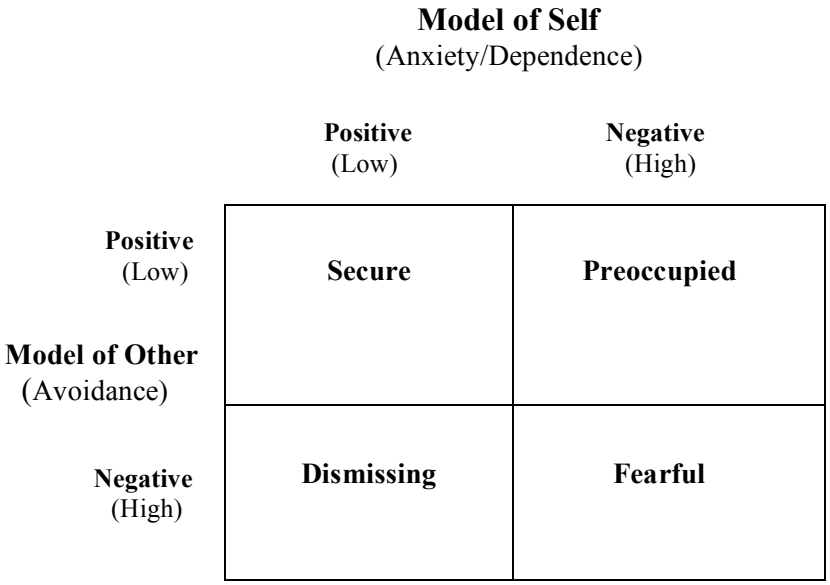

Figure 3.1. Four-category model of adult attachment.

Fearful individuals defensively deny the desire for intimacy. They in fact crave closeness but fear rejection and consequently experience high anxiety and high avoidant behaviour. Conversely, dismissing individuals, due to a basic mistrust of relationships, dismiss the importance of them, favouring independence. They in turn, experience low levels of anxiety and high avoidant behaviour. Feeney (2004) investigated the role of individual and relationship variables in the process of transfer of attachment from parents to romantic partners. Using a multi-item measure assessing these underlying dimensions of adult attachment: anxiety and avoidance, devised by Brennan, Clark and Shaver (1998), dismissing attachment was found to be associated with weaker attachment to romantic partners. Independence and the tendency to focus on work-related achievements rather than emotional factors are characteristic of this style.

Whereas the original category of avoidance is described as desiring intimacy, avoiding it for fear of rejection and disappointment, dismissing avoidant individuals focus on autonomy rather than intimacy. Avoidance of intimacy remains a common theme, as both styles find closeness and relying on others problematic (Bartholomew & Horowitz, 1991). The four-category conceptualisation has proved both popular and meaningful in numerous studies of close relationships (Feeney & Noller, 1996).

Attachment Styles: Enduring or Malleable?

The theory of adult attachment is founded on Bowlby's (1969, 1973) description of attachment as enduring emotional bonds. Bowlby theorised that generalised working models tend to remain relatively stable in adulthood. However, they are by nature dynamic so significant experiences can potentially alter aspects of existing models. Whether attachment styles reflect current relationship functioning or are more trait-like in nature is a contentious issue in the attachment literature.

The precise mechanisms by which attachment styles are maintained in adulthood requires further investigation, but according to Collins and Read (1990) individuals are likely to select social partners who conform to their established working models of how others behave. For example, studies have found that stable relationships (of at least a three year period) between people exhibiting insecure attachment styles are often those of avoidant men with anxious women (Collins & Read, 1990; Kirkpatrick & Davis, 1994; Simpson, 1990). Anxious women confirm expectations of the avoidant individual that partners are too demanding and clingy. Similarly, the distant and rejecting tendencies of avoidant partners are congruent with the mental models of anxious persons (Kirkpatrick & Davis). In this way attachment experiences remain constant and provide a context within which to place social outcomes. These experiences shape behaviours across a variety of interpersonal interactions.

This example also demonstrates the way in which working models function to facilitate stability. Once activated, information is processed in ways that confirm the model, so that perception, memory and appraisal of events can be biased. In addition, behavioural responses are apt to ensue automatically and these repeated responses tend to draw patterns of responses from others that reinforce the working model (Collins & Read, 1994).

A longitudinal study by Scharfe and Bartholomew (1994) found that adult attachment shows high stability over short periods of time and these authors suggest that results to the contrary may be the outcome of unreliable measures. A sample of 177 couples participated in a study exploring stability and change in representations of adult attachment. Several methodologies were used including self-report, partner-report, and interviews, across categorical and continuous scales. Adult attachment remained moderately stable across an eight month period. It is noteworthy that multi-item, continuous measures were deemed the most appropriate tool for attachment research as reliability can be easily estimated, while it is problematic with categorical measures.

The stability of attachment has also been shown over a 4-year period (Kirkpatrick & Hazan, 1994). Data was compiled from 172 couples, 70% of whom reported the same attachment style at the beginning and end of the study. The data appears to support the validity and reliability of self-reported attachment styles over time. It is noteworthy that respondents in this study tended to rely on current relationship feelings with regard to attachment items, when providing retrospective accounts of attachment. These authors argue that attachment styles reflect both relationship functioning and some trait-like aspects as well, as more changes were recorded in relationships over the four year period than in attachment style.

Instability in attachment styles can reflect some unreliable measurement issues, but at least some of the instability noted is likely to be realistic change in attachment representations over time (Feeney, 1999). As noted, significant emotional experiences that are inconsistent with working models have the potential to change attachment. For example, significant life changes including leaving home, getting married, having a baby or the loss of an attachment figure can destabilise existing models. Indeed, a longitudinal study by Feeney et al. (2003) examining transition to parenthood, found this to be a time where the attachment dimensions (anxiety, avoidance) “may be particularly malleable” (p.492).

In addition, relationship dynamics vary according to the partners involved, and this can influence attachment processes. Davila, Karney and Bradbury (1999) investigated the process of attachment change in the early years of marriage and found that their sample of 172 couples generally showed positive change in attachment beliefs across the first few years of married life. They suggested that over time significant interpersonal circumstances are associated with meaningful changes in individuals' beliefs about attachment security. Feeney (2003) also found that the attitudes and behaviours of the partner influence an individual's sense of security, so attachment representations may vary across relationships.

A recent study by Fallon and Goh (2004) examined the effects of individuals' romantic relationship history on their attachment styles. The continuity of parental caregiving and adult romantic attachments was investigated to determine if attachment styles are reflective of stable models of the self and others, or if they represent a more fluid form, that of the self in relation to others. Results showed that attachment can be consistent across time, the majority of individuals reportedly secure in an earlier relationship were also secure in their next relationship, or modified by significant

environmental or contextual changes. The highest percentage of change was that of insecure attachment towards secure attachment.

These results suggest that secure attachment tends to be more stable than insecure attachment over time, which is consistent with a number of other studies (e.g., Hollist & Miller, 2005; Kirkpatrick & Hazan, 1994). They also suggest that significant experiences in intimate relationships may dilute the influence of working models for some people, as suggested in earlier studies (Hazan & Shaver, 1987; Mikilincer & Nachshon, 1991). Insecurely attached individuals can learn to trust another, given sufficient positive experiences to disconfirm existing working models.

Attachment: Part of an Integrated Behavioural System

Regardless of whether or not attachment styles remain constant, and though the content and expression of attachment-related behaviours differ, attachment theorists propose the purpose and process of attachment, beginning in infancy, remains the same throughout the lifespan. One important age-related difference that does emerge is the subtle and symbolic way in which well-developed schemas and language skills are used to maintain proximity in adulthood, when crying and other emotional expressions are no longer the only means by which to communicate. Another difference lies in the fact that adults are attachment figures for one another in romantic relationships and, as such, the attachment system operates in the context of reciprocal caregiving and sexuality, as noted earlier (Bowlby, 1973). The attachment perspective on romantic love is hence exemplified by three independent, yet integrated behavioural systems: attachment style, caregiving, and sexual mating. The majority of romantic relationships involve varying mixtures of all three elements, however, one or more components may be absent in some instances (Shaver & Hazan, 1988). It is proposed that the attachment style is the first of the three behavioural systems to develop and, as such, impacts greatly on the onset and development of caregiving and sexuality, making it integral to the maintenance of romantic relationships (Shaver & Hazan).

Using a sample of 229 married couples, Feeney (1996) found empirical support for the association between attachment dimensions (comfort with closeness and anxiety over relationships) and caregiving (responsive caregiving, compulsive care). Lending credence to the theory that these behavioural systems are interrelated, greater comfort with closeness was moderately associated with responsive caregiving. Secure attachment thus reflected appropriate caregiving, which means being highly responsive

without being compulsive. Reports from the preoccupied group reflected the reverse. The least adaptive style was the fearful avoidant group which endorsed low responsiveness and compulsive caregiving, while dismissing individuals reported moderate levels of responsiveness and no compulsive caregiving.

Similarly, Carnelley, Pietromonaco and Jaffe (1996) sampled dating and married couples concerning caregiving and relationship functioning and found support for the interrelationship between attachment and caregiving. Individuals' childhood experiences of caregiving, especially those with the same-sex parent, were significantly associated with the giving and seeking of care in romantic relationships.

With regard to sexuality, the way in which one perceives the sexual self is posited to be closely connected to an individual's early attachment schemas, particularly with the widening attachment experiences characterising adolescence and the early adult years. As a result attachment behaviours in romantic relationships may be influenced by the sexual self-schemas developed at this time (Cranowski & Anderson, 1998).

Healthy functioning of these integrated systems is evidenced in secure attachment. These individuals are described as being able to give and receive care appropriately and capable of responding to cues from the partner as to when and how care should be given. Sexuality should therefore, function "with mutual intimacy and physical pleasure as the likely aims and outcomes" (Shaver & Hazan, 1988, p. 488). Support for this was found in study by Hazan, Zeifman and Middleton (1994, as cited in Feeney, 1999). In addition, these authors found that secure individuals were less likely to engage in extradyadic sex.

Conversely, insecure attachment styles foster behavioral systems of caregiving and sexuality that can be dysfunctional to varying degrees. For example, early experiences of perceived rejection leave the avoidant individual with a more limited knowledge of caregiving, leading to premature self-reliance and a reluctance to either give or receive care. Sexual behaviour is also expected to reflect detachment in order to avoid intimacy. This may result in a casual or promiscuous approach to sex, or sex may be exchanged for practical purposes (Shaver & Hazan, 1988). Empirical support for this has ensued. Avoidant individuals, compared to the other attachment groups, have been found to endorse a more casual approach to sex (Feeney, Noller, & Patty, 1993), to be more likely to engage in one-night stands than secure individuals (Brennan & Shaver, 1995; Hazan et al., 1994), and to self-report sexual behaviours reflecting lower levels of psychological intimacy (Hazan et al.). For the avoidantly attached, multiple partners can

serve to reduce emotional reliance on any one partner, so if abandonment occurs there is less invested and thereby less opportunity for hurt.

Anxious individuals may develop a compulsive type of caregiving to offset a fear of abandonment, stemming from the inconsistent care they received. They are demanding of loved ones, yet often critical of the care they are given and resentful of their own efforts. Sexual behaviour often mirrors this pattern, with the experience of intense sexual desire (Hazan & Shaver, 1987) and bouts of frustration common. Multiple partners often satisfy needs for security and intimacy (Hazan & Shaver, 1988), with more partners offering a kind of distorted insurance that abandonment will not occur.

The interplay of attachment, caregiving and sexuality has found support in Bogaert and Sadava's (2002) US study, where higher levels of infidelity were evident among anxiously attached women. This was a large scale community sample ($N = 792$) of men and women aged between 19 and 35 years. A multi-item scale to form two dimensions, 'avoidant/secure' and 'anxious' attachment was used, and respondents were asked if they had had an affair in the last year. These authors noted that the relationship between attachment and sexuality was significant but small. They suggested this may be due to individual differences in personality (e.g., sensation seeking), and physiology (hormones) or that attachment processes may need to be 'activated', which only occurs in particular situations, namely, stressful ones.

Similarly Feldman and Cauffman (1999) found a significant correlation between an avoidant attachment style and infidelity among a sample of older US adolescents (aged between 18-24 years). Infidelity was described as sexual betrayal and to measure this, respondents were asked if they had ever engaged in petting or sexual intercourse with someone other than their primary partner (with the understanding that the primary relationship was monogamous). The sexual betrayal described in this study was seen as reflecting the distancing tendencies indicative of avoidant individuals.

A recent study of adult attachment and patterns of extradyadic relationships (Allen & Baucom, 2004) utilised a large US sample, including 345 undergraduates and 113 community participants. Infidelity was defined as "romantic or sexual behaviour with someone other than the primary partner while in a primary relationship" (p. 470). Of the undergraduate sample 69% reported engaging in infidelity across two years prior to the study, and 46% of the community sample reported at least one extradyadic involvement. Attachment was measured dimensionally (anxiety, avoidance) using the

Experiences in Close Relationships Inventory (Brennan et al., 1998). Preoccupied females in the undergraduate sample reported more extradyadic partners in the two years prior to the study compared to secure females, while dismissing males reported the highest number of extradyadic partners over the same time relative to all groups. The community sample showed a trend for dismissing individuals to report higher rates of infidelity compared to the secure group, with males reporting more extradyadic partners than females.

These results were related to intimacy-regulating functions. Motivation for infidelity explored in this study revealed a need to feel cared about and feelings of isolation and neglect in the primary relationship for both preoccupied and fearful groups. Regarding the latter, this impetus warrants highlighting as these findings support descriptions of what underscores these individuals' well-learned defense mechanisms: a craving for intimacy. On the other hand dismissing individuals reported a need for space and a sense of freedom. The study also found that another motivation for the anxiously attached across both samples was to gain increases in self-esteem and desirability.

The Lovestyles Typology

An alternative approach to classifying ways of loving can be found in Lee's (1973) lovestyles typology. The lovestyles exemplify some of the factors that highlight the success of relationships, as the attitudes and characteristics that individuals contribute to a love relationship are fundamental to the development of the union. Lee proposes that different attitudes to love, stemming, in part, from previous family experiences, influence emotions and behaviours and can be classified into six main styles. Lee's aim was to "deconstruct and demythologize" (Lee, 1998, p.34) the view that there is only one kind of true love. His theory reflects the different views of love presented by people in over 200 interviews.

The lovestyles are likened to the structure of a colour wheel that contains both primary and secondary colours. Primary colours are the more common types and similarly, according to Lee, there are three primary lovestyles in our culture and an array of secondary lovestyles made up of a mix of these. He uses labels from ancient languages, as he argues that modern language does not contain adequate labels for different kinds of love. The six most important lovestyles in our culture include Eros, Ludus and Storge (primary styles), and Mania, Pragma and Agape (secondary styles).

Hendrick and Hendrick (1987) have added to the richness of some of Lee's descriptions of the lovestyles by exploring how the lovestyles relate to self-disclosure and sensation seeking.

Eros involves an intense physical and emotional attraction to another. Often an image of a lover is imagined and eagerly sought (Lee, 1998). This lover is passionate about love itself and willing to disclose and elicit disclosure from others, thereby facilitating the development of a relationship reflecting commitment, without the need to seek sensation elsewhere (Hendrick & Hendrick, 1987).

In contrast, Ludus is a game playing style of love where rules govern behaviour and the love object is expected to understand and play by those rules. There is no genuine commitment to one partner, nor is there any jealousy. In this way love can be anxiety free and fun; the way this lover believes love should be. Love can be played with multiple partners, or in a series of one after the other (Lee, 1998). Self-disclosure is lacking and there is a great need for excitement (Hendrick & Hendrick, 1987).

Storge is a lovestyle that lacks intensity, but is deep in affection and devotion once a commitment to the relationship has been made. It is often likened to a long-term friendship where trust has been built up over time and the emphasis is not on being "in love" (Lee, 1998).

Mania is one of the secondary lovestyles that combines features of Eros and Ludus. The mix results in an overly intense, possessive and anxious kind of love. Manic lovers demonstrate a strong desire to disclose and elicit disclosure from others (Hendrick & Hendrick, 1987). The loved one is thought of continually and there is a desperate need to be loved and be reassured of that love regularly (Lee, 1998).

Pragma is a mix of some of the characteristics of Ludus and Storge. These lovers see love as a practical matter of finding a lover with the demographic and personality qualities needed for compatibility and therefore, according to these lovers, a successful relationship. Pragmatic lovers also have a realistic idea of the type of partner they will be able to attract so that potential partners who are seen as 'out of their league' would not be sought after (Lee, 1998).

Agape combines features of Eros and Storge, making this style of lover intense and friendly. Individual's high in Agape are willing to disclose, and display no great need for excitement (Hendrick & Hendrick, 1987). Guided less by emotion than by reason, they have the added quality of altruism. Such altruism sees these lovers place the loved one's needs before their own (Lee, 1998).

Lasswell and Lasswell (1976) were the first to expand on Lee's (1973) work, devising a measure to test these styles of loving. By reducing Lee's four-hour interview technique into a half-hour paper-and-pencil test they were able to replicate these six main lovestyles in research spanning four years and involving more than 1000 respondents.

Further work towards the construction of a viable measure to explore and verify Lee's typology resulted in some contradictions. One study by Mathes (1980), tested the validity of the lovestyles and concluded that only one type of romantic love exists, made up of Eros and a clear absence of Ludus. The remaining lovestyles were not found to be independent of each other. A later study by Hendrick et al. (1984) found general support for the theory, however, the three secondary lovestyles came out as separate constructs, while the three primaries, although well represented, did not appear as clearly independent. Hendrick and Hendrick (1986) continued these efforts to provide further theoretical evidence of the existence of these conceptions of love. They used large university samples to test a 42-item questionnaire, the Love Attitudes Scale (LAS), which contained subscales to represent each of the six styles. Factor analysis revealed six distinct lovestyles of comparable size, and reliability analyses showed suitable internal consistency. Reliability was verified via test-retest methods.

Using an undergraduate sample of 70 heterosexual couples, Davis and Latty-Mann (1987) found the scale useful for predicting individual and couple relationship qualities, including satisfaction, supporting the notion that Lee's typology encapsulates many vital elements of love experiences. Hendrick and Hendrick's (1986) factor analysis confirming the six lovestyles, and internal consistency analysis was replicated. Results supported Lee's theory for Eros, Agape, Ludus and Mania, but Storge and Pragma failed to reach significance as independent lovestyles. The validity of Pragma and Storge has also been questioned in other studies (Shaver & Hazan, 1988; Levy & Davis, 1988). In response to this, Hendrick and Hendrick (1989) raise the idea that this may be due to the numerous college-age samples that are used. They suggested that these lovestyles could be more indicative of mature adults rather than poor examples of love, a notion also proposed by Richardson, Medvin and Hammock (1988).

Borrello and Thompson 1990 used factor analytic techniques and found evidence for the validity of Lee's typology, particularly for use in research involving marital quality. Support for the validity of the measure and the lovestyle typology has also been established in other research (Hendrick & Hendrick, 1989; Kanemasa,

Taniguchi, Ishimori, & Daibo, 2003; Richardson et al., 1988). The LAS has been used in many subsequent studies on romantic involvement (Davis & Latty-Mann, 1987; Frazier & Esterly, 1990; Fricker & Moore, 2002; Mallandain & Davies, 1994; Morrow, Clarke & Brocke, 1995; Yancey & Berglass, 1991), including cross-cultural studies by researchers in Portugal, Mexico, Japan and China (Lee, 1998).

Lovestyles and Sexuality

Adding to the richness and relevance of this typology is the conceptual link between lovestyles and sexual styles. Sexual styles have been conceptualised as sexual scripts that guide sexual information processing (emotions and meaning attached to sexual encounters) and behaviour (Frey & Hojjat, 1998). Frey and Hojjat investigated this link and found individuals endorsing Eros, Mania, Storge and Agape were inclined towards partner engagement, which is characterised as being romantic and overtly affectionate and occurs within a loving relationship. Ludic individuals, on the other hand were less disposed toward partner engagement.

An individual's approach to sexuality according to lovestyle was originally explored by Hendrick and Hendrick (1987) and found to be either idealist (dreamy and romantic) or instrumental (sex is to be enjoyed). These authors discovered the passionate Eros lover tended to be idealistic about sex. In contrast, the Ludus lover was permissive (casual sex is acceptable) and instrumental about sex. Pragma lovers were found to be relatively instrumental about sex, while Storge lovers were moderately idealistic about sex. In line with the passionate characteristics they share with Eros, Mania lovers were also moderately idealistic about sex. The Agape lover was also similar to the Eros lover, however, they were considerably more idealistic about sex and openly against permissive, instrumental sex.

Both studies highlight the ludic lover's casual approach to sex; an approach more likely to be associated with infidelity. Indeed, Wiederman & Hurd (1999) found that the Ludus lovestyle was a significant predictor of extradyadic behaviours (emotional and sexual) in their sample of young men and women in dating relationships. It could be speculated that manic lovers might also be inclined toward infidelity due to the relational traits they share with anxiously attached individuals.

Lovestyles: Enduring or Malleable?

Whether the lovestyles exist as stable personality traits or vary developmentally or according to one's relationship status is still in debate. However, the more malleable nature of the lovestyles, relative to attachment style, is inherent in part of Lee's (1998) original descriptions. He writes of his endeavour to heighten social awareness as to the wide range of experiences available to would-be lovers, so that if happiness is not found with one style, another may be pursued. Relationship satisfaction has been shown to be higher for individuals scoring highly on Eros and Agape and lower on Ludus (Davis & Latty-Mann, 1987). Indeed, the influence of a highly satisfying or a highly distressing relationship cannot be underestimated. The emotional reactivity associated with Eros and Mania makes these lovestyles particularly susceptible to change (Mallandain & Davies, 1994).

The styles of relating to others encompassed in both attachment theory and the lovestyles typology are valid and meaningful models for further delineating the occurrence of infidelity. They impact on cognitions and behaviours reflecting satisfaction, investment, and commitment in relationships, and so address the variables established in previous research as potential contributors to infidelity. An individual's attachment style or lovestyle, whether existing or adapting to the current relationship will therefore be one of the significant factors influencing unfaithful behaviour.

Gender Differences in Adult Attachment and the Lovestyles

Generally, self-report studies of adult attachment using Hazan and Shaver's three attachment styles have not reported gender differences (Collins & Read, 1990; Feeney & Noller, 1990; Fricker & Moore, 2002; Levy & Davis, 1988). This is thought to be consistent with Bowlby's contention that the human condition has an inborn need for felt security. However, gender differences have been found with the use of the four-category measure of attachment, with males endorsing higher levels of dismissing attachment and females endorsing higher levels of preoccupied attachment (Bartholomew & Horowitz, 1991; Scharfe & Bartholomew, 1994). Still, the use of different attachment measures has not consistently shown this result for females (Feeney & Noller, 1996).

The literature regarding gender differences in the lovestyles is plentiful, although results are mixed. Yancey and Berglass (1991) found trends, but no significant sex differences in lovestyles; whereas, some interesting contrasts have been found by other

researchers and replicated to varying degrees. More recently, Hendrick, Hendrick and Dicke (1998) using both the full and short forms of the LAS on a sample of 847 university undergraduates, found a general tendency for women to be higher in Eros. In addition, a clear gender distinction was found on three scales, with men being significantly higher in Ludus and lower in Storge and Pragma than women. These findings were consistent with some previous studies (Hendrick & Hendrick, 1986; Hendrick et al., 1984), but in contrast to Kanemasa et al. (2004) where women were found to be higher in Ludus. However this was a Japanese study and there are varying gender differences across cultures (Sprecher et al., 1994). Frazier and Esterly (1990) found men were more ludic and romantic than women, however, women were not found to be higher in Pragma, Storge and Mania than men. Moreover, an interesting finding in this study was that men were significantly higher in Agape than women, a finding consistent with that of Fricker and Moore (2002), whereas, previous studies have either not shown gender differences in this lovestyle (Hendrick et al., 1984), or found inconsistent results (Bailey, Hendrick & Hendrick, 1987). In the main, men have reported more game-playing tendencies and women have reported more friendship, practical and possessive styles.

Relationships Between the Attachment and Lovestyles Perspectives

A more thorough understanding of the factors that contribute to infidelity may be established by combining the theories of Attachment and Lovestyles. Indeed, Lee's empirical definitions of his lovestyles are seen by Shaver and Hazan (1988) as encompassing more than just attitudes to love. These researchers consider the lovestyles Eros, Ludus and Mania subsume the other styles and have their foundations strongly embedded in attachment. The results of their study are consistent with those of Levy and Davis (1988) who, as part of a larger study, found significant correlations between measures of adult attachment and lovestyle measures. Eros and Agape were positively correlated with secure attachment and negatively related to avoidant attachment. Ludus was positively related to avoidant attachment and negatively related to secure attachment. Finally, Mania correlated positively with anxious attachment. Later studies have resulted in comparable findings, with an additional correlation found between Pragma and avoidant attachment (Hendrick & Hendrick, 1989), but null findings for avoidant-Ludus and secure-Agape connections (Fricker & Moore, 2002) have also been found.

For the purposes of highlighting the similarities between the two theories, it is helpful to review the memories of childhood experiences reported by participants in the original studies (Shaver & Hazan, 1988; Lee, 1973). These experiences were an important base from which research into both the attachment and lovestyles perspectives have stemmed. Erotic lovers were content with life and work and reported happy memories of childhood. Relationships with both parents and siblings were described as warm and affectionate, resulting in, it was argued, romantic relations characterised by sincerity, mutual control and respect (Lee, 1973). Overall, this is a fair description of secure attachment (Shaver & Hazan).

Generally, life for the ludic lover was seen as neither good nor bad and childhood was described as 'average'. This lover was described as never feeling ready for a commitment and remaining in control of emotions for the most part. The ludic lovestyle has some obvious similarities to the avoidant attachment style. However, Hazan and Shaver note some important differences. The typical defensive style of avoidant individuals accounts for a tendency to shy away from relationships (Hazan & Shaver; Kobak & Screery, 1988); whereas Lee (1973) notes the somewhat carefree game-playing attitude of ludic lovers. From an attachment theory perspective, this deep-seated fear of intimacy is seen as dysfunctional in nature rather than 'carefree'.

Feeney and Noller (1990) found avoidant attachment and the ludic lovestyle were correlated, but suggest further exploration is warranted. They note two items of the Love Attitudes Scale (LAS, Hendrick & Hendrick, 1986) that focus on the game-playing (multiple partners) aspect of Ludus may not be strongly related to avoidant attachment. Of particular interest, the study highlighted the avoidant person's fear of intimacy, which can take many forms. Lee's (1973) description of Ludus acknowledges a lean towards either multiple partners or serial monogamy. A recent, short version of the LAS (Hendrick et al., 1998), containing 3-item subscales for each lovestyle, has only one item relating to multiple partners that is somewhat ambiguous; "I have sometimes had to keep my partner from finding out about other lovers". This item could be taken to mean prior lovers, rather than multiple lovers.

Much of the characterisation of the anxiously attached lover is reflected in Lee's (1973) description of the manic lovestyle. These individuals have an intense approach to romantic relationships in which commitment from, and dependence on partners are essential features (Feeney & Noller, 1990; Shaver & Hazan, 1988). They are often

lonely and discontented with a strong desire to fall in love, but with an expectation that it will be a painful experience (Shaver & Hazan).

Shaver and Hazan (1988) do not consider the remaining lovestyles independent. Although Storge appears similar to Eros and thus in line with the notion of secure attachment, it lacks the passion of Eros. They tend to have secure and happy backgrounds, like that of Eros, but unlike Eros, they often come from large families. Having to share available attention may result in less intense attachment to primary caregivers, or it may be due to a link between temperament and attachment style. These authors suggest that future research could find that secure attachment comes in both the erotic and storgic forms. No particular family patterns are seen as typical of those with Pragma or Agape lovestyles. The notion is offered that Pragma may be another form of avoiding intimacy and a healthier, less 'masochistic' version of Agape may correlate more strongly with Eros and thereby constitute another reflection of secure attachment.

These findings corroborate the notion that adult attachment styles and lovestyles offer significant empirical similarity, whilst also demonstrating unique contributions to conceptualisations of love. The theories differ in that adult attachment describes a proclivity towards adult love that is firmly grounded in early experiences of attachment with primary caregivers (Hazan & Shaver, 1987). Interpersonal functioning in adulthood is therefore a developmental process, in which working models of the self and others play an integral role. Lovestyles, on the other hand, albeit stemming from family experiences, offer rich descriptions of the current beliefs adults hold about love, rather than emphasising developmental issues. The attachment styles focus on themes of intimacy and trust, whereas the lovestyles complement and extend this focus by offering some of the communication themes integral to love (Hendrick & Hendrick, 1989). In effect, attachment styles can be seen as "the building blocks of interpersonal relationships" (Hendrick & Hendrick, p.792), while the lovestyles mirror the many beliefs and attitudes about love that result.

In summary, secure attachment appears to be associated with and could be the basis for the Eros and possibly Storge and Agape lovestyles. Avoidant attachment relates to and could underpin the Ludus lovestyle, although there are some apparent differences. Anxious attachment relates to and may be the basis for a manic lovestyle. Attachment links with Pragma are uncertain.

Securely attached people are less likely to be unfaithful in a satisfying relationship than insecurely attached people (Allen & Baucom, 2004). Certainly,

previous studies have linked higher levels of infidelity with both anxious attachment (Bogaert & Sadava, 2002), and avoidant attachment (Feldman & Cauffman, 1999). As noted, research on personality and infidelity has revealed unfaithful people tend to display a lack of trust. Insecure attachment is strongly associated with a lack of trust in others. Of the lovestyles, people endorsing more ludic and manic styles are more likely to be unfaithful in relationships than either of the Eros, Storge or Agape styles. Infidelity has been associated with a ludic lovestyle previously (Wiederman & Hurd, 1999).

An individual's approach to love is, thus, likely to influence the decision to engage in extradyadic and/or unfaithful behaviours. The relevance of the attachment and lovestyles perspectives to the study of infidelity is further highlighted via the impact they exert on each of the relationship variables integral to the investment model, particularly satisfaction and commitment as discussed below.

The Investment Model

Infidelity is associated with characteristics of relationships as well as characteristics of the individuals within those relationships. The investment model (Rusbult, 1980) is an attempt to describe the major features of intimate relationships. It was posited to explain the enhancement and deterioration of satisfaction and commitment in romantic relationships and the stay/leave behaviours of partners. In doing so, it also contributes a valuable framework for predicting infidelity.

The model is an extension of the Interdependence theory developed by Kelley and Thibaut (1978), which encompasses social exchange concepts. It proposes that variations in levels of commitment will influence decisions to stay or leave a relationship. Commitment is a subjective state that includes cognitive and emotional components leading to psychological attachment and motivation to continue a relationship. An individual's level of commitment is largely determined by the interrelationship of three elements: satisfaction, alternative quality and investments. Underpinning each of these elements is an individual's subjective assessment of the rewards gained and costs incurred by the relationship. Rewards encompass any number of perceived positive outcomes gained from the relationship. These may include happy memories, shared resources, and common interests; overall perceived positive outcomes. Costs incurred may be any of these and/or other factors, such as missed opportunities, that result in perceived negative outcomes.

Satisfaction is posited to impact heavily on commitment. Individuals are likely to be more satisfied with their relationships if their perceived rewards, or positive outcomes, from the relationship are high. When this is so, partners are seen to be fulfilling important needs. In addition, greater satisfaction will result if the perceived costs of the relationship are low. The relationship must, therefore, exceed comparison levels. A person's comparison level is the standard by which the attractiveness or satisfaction with the relationship is measured. Comparison levels can be influenced by direct or indirect experience, or symbolically. Previous experience of relationships, judgments of the relationships of significant others and comparing the outcomes of being with one's partner all play a part. Greater satisfaction is one factor that should increase commitment to maintain a relationship.

'Alternative quality' refers to the attractiveness of available options other than those available in the main relationship. It also affects commitment. Alternatives may be spending time alone, an alternative partner, dating others, spending time with friends or family, or a leisure or work interest. For example, if individuals are relatively dissatisfied with their relationship and see spending time with friends as a positive alternative, they may be less committed to maintain the relationship. Conversely, if perception of alternatives to the current relationship is poor, commitment to the relationship is likely to be greater. The quality of an alternative to the relationship is, therefore influenced by anticipated rewards and costs.

Investing numerous resources into a relationship will also impact on commitment. Investments may be intrinsic (put directly into the relationship) or extrinsic (resources that become connected to the relationship), such as mutual friends, shared activities, possessions and memories. Investments may be rewarding, as in the case of mutual friends, or costly, where money or emotional effort is expended. Investments, once in place, cannot be easily removed and so increase the costs of ending a relationship. In this way investments further increase commitment.

The first direct examination of the processes involved in the investment model related to romantic relationships was conducted by Rusbult (1983). Thirty-four undergraduates participated in a longitudinal test (across one academic year) of the model’s ability to address the development of satisfaction and commitment in heterosexual relationships. Relationship questionnaires were completed every 17 days. Overall, increases in satisfaction and investment and decreases in the perceived quality of alternatives tended to increase commitment over time for men and women, providing

general support for the predictive ability of the investment model with regard to satisfaction, commitment and stay/leave behaviours in romantic relationships. A notable finding was that satisfaction increased over time as a result of increases in rewards, however, changes in costs were not related to satisfaction until the later stages of involvement. Rusbult argues the early stages of relationships may cloud an individual's awareness of the costs in the relationship, as people tend to present themselves in the best possible light initially. This complements the previously mentioned tendency to idealise a partner in the early stages of infatuation, so that these factors together may lead to greater perceived satisfaction. The idealisation of romantic partners was positively associated with the satisfaction of both partners in Jones and Cunningham's (1996) study of relationship satisfaction in dating couples.

The investment model has been successful in predicting a number of relationship maintenance behaviours (Rusbult, 1983). It provides a conceptual basis for previous findings about infidelity, making it especially relevant for predicting this behaviour (Drigotas et al., 1999). According to the model, the central factor affecting infidelity is commitment. Commitment inhibits infidelity in a number of ways. Feelings of commitment account for levels of dependence on the current relationship and signify what could be lost as a result of infidelity. They also direct reactions to outside advances by inhibiting the inclination to be unfaithful even when this may be costly to the individual's self-interest. Greater commitment promotes consideration of the long-term consequences of infidelity to oneself, one's partner and to the relationship.

One of the factors associated with infidelity is reduced satisfaction with the primary relationship and increased satisfaction with another partner. The investment model illustrates the inter-relatedness of these factors: low satisfaction and high perceived alternative quality erode commitment, which increases the likelihood of infidelity. The pivotal part commitment plays in relationships can explain the occurrence of infidelity in relationships described as happy and the faithful behaviour of partners in reportedly unhappy relationships. Low investment and/or an attractive alternative can lead to infidelity despite satisfaction with the current relationship, while large investments and/or the lack of an attractive alternative can inhibit infidelity even when satisfaction is low.

The investment model variables of commitment, satisfaction, investment, and alternative quality successfully predicted dating infidelity and extradyadic involvement in Drigotas et al.'s US studies (1999). This research entailed two longitudinal studies;

the first comprised 74 undergraduate students (mean age 18.20 years), and the second comprised 37 undergraduate students (mean age 19.11 years). In both studies, relationships were described as 'serious' by the majority of participants and at least 79% of participants had been dating for an average of 28 months and 18 months respectively. The studies measured physical and emotional infidelity, along with a single factor labelled composite infidelity, comprising emotional, cognitive and physical intimacy with an extradyadic partner. Commitment, satisfaction and investment were lower, while alternative quality was higher among those who were subsequently unfaithful. Acts of infidelity were found to destabilize relationships via declines in commitment, satisfaction and investment and increases in perception of alternative quality.

Relationships Between Individual Styles and the Investment Model

One well-established contributor to infidelity is dissatisfaction with the primary relationship, either overall or with specific aspects of it (Atkins et al. 2005; Drigotas et al., 1999; Treas & Giesen, 2000; Wiedermen & Allgeier, 1996). Previous research using attachment style dimensions has found a link between the individual styles and relationship satisfaction, a fundamental variable of the investment model (e.g., Collins & Read, 1990; Feeney & Noller, 1990; Feeney, 1996; Fricker & Moore, 2002; Jones & Cunningham, 1996; Kirkpatrick & Davis, 1994). Greater levels of satisfaction have been reported, and found to be maintained over time, by securely attached individuals, while insecure styles, particularly of the avoidant type, are characterised by significantly less satisfaction, that declines further over time (Keelan et al., 1994). In addition, relationships where the woman has been classified as anxious have tended to be rated negatively by both partners, whereas male partners classified as avoidant rated their relationships more negatively than did their partners (Collins & Read, 1990; Kirkpatrick & Davis, 1994; Simpson, 1990).

Furthermore, the interaction of attachment dimensions and responsive caregiving have been related to relationship satisfaction in studies by Carnelley et al. (1996) and Feeney (1996), supporting previous research connecting secure attachment with greater satisfaction in romantic relationships and providing a more comprehensive account for the basis of this connection. The studies found that perceived increases in responsiveness of the partner were generally related to higher levels of satisfaction.

A number of studies have demonstrated it is generally ones own attachment style that is strongly related to satisfaction, irrespective of that of ones partner, with avoidant

men and anxious women experiencing the most negative feelings when thinking about romantic relationships (Carnelley et al., 1996; Kirkpatrick & Davis, 1994). However, Jones and Cunningham (1996) found the satisfaction of both partners was predicted by the interaction of the couples' attachment styles. A multi-item measure was used to tap the two major dimensions: Comfort with Closeness (avoidance) and Anxiety over Abandonment (anxiety). The main influences on relationship satisfaction were higher scores of male comfort with closeness, which had a positive effect for both partners, while higher male and female anxiety over abandonment impacted negatively on relationship satisfaction for both partners. Moreover attachment styles were found to be predictive of relationship satisfaction over and above the covariates of self-esteem, romantic beliefs, and gender roles.

In line with this, Hollist and Miller (2005) using a sample of 492 married individuals between the ages of 40 to 50 years, found that for both women and men, insecure attachment was significantly associated with lower levels of satisfaction in marriage. These researchers argue that secure attachment behaviours become more stable over time. They were interested in the consistency of attachment in the middle years of marriage and demonstrated that secure attachment had less influence on marital quality after 10 years because patterns of partner interaction in relationships become more established compared to the early years of marriage. Insecure attachment styles appear to show less resilience to life stressors.

Unlike insecure types, research indicates that more positive affect and greater well being are indicative of secure individuals (Kobak & Screery, 1988), as are more adaptive styles of love (Hendrick & Hendrick, 1989; Levy & Davis, 1988), indicated in reports of longer lasting relationships (Feeney & Noller, 1990). The length of relationships has been associated with higher levels of satisfaction (Frazier & Esterly, 1990), which supports an earlier finding that there is a greater likelihood of future relationship stability with higher levels of satisfaction (Hill, Rubin & Peplau, 1976) and it could be argued, less inclination towards infidelity.

Satisfying relationships do not, however, always prove stable, just as relationships reflecting low levels of satisfaction can be highly stable, (Kirkpatrick & Davis, 1994; Rusbult, 1983). As established previously, Rusbult's investment model suggests that it is levels of commitment rather than satisfaction that predict the longevity of relationships, and is the crucial component associated with infidelity. The apparent stability of some unsatisfying relationships may also be explained from an

attachment perspective. The compelling need to merge with another and fear of abandonment may lead to compulsive efforts on the part of the anxious person to elicit reciprocation of affection from a loved one. The relationship may be stable but far from satisfactory. Conversely, avoidant persons may leave satisfying relationships rather than become overly dependent on a partner. Similarly, unfaithful behaviour may be explained in part by means of attachment theory and its impact on satisfaction and commitment. Insecurely attached individuals tend to report their relationships as less satisfying than their partners and avoidant individuals in particular favour reduced commitment to romantic partners. This underscores the interplay of adult attachment and the investment model.

A research attempt to explore the relationship between attachment styles and the investment model variables was carried out by Pistole and Clarke (1995). These authors reasoned that insecurely attached individuals may be excessively attuned to information related to attachment, that is, the need for proximity or distance, and that this may lead to a greater emphasis on costs, while minimising rewards in the relationship. The subsequent imbalance may impinge on the variables in the model, by lowering satisfaction, commitment and investment. In the case of anxious attachment, alternatives may still be low as anxious individuals are obsessively attuned to their partner, whereas, avoidant individuals may view alternatives as greater because their attention is often directed away from the relationship in order to contain intense emotions. In the main, findings supported this. Individuals who were highly focused on attachment information reported greater levels of perceived costs in the relationship. Secure attachment was associated with higher levels of perceived satisfaction, commitment and rewards, and lower levels of costs. In addition, individuals endorsing an avoidant attachment style reported the lowest level of investments, but there were no differences between the styles on perceived alternatives.

With regard to the lovestyles, a number of studies using the LAS have found relationship satisfaction to be greater for high Eros and Agape scorers and lower for those who score highly on Ludus (Contreras, Hendrick, & Hendrick, 1996; Fricker & Moore, 2002). Greater levels of relationship satisfaction have also been associated with Mania for women, while less satisfaction has been associated with Pragma for men (Hendrick et al., 1988; Levy & Davis, 1988; Frazier & Esterly, 1990). In a study extending these findings, Morrow et al. (1995) found an association between Pragma and Storge and some measures of relationship quality. This contrasts with some

previously mentioned studies (Davis & Latty-Mann, 1987; Shaver & Hazan, 1988). These authors also examined partner similarity in lovestyles and overall relationship quality. Results indicated that relationship quality is most strongly associated with the individual's own love attitudes, and to a lesser extent the love attitudes endorsed by one's partner, a theme previously noted as present in some of the literature from the attachment perspective (e.g., Kirkpatrick & Davis, 1994).

The established association between Ludus and infidelity (Wiederman & Hurd, 1999) could arguably be extended by studying the lovestyles in conjunction with the investment model variables as a ludic style may influence unfaithful behaviours through its negative effect on satisfaction and commitment, variables known to impact infidelity. A similar link may also be established with avoidant attachment, infidelity and the investment model variables due to the characteristics these styles have in common.

In sum, the effects of individual variables on infidelity have been studied within the framework of adult attachment theory and a lovestyles typology, while the impact of relationship and environmental variables on infidelity have been approached from an investment model perspective. Greater levels of infidelity have been associated with individuals endorsing insecure attachment styles (anxious, avoidant), and those with a game-playing approach to love as indicated in a Ludus lovestyle. In light of this, and the characteristics common to each, it is not surprising that empirical overlap has been found between the Mania lovestyle and anxious attachment, and between the Ludus lovestyle and avoidant attachment, though each style also maintains a unique contribution to an individual's approach to romantic relationships.

Studies applying the investment model to infidelity reveal lower levels of satisfaction, commitment, and investment in relationships, and greater perceived alternatives are associated with higher rates of extradyadic behaviour. Avoidant attachment has been associated with lower satisfaction, commitment, and investment in relationships and this also holds true for anxious attachment.

These theories have been applied to infidelity separately and the coverage each has been given in the infidelity research to date is limited. In addition, these previous efforts have utilised US samples. The current study contributes further to the literature by combining these theories in an attempt to ascertain the joint effects of the individual (attachment, lovestyles) and investment model variables on participation in unfaithful behaviour among an Australian sample. This undertaking should prove valuable because not only do the attachment styles and lovestyles contribute to infidelity in their

own right, they also exert an influence on infidelity via the effect they have on the relationship variables of satisfaction, investment, commitment, and perceived alternatives.

CHAPTER FOUR: AIMS AND HYPOTHESES

The current study was designed to address a number of gaps in the literature on infidelity. One major component was to further explore the nature of infidelity among a contemporary Australian sample. Another was to examine the association between infidelity and a number of individual (attachment styles, lovestyles), relationship (satisfaction, investment, commitment), and environmental (alternative quality) variables. The study in effect had two key stages: describing infidelity and predicting infidelity.

The aim of the first stage was to explore the dimensions of the construct of infidelity in its broadest sense. That is, behaviours over and above those of an overt sexual nature, such as fantasy dimensions, were assessed in order to determine whether people understand infidelity as comprising more than sexual behaviour with an extradyadic partner. This aim was achieved through the examination of some qualitative (focus group), but largely quantitative (survey) data concerning beliefs about which behaviours constitute infidelity. Additionally, a survey of potentially unfaithful behaviours engaged in by respondents was conducted. The relationships between individual beliefs and behaviours and links between gender, age, relationship length, and relationship status with infidelity were also explored.

The goal of the second stage of the study was to establish the extent to which individual and relationship variables relate to and predict infidelity. To this end, an initial objective was to substantiate the relationships between the independent variables in the study by exploring the associations between attachment styles (avoidant, anxious), lovestyles (Eros, Ludus, Storge, Pragma, Mania, Agape), and the investment model variables, (satisfaction, investment, alternatives, commitment). Specific predictions are described below.

Relationships between Attachment Styles and Lovestyles

Firstly, the study was designed to partially replicate and extend previous findings that have shown significant correlations between attachment styles and lovestyles (Hazan & Shaver, 1988; Lee, 1973). It was hypothesised that:

(a) avoidant attachment would be positively correlated with Ludus and negatively correlated with Eros and Agape.

(b) anxious attachment would be positively correlated with Mania.

The remaining lovestyles were not expected to be significantly correlated with any particular attachment style. A diagram of these hypotheses is presented in Figure 4.1.

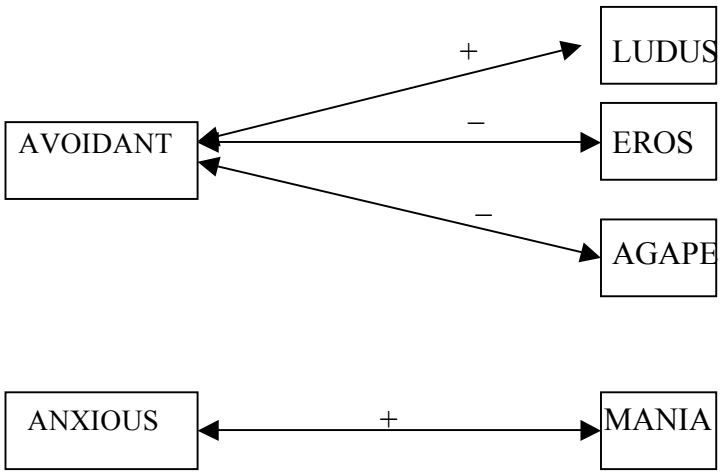

Figure 4.1. Predicted relationships between attachment and lovestyles.

Secondly, the intention was to test the validity of the investment model for the current data. Accordingly, commitment was expected to be predicted by higher levels of satisfaction and investment, and lower levels of perceived alternatives. This model is presented in Figure 4.2.

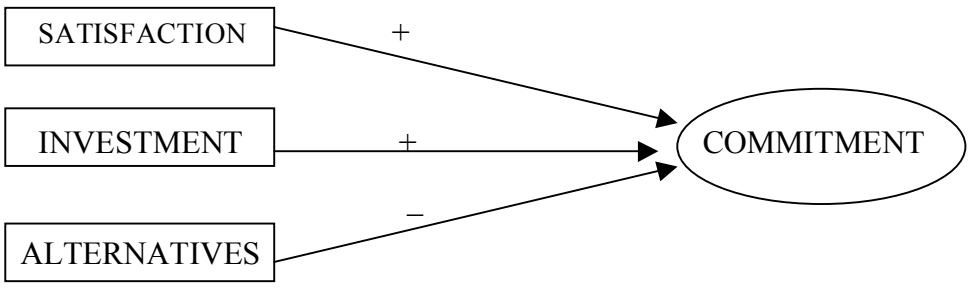

Figure 4.2. *The investment model*

Relationships Between Individual Styles and the Investment Model Variables

The next aim was to determine the relationships between the individual variables (avoidant, anxious, eros, ludus, storge, pragma, mania and agape) and the investment model variables (satisfaction, investment, alternatives, commitment). Previous research has shown that insecurely attached individuals tend to describe their romantic relationships as less satisfying than their partners and they tend to report lower levels of commitment and investment in romantic relationships. Lower levels of investment is especially true of avoidant attachment and it seems likely that these individuals would perceive their alternatives as greater. Thus, it was expected that:

(a) avoidant attachment would correlate with and predict lower levels of satisfaction, investment, and commitment, and higher levels of alternatives.

(b) anxious attachment would correlate with and predict lower levels of satisfaction, commitment and investment.

Figure 4.3 shows these hypotheses.

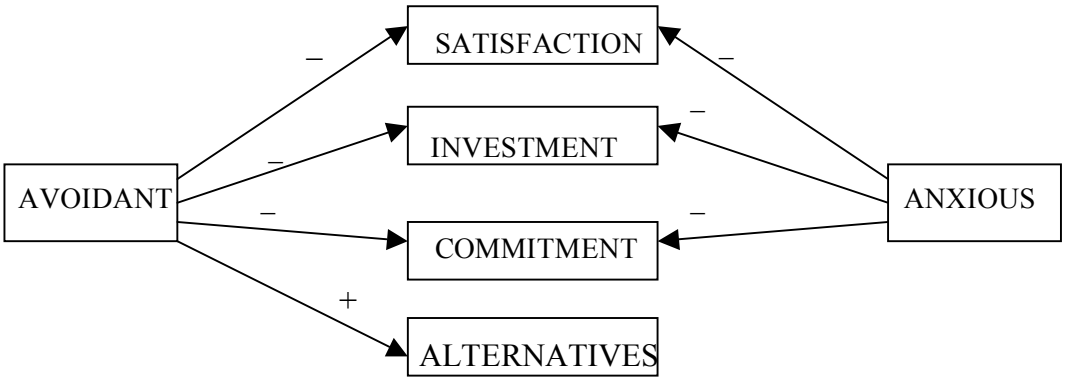

Figure 4.3. Relationships between attachment and the investment model variables

With regard to the lovestyles, those with the Ludus style, as described by Lee (1973), desire carefree interactions with romantic partners rather than the responsibility that is imposed in committed relationships. Conversely, Eros and Agape individuals are

characterized as highly committed to their relationships and these lovestyles have been positively correlated with satisfaction. It was therefore hypothesised that:

(a) Ludus would correlate with and predict lower levels of satisfaction, investment and commitment, and higher levels of alternatives.

(b) Eros and Agape would correlate with and predict higher levels of satisfaction, investment and commitment, and lower levels of alternatives.

Figure 4.4 shows these hypotheses. A further intention was to explore the impact of the remaining lovestyles on the investment model variables.

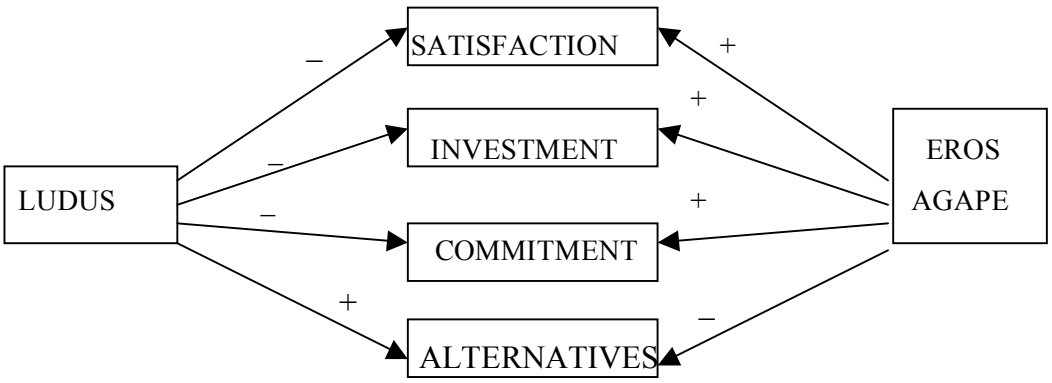

Figure 4.4. Relationships between lovestyles and the investment model variables

Relationships between the Independent Variables and Infidelity

The main focus of the study was how the attachment, lovestyles and relationship variables correlated with and predicted infidelity. Avoidant and Ludic lovers have a casual and often instrumental attitude towards sex. Avoidant attachment and a Ludus lovestyle have been linked with infidelity in previous research (Allen & Baucom, 2004; Wiederman & Hurd, 1999) and both styles have predicted lower sexual and relationship satisfaction (Fricker & Moore, 2002); two variables associated with infidelity. As noted, greater levels of satisfaction have been associated with Eros and Agape. The Manic and anxious styles are obsessive in nature and sexual frustration has been found to

accompany them, along with, for the latter, reportedly less satisfaction in romantic relationships. It was consequently postulated that the attachment styles and lovestyles would be significantly correlated with and predictive of infidelity to varying degrees. Specifically, it was hypothesized that infidelity would be correlated with:

(a) higher levels of both avoidant and anxious attachment.

(b) higher levels of Ludus and Mania.

(c) lower levels of Eros and Agape.

A consequent intention was to explore the impact of the remaining lovestyles, Storge and Pragma, on infidelity. Figure 4.5 displays these predictions.

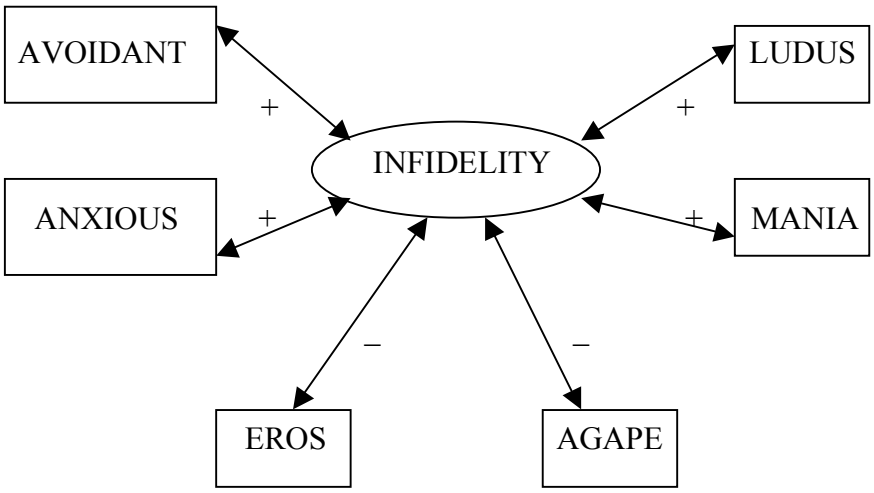

Figure 4.5. Relationships Between attachment, lovestyles and infidelity.

Several relationship variables have been significantly associated with infidelity (Drigotas et al., 1999). The following predictions were made regarding the associations between the variables that make up the investment model and infidelity:

(a) Lower levels of satisfaction, investment and commitment were expected to correlate with infidelity.

(c) Higher levels of alternatives were expected to correlate with infidelity.

See Figure 4.6 for these predictions.

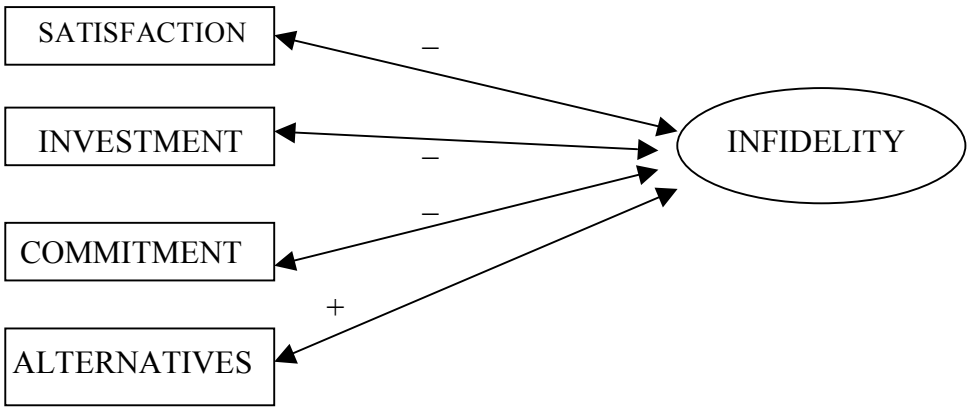

Figure 4.6. Relationships between the investment model variables and infidelity.

Combined Effects of the Individual and Investment Model Variables on Infidelity

The combined effects of attachment styles, lovestyles and the investment model variables on infidelity have not thus far been given a major focus empirically. Another important aim was therefore to investigate the nature of these relationships. Hierarchical regressions were used to predict infidelity, using the individual variables as the first set of predictors and relationship variables as the second set. The aim was to asses the contribution of relationship variables over and above the contribution of individual variables to unfaithful behaviour. Hypotheses were as follows:

Avoidant and anxious attachment would predict higher levels of infidelity.

(a) The Ludus and Mania lovestyles would predict higher levels of infidelity.

(b) The Eros and Agape lovestyles would predict lower levels of infidelity.

(c) Greater levels of satisfaction, investment, and commitment would predict lower levels of infidelity over and above the effects of attachment styles and lovestyles.

(e) Greater levels of perceived alternatives would predict higher levels of infidelity over and above the effects of attachment styles and lovestyles.

Finally the intention was to also identify the individual, relationship and environmental variables that are associated with unfaithful beliefs, and with dimensions or aspects of infidelity which may emerge from the descriptive analysis of this concept.

CHAPTER FIVE: METHOD

Design

This study used a cross-sectional research design and survey-type, self-report measures. This is one of several approaches that could have been taken for this type of study. Methodology for examining patterns of attachment for example does not only include self-reports, other methods such as interview techniques and behavioural observations are also employed. With regard to the study of infidelity, there is some evidence that self-reports and interview techniques render somewhat different results. Treas and Giesen (2000) found the prevalence of sexual infidelity was reported by 11.2% of married and cohabiting participants via interview data, while the survey method revealed 15.5% of married individuals had been sexually unfaithful.

A firm majority of the population find infidelity socially unacceptable (Allen et al., 2005; Rissel et al., 2004), so it could be argued that for research in this area the higher frequencies obtained from the survey method are due to a greater level of comfort in giving anonymous written responses than participating in an interview. In any event, the sensitive nature of infidelity cautions researchers as to the accuracy of data. A number of factors, including personal and/or gender biases and social desirability may influence responses and can lead to the underreporting of infidelity. Many researchers believe this underreporting is commonplace (e.g. Buss & Shackelford, 1997) and the tendency to deny participation in certain behaviours is most probable when it comes to those associated with social stigmas (Ajzen, 1988). The self-reported actual sexual infidelity of married individuals in most studies was found to be greater than the anticipated estimates of infidelity for the following year in a study by Buss and Shackelford. The current study assesses both beliefs about infidelity and actual infidelity so results need to be viewed in the light of such potential distortions.

Given that a focus of this study was to ascertain individuals' perceptions of love and romantic relationships, the utilisation of self-report methodology, despite certain limitations, is as relevant as it is advantageous in recruiting larger samples. Although the study centres on relationships, it is the individual's own cognitions, emotions and behaviours surrounding unfaithful behaviour that are of interest. For this reason respondents were asked to think in terms of experiences and expectations in their current or recent romantic relationship.

This research was not an attempt to further delineate theory per se, rather the theories have been applied for their demonstrated usefulness in the empirical study of

romantic relationships, many of which have made use of self-reports (Hazan & Shaver, 1987; Fallon & Goh, 2004; Feeney, 2004; Drigotas et al., 1999; Hendrick et al., 1998). An anticipated outcome of the research is that added credence will be given to their utility in this role and that their function will be further extended into relationship research. All measures employed in the study have been evidenced as valid and reliable in previous research. The strength of these measures is discussed in more detail in the Materials section below.

The current research addresses a notable limitation in previous studies that have utilised university/college undergraduates. Participants in this study were adults from the wider community in, or recently in, a romantic relationship. Thus a number of demographic variables (e.g., education, socio-economic status, age) were more broadly represented giving the study wider scope for generalisability.

The study is both descriptive and inferential. It is descriptive in so far as it aims to further elucidate the perceived nature of infidelity, and the range of beliefs and behaviours surrounding this construct. This was achieved through the use of focus group data in addition to the quantitative data that make up a major part of the study. This increases the potential to clarify individual variations in beliefs about infidelity. It is inferential in that a number of hypotheses were tested.

Participants

The sample comprised men and women between the ages of 18 and 60 years, who were currently in a romantic relationship of one year or more and individuals who had recently been in such a relationship ($N = 313$). Participants were recruited from a Melbourne university ($N = 126$), the wider community ($N = 112$), and via an Internet survey, using the University Surveyor Program ($N = 75$). The response rate for distributed surveys was 60%. The sample included 243 women and 69 men (one missing value) with a mean age of 31.29 years ($SD = 11.88$). A substantial proportion of the sample (86.3) had some tertiary education. Most of the participants were born in Australia (85%). The mean length of relationships was seven years ($SD = 8.26$). Respondents presently married or living together made up 59.6% of the sample.

Materials

Part A - Focus Group. The intention of the first part of the study was to ascertain the sort of behaviours individuals consider unfaithful when in a committed relationship (dating, living together or married). To this end, a focus group was convened. Adults between the ages of 18 and 60 years in a steady relationship of at least one year or those who had been in such a relationship were sought. An information sheet outlining the content to be discussed and describing selection criteria were made available through the University by means of distribution at classes and display around campus. A copy of the information sheet is available as Appendix A.

The group consisted of five participants, one married male, aged 55 years, and four females aged between 28 and 43 years. Of the females, one was currently living with her partner of 10 years, one was divorced, and two had recently come out of steady dating relationships. The discussion began with an introduction, welcoming and introducing participants to each other and outlining proceedings as follows: the session would be taped, all information would be kept confidential and the tape would be transcribed, removing any identifying data, and deleted upon completion of the research. Only first names were used in the group to help maintain confidentiality. The importance of refraining from divulging any personal infidelities was emphasised at this point. After discussions had taken place, participants were asked to read a full draft of the questionnaire to be used in the survey study and provide any feedback about the items and/or make any other comments. Refreshments were provided throughout the session, which ran for about an hour.

The discussion began by asking participants to brainstorm ideas about what constitutes infidelity. Participants were then presented with a list of 29 behaviours considered unfaithful from Yarab et al.'s (1998) study. They were asked to read and discuss the items, and decide which items they felt were unfaithful and should, therefore be kept and which items should be deleted from the list. Participants were encouraged to elaborate on the reasons for their decisions. Upon completion of this part of the proceedings, a number of questions were asked to enable a more thorough consideration of the nature of infidelity. Questions were as follows: (1) What behaviours constitute infidelity? Why? (2) Are there any circumstances where you would consider any of these behaviours acceptable? (3) Do you think the boundaries of acceptable behaviours are generally discussed or assumed between partners?

Data collected in this stage of the study was used to modify the Extradyadic Behaviours List on the questionnaire including additions or deletion of items where necessary. The group deemed 25 of the items in the list of unfaithful behaviours as relevant. There was a good deal of disagreement as to whether fantasising about sexual activities with a partner other than the primary partner constitutes infidelity. The group discussion is presented in the Results section in thematic form. It is included to provide further descriptive data on the perceived nature of infidelity and to amplify and illustrate quantitative data from the survey.

Part B - The Questionnaire. The second part of the study involved the collection of quantitative data via a community survey. A questionnaire was designed to assess experiences in close relationships (attachment styles), love attitudes and beliefs (lovestyles), relationship and environmental variables (investment model) and the practice of infidelity/exclusivity. It consisted of six main scales described below, coupled with demographic questions pertaining to age, sex, marital status, education, employment, and ethnicity. Some extra background information on relationships was also obtained. This included: the length of the respondent's relationship; number of serious previous relationships and the frequency of sexual activity engaged in with their partner over the last three months of their current, or recent, relationship. A full copy of the Questionnaire is attached as Appendix B.

Adult Attachment

Researchers employ various measures of attachment, as noted in Chapter 3. The potential for measuring adult romantic attachment using self-report questionnaires was first established by Hazan and Shaver (1987). Participants' feelings and behaviour toward their romantic relationships were grouped into three distinct styles or 'types'. Self-report measures of adult attachment have generally used procedures to categorise participants into one of three or four attachment prototypes based on the work of Hazan and Shaver (1987) and Bartholomew and Horowitz (1991) respectively. However, the categorical classification method has been criticised for its assumption that the attachment styles are mutually exclusive. Subsequent research extended this pioneering work has proposed a number of variations. These included the use of a rating system for each romantic attachment prototype (Levy & Davis, 1988) and separating the sentences within each prototype to produce a multi-item measure of attachment with a Likert-type scale (Simpson, 1990, Collins & Read, 1990). Current thinking is that most people have a complex profile, endorsing facets of each attachment style, though one is usually predominant (Brennan et al., 1998)

Methodologies have been based on the categories used in Ainsworth et al.'s (1978) early studies of infant attachment. The attachment styles or prototypes enabled a clearer understanding of significant differential behavioural responses, but were essentially based on two underlying dimensions (anxiety and avoidance) which have since been found to also underpin adult attachment styles. In effect then, at the core of these self-report measures is this two-dimensional array (Brennan et al., 1998). There is now increasing concurrence among researchers that continuous measures of anxiety and avoidance are the most efficient method of assessing adult attachment patterns (e.g., Brennan et al., 1998; Stein et al., 2002)

Stein et al. (2002) recommend approaching attachment theory by designating particular attachment figures and measuring attachment behaviours dimensionally. Indeed most measures of attachment are actually tapping into the quality of current romantic relationships (Feeney, 1999). To this end, respondents were asked to think in terms of experiences and expectations in their current romantic relationship and a dimensional scale has been used.

The Experiences in Close Relationships Inventory assessed adult romantic attachment. This 36-item measure designed by Brennan et al. (1998) was used to operationalise respondents' attachment patterns. The measure was produced following a

large-sample study by Brennan et al. using most of the self-report measures of attachment produced to that time. They found 60 constructs related to attachment and constructed a pool of 482 items to assess them. The study developed strong evidence that measures of adult attachment essentially assess the two dimensions of adult romantic attachment noted above: avoidance and anxiety.

In the study respondents rated their level of agreement for each of the 36 items on a 7-point Likert-type scale ranging from, (1) 'Disagree Strongly', to (7) 'Agree Strongly'. The items capture aspects of independence, closeness, and interest in relationships. Examples include: *Anxiety* - (2) I worry about being abandoned; (12) I often want to merge completely with romantic partners, and this scares them away; (18) I need a lot of reassurance that I am loved by my partner; (22) I do not often worry about being abandoned (Reverse Keyed); *Avoidance* - (1) I prefer not to show a partner how I feel deep down; (7) I get uncomfortable when a romantic partner wants to be very close; (21) I find it difficult to allow myself to depend on romantic partners; (10) I find it relatively easy to get close to my partner (Reverse Keyed).

Ratings are added (with appropriate reversals) to form subscales in which high scores represent high values of the named variables. Scores potentially range between 18 and 126. Brennan et al. (1997) found strong internal consistency for the two 18-item scales with alpha coefficients for Avoidance and Anxiety of 0.94 and 0.91 respectively. Internal consistency coefficients (Cronbach alphas) for the current study are in the Results section.

The Lovestyles

The Love Attitudes Scale Short Form, an 18-item short version of the Love Attitudes Scale (LAS, Hendrick et al., 1998) was used to measure Lee's (1973) lovestyles. A number of researchers (e.g., Kanemasa et al., 2003; Borrello & Thompson, 1990) have found the scale to be a valid measure of Lee's (1973) lovestyles as discussed in Chapter 3 and it remains the standard measure for studies incorporating the lovestyles typology.

The scale consists of six subscales with three items in each to represent the lovestyles: Eros, Ludus, Storge, Mania, Pragma and Agape. Respondents were asked to rate the extent to which each item pertained to them on a 5-point Likert scale, with 1 indicating 'strongly agree' and 5 indicating 'strongly disagree'. Examples of some items include: *Eros* - My partner and I have the right physical chemistry; *Ludus* - I believe

that what my partner doesn't know about me won't hurt him/her; *Storge* - Our love is the best kind because it grew out of a long friendship; *Mania* - When my partner doesn't pay attention to me I feel sick all over; *Pragma* - An important factor in choosing my partner was whether he/she would be a good parent; *Agape* - I would rather suffer myself than let my partner suffer.

Responses were all reversed to enable high scores to represent high endorsement of the lovestyle. Responses were then added to obtain a score for each lovestyle ranging from 3 to 15. Alpha coefficients for the subscales of the original full scale LAS have ranged from 0.62 to 0.84 (Hendrick & Hendrick, 1986, 1989; Richardson et al., 1988), while the 3-item short version found improved reliability compared with the original 36-item version, with alphas of 0.79 (Ludus) to 0.89 (Storge). Test-retest reliabilities were satisfactory (Hendrick et al., 1998).

Infidelity

The construct of infidelity was measured in five ways, via two categorical measures and three continuous measures. The categorical measures asked respondents whether or not they had ever engaged in unfaithful behavior, both in current and in previous relationships. Response categories were: never, once, more than once, not applicable (for those with no previous relationships).

The continuous measures included the following scales: (a) Infidelity Proneness, (b) Extradyadic Behaviours, and (c) Unfaithful Beliefs.

The Infidelity Proneness Scale. This 11-item measure, developed by Drigotas et al. (1999) and labelled by these authors 'The Infidelity Scale', was designed to assess emotional and physical intimacy with a specific person outside the respondent's primary relationship. Respondents were given the following instructions:

> '*There are times within relationships when we are attracted to other people. Part of being human is being aware of and attracted to people. Sometimes that attraction is mutual and sometimes it is not. When it is mutual it often leads to certain flirting behaviours. We want you to think of a person you have been attracted to besides your partner. We do not want you to name this person, but please respond to the following general questions about this other person.'*

Questions purposefully began with feelings and behaviour that may or may not be considered unfaithful and steadily became more confronting. Respondents were asked

to rate the level of intensity of each feeling/ behaviour on an 8-point Likert scale with (0) indicating no feeling/behaviour and (8) indicating extreme feeling, or a great deal of the behaviour. Examples of the questions include: (1) How attractive did you find this person? (4) How much time did you spend thinking about this person? (7) How often did you and this person do 'couple' things together (e.g., spend time together, talk on the phone)? (11) How physically intimate were you with this person?

High scores represent the degree of emotional, physical, and cognitive intimacy respondents have with a person they have been attracted to outside their main relationship. Drigotas et al. (1999) argue that scores at the midpoint or higher suggest "intimate, physical extradyadic behaviour" (p.512) and that because respondents in their study reported their relationships as 'serious' and 'exclusive', this represents infidelity. According to these authors the overall score does not necessarily indicate physical intimacy, however, it was correlated with the behaviour (r = .80). The items making up the overall infidelity score were found to have good internal consistency with an alpha coefficient of 0.93. To test the validity of the scale in terms of whether it represents infidelity, a sample of 67 undergraduate students were asked to indicate whether they believed their partner would be unfaithful if they engaged in the emotional or physical behaviours represented by a midpoint score on the Infidelity scale. According to 76% of respondents, this constituted infidelity.

Extradyadic Behaviours List. To gain a sense of the sorts of behaviours considered unfaithful by the present sample and whether or not individuals had engaged in these, a list of potentially unfaithful behaviours was presented to respondents. The list began with behaviours that might not be considered intimate at all and built from low to high level intimate acts. As noted, the items were adapted from a pilot study conducted by Yarab et al. (1998). In their study, a large sample (N = 197) of students listed behaviours they considered 'unfaithful'. Items chosen by at least five percent (N = 10) of participants were retained and a further 8 items were added to make up what these authors termed the 'Unfaithfulness Experience Questionnaire'. The present study used 25 of these items subsequent to conducting the previously mentioned focus group. Respondents were asked if they had ever engaged in the behaviours with someone other than their current primary partner. Examples of the questions include the following: (1) Slow dance; (3) Casually flirt; (8) Go to dinner; (11) Fall in love; (12) Develop a deep romantic attachment; (13) Fantasise about falling in love; (16) Fantasise about having

sexual intercourse; (19) Kiss; (25) Have a long-term sexual relationship. Scores for each item on the scale were added to form a total score. High scores indicated involvement in a greater number of extradyadic behaviours.

The Unfaithful Beliefs List. The Extradyadic Behaviours List was also used as a measure of beliefs regarding infidelity, to ascertain the sorts of behaviours considered unfaithful if carried out with someone other than one's primary partner. Respondents were asked to answer yes/no to whether or not each item constituted an unfaithful act. Scores for each item on the scales were added to form a total score. High scores indicted a belief that more of the behaviours in the list constitute infidelity and low scores indicated that fewer behaviours in the list constitute infidelity.

Relationship Commitment, Satisfaction, Investment, and Alternatives.

Rusbult, Martz, and Agnew (1998) modified and refined previous scales employed to assess relationship variables in an effort to devise the measure known as the Investment Model Scale. The scale is a valid and reliable instrument for measuring the four main constructs that make up the Investment Model: commitment, satisfaction, alternatives, and investment (Rusbult, 1983). As previously outlined, the model posits that a high level of commitment, which facilitates a tendency to remain in relationships, is dependent on an individual's level of satisfaction, investment size and perceived quality of alternatives. The scale is essentially made up of four subscales, each measuring a different construct within the model. Within each of the dependent measures, satisfaction, alternatives, and investment, there are two types of items, described by the authors as facet items and global items. Facet items are specific examples of the construct, designed to prepare the respondent to answer the global items that provide a more general measure of the construct. In this way it is argued that facet items increase the reliability and validity of the measure. The commitment subscale uses only global items.

All items were presented in the form of statements to which respondents were required to indicate their level of agreement. In the case of facet items, 4-point Likert scales were used, where (1) indicates no agreement and (4) indicates complete agreement. The global items made use of 9-point Likert scales with 1 indicating ‘Do not agree at all’ and 9 indicating ‘Agree completely’.

The satisfaction subscale consists of five facet items and five global items. The items were designed to tap into the respondent's perceived level of intimacy, companionship, sexuality, security, and emotional involvement supplied by the relationship. Examples of these include, *Facet Items:* 1. (b) My partner fulfills my need for companionship; (e) My partner fulfills my need for emotional involvement; *Global Items:* (3) Our relationship is much better than others' relationships; (5) Our relationship makes me very happy.

The quality of alternatives subscale includes ten items and aims to assess the degree to which the above needs could be met in an alternative relationship, for example, friends, family or another dating partner. Some of these items include, *Facet Items:* 1. (a) An alternative relationship could fulfill my needs for intimacy; (d) An alternative relationship could fulfill my needs for security. *Global Items* - (3) My alternatives to our relationship are close to ideal; (4) If I weren't with my partner I would do fine - I would find another appealing person to be with.

The third dependent subscale, again containing ten items, focuses on investment size, that is, how much time has been invested in the relationship, level of self-disclosure and how much has been shared by way of memories, identity and intellectual life. Some examples of these are as follows, *Facet Items:* 1. (b) I have told my partner many private things about myself; (c) My partner and I share an intellectual life that would be very difficult to replace; *Global Items:* (3) Many aspects of my life have become linked to my partner (recreational activities, etc.) and I would lose all of this if we were to break up; (4) I feel very involved in our relationship - like I have put a great deal into it.

The commitment subscale consists of seven global items. Examples of these include: (1) I want our relationship to last a very long time; (4) It is likely that I will date/live with someone other than my partner within the next year; (7) I am oriented towards the long term future of our relationship (e.g., I imagine being with my partner several years from now).

Scores are obtained by adding the ratings for the global items, with high scores representing higher levels of the named concept. The measure overall displays good reliability. Rusbult et al. (1998) found Cronbach alphas ranged from 0.92 to 0.95 for satisfaction, 0.82 to 0.88 for quality of alternatives, 0.82 to 0.85 for investment size and 0.91 to 0.95 for commitment level. The measure was found via factor analysis to be a

valid instrument with four independent factors and no cross-factor loadings of more than a value of 0.40. These authors found good convergent and discriminant validity.

Procedure

Participants were recruited from the Hawthorn campus of Swinburne University of Technology, from the wider community and via the Internet, subsequent to ethics approval. Student participation partially fulfilled a first year psychology course requirement. To enable a wider cross-section of participants, several friends and associates of the researcher agreed to administer between 10 and 20 questionnaires each to their friends and/or colleagues. Clear instructions as to the purpose of the study, anonymity, confidentiality and the time commitment needed (20 minutes) to complete the questionnaire were provided on an information sheet. In an effort to encourage honest answers, respondents were instructed not to include their partners in the activity. Each questionnaire had an individual envelope that, upon completion, could be posted back to the University to ensure anonymity and avoid possible conflict between partners who may have both completed a questionnaire, wanting to read each other's answers. With regard to the university sample, students were instructed to place questionnaires in a special collection box. These actions or the completion of the Internet survey were taken as consent to use the data.

The questionnaire was placed on the Internet, via a Swinburne University post graduate research site, subsequent to the paper and pencil distribution. The Internet version was compiled using the Swinburne Surveyor program. This program adheres to university regulations regarding the placement of questionnaires on the web. The questionnaire took the same form as the paper and pencil survey, including demographic questions and the six main scales.

To encourage people to complete the survey, the research was given media exposure. Both the Internet site and the paper and pencil questionnaire were advertised widely. Following a Swinburne University media release describing the current research and providing some early statistics, a number of radio stations interviewed the researcher on air. In addition, the Herald Sun, three local newspapers (The Leader, Melbourne Weekly, City Weekly) and the Campus Review reported the study in its initial stages. Approximately one third of the current sample was recruited as a result of this media exposure. Relevant information sheets for both the university and community samples are attached as Appendix C and D respectively.

In the following chapter a number of analyses are included to address both the descriptive and inferential aspects of the study. Firstly regarding the description of infidelity, themes arising in the focus group discussion are presented. Factor analysis was also carried out to aid in the description of the construct. The inferential stage of the study began with preliminary analyses to ensure the appropriateness of the data set. Scales were then checked for reliability and several descriptive statistics were employed to describe the sample. To enable the comparison of groups, analysis of variance and multivariate analysis of variance procedures were undertaken.

The second stage of the study included correlational analyses to describe the strength and direction of the linear relationships between the independent variables, and between the independent variables and infidelity. In addition, hierarchical multiple regressions were used to further explore the relationships between infidelity and each set of independent variables. This type of analysis identifies the role of the relationship and environmental variables over and above the individual variables.

CHAPTER SIX: RESULTS

Qualitative Data: The Focus Group

A focus group was conducted to ascertain the particular behaviours deemed unfaithful when in a steady relationship (dating, living together or married). Participants were initially asked about the kinds of extradyadic behaviours they would consider unfaithful and why. The data were analysed with a qualitative focus on themes, in keeping with the major principles of *grounded theory* (Strauss & Corbin, 1990). Behaviours were coded according to definitions of categories generated by the participants. In line with the method of constant comparative analysis, a focus on the similarities and differences between behaviours allowed the complexity of the data to be more accurately represented.

A number of interesting themes surfaced, including sexual activity, fantasy, flirtation, emotional involvement and 'open relationships'. These themes are presented in the order that they arose during the discussion to allow for a greater understanding of the way the members of the group were thinking about the concept. Though it cannot be confirmed, the order of the themes is suggestive of the importance or degree of unfaithfulness these individuals associate with the behaviours. Another aspect of the discussion revolved around the expectations partners have regarding monogamy in relationships. Of interest was whether these expectations are believed to be implicit or explicit understandings by both partners.

With regard to extradyadic behaviours, the first theme to arise was sexual acts. The group acknowledged sexual intercourse with someone other than a primary partner was a generally accepted aspect of infidelity. Sexual acts other than intercourse proved more difficult to define. A number of questions were put forward, the first of which was,

"Is it touching, such as hugs, kisses and/or sex?"

Participants were reflective, but no definitive answers were forthcoming. At this point the theme of fantasy arose.

"What about if there is no physical contact, but you're thinking of another person constantly. Does this put the relationship in jeopardy?"

In response to this was:

"If it's just in your head and doesn't cross the line, then there is no jeopardy to the relationship."

A number of participants agreed with this idea, however, one proposed the notion that fantasising about someone other than the primary partner might stunt the sexual life of the primary partners and if this were the case would it then constitute infidelity? One member who firmly believed fantasy was a normal part of an individual's sexuality and posed no threat to the relationship if it were not acted upon, pointed out:

*"*An evolutionary perspective suggests we are naturally attracted to more than one person, otherwise we'd die out.*"*

The general consensus, despite one member still being a little unconvinced, was that if partners value their primary relationship and work hard at staying in the relationship then fantasy, rather than being considered unfaithful, is just a part of sexual functioning.

The fantasy theme evoked a seemingly related concept, that of a partner "always looking" at other 'women' (in this case). This member believed such behaviour was unfaithful, but this did not seem to gel with the rest of the group. Participants reported engaging in this behaviour themselves and those who had firmly believed fantasy was not unfaithful were equally convinced that this related behaviour was not unfaithful either. The person suggesting the behaviour, who also expressed the belief that fantasy is not an unfaithful act, emphasised the frequency of the actions stating, "I couldn't stay with a partner who was *always* looking at other women." Again participants were reflective and though a consensus was not reached, the general feeling was that this degree of the behaviour was inappropriate. Whether or not the others members felt it was unfaithful or simply constituted bad manners was unclear.

Flirtation was another theme that was presented as potentially unfaithful. The possible difficulty of defining what constitutes flirting and whether or not any or all of these actions could be considered unfaithful was put to the group. In response to this the notion of whether flirting behaviours are actually of a sexual nature was raised. It was implicitly assumed that all participants recognized the kinds of behaviours in question. One member felt flirting behaviours are harmless and non-sexual, while others viewed flirting as harmless but inherently sexual. 'Sexual' in this context was understood as non-physical sexual innuendo. The group agreed that "most of us do it*."* This theme was taken up again when the list of potentially unfaithful behaviours was presented to the group. Upon seeing some of the items, such as, 'Going out to dinner' and 'Going on a date', the idea of intention was suggested as a key factor in regard to these and other

flirting behaviours. The group agreed that if an individual has the intention to 'go further', that is, pursue a relationship, either sexual or emotional, with someone else, then this constituted unfaithful behaviour.

The next theme was that of emotional infidelity and this, the majority of the group conceded, was unfaithful. Personal values were subsequently put forward as interacting with whether or not emotional acts would be considered unfaithful. One participant felt that if a man was going to cheat it would be better for him to have feelings for the other person rather than have sex with that person and no feelings for them at all. The rest of the group did not concur with this.

Another question raised by one of the participants was whether engaging in physical contact outside the relationship with the knowledge and acceptance of the primary partner constituted infidelity, given that society generally does not condone this behaviour. This situation was considered to be an 'open relationship', and again an assumption was made as to a common understanding of this term. Most of the group concurred that this circumstance did not amount to infidelity due to the partner's prior knowledge. Such prior knowledge was seen to be representative of 'truthfulness'. Honesty prior to extradyadic behaviour was therefore seen as an indicator that the behaviour was not unfaithful. It was generally concluded that infidelity involves an aspect of betrayal, such that if the behaviour is previously discussed it is not unfaithful because it does not then embody the secrecy that typifies betrayal.

The next stage of the discussion focused on exclusivity expectations. The following question was formally presented to the group:

*"*Do you think the boundaries of acceptable extradyadic behaviours are generally discussed or assumed between partners?*"*

The group was split as to which they believed to be the case, based on their own relationship experiences. One (young) member felt younger people do not tend to leave the issue of exclusivity in relationships to assumptions, rather they prefer to discuss the topic. The onset of AIDS was seen to be impacting this need to be explicit when forming new relationships.

*"*If the issue is not discussed do we assume the relationship is monogamous, or would this only relate to marriage?*"*

A couple of members believed the assumption of monogamy relates to all romantic relationships. However, one member suggested there are many assumptions made and if people are older when dating, as they are in increasing numbers, they realise that people

come from diverse walks of life indicating monogamy should not be assumed. The personal experience of one member was that during the sexual revolution of the sixties nothing was assumed so the issue of monogamy was openly discussed. The group came to the consensus that variation is to be expected with regard to unfaithful attitudes.

In sum, the majority of the focus group felt sexual and emotional extradyadic behaviours equate to infidelity, whereas fantasy and flirting behaviours were generally viewed as acceptable. The key contributing factors, according to the group, in determining which behaviours constitute infidelity were motives, intentions and secrecy. For all the behaviours, if secrecy was attached to them they were considered unfaithful. Flirting behaviours raised the idea of intent. The behaviour was generally considered unfaithful if the individual intended to go further.

Quantitative Data

Preliminary Analyses. SPSS Version 12 was the statistical program used for the analyses in this research. Data screening of scales revealed that no meaningful outliers or multivariate outliers (standard residual values >3.29) were identified. Furthermore, the few more extreme scores that were present in six scales (eros, pragma, avoidance, anxiety, satisfaction, commitment) were not found to be having a strong influence on the means. This was verified by checking the difference between the mean and the 5% trimmed mean as recommended by Pallant (2005). In addition, taking into consideration the current sample size, the distribution of scores for all the scales, except satisfaction and commitment, was assessed as reasonably normal through examination of score histograms, normal Q-Q plots and detrended Q-Q plots. Transformation of the satisfaction and commitment scales was attempted, but no transformation approached normality. In the current study respondents indicated a general tendency towards satisfaction and commitment in their relationships, so the non-normality was considered to reflect essential features of the constructs rather than a problem in the data set.

All scales were checked for skewness and kurtosis and were generally found to be acceptable at <1. The skewness statistic for satisfaction was -1.07, however kurtosis (.22) was acceptable. Similarly, for commitment the skewness statistic was -1.20, but kurtosis (.62) was acceptable. The present sample was reasonably large ($N = 313$) and with samples greater than 200 skewness and kurtosis are not generally problematic (Tabachnick & Fidell, 2001).

Numbers of participants in analyses (*N*s) vary across different scales used in the study because of varying amounts of missing data. For one scale in particular, the Unfaithful Behaviours List, there was a large amount of missing data *(N* = 58) because the instructions on the questionnaire, to go back over the Extradyadic Behaviours List and circle the items believed to be unfaithful, was overlooked by these participants. However, the total (*N* = 255) was still considered substantial enough to include this variable in subsequent analyses. Missing data was not substituted for any demographic or categorical measures.

Reliability Analysis for Scales. To assess the reliability of the scales, internal consistency coefficients were obtained. See Table 6.1 for Cronbach alphas of the scales.

Table 6.1

Cronbach Alphas for the Lovestyles, Attachment, Investment Model, and Infidelity Scales

Measure	Cronbach Alphas	Number of Items
Lovestyles		
Eros	.78	3
Ludus	.70	3
Storge	.90	3
Pragma	.70	3
Mania	.69	3
Agape	.77	3
Attachment Styles		
Avoidant	.86	18
Anxious	.90	18
Investment Model		
Satisfaction	.96	5
Alternatives	.82	5
Investment	.74	5
Commitment	.91	7
Infidelity Measures		
Infidelity Proneness	.91	11
Extradyadic Behaviours	.94	25
Unfaithful Beliefs	.88	25

These scale reliabilities were of acceptable to very good levels. It is not possible to calculate internal reliability for a one-item measure, so the measures of current and previous infidelity do not appear in the table. Information regarding these one-item measures of infidelity is presented in Table 6.4.

Descriptive Data

Table 6.2 shows the means and standard deviations for key scaled variables in this study.

Table 6.2

Means and Standard Deviations for the Scales in this Study

Measures	Possible Range	*M*	*SD*	*N*
Lovestyles				
Eros	3-15	11.54	2.52	311
Ludus	3-15	7.02	2.99	309
Storge	3-15	8.83	3.50	311
Pragma	3-15	6.63	2.71	311
Mania	3-15	8.04	2.76	309
Agape	3-15	9.07	2.57	311
Attachment Styles				
Avoidant	18-90	22.88	9.52	294
Anxious	18-90	31.16	11.88	297
Investment Model				
Satisfaction	0-40	27.94	10.42	298
Alternatives	0-40	20.54	9.03	298
Investment	0-40	25.27	7.46	295
Commitment	0-56	44.65	12.74	294
Infidelity Proneness	0-82	41.77	18.70	292
Extradyadic Behaviours	0-25	10.03	7.23	299
Unfaithful Beliefs	0-25	13.53	4.92	255

The means in Table 6.2 indicate that Eros is the most strongly endorsed lovestyle, followed by Agape. The means and standard deviations for the lovestyles also suggest that each style was represented to some degree in the present sample. The sample appears to be low on avoidance and anxiety, moderately satisfied, but highly committed to their relationships and scored moderately on investment and alternatives.

Some characteristics of the sample are shown in Table 6.3. Participants were predominantly young and female. Seventy-six percent of respondents were aged 40 years or less and 78% were female. Almost 60% of the sample was either married or living together and the mean length of relationships was just on seven years. Seventy percent of the sample reported having been seriously involved with someone else prior to their current relationship. It was an educated sample with 43.5% of respondents having completed some tertiary education, another 20% having completed an undergraduate degree and a further 23% completing post-graduate study. Only 15% of the sample was born outside Australia and six percent of the sample identified as homosexual.

Table 6.3

Descriptive Statistics for Key Demographic Variables

Variables	Range	*M*	*SD*	*N*
Age	18-60	31.28	11.88	313
Length of R'ship (yrs)	1-40	6.98	8.26	310
No. of Prior R'ships	0-30	2.34	2.64	310
How Much Sex	1-5	3.74	1.17	306

Note: How much sex: 1 = never, 2 = once a month, 3 = 2/3 times/ month, 4 = once/twice a week, 5 = more often.

Table 6.4 shows the percentages of respondents who reported having been unfaithful in their current and/or previous relationships. Just over 20% of respondents

reported unfaithful behaviour in their current relationship and just over 42% of the sample reported unfaithful behaviour in their previous relationships.

Table 6.4

Extent of Unfaithful Behaviour

Variables	% No	% Yes, Once	% Yes, > Once	*N*
Unfaithful in Current R'ship	79.7	9.3	10.9	311
Unfaithful in Previous R'ship	57.7	24.3	18.0	272

Note: 12.8% of the sample had not had a previous relationship. R'ship = Relationship

To determine whether there was a relationship between gender and unfaithful behaviour a Chi-square test for independence was carried out. Results show no sex differences with respect to faithfulness in previous relationships, but males were more likely to report being unfaithful in current relationships than females. See Table 6.5.

Table 6.5

Sex Differences on Category of Unfaithfulness

		Males	Females	χ^2
Current Relationship	Faithful	48	199	5.61*
	Not Faithful	21	42	
Previous Relationship	Faithful	32	125	1.61
	Not Faithful	31	84	

Note: * $p < 0.05$

Table 6.6 shows the means and standard deviations in Infidelity scores for males and females. No gender differences were revealed on either of the infidelity scales (Extradyadic Behaviours List, Infidelity Proneness Scale). However, on the Unfaithful Beliefs List, females believed more extradyadic behaviours were unfaithful than males.

Table 6.6.

Means and Standard Deviations in Infidelity Scores for Males and Females

	Males	Females	t
	M (SD)		
Extradyadic Behaviours	44.69 (18.62)	40.92 (18.61)	1.43
Infidelity Proneness	11.15 (7.29)	9.69 (7.20)	1.45
Unfaithful Beliefs	11.64 (4.88)	14.06 (4.81)	3.30***

Note: $p < .001$

Table 6.7 shows comparisons between individuals reporting themselves faithful or unfaithful in current/previous relationships on the infidelity scales and some other variables.

Table 6.7

Means and Standard Deviations of Infidelity Scales, Age, and Relationship Variables for Faithful versus Unfaithful Groups

	M (SD) Current Relationship			*M (SD)* Previous Relationship		
	Faith	Unfaith	t	Faith	Unfaithful	t
Infidelity Proneness	37.88 (16.90)	58.39 (16.88)	8.17***	38.91 (17.89)	45.41 (18.60)	2.82**
Extradyadic Behaviours	8.33 (6.46)	17.49 (5.39)	9.92**	9.97 (7.12)	11.25 (7.24)	1.76
Unfaithful Beliefs	13.71 (4.81)	12.67 (5.35)	1.33	13.74 (4.84)	13.21 (4.78)	0.82
Age	30 .58 (11.98)	33.87 (11.37)	1.97*	30.87 (11.91)	32.79 11.64)	1.33
Relationship Length	6.23 (7.91)	9.97 (9.10)	3.22***	7.51 (8.78)	5.76 (6.73)	1.85
Sexual Frequency	3.84 (1.14)	3.35 (1.22)	3.03**	3.65 (1.09)	3.81 (1.27)	1.10

Note: *** $p < .001$, ** $p < .01$, * $p < .05$

Those who reported unfaithfulness in their current relationship were significantly more likely to score higher on the Infidelity Proneness Scale and the Extradyadic Behaviours List, but they did not differ in their beliefs about what constitutes unfaithfulness. They were slightly older, had been in their relationship longer and experienced somewhat less sex in their current relationship. Only one of these relationships held up when comparing those who had, versus those who had not been unfaithful in previous relationships. This unfaithful group scored higher on the Infidelity Proneness Scale.

Regarding relationship status, a Chi-square test for independence was used to explore infidelity among dating, cohabiting and married participants. No significant differences were found for respondents in current relationships, however a significant difference was found for previous relationships, $\vec{A}^2$ (2) = 7.38), $p = .03$. Respondents in

dating relationships were more likely to report infidelity than married respondents (34.7% vs 28.9%), and respondents in cohabiting relationships were the most likely to report infidelity (47.4%).

Table 6.8 shows the correlations between the continuous Infidelity scales and age, relationship length, and sexual frequency.

Table 6.8

Correlates of Infidelity Scales

	Ex. Dyad.	Prone.	Beliefs
Age	.04	-.01	.07
Relationship Length	.12*	.06	-.04
Sexual Frequency	-.19*	-.12*	.02

Note: Ex. Dyad. = Extradyadic Behaviours List, Prone = Infidelity Proneness Scale, Beliefs = Unfaithful Beliefs List, * $p < .05$

There were no correlations between age and the infidelity scales and only a weak relationship between relationship length and the Extradyadic Behaviours List, with respondents slightly more likely to have engaged in more of the extradyadic behaviours if their relationship had been a longer one. Two measures of infidelity correlated negatively with sexual frequency. Respondents reporting less sexual intercourse with their primary partner engaged in more extradyadic/unfaithful behaviours. These relationships were weak but significant.

Factor Analysis: Assessing the Dimensions of Infidelity

The Extradyadic Behaviours List in the present study has been used as one of the indicators of infidelity. A total score on this list reflects the degree to which a person engages with others (apart from the main partner) in sexual or sexually ambiguous situations. It provides a measure of potential (depending on beliefs) infidelity, which is continuous and reliable, but not necessarily an indicator of whether a person has engaged in intercourse with another person. To establish the dimensionality of the

behaviours in this list, which range widely in behaviours which the individual would consider unfaithful, the list was factor analysed.

A Principal Components analysis was computed using SPSS Varimax rotation. Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0.92 and Bartlett's Test of Sphericity was significant (p = .00). The analysis suggested four factors with Eigenvalues of greater than 1.

According to standard practice, loadings greater than or equal to .40 were reported in the Table. There was enough shared variance to justify the presence of common factors among the variables. The communalities between the variables were acceptable with over 66 percent of the variance in unfaithful behaviours being accounted for by the four factors.

Four relatively clear factors came out of the analysis. According to the Rotated Component Matrix, all of the concrete intimate behaviours loaded significantly onto one factor. This factor suggested behaviours associated with carrying out an affair and was subsequently labelled 'Affairs'. The second group of behaviours was associated with fantasising about sex and was, therefore, labelled 'Fantasy'. The third factor appeared to represent flirtatious behaviours, labelled 'Flirting', and the last factor comprised only three ambiguous behaviours that could only arguably be considered unfaithful (go to a movie, go to lunch, go to dinner). Factor loadings on this latter factor, labelled 'Outings', were good enough (.77 to .84) to be deemed appropriate to include this factor as a scale in subsequent analyses. Cronbach alphas for the four factors (when converted into scales) were moderate to strong: Affairs (0.95), Fantasy (0.91), Flirting (0.78), Outings (0.80). This suggests the factors are reliable indicators of the aspects of infidelity that they were measuring.

There were only a few small cross loadings. The Factor 1 item 'fantasising about engaging in sexual play' also loaded on Factor 3 (Flirting) at 0.33. In addition, 'fantasising about falling in love', a Factor 3 item, also loaded on Factor 2 (Fantasy) at 0.33. Table 6.9 contains the factor loadings for the four factors, as well as the frequencies of engagement in, and beliefs about, these behaviours.

Table 6.9

Factor Loadings and Frequencies for the Extradyadic Behaviors List

	Factor loading	% done this behaviour	% believe behaviour unfaithful
FACTOR 1 (Affairs)			
Give oral sex	.87	20	98
Sexual Intercourse	.86	22	98
Sexual play	.85	26	97
Receive oral sex	.85	21	98
Passionately kiss	.79	32	94
Deep romantic attachment	.74	24	81
Go on a date	.72	25	75
Long term sexual relationship	.72	13	99
Fall in love	.65	22	84
Kiss	.61	45	66
Hold hands	.58	37	56
Ask someone out	.56	20	51
FACTOR 2 (Fantasy)			
Fantasise - receiving oral sex	.85	42	35
Fantasise - sexual intercourse	.83	55	35
Fantasise - giving oral sex	.83	38	36
Fantasise - sexual play	.83	56	35
FACTOR 3 (Flirting)			
Casually flirt	.65	77	14
Have mild romantic feelings	.62	64	33
Become sexually attracted to	.57	60	37
Slow dance	.57	42	22
Fast dance	.56	75	4
Fantasise about falling in love	.54	44	43
FACTOR 4 (Outings)			
Go to a movie	.84	46	21
Go to lunch	.78	65	12
Go to dinner	.77	43	33

Examination of the frequencies of each item on the Unfaithful Beliefs scale gives an overall outlook of what the sample generally viewed as unfaithful behaviour. Apart from kissing, over 94 % of respondents believed the behaviours encompassed in the Affairs factor to be unfaithful (66% believe kissing is unfaithful). The majority of the sample believed that fantasising about sexual behaviours with someone other than the primary partner is not unfaithful, and between 38% and 55% of the sample has engaged in this behaviour. Most participants viewed flirting behaviours as acceptable and a large majority of respondents believe the 'Outings' behaviours are not unfaithful. These results were generally consistent with the qualitative data noted previously.

Sex and Infidelity Differences for the Independent Variables

To determine if participants showed any differences on key scale variables according to their sex or whether they had been unfaithful in their current relationship, a sex (male, female) by unfaithfulness status (yes, no) multivariate analysis of variance (MANOVA) was performed. The dependent variables were the two attachment scales, six lovestyles and the four investment model variables. Means, standard deviations and univariate *F* values for the these variables are presented in Table 6.10

Table 6.10

Means, Standard Deviations and F Values for the Lovestyles, Attachment, and Investment Model Variables for Sex and Infidelity

	Sex					Infidelity				
	Female		Male			Faithful		Unfaithful		
Measure	*M*	*SD*	*M*	*SD*	*F* (sex)	*M*	*SD*	*M*	*SD*	*F* (infidelity)
Eros	11.65	2.59	11.63	2.16	.03	11.88	2.50	10.55	2.18	9.95**
Ludus	6.74	2.80	7.23	3.30	.59	6.13	2.27	10.17	3.23	94.10**
Storge	8.74	3.56	8.78	3.78	.01	8.78	3.61	8.62	3.60	.14
Pragma	6.62	2.58	6.21	2.87	5.06*	6.54	2.60	6.49	2.87	1.23
Mania	8.11	2.70	7.80	3.11	.99	8.01	2.67	8.21	3.28	.06
Agape	8.76	2.53	10.23	2.52	7.24**	9.12	2.62	8.89	2.49	2.13
Avoid	22.64	9.57	22.64	9.75	.40	21.50	8.92	27.87	10.87	13.86**
Anxious	31.37	11.58	30.71	13.87	1.09	30.59	11.58	34.21	13.89	1.75
Satis	28.07	10.42	28.11	10.61	.34	28.92	10.28	24.23	10.43	5.56*
Alterns	20.32	9.25	22.05	7.92	2.95	19.83	8.95	24.64	8.21	13.81**
Invest	24.98	7.47	26.13	6.85	.22	25.13	7.43	25.66	6.99	.00
Commit	44.99	12.62	43.77	12.82	.44	45.81	12.25	39.74	13.38	3.90*

Note. *N*: 263. Avoid = avoidant, Satis = satisfaction, Alterns = alternatives, Invest = investment, Commit = commitment. * $p < .05$, ** $p < .01$

The MANOVA indicated a significant, although relatively weak, multivariate difference in the measures according to sex (Wilks = .92, $F(12, 248) = 1.82$, $p < .05$, Eta squared = .08). Univariate tests showed this difference lay in the Pragma and Agape lovestyles. Females endorsed the Pragma lovestyle significantly more than males, while males endorsed the Agape lovestyle significantly more than females.

A relatively strong significant multivariate difference was also found according to infidelity status (Wilks = .69, $F(12, 248) = 9.19$, $p < .001$, Eta squared = .31).

Subsequent univariate tests revealed that those who had been unfaithful were significantly more likely than the faithful to score higher on Ludus, avoidant attachment and perceived alternatives. In addition, reportedly faithful respondents were significantly more likely than the unfaithful to strongly endorse Eros, satisfaction and commitment in relationships. There were no significant interaction effects between sex and infidelity. Due to the small number of sex differences in the measures, male and female data was combined for all subsequent analyses.

Relationships Between Attachment, Lovestyles, and Investment Model Variables

Pearson's Product Moment correlation coefficients were calculated between all key scale variables to assess relationships, and as a precursor to regression analyses. These correlations are presented across several tables below.

Attachment and Lovestyles

One objective of the study was to explore the relationships between attachment and lovestyles. Table 6.11 below shows these intercorrelations.

Table 6.11

Intercorrelations Between Attachment and Lovestyles

Variables	1	2	3	4	5	6	7	8
1. Eros	--							
2. Ludus	-.19**	--						
3. Storge	.23**	-.02	--					
4. Pragma	-.05	-.09	.12*	--				
5. Mania	.14*	.16**	-.09	.22**	--			
6. Agape	.36**	-.13*	.12	.07	.25**	--		
7. Avoid	-.44**	.31**	-.10	.09	.11	-.18**	--	
8. Anxious	-.13*	.16**	-.18**	.17**	.63*	.17*	.34**	--

Note: *N* range: 286-311. Avoid = Avoidant attachment style. * $p < .05$, ** $p < .01$.

The variables were found to be correlated in expected ways. People with higher levels of avoidant attachment were more likely to be high on Ludus and low on Eros and Agape. Anxious attachment showed a particularly strong positive correlation with

Mania. This attachment style was significantly associated with all the lovestyles. The direction of these associations were predictable, positive correlations were evident with Ludus, Pragma and Agape, in addition to Mania as mentioned, and a negative correlation was found with Storge and Eros.

Within the lovestyles themselves, Eros showed significant, albeit weak, positive associations with Storge, Mania, and Agape and a negative association with Ludus. Ludus people tended to be somewhat higher on Mania, and lower on Eros and Agape. Mania was linked to higher levels of Eros, Pragma and Ludus. The two insecure attachment styles, anxious and avoidant, were moderately positively correlated.

Investment Model Variables

Intercorrelations between these variables are shown in Table 6.12.

Table 6.12

Intercorrelations Between the Investment Model Variables

Variables	1	2	3	4
Satisfaction		--		
Alternatives	-.27**	--		
Investment	.36**	-.13*	--	
Commitment	.73**	-.40**	.35**	--

Note. N range: 291-298. * $p < .05$, ** $p < .01$.

With regard to the relationships between the investment model variables, results were as expected. Commitment was positively associated with satisfaction and investment and negatively associated with perceived alternatives. That is, individuals who were highly satisfied in their main relationship were also highly committed to it, perceived they had made strong investments, and perceived fewer attractive alternatives then those low on relationship satisfaction. It is noteworthy that commitment and satisfaction were strongly correlated in this sample ($r = .73$**). Satisfaction and investment both showed significant, but weak, negative associations with alternatives.

The next analysis involved a test of the Investment Model for the current study. A standard Multiple Regression was performed predicting commitment from satisfaction, investment and perceived alternatives. Table 6.13 displays the beta weights, *F* value and R^2 figure for the investment model variables (satisfaction, alternatives, investment) predicting commitment.

Table 6.13

Multiple Regression Predicting Commitment

Dependent Variable	Independent Variables Beta Weights			*F*	*df*	R^2
	Sat	Alt	Invest			
Commitment	.64***	-.20***	.10*	133.24***	3, 287	.58

Note: $N = 291$. Satis = satisfaction, Alterns = alternatives, Invest = investment.
* $p < .05$, *** $p < .001$.

The three investment model variables, satisfaction, alternatives, and investment were regressed against commitment. The model proved significant, with each relationship variable contributing independently to the commitment score and accounting for 58% of the variance in commitment. Satisfaction was the strongest predictor of commitment.

Correlates and Predictors of the Investment Model

An important goal of the analyses was to assess the relationships between attachment, lovestyles and the investment model variables. Table 6.14 shows these intercorrelations.

Table 6.14

Relationships Between the Lovestyles, Attachment, and the Investment Model Variables.

	Satisfaction	Investment	Alternatives	Commitment
Attachment				
Avoidant	-.51**	-.24**	.25**	-.50**
Anxious	-.22**	.12*	.02	-.15**
Lovestyles				
Eros	.67**	.26**	-.24**	.59**
Ludus	-.23**	-.04	.18*	-.23**
Storge	.27**	.24**	-.11	.25**
Pragma	-.08	.09	.03	-.04
Mania	-.04	.22**	-.02	-.04
Agape	.32**	.33**	-.07	.26**

Note: *N* range: 283-311, * $p < .05$, ** $p < .01$

The four variables, satisfaction, alternatives, investment, and commitment revealed many significant and anticipated correlations. Satisfaction was positively related to Eros, Storge and Agape, and negatively related to Ludus and avoidant and anxious attachment. Perceived alternatives was negatively related to Eros and positively related to both Ludus and avoidant attachment. High investment was related to higher scores on Eros, Storge, Mania and Agape and lower scores on avoidant attachment. Finally, high levels of commitment were associated with higher endorsement of Eros, Storge and Agape and lower endorsement of Ludus and avoidant and anxious attachment. Of note, avoidant attachment showed the strongest negative association with satisfaction and commitment, while Eros showed the strongest positive association with these variables.

The next analysis was designed to determine which of the attachment and lovestyle variables best predicted the investment model variables. Standard multiple regressions were performed. None of the independent variables were correlated at greater than .7 (see Table 6.14), so multicolinearity was not a concern for the subsequent analysis (Tabachnick & Fidell, 2001). Table 6.15 displays the beta weights, *F* values and R^2 figures for the regressions predicting the investment model variables (satisfaction, alternatives, investment, commitment).

Table 6.15

Multiple Regression Predicting Investment Model Variables

Variable	Predicting Satis	Alterns	Invest	Commit
	Standardised Betas			
Eros	.56***	-.15*	.06	.44***
Ludus	-.02	.16**	.04	-.05
Storge	.08	-.08	.18**	.11*
Pragma	-.04	-.01	-.01	.01
Mania	-.10	.02	.01	-.14*
Agape	.08	.08	.21***	.08
Avoid	-.20***	.20**	-.21**	-.26***
Anxious	-.02	-.11	.12	.08
F	40.26***	4.70***	8.40***	24.98***
df	8, 261	8, 260	8,258	8, 257
R^2	.55	.13	.21	.44

Note: *N* range: 266-270. Satis = satisfaction, Alterns = alternatives, Invest = investment, Commit = commitment. * $p < .05$, ** $p < .01$, *** $p < .001$.

The two attachment variables and the six lovestyle variable ratings were regressed against each of the four investment model variables. All regressions were significant. The first accounted for 55% of the variance in satisfaction. The Eros subscale was a highly significant positive contributor to the satisfaction score, while the avoidant subscale was a highly significant negative predictor of satisfaction. The second regression accounted for only 13% of the variance in alternatives, but Eros was a significant negative predictor, while Ludus and avoidant attachment were both significant positive predictors. The investment equation revealed 21% of the variance was accounted for by Storge and Agape, contributing positively, and avoidant attachment, which was a negative contributor. The last regression in this series

accounted for 44 % of the variance in commitment. A number of styles contributed in this case. Positive predictors included Eros, which was highly significant, and Storge. Higher avoidant attachment and Mania predicted lower levels of commitment. Thus both attachment and lovestyles made independent contributions to each of the relationship variables in the investment model.

Correlates of Infidelity Behaviours and Beliefs

Three of the infidelity measures used in the current study, the Infidelity Proneness Scale, the Extradyadic Behaviours List and the Unfaithful Beliefs List, are continuous measures. This being so, the measures do not simply group respondents into those who have been unfaithful and those who have not. The two categorical measures were used to this effect; attachment, lovestyles and the investment model variables were compared across faithful and unfaithful groups in table 6.10

The continuous measures were used in an attempt to further determine the nature of infidelity by including a variety of behaviours, thereby allowing for the complexities and variations inherent in the construct. Each of the continuous measures was an attempt to capture the notion of infidelity in a somewhat different way (see Chapter 5: Method). Still, the measures were correlated supporting their validity as measures of a common construct. The Extradyadic Behaviours List showed a significant moderate correlation with the Infidelity Proneness Scale, $r = .49$, $p < .01$. Both these measures examine the sorts of behaviours respondents have or have not engaged in. The Unfaithful Beliefs List seeks to determine which of these behaviours respondents believe to be unfaithful. The latter was significantly negatively correlated, albeit weakly, with both the Unfaithful Behaviours List, $r = -0.25$, $p < .001$, and with the Infidelity Proneness Scale, $r = -0.29$, $p < .01$, indicating that the more behaviours are assessed as unfaithful, the less likely individuals are to participate in them (the relationships between the categorical measures of unfaithfulness - self-defined - and the continuous measures were shown previously in Table 6.7).

Analyses to assess the relationships between lovestyles, attachment styles and the investment model variables with the continuous measures of infidelity produced a number of significant results. These intercorrelations are displayed in Table 6.16.

Table 6.16

Correlations Between Attachment, Lovestyles, Relationship Variables and Infidelity Measures

	Infidelity Measures		
Variables	Extradyadic Behaviour	Infidelity Proneness	Unfaithful Beliefs
Attachment			
Avoidant	.30**	.19**	-.07
Anxious	.22**	.13	.14*
Lovestyles			
Eros	-.33**	-.26**	.26**
Ludus	.37**	.43**	-.10
Storge	-.08	-.05	.08
Pragma	.06	.08	.14*
Mania	.05	.11	.22**
Agape	-.04	-.09	.15
Relationship			
Satisfaction	-.27**	-.21**	.13*
Investment	.01	.05	.16*
Alternatives	.33**	.23**	-.27**
Commitment	-.36**	-.28**	.19**

Note: N range = 247-310 * $p < .05$, ** $p < .01$

The Extradyadic Behaviours measure showed significant positive correlations with avoidant and anxious attachment, the Ludus lovestyle and perceived alternatives. The Eros lovestyle, satisfaction and commitment were all negatively correlated with extradyadic behaviours. Similar results were obtained for the measure of Infidelity Proneness, with the exception of anxious attachment, which was not correlated with Infidelity Proneness. With regard to unfaithful beliefs, the measure was significantly positively correlated with anxious attachment, the Eros, Pragma, Mania lovestyles, satisfaction, investment and commitment, and negatively correlated with alternatives.

Predictors of Infidelity Behaviours and Beliefs

Three hierarchical regressions were conducted with each of the three continuous infidelity scales used as a dependent variable, and attachment, the lovestyles and three

of the investment model variables as independent variables in each case. Satisfaction was omitted from the analysis due to its high correlation with commitment (r = .73). The current study aimed to identify how well the relationship variables predicted infidelity over and above the individual styles. Variables were therefore entered in two blocks; the attachment styles and lovestyles were entered as Block 1 and the investment model variables were entered as Block 2. The relative contribution of each block is assessed and when all sets of variables are entered, a hierarchical regression evaluates the overall model in terms of its ability to predict infidelity.

Both standard and hierarchical regression analyses are applicable to the current data. Each type of regression was run and results were comparable, however the hierarchical regressions provided a more meaningful interpretation of the data in so far as differentiating between the individual styles and the relationship variables. This being so, only the hierarchical regressions are represented herein. Table 6.17 shows the Beta weights, F values and R^2 figures for these regressions.

Table 6.17

Hierarchical Regressions Predicting Infidelity

Variables	Extradyad. Beh. List		Infid. Proneness Scale		Unfaithful Beliefs List	
	Standardised Betas					
	Block		Block		Block	
	1	2	1	2	1	2
Eros	-.27**	-.26**	-.20**	-.14	.18*	.18*
Ludus	.37**	.33**	.31***	.27***	-.13*	-.10
Storge	.06	.05	.01	.03	.04	.01
Pragma	-.02	-.01	-.02	-.00	.11	.11
Mania	.09	.08	-.10	-.13	.13	.11
Agape	.01	-.04	.11	.07	.05	.06
Avoid	-.06	-.06	.14*	.10	.01	.04
Anxious	.01	.01	.13	.14	.10	.08
Alterns	--	.16*	--	.20**	--	-.21**
Invest	--	.15*	--	.14*	--	.04
Commit	--	.06	--	-.22**	--	-.01
F	9.36***	7.65***	9.45***	9.15***	4.38***	3.82***
df	8, 251	12, 247	8, 248	12, 244	8, 216	12, 212
R^2	.23	.27	.23	.31	.14	.18
R^2 Change	--	.04**	--	.08***	--	.04*

Note: N range: 225 - 260. Extradyad. Beh. = Extradyadic Behaviours, Infid. = infidelity, Alterns = alternatives, Invest = investment, Commit = commitment. * $p < .05$, ** $p < .01$, *** $p < .001$.

The independent variables significantly predicted each infidelity measure. The first phase of the first analysis involved regressing attachment and the lovestyles against the Extradyadic Behaviours List. The regression equation proved significant, accounting

for 23% of the variance in Extradyadic Behaviour scores. In this case, Eros was a significant negative predictor and Ludus was a significant positive predictor. The second phase regressed the lovestyles and attachment style variables, and also the four investment model variables against this measure of infidelity. This regression equation was again significant, accounting for 27% of the variance in infidelity. Thus the addition of the investment variables accounted for an additional and significant four percent of variance. The Eros subscale remained a significant negative predictor and Ludus remained a significant positive predictor. Perceived alternatives and investment were also positive predictors of extradyadic behaviours.

The next regression saw 23% of the variance in the Infidelity Proneness Scale scores accounted for in the first block and an increase of eight percent to 31% when the investment model variables were added in block two. Low Eros, high Ludus and high avoidant attachment were significant predictors in the first block, but of these, only Ludus remained so in the second block. In addition, high perceived alternatives and investment, and low commitment were significant predictors of this scale.

Finally the regression performed against the Unfaithful Beliefs List accounted for 14% of the variance and an extra four percent of variance was accounted for when the investment model variables were added. Initially, high Eros and low Ludus were significant predictors of less liberal beliefs about unfaithful behaviours, but in the second phase only Eros was a significant predictor, along with low perceived alternatives.

Standard discriminant function analyses were computed to determine how accurately faithful respondents could be distinguished from unfaithful respondents on the basis of the lovestyles, attachment styles and investment model variables. All independent variables were entered as simultaneous predictors and current infidelity was the dependent variable in the first of these analyses.

The results showed that the discriminant function significantly separated the two groups (Wilks (12) = .68, $\chi = 99.79$, $p < .001$, canonical correlation = 0.57), with the function successfully predicting 83% of faithful respondents and 77% of unfaithful respondents (overall, 82% classified correctly). Pooled within group correlations between the discriminating variables and the standardised canonical discriminant function showed the following variables were strongly to moderately related to unfaithfulness: high Ludus ($r = 0.91$), high avoidant attachment ($r = 0.38$), high perceived alternatives ($r = 0.30$), and low Eros ($r = -0.30$). It is noteworthy that with

Ludus being such a strong contributor, the discriminant function appeared to be representing individual differences rather than differences in relationship factors. Repeating this type of analysis using previous infidelity as the dependent variable produced a non-significant result; the previously faithful and previously unfaithful groups could not be discriminated by this set of variables.

On examination of results for the continuous measures compared to the categorical measure of infidelity, similar patterns are evident. Ludus, Eros and perceived alternatives come out as significant predictors of extradyadic behaviours across all measures. However, when the investment model variables were added in the Infidelity Proneness Scale regression analysis Eros was no longer significant. Similarly, in the second phase of the Unfaithful Beliefs List regression, Ludus was no longer significant. Avoidant attachment significantly predicted unfaithful behaviour on the current infidelity categorical scale and in the first phase of the Infidelity Proneness Scale regression.

Infidelity Dimensions

Correlates of Infidelity Dimensions. Another phase of the study was to examine which of the individual and investment model variables were associated with the extradyadic factors (Affairs, Fantasy, Flirting, Outings). Each factor represents a group of extradyadic behaviours that may or may not be considered unfaithful. Table 6.18 shows the correlates between the factors and the potential predictor variables.

Table 6.18

Correlates of Extradyadic Factors

	Four Factors			
Variables	Affairs	Fantasy	Flirting	Outings
Attachment				
Avoidant	.20**	.17**	.13*	.04
Anxious	.18**	.04	.12*	-.04
Lovestyles				
Eros	-.25**	-.27**	-.28**	-.11
Ludus	.44**	.35**	.27**	.14*
Storge	-.06	-.04	-.09	.05
Pragma	.08	.05	.12*	-.06
Mania	.12*	.03	.12*	.01
Agape	-.04	-.13*	-.11	-.08
Relationship				
Satisfaction	-.17**	-.22**	-.23**	-.01
Investment	.05	.00	.02	.06
Alternatives	.18**	.17**	.28**	.16**
Commitment	-.24**	-.22**	-.30**	-.11

Note: *N* range = 288-304, * $p < .05$, ** $p < .01$

This analysis revealed a number of noteworthy correlations. The Ludus lovestyle was positively correlated with all the factors and came out as the strongest correlate of the Affairs and Fantasy factors. Perceived alternatives was also a positive correlate across all four factors, however, although significant the associations were weak. The next strongest correlates were commitment and the Eros lovestyle showing a negative association with Affairs, Fantasy and Flirting.

The Affairs factor was positively associated with both the attachment dimensions, the Ludus and Mania lovestyles and alternatives, and negatively associated with the Eros lovestyle, satisfaction and commitment. The same pattern occurred for the Flirting factor along with an additional positive correlation with Pragma. Similarly, the Fantasy dimension was positively associated with avoidant attachment, a Ludus lovestyle and alternatives, and negatively associated with the Eros and Agape lovestyles, satisfaction and commitment.

Predictors of Infidelity Dimensions. The extent to which individual, relationship and environmental variables could predict the four extradyadic factors was tested through regression. Note again, the variable satisfaction was omitted due to multicolinearity concerns (correlation with commitment r = .73**). Beta weights, F values and R^2 figures for these analyses are shown in Table 6.19.

Hierarchical regressions showed the independent variables significantly predicted each factor, with the exception of the first phase of the Outings regression. The first phase of each analysis involved regressing the individual variables (attachment, lovestyles) against each factor and the second phase regressed the independent variables and the investment model variables against each factor.

The Eros subscale was a significant negative predictor of Affairs, while the Ludus subscale was a highly significant positive predictor of Affairs across both phases of the regression. With the inclusion of the investment model variables, the regression revealed that 25% of the variance (an increase of 2%) was accounted for by these predictors. With regard to the Fantasy dimension, again the Eros lovestyle was a significant negative predictor, while Ludus was a highly significant positive predictor across both phases of the regression. In this case, 18% of the variance was accounted for when all independent variables were in the mix.

There were three positive predictors of the Flirting Factor, the Ludus lovestyle, perceived alternatives and investment. Eros and commitment were significant negative predictors of this Factor. The Ludus and Eros lovestyles were significant predictors across both phases. Finally, the Outings dimension was positively predicted by the Ludus lovestyle and perceived alternatives however, with all the variables in the regression equation, Ludus was no longer significant.

Table 6.19

Hierarchical Regression Predicting the Extradyadic Dimensions

Variable	Predicting Affairs		Fantasy		Flirting		Outings	
	Standardised Betas							
	Block 1	Block 2	Block 1	Block 2	Block 1	Block 2	Block 1	Block 2
Eros	-.20**	-.16*	-.23**	-.12**	-.27***	-.18*	-.13	-.09
Ludus	.39***	.38***	.31***	.30***	.21**	.18**	.13*	.11
Storge	.00	-.01	.01	.01	-.03	-.02	.10	.10
Pragma	.01	.09	.01	.01	.07	.07	-.09	-.09
Mania	.03	.01	.06	.04	.14	.10	.06	.03
Agape	.06	.04	-.01	-.03	-.03	-.06	-.04	-.07
Avoid	-.03	-.04	-.01	-.02	-.07	-.13	-.04	-.06
Anxious	.08	.07	-.08	-.08	-.02	.00	-.02	-.01
Alterns	--	.06	--	.06	--	.18**	--	.14*
Invest	--	.11	--	.10	--	.12*	--	.11
Commit	--	-.09	--	-.06	--	-.16*	--	-.05
F	10.22***	7.10***	6.80***	5.33***	5.96***	6.44***	1.56	1.89*
df	8, 271	11, 268	8, 271	11, 268	8, 271	11, 268	8, 271	11, 268
R^2	.23	.25	.17	.18	.15	.21	.04	.07
R^2 Change	--	.02	--	.02	--	.06**	--	.04*

Note: *N* range: 294-311. Alterns = alternatives, Invest = investment, Commit = commitment.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Summary - Predicting Infidelity

Analysis of the correlates and predictors of infidelity show that the lovestyles are stronger predictors of infidelity than attachment dimensions. In addition, the investment model variables have not been washed out by the individual variables. The different measures of infidelity appear to be providing similar results. Only two lovestyles seem to be important with regard to infidelity: Eros and Ludus. Of all the significant independent variables, these variables show the strongest connection to infidelity overall. The strongest investment model variables were perceived alternatives and investment, both positive predictors. Avoidant attachment presented as a predictor on the Infidelity Proneness Scale and on the categorical measure for current infidelity, indicating that this attachment dimension is also important, though not as strongly associated to infidelity.

A discussion of these results in their entirety is presented in the following chapter. Included in this is an assessment of the implications of the current research, the strengths and limitations of the study and suggestions for which future research might gainfully be directed.

CHAPTER SEVEN: DISCUSSION

The present study had two main goals: to further explore the nature of infidelity among a contemporary Australian sample and to examine the manner in which a number of individual variables (attachment, lovestyles) and the investment model variables (satisfaction, commitment, investment, perceived alternatives) relate to this construct. More particularly, it was an attempt to describe and predict infidelity. To this end it was constructed around two general objectives and eight specific aims:

- To describe the nature of infidelity.

  This was achieved by exploring:

  (a) what constitutes infidelity?

  (b) variables often associated with infidelity.

- To predict infidelity.

  This was achieved by investigating the relationships between:

  (c) attachment styles and lovestyles

  (d) attachment styles, lovestyles and investment model variables

  (e) attachment styles, lovestyles and infidelity

  (f) investment model variables and infidelity

  (g) independent variables and infidelity dimensions

  (h) independent variables and unfaithful beliefs.

Overall, results of the study provided general support for the hypotheses. In the following discussion the outcome of each research aim is examined in turn. Following this is a discussion of the implications and limitations of the current study, along with suggestions for future research.

The Nature of Infidelity

In addressing the issue of what constitutes infidelity an attempt has been made to fill a gap in what is otherwise an abundance of descriptive literature (Blow & Hartnett, 2005). The intention was to elucidate some of the complexities of the construct through a more comprehensive investigation of its dimensions. To do this, qualitative (focus

group) and quantitative (survey) data pertaining to the beliefs individuals hold about what behaviours constitute infidelity were generated and explored.

A number of measures were used to try to capture the concept of infidelity. The first of these were the categorical measures, which asked respondents whether or not they had ever been unfaithful in their current and/or previous relationships. This left the notion of what constitutes infidelity up to participants to decide and so was primarily used to elicit information about who is unfaithful and how often.

Three continuous measures were also used (Infidelity Proneness Scale, Extradyadic Behaviours List, Unfaithful Beliefs List) for the purpose of clarifying the nature of infidelity. These measures identify the particular behaviours that make up the construct, including and in addition to sexual intercourse with someone other than the primary partner.

The Infidelity Proneness Scale attempts to assess the level of emotional, physical and cognitive intimacy respondents have engaged in with a specific person outside the primary relationship. A relatively small number of items (eleven) are included in the measure beginning with feelings and behaviours that could be considered platonic and that steadily become more romantic and sexual in nature. Respondents are asked to rate the level of intensity they have experienced regarding each. The Extradyadic Behaviours List on the other hand is a more wide-ranging instrument, inclusive of twenty-five items, designed to identify the varying types of behaviours in which respondents have engaged, and the Unfaithful Beliefs List assesses which of these behaviours are believed to be unfaithful.

As would be expected, these measures were correlated, indicating a common understanding of the behaviours under investigation. When comparing unfaithful behaviours in current versus previous relationships, participants who reported infidelity in their current relationship scored significantly higher on both the Unfaithful Behaviours and Infidelity Proneness measures, but higher scores only held true for the Infidelity Proneness Scale when reporting on previous relationships.

The measures cover common aspects of emotional and sexual infidelity, however the correlations were moderate denoting a degree of uniqueness is also inherent in each. This range of measures was thus used to provide widespread quantitative data that would establish a broader context within which to explicate the construct. Complementing them was the qualitative data provided via the focus group.

(a) What Constitutes Infidelity

Qualitative Data: The Focus Group. Themes arising from the focus group regarding the nature of infidelity included sexual behaviours, fantasy, flirtation, emotional involvement and 'open relationships'. The first theme to surface on the subject of what comprises infidelity was sexual behaviour. There was agreement that sexual intercourse with someone other than the primary partner equates to unfaithfulness. Emotional involvement, as defined by the items on the Extradyadic Behaviours List, was also thought to be unfaithful by the majority of the group. Fantasy was considered a normal part of sexual functioning rather than constituting unfaithfulness and Flirting was not considered unfaithful unless there was an intention to pursue further contact (sexual or emotional) with the person. The group did not believe the notion of intention is always associated with flirting behaviours. This idea of intention arose as the first key element of unfaithfulness. Finally, open relationships were not deemed unfaithful due to what was seen as the prior knowledge and agreement of both partners. The practice of secrecy or deceit rather than honesty, then, was seen as another key factor in determining whether or not an act constituted infidelity.

Interestingly, the one member who did not agree that emotional involvement amounted to infidelity was male. As the discussion progressed, however, it became apparent that this particular male member may not be typical of most males. Of course caution must be taken when attempting to generalise about any specific segment of the population, particularly such a large one, but numerous studies (e.g., Harris, 2003b), including the present one, suggest the majority of men acknowledge emotional infidelity whether or not it distresses them as much as women.

With regard to open relationships, it does not necessarily follow that a partner's prior knowledge and acceptance equates to being happy about the situation. Any resulting dissatisfaction might then raise a number of related issues in a relationship that could potentially threaten the stability of the union. An example that alluded to this notion was the idea of a 'threesome' (sexual activity with one's partner and another person). The group conceded that there might be pressure exerted on one member to comply in this situation. The complexity of why a person may carry out behaviours they are not comfortable with, in all likelihood to please a partner, was not introduced to the discussion. Despite this, the group maintained the belief that these types of behaviours

do not constitute infidelity because they satisfy the honesty criterion, though the lines were acknowledged as beginning to blur.

A noteworthy discussion point arising out of these themes was whether there is a connection between infidelity and staying together. The group found this difficult to reconcile and the following idea was put forward:

> *"If infidelity is the reason that the partnership dissolves then it is emotionally loaded. It means that anything that may constitute unfaithful behaviour could threaten the relationship and anything that could threaten the relationship could constitute infidelity."*

This is an interesting and philosophical stance that of its nature cannot be answered unequivocally. Given the fact that not all unfaithful relationships dissolve as a result of infidelity, the group came up with perhaps the most flexible conclusion. That is that infidelity, once exposed, can either enhance the relationship by becoming the point from which issues in the relationship surface and are worked through, or be a way of ending the relationship, intentionally or otherwise. This led to the query:

"Where does infidelity stand in the web of the relationship*?*"

Despite mixed views, all participants except one agreed that most people are 'programmed towards exclusivity', a belief that in some way elucidates the significance of betrayal in relationships. This view was described as serving to maintain order in society and ensure that children are nurtured until adulthood. Interestingly, the idea that the concept of infidelity is also the result of social programming was suggested in response to this. Cultural changes were offered as influencing a possible conflict between biological and social forces. Infidelity was suggested to be more salient with the increased expectation of intimacy in contemporary relationships whereas people in earlier times partnered for convenience and practicality. Indeed, infidelity alone was once a valid reason for divorce, but this has been replaced in Australia with 'irreconcilable differences', a reflection at the very least of the changing expectations in and of relationships.

Overall the group believed that sexual and emotional extradydic behaviours constitute infidelity if they take place without the prior knowledge and consent of the primary partner. Fantasy and flirting behaviours were seen as acceptable if they do not entail an intention to actively pursue the extradyadic partner. Participants concurred there is a multitude of reasons for infidelity and some people will naturally be more inclined towards multiple partners. Some possible reasons proposed for this included

sensation-seeking tendencies that are stronger in some individuals, longer duration of relationships, and being older. The dimensionality of infidelity was further explored with a continuous measure utilised to extract quantitative data.

Quantitative Data: The Survey. The dimensions of potential unfaithfulness were determined with the use of Factor Analysis. The Extradyadic Behaviours List was used for this purpose because it provides a more comprehensive version of possible behaviours. The facets that make up the construct of infidelity were represented as four relatively distinct factors: Affairs, Fantasy, Flirting, and Outings. Examination of the frequencies of items in each factor gave an overall view of what participants generally view as unfaithful behaviour. Apart from kissing, over 94 % of respondents believed the sexual behaviours encompassed in the Affairs factor are unfaithful. Affairs factor items encompassed a number of sexual acts as well as, forming a deep romantic attachment with someone else, falling in love and holding hands. Over half the sample believed holding hands with someone else is unfaithful. The majority of the sample believed that fantasising about sexual behaviours with someone other than one's primary partner is not unfaithful. One fantasy item, 'fantasising about falling in love', fell within the Flirting factor, and while more people believed this to be unfaithful compared to sexual fantasising, a modest majority (57%) still believe this is not an unfaithful act. Most respondents did not consider the flirting behaviours to be unfaithful and a large majority also believed the behaviours labelled 'Outings' did not constitute infidelity.

Interestingly, falling in love (Affairs factor) was seen as unfaithful by 84% of participants, whereas becoming sexually attracted to someone else (Flirting Factor) was viewed as unfaithful by only 37%. This finding is noteworthy in that it lends credence to the generally accepted distinction between sexual and emotional infidelity. The phrase 'falling in love' implies not only an emotional attachment but also a sexual attraction. Glass and Wright (1985) found that when emotional and sexual infidelity were combined, dissatisfaction with the primary relationship was greater than when only one type of infidelity was in play. Sexual attraction to another person does not imply sexual interaction will necessarily ensue, nor is it evidence of intention to act. Conversely, dissatisfaction has been found to lower commitment levels and increase the likelihood of infidelity which suggests falling in love poses a greater threat to the stability and ultimate longevity of the relationship than becoming sexually attracted to someone else, thereby accounting for the substantial difference in respondents' attitudes.

Results on the Affairs, Flirting and Outings factors are generally consistent with previous research. The majority of people view sexual behaviours outside the primary relationship as unfaithful. However, the current results are in contrast with Yarab et al. (1998) and Feldman and Cauffman's (1999) studies where the majority of respondents regarded fantasising about someone else unfaithful. This Australian sample concluded fantasising is a common part of relationship functioning as 65% of people believe fantasising about having sexual intercourse with someone other than one's current partner is not unfaithful and 55% of the sample had engaged in it.

With regard to rates of infidelity, one fifth of the sample reported having been unfaithful in their current relationship; whereas, infidelity having taken place in a prior relationship was reported by 42% of respondents, which is an important if not new finding. This is a substantial number considering the norms endorsed by the cultural majority condemning this behaviour. It confirms the prevalence of infidelity and highlights the disparity between attitudes and behaviours in regard to romantic relationships. It also reconfirms the need to establish the dimensionality of infidelity as the precise type of behaviour/s respondents considered unfaithful when answering this question cannot be determined with a categorical measure. This result possibly indicates lower commitment to relationships with previous partners and suggests relationship and environmental factors are likely contributors. Indeed, findings thus far indicate the presence of individual differences and the current findings discussed later in this chapter are testament to the impact of these factors.

Reflection on results of the focus group discussion and the factor analysis gives rise to some notable parallels. Both samples strongly viewed sexual and emotional extradyadic behaviour as unfaithful. Conversely, fantasy and flirting were generally not considered unfaithful. Additionally, in both samples, the elements of intent and secrecy were seen as important to the concept of infidelity, although this was only implied in the quantitative data. These factors seem reasonable given which behaviours were deemed unfaithful by the majority. Nevertheless the infidelity phenomenon has a tendency to confound reason at times.

To illustrate this complexity consider the question of whether it is unfaithful to fall in love with someone else, a circumstance that arguably might involve no intent and is often difficult to keep secret for long, yet over half the group firmly believed this to be unfaithful. It thus appears that the elements of intent and secrecy are not the only factors implicated in the concept of infidelity. It seems probable that even with prior

knowledge an individual's pride and self concept can be assaulted, and previous research bears this out (e.g., Harris, 2003b). After all, one's partner is choosing another with whom to share behaviours that society deems exclusive to primary romantic relationships. This suggests that some individuals may well include behaviours that bring their self image into question in their definition of what constitutes infidelity.

(b) The Role of Gender, Age, Sexual Frequency, and Relationship Length and Status

The current results showed no gender differences in the overall incidence of unfaithful behaviours on two of the continuous measures of infidelity (Extradyadic Behaviours List, Infidelity Proneness Scale). Similarly, with regard to previous relationships, the study found no gender difference. This finding is consistent with a number of studies mentioned in Chapter Two (e.g., Feldman & Cauffman, 1999; Wiederman, 1997) and with Oliver and Hyde's (1993) assertion that the incidence of men's and women's infidelity is increasingly similar. This was not the case for rates of infidelity in current relationships, however, where men were significantly more likely to report infidelity than women, a finding also consistent with a sizable amount of past research (e.g., Allen & Baucom, 2004; Atkins et al. 2001; Treas & Giesen, 2000). It is noteworthy that apart from Feldman and Cauffman's study, which used an older adolescent sample, these studies used large representative samples.

The inconsistency in the current results appears to mirror that in the extant literature on gender and infidelity. As to whether or not men are more prone to infidelity relative to women, Blow and Hartnett (2005), in their review of the infidelity research, claim, "it depends" (p.220). What it depends on, according to these authors, is such things as methodology, type of infidelity assessed, age of the sample, and the length of relationships of the sample. Another conclusion that goes some way to reconciling this uncertainty comes from Allen et al.'s (2005) review. These authors argue that the literature overall shows certain patterns are changing, namely "women are *catching up* to men" (p.108). The current results could be seen as consistent with both of these assertions, depending on whether the lens is focused on current or previous relationships, however taken as a whole the present study affirms that when it comes to extradyadic behaviours, women do appear to be 'catching up' to men.

Concerning unfaithful beliefs, women, in relation to men, believed more extradydic behaviours were unfaithful. This result falls in line with previous studies, such as Thompson (1984) and, more recently Feldman and Cauffman (1999) and that of

Harris (2003b) who found that, compared to men, women were more apt to view sexual acts as unfaithful. However, it contrasts with the work of Wilson and Medora (1990) who found that men's and women's attitudes towards various forms of sexual behaviour are converging.

Age did not correlate significantly with either of the continuous infidelity measures, which is noteworthy in the light of a contemporary tendency for a higher incidence of infidelity in younger cohorts (Allen et al., 2005; Rissel et al., 2003), and with 54% of the current sample being 29 years or less. Of particular interest and as noted, Rissel et al.'s study also utilised an Australian sample. The current study's inclusion of a broad range of behaviours may account for this discrepancy. Many studies confine the constituents of infidelity in surveys to sex with an extradyadic partner, to which Rissel et al. is a case in point, and this can impact on the prevalence of the behaviour (Allen et al., 2005).

A weak but significant negative correlation was present between sexual frequency and both the Extradyadic Behaviours and the Infidelity Proneness scale scores. This indicates that those having less sex in their primary relationship engaged in more extradyadic behaviours, which is consistent with the findings of Edwards and Booth (1976). Interestingly, these authors found that dissatisfaction with the primary relationship was a precursor to a decrease in sexual frequency and the current study found that lower levels of satisfaction were indeed associated with infidelity.

Complementing a focus group hypothesis and the findings of previous research (Glass & Wright, 1977; Spanier & Margolis, 1983) more extradyadic behaviours were reported by individuals in slightly longer relationships. Similarly, in reference to current relationships, those reporting unfaithfulness were slightly older, had been in their relationships longer and experienced somewhat less sexual activity with the primary partner. The current theoretical framework would suggest that for some individuals as time goes by the costs of the relationship increase in comparison to rewards. A number of factors may be implicated in this, including such things as the waning of satisfaction and/or higher perceived alternatives.

With regard to previous relationships, there were no significant differences in age, relationship length or sexual frequency for those reporting unfaithful behaviours compared with the faithful. Further, there were no differences between the faithful and unfaithful groups in relation to infidelity beliefs for either current or previous relationships.

Finally, there were no significant differences in reports of current infidelity according to relationship status (dating, cohabiting, married), however, there was a significant difference between these groups for previous relationships. In this case, dating respondents were more likely to report infidelity than married respondents, while those in cohabiting relationships were the most likely to report extradyadic behaviour. This is consistent with the findings of Treas and Giesen (2000) who compared cohabiting and married individuals, and with those of Forste and Tranfer (1996) who found comparable results to the current study for women. Perhaps, as Treas and Giesen concluded, lower levels of commitment to previous partners accounts for these differences. Some individuals in dating relationships may see the next step as marriage, with which monogamy is associated. On the other hand those living with their partners may not see marriage as the next step and it could be that more of these individuals have liberal attitudes towards infidelity. This may account for why cohabiting individuals reported the highest level of infidelity.

In summary, the general trend in the current sample reflected reports of infidelity according to gender and age comparable to previous studies; however respondents reporting less sexual activity with their primary partner were slightly more likely to engage in extradyadic behaviour. The data for current relationships revealed that factors such as being male, slightly older, being in longer relationships, or less sex with the primary partner were associated with more infidelity. For previous relationships, there were no significant differences in gender, age, sexual frequency, or relationship length, but married individuals were the least likely to engage in unfaithful behaviour. Overall, women were more inclined to rate extradyadic behaviours as unfaithful compared to men. These results corroborate the emerging trend related to gender and the mixed findings reflected in previous research.

The Nature of Infidelity: Summary of the Current Findings

A firm majority of this Australian sample believed the sexual behaviours (apart from kissing) and emotional behaviours included in this study constitute infidelity. Conversely, outings, fantasy and flirting behaviours were deemed acceptable. Worthy of note, however, is that a substantial minority believed that various fantasies involving

someone other than one's primary partner, or becoming sexually attracted to someone else, amounts to infidelity.

Key factors implicated in this behaviour include intent and secrecy and it could be inferred that certain unfaithful behaviours might impact on an uninvolved partner's self image, which may be another yardstick defining infidelity. Variables such as gender, age, sexual frequency, and relationship length are not always associated with infidelity and the current results suggest it depends on the measure used and/or the relationship (current/previous). For instance, when the description of infidelity included a broad range of behaviours, comparable rates of infidelity were generated regardless of age or whether respondents were male or female. However, the longer the relationship and less frequent the sexual relations with the individuals' primary partner, the more likely the occurrence of infidelity. Alternatively, the use of a categorical measure, that does not indicate which behaviours are considered unfaithful, gave rise to some disparity in gender and age for current relationships. In this case, being older, male, or in a longer relationship was associated with higher levels of infidelity.

The focus group facilitated open discussion surrounding the key factors that might underpin the assessment of particular behaviours as unfaithful. This extended the quantitative results and enriched the data, providing a more comprehensive account of this inherently complex construct. Results from both the focus group and the quantitative data illuminate the multidimensional nature of infidelity and the differential attitudes of individuals towards which behaviours should remain exclusive to the primary relationship.

Predicting Infidelity

Another major focus of the current study was to determine the extent to which certain variables pertaining to individuals, relationships and the environment relate to infidelity. Three theoretical frameworks were applied, providing a foundation for the inclusion of attachment styles, lovestyles and the investment model variables in the study. The three continuous infidelity measures noted earlier, were again used to reveal which of these variables were significant correlates and predictors of infidelity. The relations between these variables and infidelity in this Australian sample are discussed below.

(c) Relationships between Attachment and Lovestyles

The relationships between attachment and lovestyles were assessed, and the relevant hypotheses were supported. High scores on avoidance were associated with high levels of the Ludus lovestyle and lower levels of both the Eros and Agape lovestyles. Furthermore, anxious attachment was positively correlated with Mania. With regard to the remaining lovestyles, some interesting correlations between each of these and anxious attachment were revealed. These relationships are discussed in turn.

The association currently found between avoidant attachment and the Ludus lovestyle is consistent with previous studies (Feeney & Noller, 1990; Levy & Davis, 1988). The two have noted similarities, including a reticence towards commitment in romantic relationships, a tendency to remain in control of emotions and reportedly lower relationship satisfaction. High scores on the Ludus lovestyle are not associated with ego strength (Prasinos & Tittler, 1984); these lovers appear to lack the skill or motivation to form an enduring romantic relationship and accept the demands of commitment. For younger adults, this could be because they are still forming a congruent self-identity. However, it cannot be ruled out that older adults may also struggle with a sense of self, suggesting this style of love may develop from an insecure attachment style corresponding to avoidance.

Notwithstanding the fact that the current findings strengthen the notion that these styles have common features indicating that the avoidant attachment style could to some degree underpin the Ludus lovestyle, the correlation between the two was modest suggesting both styles also reflect something unique. Lee (1973) describes individuals high in Ludus as having a 'carefree' nature. Love is approached in a playful manner, but a good command of the rules and strategies in a relationship is needed to be successful. So although carefree, this approach to love is not an effortless one. The Ludus lover is differentiated from the more troubled avoidant lover by way of emotional intensity. Individuals high in Ludus are able to acknowledge emotions and subsequently control them. Game playing is not seen by these lovers as part of love, the game itself is love. Conversely, avoidant lovers are apt to deny emotions toward the relationship in order to contain the depth of feelings (Mallandain & Davies, 1994). In addition, ludic lovers usually recover from a broken romantic involvement quickly and easily, as there is no expectation of longevity in relationships (Lee, 1998), whereas for avoidant lovers, breakups lend credence to their more cynical belief that romantic relationships are

inherently difficult (Levy & Davis, 1988). Moreover, ludic lovers are not described as having a negative view of themselves, which is in contrast to fearful avoidant lovers. This avoidant style is characterised as experiencing self-doubt, along with a tendency to distrust others (Hazan & Shaver, 1987).

Dismissive avoidant lovers, as described in a four-category conceptualisation of attachment (Bartholomew, 1990) on the other hand, are more in line with ludic individuals. Although they distrust others, they are not plagued with self-doubt rather they dismiss the significance of relationships because they prefer independence. Further research into the precise elements of each style as captured by their respective measures should prove fruitful.

The negative association found between avoidant attachment and the Eros and Agape lovestyles is consistent with the findings of Levy and Davis (1988), who note that inherent in these lovestyles is the desire and capacity to form intimate attachments. This stands out as the most significant common element differentiating these lovestyles from avoidant attachment. Over and above this, there are a number of distinct features of each lovestyle that are absent from the avoidant attachment style.

The Eros lovestyle for example, is associated with a stable sense of self. These individuals are generally confident, not anxious, and have a family history described as warm and happy. This is not reflective of avoidant attachment. Further, Eros lovers welcome intense emotions and are willing to deal with problems as they arise, while the avoidant individual tends to shy away from addressing relationship problems directly. In addition, for the Eros lover, sex is approached from a passionate and idealistic viewpoint which is in contrast to an avoidant attachment perspective.

With regard to the Agape lovestyle, though these individuals experience emotional intensity, they allow reason to rule. The most distinguishing feature of Agape is that it is described as altruistic in nature. This self-sacrifice is not only in contrast to avoidant attachment but also to all other lovestyles. Levy and Davis (1988) go so far as to say it tends "toward a pathological naiveté" (p. 443) because there is no expectation of reciprocation. Indeed, Lee was unable to find this kind of love represented in its pure form in enduring relationships, although researchers testing Lee's theory have found evidence of it in some other cultures (Lee, 1998). Hendrick and Hendrick (1989) found Agape was correlated with both Eros and Mania, which implies a dichotomous mix of healthy and compulsive caregiving; however altruism is not a facet indicative of these styles.

With regard to the second hypothesis, results revealed a positive correlation between anxious attachment and the Mania lovestyle, highlighting empirical overlap found in previous research (Fricker & Moore, 2002; Hendrick & Hendrick, 1989; Levy & Davis, 1988, Shaver & Hazan, 1988). The similarities between these styles appear more absolute than those between the avoidant and Ludus styles, indeed the correlation between these styles was stronger. Both anxious attachment and the Mania lovestyle demonstrate an insecure and obsessive attitude to love, often reacting to changes in the relationship with extreme fluctuations in mood. Mania has been classed as one of the least successful lovestyles, due to the poor self image it entails and deficits in psychological health (Prasinos & Tittler, 1984), factors also associated to anxious attachment. Nevertheless, the correlation found in the present study, although reasonably strong, provides further evidence that these styles still contribute something unique.

A number of factors may underscore a distinction between these styles. Firstly, the Mania lovestyle was positively correlated with Eros in the current study as would be expected considering Mania is made up of a combination of Erotic and Ludic characteristics. Anxious attachment, on the other hand, revealed a negative correlation with the Eros lovestyle, although the associations were weak in both cases. This may be an important element that separates the anxious and Mania styles. Further, Mania was not found in the current study to be related to satisfaction, commitment or perceived alternatives, whereas anxious attachment was associated with lower levels of satisfaction and commitment, again highlighting a certain level of uniqueness that exists between these styles

Exploration of the remaining lovestyles showed each of these correlated with anxious attachment, which contrasts with previous studies (Fricker & Moore, 2002; Levy & Davis, 1988; Shaver & Hazan, 1988). Anxious attachment was negatively related to Storge, which given this style's easy going nature should not be surprising. Anxious attachment is characterised by an obsessive need for attention and emotional fluctuations that are quite dissimilar to the calm and patient Storge lover. Anxious individuals experience a high degree of anxiety about their romantic relationships, generally reporting lower levels of trust, satisfaction and commitment, as noted. Storge individuals in contrast, are not subject to intense emotionality and are generally trusting and deeply committed to their partner once affection for the partner has been established. This was the only negative relationship found. Anxious attachment was

positively associated with the Ludus, Pragma and Agape lovestyles. These will be discussed in turn.

Ludic lovers have an expectation that love should be fun if played by the rules, as they discern them. Two concepts the ludic and anxious lover have in common are arguably revealed here; one is the expectation of how love 'should be' and another is the idea of fairness or equity. The view of how love should be is quite different in each case, as the anxious lover wants more closeness, while the ludic lover wants more distance. Both styles generally report lower levels of satisfaction which suggests they might both expect disappointment. For anxious individuals the disappointment may lie in never feeling loved enough, while for ludic individuals it possibly comes from a partner's pressure that they invest more heavily in the relationship, which is a common expectation for many individuals endorsing a dissimilar lovestyle. Lower levels of commitment are also reported, but again for different reasons. In the case of the anxiously attached, consistent disappointment and negative affect may account for lower levels of commitment, while for the Ludus lover less commitment is a desired state, part of a general approach to love.

A weak positive association was found between Pragma and anxious attachment, suggesting there are a small number of characteristics that overlap. Pragma is a mix of the Ludus and Storge lovestyles. It may be that some elements Pragma and Ludus share may also account for the correlation between Pragma and anxious attachment.

Finally, the Agape lovestyle and anxious attachment share an idealised approach to love, desiring closeness and thinking of the loved one. The correlation between these styles, though significant, was small, which stands to reason as, apart from this idealism these styles behave very differently. For Agape lovers a partner's needs are placed above their own. Conversely, the anxious lover is idealistic about getting their own needs met. In essence the former is altruistic while the latter may be considered selfish.

(d) Attachment, Lovestyles and the Investment Model

An initial aim of this stage of the study was to test the validity of the investment model. The model proved to be valid for use in the current research. Individuals highly committed to their relationships were highly satisfied, perceived they had made significant investments, and perceived they had fewer attractive alternatives than those low on commitment. Commitment was in fact substantially predicted by these three variables.

The next aim was to determine the relationships between the individual variables and the investment model variables. The prediction that anxious attachment would be negatively correlated with satisfaction and commitment was supported. However, anxious attachment was not predictive of lower levels of satisfaction and commitment when included in the regression with other variables. Interestingly, anxious attachment turned out to be positively correlated with investment. Predictions regarding avoidant attachment were supported. Avoidant attachment correlated with and predicted lower levels of satisfaction, investment, and commitment, and higher levels of alternatives.

The links between these insecure attachment styles and the investment model variables is largely consistent with those found by Pistole and Clarke (1995). They found that insecure attachment was related to lower levels of satisfaction, commitment, and investment and suggest that insecurely attached individuals tend to emphasise costs in the relationship, while minimising rewards. A notable difference in the current study was that rather than low levels of investment, anxious attachment was correlated with higher levels of investment, though it was a weak relationship. These individuals tend to put a lot of effort into their romantic relationships, continually striving to get closer to their partner despite the resentment they feel towards what they perceive as their partner's comparative lack of effort. Thus their compulsive need to merge with a partner may account for somewhat greater levels of investment.

Respondents with high scores on avoidant and anxious attachment reported significantly less relationship satisfaction and commitment, which is consistent with minimising rewards and corroborates results of previous studies (Collins & Read, 1990; Feeney & Noller, 1990; Fricker & Moore, 2002; Hazan & Shaver, 1987; Simpson, 1990). However, the relationship between anxious attachment and satisfaction is arguably more tenuous than that between avoidant attachment and satisfaction, as the former did not emerge as a significant predictor of satisfaction.

Generally anxiously attached individuals report lower levels of satisfaction as noted; given the fluctuations in mood that these individuals are subject to, however, they are emotionally likely to be unpredictable. Anxiously attached lovers often idealise their partners, as part of their compulsive efforts to merge with and cling to them. This could lead to greater satisfaction at times, particularly in the light of the fact that an idealisation-satisfaction link has been found empirically (Jones & Cunningham, 1996), which might be why satisfaction was not a significant predictor.

As in the case of avoidant attachment, lower levels of satisfaction and investment, coupled with more perceived alternatives predict lower commitment. In the current study, however, higher levels of investment, and no relationship with perceived alternatives appears to have accounted for the fact that anxious attachment was not a significant predictor of lower levels of commitment.

With regard to the relationships between the lovestyles and the investment model variables, the hypothesis that the Eros lovestyle would correlate with higher levels of satisfaction, investment, and commitment and lower levels of alternatives was supported. With regard to its role as a predictor, Eros predicted greater satisfaction and commitment, and lower levels of alternatives but it was not a significant predictor of investment. Partial support was also shown for relationships between Agape and the investment model variables. This lovestyle was positively correlated with satisfaction, investment, and commitment. It was also a positive predictor of investment. The hypothesis that the Ludus lovestyle would correlate with and predict lower levels of satisfaction, investment, and commitment and higher levels of alternatives was partially supported. Ludus was a significant negative correlate of all but investment and was only a significant predictor of higher alternatives.

The link between the Eros, Agape and Ludus lovestyles and satisfaction is consistent with prior research (Davis & Latty-Mann, 1987; Frazier & Esterly, 1990; Morrow et al., 1995). Morrow et al (1995) propose that individuals endorsing these lovestyles may employ certain behaviours that influence the quality of their relationships. To that extent, the Eros and Agape lovestyles share the characteristics self-disclosure, reciprocity, self confidence and commitment, aspects of relationships also found to be important independent measures of satisfaction (Hendrick et al., 1988). Ludus lovers, conversely, are not apt to self-disclose, nor are they interested in commitment; their behaviours are intended to discourage the forming of genuine intimacy. These features of close relationships would only interfere with this lover's casual approach. However, as Ludus did not predict satisfaction and commitment, it may not be a strong contributor to these relationship variables. These results suggest there is some level of satisfaction with and commitment to a partner. Perhaps the novelty of the initial stages of a relationship provides these lovers with enough excitement to fulfill their sensation seeking tendencies and gives them the impetus to remain with that person for a certain period of time. A longer the duration of the

relationship may see a natural progression towards less satisfaction and commitment for this lovestyle.

The expected lower level of perceived alternatives associated with Eros, may be a consequence of the type of lover that attracts individuals high in Eros. These lovers are inclined to choose a partner that conforms to their ideal image. Physical attributes are important to them, to the point where the discovery of a particular feature that appears distasteful can put these lovers off (Lee, 1973). If Eros individuals are satisfied with and committed to their relationship, chances are the partner comes close to their ideal image. Thus, alternatives would either not be considered or they may just appear less attractive. Indeed, higher levels of commitment to a partner, typical of this lovestyle, can lead to the belittling of potential alternatives (Johnson & Rusbult, 1989).

Conversely, Ludus lovers are inclined towards multiple partners or serial monogamy. Relationships are short lived and such an approach sees these lovers on the lookout for new partners which would underpin a significant correlation with higher perceived alternatives.

Exploration of the remaining lovestyles revealed some interesting relationships. Mania was positively associated with investment, and higher levels of this lovestyle predicted lower levels of commitment. The literature surrounding the role of the Mania on the quality of romantic relationships is mixed which mirrors the perpetual emotional highs and lows characteristic of this lovestyle. Mania has been associated with passion, the characteristic it shares with Eros, in studies by Davis and Latty-Mann (1987) and Frazier and Esterly (1990), which may lend credence to its positive connection to investment, a correlation also evident with anxious attachment, which is itself a strong positive correlate of Mania. Passionate people are inclined to channel their efforts intensely towards important goals. Perhaps the mixed results are a logical outcome considering this lovestyle is so changeable.

Storge was associated with higher levels of satisfaction, investment and commitment. Storge's positive relationship with satisfaction in the present study has not been a consistent finding. Some researchers (Levy & Davis, 1988; Morrow et al., 1995) suspect that the lack of previous support for the Storge-satisfaction link may be a result of the Storge subscale of the LAS (Hendrick & Hendrick, 1987). The emphasis, whether a short form or full subscale is used, is placed on love developing out of friendship and this does not encompass the full conceptualisation of this lovestyle. Self-disclosure, though it is slower to surface, is characteristic of this style, as is the expectation of a

long-term commitment. It may be that these characteristics are seen as integral to friendship, thereby influencing relationship satisfaction and commitment in the current sample. Storge was also found to predict higher levels of investment, which falls in line with this lover's expectation of longevity once a commitment has been made.

With regard to Pragma, there were no significant associations found with the investment model variables. This adds weight to the view of some researchers that this lovestyle's applicability to romantic love is dubious (Shaver & Hazan, 1988; Levy & Davis, 1988).

Eros, Ludus and Agape have previously shown the strongest association with satisfaction (Frazier & Esterly, 1990; Morrow et al., 1995). This was also the case in the present study. Unlike Eros and Ludus, however, Agape was not also a significant predictor of relationship satisfaction, possibly because of its correlation with the other independent variables. Another possibility is that the 'selfless giving' associated with Agape does not always bring about satisfaction. Perhaps its association with satisfaction is more about what Shaver and Hazan (1988) postulated as the 'self-serving' nature of this lovestyle; that is their altruism makes them feel good about themselves. This may wane at times in response to a lack of reciprocation. In any event, further exploration is warranted.

A number of notable connections deserve reiteration. Avoidant attachment and the Eros lovestyle came out as the strongest correlates and predictors of the investment model variables. Ludus was another strong correlate and predictor, although it was unexpectedly found not to be associated with investment. The desire to contain emotions and the inclination to shy away from commitment typifies avoidant and Ludic lovers, which is in sharp contrast to Eros lovers who exude passion and embrace commitment. The element of commitment, then, appears pivotal and is consistent with Rusbult's (1983) contention that commitment is central to the maintenance of romantic relationships. The interconnections between these variables provide further support for the assertion that the attitudes and beliefs people hold regarding the rewards and dangers of loving relationships exert a powerful influence on relationship variables that ultimately reflect the quality and stability of the relationship.

(e) Attachment, Lovestyles and Infidelity

The next stage of the study focused on the extent to which the individual, relationship and environmental variables relate to the various measures of infidelity.

The first set of hypotheses focused on the individual variables: attachment styles and lovestyles.

Attachment

The hypothesis that infidelity would be correlated with and predicted by higher levels of both avoidant and anxious attachment was partially supported. Both dimensions did in fact correlate positively with infidelity, however anxious attachment only correlated with infidelity on the Extradyadic Behaviours List, and avoidant attachment was the only predictor of infidelity on the Infidelity Proneness Scale.

The association of these attachment dimensions with infidelity is consistent with previous studies (Allen & Baucom, 2004; Feldman & Cauffman, 1999; Bogaert & Sadava, 2002). However, the current methodology not only supports but extends these earlier findings regarding the impact of insecure attachment on unfaithful behaviour. For example, the current findings relate to a wider population, whereas samples were previously restricted to younger men and women and, apart from Allen and Baucom's study, infidelity was more narrowly defined. In addition, the results generated in Bogaert and Sadava's study proved stronger for women, while correlations were stronger overall in the current study.

A number of factors may underpin this apparent propensity towards infidelity. Anxious attachment has been associated with an early onset of sexual activity (Bogaert & Sadava, 2002) and an early onset of sexual activity has been associated with higher levels of infidelity (Amato & Rogers, 1997; Atkins et al., 2001; Feldman & Cauffman, 1999). Anxious individuals were found by Allen and Baucom (2004) to be motivated towards infidelity by feelings of loneliness and neglect that lead to a need to feel cared about. As noted, anxious types tend to idealise their partners so they may only employ unfaithful behaviours when frustration accelerates to unbearable levels after constant attempts for more closeness fail. This speculation might account for why anxious attachment was a significant correlate of infidelity but did not turn out to be a significant predictor.

Avoidance also predicted infidelity in the current study, a finding that suggests it is a stronger factor than anxious attachment. These individuals do not idealise their partners or their relationships. On the contrary they tend to minimise the significance of a romantic partner in order to maintain a safe distance. The avoidant individual's somewhat cynical attitude about the motives of others and sometimes instrumental

attitude towards sex may mean they employ unfaithful behaviours more readily. It is important to note however, that distinguishing between fearful and dismissive avoidance brings to light differential motivations for infidelity. For example, Allen and Baucom (2004) found that fearful types (high anxiety, high avoidance) also turned to an extradyadic partner for reasons of neglect and loneliness, not just for autonomy. Presumably, such an avenue is safe for these individuals as, although intimacy needs are being met (remembering that these individuals crave but fear intimacy), they might more easily keep extradyadic partners at a safe distance.

It is noteworthy that the attachment process may need to be activated for infidelity to ensue (Bogaert & Sadava, 2002). The anxiety levels of fearful avoidant individuals are also heightened when a partner presents as needy by attempting to get too close to them, while for the anxiously attached, anxiety elevates when partners are perceived as distant. For dismissive types (low anxiety, high avoidance) however, infidelity is more common, and may be a way of exerting independence and freedom (Allen & Baucom, 2004) whether or not the attachment process is activated. Although both anxious and avoidant individuals probably pay more attention to costs in the relationship generally (Pistole & Clarke, 1995), anxious types may also use other methods to get their needs met. They are certainly more volatile by nature, employing a number of attention-seeking strategies. Indeed one of the items on the LAS, "If my partner ignores me for a while, I sometimes do stupid things to try to get his/her attention back" is indicative of the anxiously attached individual. Infidelity is one set of behaviours that these individuals may use in the closeness/distance struggle that perpetually plagues them.

In the current study attachment styles were shown to play a direct role in the infidelity phenomenon, which gives weight to Simpson et al.'s (1992) claim that "attachment styles have clear and meaningful effects on actual behaviour….." (p.449). However, correlations were modest, suggesting that the attitudes associated with these attachment styles are one important ingredient among others that explicate the construct. This again demonstrates that the complexities of human relations render relationship research particularly difficult to elucidate in its entirety. Nevertheless, these findings give weight to the importance of attachment theory in the study of infidelity.

Lovestyles

With regard to the lovestyles, the hypothesis that infidelity would be correlated with and predicted by higher levels of the Ludus and Mania lovestyles was partially supported. The Ludus lovestyle was in fact the strongest correlate and predictor of infidelity on both the Extradyadic Behaviour and the Infidelity Proneness scales. However, the Mania lovestyle did not significantly correlate with or predict infidelity. The hypothesis that infidelity would correlate with and be predicted by lower levels of Eros and Agape was again partially supported. Eros was negatively associated with and predictive of infidelity, but there were no significant connections between Agape and infidelity. Exploration of the remaining lovestyles found no significant associations with infidelity.

The strong link between the Ludus lovestyle and infidelity is consistent with previous research (Wiederman & Hurd, 1999) and in line with Lee's (1973) description of these types. Intrinsic to the Ludus lovestyle is a heightened need for excitement and an approach to love that can include multiple partners. Infidelity is associated with lower levels of commitment, and this is part of the Ludus lover's approach to love. A lack of commitment to a partner lowers the intensity of emotions, which helps keep the relationship anxiety free. This finding also highlights the positive correlation between the Ludus lovestyle and avoidant attachment. The current study suggests that the characteristics these types have in common are associated with a tendency towards unfaithful behaviour.

The null findings for the Mania lovestyle and infidelity may be accounted for by way of this style's positive relationship with Eros which is in turn associated with lower levels of infidelity. However, Mania is a mixture of Eros and Ludus, a combination that results in a highly possessive and intense approach to love. The characteristics Mania shares with Eros include a desire to disclose and elicit disclosure from a partner, an idealistic view of sex and generally a passionate approach to the relationship. The difference is that for manic individuals all of these characteristics are exaggerated. For example, rather than a willingness to disclose and elicit disclosure as in the case of Eros lovers, the manic lover is obsessed with this process. In their desperate need to be loved they employ a number of attention-seeking strategies and it is most likely here that aspects of a Ludus style come into play. Ludus is game playing by nature, and a partner is expected to understand and play by those rules. For ludic individuals a lack of disclosure and a lack of genuine commitment keep a safe distance between partners; the

game is about distance. In the case of the manic lover, the game revolves around getting a partner as close as possible and keeping them there.

The current findings pertaining to the Eros lovestyle demonstrate the importance of particular characteristics that tend to lead individuals to resist infidelity. As noted, these types are generally passionate and committed to romantic partners, perhaps because they seek a partner who conforms to their ideal. If fortunate enough to meet someone who even comes close to this, these individuals are able to freely communicate their feelings and emotions, both verbally and sexually. This suggests that sexual satisfaction may be higher for these types and, indeed, previous research has found this to be the case (Fricker & Moore, 2002). When sexual satisfaction is low some individuals are more likely to engage in infidelity (Oikle, 2003). Eros has also been linked with higher levels of satisfaction and commitment in previous and in the present research; variables associated with lower infidelity, again in previous and in the present research (to be discussed forthwith). These factors combine to explain the Eros lover's inclination for monogamy.

Finally, Agape presents as an interesting anomaly, in so far as this style is significantly associated with greater satisfaction, commitment and investment but is not negatively correlated with infidelity as expected. Of note, there was no relationship between Agape and perceived alternatives. It is highly possible that, as this style is a combination of Eros and Storge, that the current sample endorses stronger storgic traits which were not associated with infidelity. Though Agape lovers are idealistic, a characteristic they share with Eros types, they are not as passionate. Perhaps sex itself is not as important to these individuals as it may be for Eros lovers.

(f) The Investment Model Variables and Infidelity

The hypothesis that infidelity would be associated with and predicted by lower levels of satisfaction, investment and commitment and higher levels of alternatives was partially supported. Lower levels of satisfaction and commitment, and higher levels of alternatives were correlated with infidelity, but there was no significant correlation between infidelity and investment. Lower levels of commitment predicted infidelity on the Infidelity Proneness Scale and higher levels of alternatives predicted infidelity on both scales. In contrast to expectations, with all the independent variables in the mix, higher levels of investment predicted infidelity. These results will be discussed in turn.

A lower level of commitment to a relationship is verified in the current study as a pivotal feature of infidelity, which is consistent with previous studies (Buunk & Bakker, 1997; Drigotas et al., 1999; Oikle, 2003; Seal et al., 1994). It is therefore noteworthy that lower levels of commitment did not also predict the extradyadic list of behaviours, suggesting that it is not always a strong indicator of infidelity when infidelity is more broadly defined. In addition, and also supported in the current study, commitment is generally higher in relationships where satisfaction and investment are high and perceived alternatives are low (Rusbult, 1983), factors which generally reduce the likelihood of infidelity. However, satisfaction is not always associated with infidelity. In this case, satisfaction correlated with infidelity but did not predict it, which further reflects the mixed findings of previous studies. Complicating matters further and as explained by Drigotas et al. (1999), individuals can be satisfied with a relationship but not highly committed to it because of low investment in the relationship and/or higher perceived alternatives, suggesting infidelity may be seen as a viable option. Similarly highly committed individuals, due to their higher investment and/or lack of perceived alternatives, may be dissatisfied, but not inclined toward infidelity. It seems likely that although satisfaction and commitment are important indicators of infidelity, other facets are often strongly associated.

One of these facets is perceived alternatives, a strong indicator of unfaithful behaviours in the current study as it correlated with and predicted infidelity. These results suggest it may be more important than the other investment model variables. This is an intuitive result in so far as if there were no attractive alternatives, an individual desiring an encounter, or an affair, with someone other than their current partner would not find infidelity an option because there is no one available with whom to be unfaithful. Again, correlations were moderate and beta weights were weak to moderate indicating, as with all the independent variables in the study, that each relationship variable is only part, however important, of the story of infidelity.

Arguably the most interesting finding in the current study was that investment was not negatively correlated with infidelity and in fact turned out to predict higher levels of this behaviour, a wholly unexpected outcome. It appears that since this is counter to what the model predicts, investment is a variable that may not be as important in the mix when it comes to deterring infidelity. The current study has demonstrated that individual factors can have a powerful influence on the decision to engage in extradyadic behaviour, which in some cases outweighs the impact of

investments in the relationship. For instance, the anxiously attached individual was found to be highly invested in their relationship yet also inclined towards infidelity. Alternatively, there may be an aspect of perceived investment that focuses on costs in the relationship, which could relate to resentment of the partner for not satisfying unmet needs.

It is worth noting though, that anxious attachment correlated with these variables but was not predictive of them, so that the present results continue to highlight the need to consider several motivational factors. Perhaps despite investing highly in a relationship, if there are attractive alternatives available some individuals may be more likely to engage in extradyadic behaviours for a number of other reasons. These could include sexual opportunities (Treas & Giesen, 2000), infrequent sexual activity (Edwards & Booth, 1976), relationship length (Glass & Wright, 1985), lack of communication, revenge, the need for variety, and sexual incompatibility (Roscoe et al., 1988), which have all been associated with infidelity previously. Less frequent sexual activity and longer relationships were significantly associated with infidelity in the current study. The obvious complexity of the construct is reflected in the multifaceted motivations that drive the behaviour.

(g) Predictors of the Dimensions of Infidelity

A focus on the dimensions of infidelity, discussed earlier, reveals some important and similar connections. To recapitulate, the dimensions of infidelity included: Affairs (sexual and emotional behaviours), Fantasy, Flirting, and Outings. Of the individual variables, a Ludus lovestyle predicted infidelity across each of the factors (except for the Outings factor when all independent variables were in the mix), while Eros was a negative predictor on all but the Outings factor. Ludus represents a game playing approach to love, which is secretive and less committed to one partner. On the other hand, Eros lovers display a strong physical and emotional attraction to their partner and are generally highly committed to the relationship. Commitment was the only relationship variable of significance, negatively predicting the Flirting factor. The more committed an individual is to the relationship appears to reduce the inclination to engage in flirting behaviours that may be seen as potential precursors to infidelity. The environmental variable, perceived alternatives, predicted the Flirting and Outings facets of infidelity. Perhaps the belief that there are alternatives to the relationship motivates some individuals towards behaviours that 'test the waters'. The more people interact

with others (Outings), coupled with 'casually flirting', 'becoming sexually attracted to someone' and/or 'fantasising about falling in love' (Flirting), the closer they may be to finding another partner. However, this does not necessarily infer infidelity or the dissolution of the relationship would follow. Interestingly, investment was also a positive predictor of the Flirting factor. Being highly invested in a relationship could reflect a greater interest in relationships generally. Flirting may or may not be seen as sexually driven, which was indicated in the focus group and to some degree in the survey, with only a minority of respondents endorsing these behaviours as unfaithful. Perhaps the association between flirting an investment relates to individuals who are generally more outgoing and sociable.

(h) Predictors of Unfaithful Beliefs

Some significant indicators of unfaithful beliefs arose, including the Eros and Ludus lovestyles and perceived alternatives. Individuals endorsing an Eros lovestyle reported more unfaithful beliefs (Unfaithful Behaviours List) that is, a greater tendency to judge extradyadic behaviours as unfaithful. The propensity for monogamy that has been shown to be characteristic of Eros individuals may account for this finding. Their passionate, somewhat 'all or nothing' approach to romantic relationships possibly leads them to classify more behaviours under the umbrella of 'exclusive' to the primary relationship.

In contrast, those endorsing a Ludus lovestyle or higher perceived alternatives were more likely to believe that a smaller number of behaviours constitute infidelity. Ludus was the strongest predictor of infidelity, so perhaps the care-free and game playing approach to love, coupled with the need for excitement typifying these individuals, underscores the belief that a greater number of activities with extradyadic partners are acceptable. Certainly, these lovers often choose multiple partners as part of their general approach to romantic relationships.

In regard to alternatives, it may be that individuals who believe attractive alternatives are available might rationalise fewer behaviours are unfaithful in order to pave the way to engaging in them. As noted above, those with higher perceived alternatives tend to engage in flirting behaviours and going on outings with someone other than their primary partner and it is likely that these are the behaviours deemed acceptable, particularly when these behaviours were deemed acceptable by the majority of the sample. This would complement any motivation, also noted, that might exist to

'test the waters'. Alternatively, it may be that that individuals who rate fewer behaviours as unfaithful are generally more aware of alternatives to their relationships.

Predicting Infidelity: Summary of the Current Findings

The combination of individual, relationship and environmental variables in the study show which are the most important. Of the individual variables, Eros and Ludus lovestyles and avoidant attachment are the most important indicators, investment and commitment are the most important relationship influences, and perceived alternatives is a significant environmental variable associated with infidelity. Those most likely to engage in unfaithful behaviour, then, can be described as individuals with a Ludus lovestyle, lower levels of commitment, and what they perceive as an attractive alternative. Individuals reporting higher levels of unfaithful behaviour also tend to report high investment in their relationships, which is surprising. With regard to the dimensions of infidelity, individual variables (Eros, Ludus), commitment and perceived alternatives to the relationship predicted various facets that make up this construct. Ludus lovers are the most likely, while Eros lovers are the least likely to engage in the behaviours across all four dimensions. Interestingly, the study found only a small number of significant predictors of unfaithful beliefs. Individuals endorsing a Ludus lovestyle believed a smaller number of behaviours on the list constituted infidelity, whereas those endorsing an Eros lovestyle believed a greater number of behaviours amounted to infidelity. Additionally, higher perceived alternatives were significantly predictive of fewer unfaithful beliefs.

Implications of the Study

The current research has a number of crucial implications. Most notably, adding to the existing body of research on extradyadic behaviours, the study provides important information as to contemporary Australian beliefs about what constitutes infidelity. This information should prove particularly valuable in practical settings, where it has the potential to enhance the counselling process. Avenues of benefit include encouraging couples to openly discuss and agree on exclusivity expectations, assisting to dispel the

myths associated with infidelity, and to facilitate the healing process in its aftermath. The following bears out these implications.

The current research found that general assumptions about exclusivity are endorsed by most people. However, what was also found was that a significant minority have a different view, one which sometimes amounts to quite the reverse. Specifically the study found that a firm majority considered several sexual and emotional behaviours unfaithful. Conversely, although the majority of the sample saw fantasising and flirting as acceptable, a substantial minority still see these behaviours as unfaithful. Most participants believe that behaviours involving outings with someone other than one's primary partner are acceptable, as long as they are lacking in any sexual or emotional attachment. This variation in individuals' exclusivity expectations draws attention to the need for open discussion of these issues between partners. Disparity in assumptions about extradyadic behaviour is indicated as likely, thus when arising, these differing standards should be adequately addressed.

The findings also have implications for the counselling process, considering the fact that infidelity is a common problem presented by individuals and couples in psychotherapy. In this regard, the current results complement Whisman and Wagers (2005) recommendation that therapists working with couples would do well to incorporate each couple's unique definition of infidelity. They note the following example which aptly illustrates this point. Some couples encourage cross-sex friendships and some have sexually open relationships; interactions, particularly the latter, that many other couples would find represent a violation of expectations. Therapists, then, should be cognizant of the fact that not only will relationship boundaries vary from couple to couple, but also partners themselves may have different ideas as to which behaviours should be restricted.

Whatever assumptions individuals and couples embrace, once they are violated the consequences can be far reaching. For many people, an understanding of themselves, their partner and their relationship is shattered (Allen & Atkins, 2005). Due to the fact that infidelity can be so disturbing, Gordon et al. (2005) argue that it is best understood in terms of the traumatic response to it. They explain that an event is generally perceived as traumatic if it violates fundamental assumptions about how the world works. This can lead to a perceived lack of control, which in turn can lead to the manifestation of anxiety and depression. Again, individuals vary in regard to these basic assumptions so that not everyone will experience infidelity as traumatic. However, in

the main, infidelity is a breach of exclusivity expectations, which offset a chain of psychological and physiological reactions. The latter involves an array of physical and emotional experiences that are open to misinterpretation, which can complicate an individual's response to infidelity (Pittman & Wagers, 2005).

It is thus important for individuals and couples to understand the reasons for the infidelity in order to facilitate the process of rebuilding trust, which is an integral part of the recovery process (Allen & Atkins, 2005; Gordon et al., 2005). According to Gordon et al., after the impact of the trauma has been experienced, a quest to make sense of the event should ensue, leading to a set of new understandings, the implications of which also need to be clarified. Once accomplished, the couple may finally move towards a shared future with a more balanced and genuine view of the relationship.

The results generated from the current study, along with previous findings can benefit both practitioners and clients in this process. There may be a number of realistic factors unaccounted for amidst the many cultural myths that accompany this phenomenon. One commonly held myth is that infidelity stems from unsatisfying relationships (Atkins et al. 2005; Pittman & Wagers, 2005), which research, including this one, suggests is not always the case (Treas & Giesen, 2000). These kinds of myths can lead partners, particularly when distressed, and therapists alike to preoccupy themselves with singular issues. Psychology's conception of infidelity may not be complete, but what can be seen is an inherently complex picture, which makes a simple approach unproductive. This type of crisis can be best addressed when therapists are well informed of contemporary findings as regards contributing factors. A broad focus that encompasses possible individual, relationship, and environmental factors is indicated by the findings from this study as essential for optimal treatment.

The current results indicate that one's approach to love and relationships is a significant individual factor. For example, individuals endorsing a Ludus lovestyle or an insecure attachment style, particularly that of avoidance, have a greater tendency towards infidelity, than those who do not. Although the reasons for this are unique to some degree for each style, the struggle with closeness and distance in relationships is at the heart of such motivation. Regarding attachment, an understanding of the anxiety that forms the basis of these struggles would go a long way to helping individuals and couples come to terms with what has occurred. Clinical knowledge of such approaches to relationships can benefit the counselling process, given, as Allen and Atkins (2005)

pertinently suggest, that individuals are likely to be unaware of this type of motivation, or may find it difficult to explain.

Further, partners' endorsement of different styles within a relationship can compound treatment after the exposure of infidelity, in so far as each partner may find it more or less difficult to identify with the other. If, for instance, one member of the dyad endorses an avoidant attachment style, and so may seek to reduce intimacy by way of infidelity in times of heightened anxiety, and the other endorses an Eros lovestyle, and thereby has a greater inclination towards monogamy, as indicated in the current study, reaching an understanding of what has occurred is likely to be challenging. Again, this highlights the need for practitioners to be armed with this information.

The inclusion of emotion focused therapy (EFT) in the counselling process may also prove beneficial for some clients. Johnson (1996) argued this is an avenue to establishing securely attached behaviour in order to increase relationship satisfaction. EFT therapy involves changing the basic negative assumptions about relationships that accompany insecure attachment towards more secure thinking processes. This would be relevant for individuals and couples who have experienced infidelity consequent to relationship dissatisfaction, keeping in mind that secure attachment is associated with greater levels of relationship satisfaction. The cause of unfaithful behaviour is not always clear cut, however, in those cases where relationship satisfaction is at issue and the involved partner is insecurely attached, this type of therapy may be helpful in reducing the likelihood of future unfaithful interactions. Hollist and Miller found that for individuals who have been married for at least 10 years, marital quality was perceived to be better following positive changes to insecure attachment. Improving the perception of relationship quality may go some way to reducing unfaithful behaviours that have been motivated by insecure attachment and the dissatisfaction that is often associated with it.

As established, relationship variables also play a part in unfaithfulness. Current findings concur with previous studies that implicate lower levels of commitment as a key constituent in this behaviour (e.g., Drigotas et al., 1999). Lower satisfaction with the primary relationship was another, albeit somewhat weaker factor, which again is consistent with a large portion of the infidelity literature (e.g., Atkins et al., 2001), although, as noted, overall findings are mixed. The strongest of the investment model predictors was perceived alternatives, which indicates that this environmental influence

can be a powerful threat to fidelity; another area wherein therapy can be particularly beneficial.

Interestingly, the current results suggest higher investment in relationships does not necessarily safeguard individuals from infidelity, rather it can increase the chances of it occurring, which is contrary to previous investment model predictions (Drigotas et al., 1999). This seems counterintuitive as individuals would generally stand to lose more with the exposure of infidelity. What could be implied is that other factors become more salient in the decision to be unfaithful. This in itself is important for individuals and couples to understand. Certain circumstances, such as higher investment in the relationship, may give the false impression that infidelity is less likely, perhaps making its occurrence even more distressing.

Helping individuals to become conscious of what makes them more susceptible to infidelity and the personal needs that are being met through this behaviour might assist in fostering fidelity in romantic relationships. This understanding underscores the development of protective features for couples valuing exclusivity, which may include working to keep relationship satisfaction and commitment high, or as Allen and Atkins (2005) advocate, helping individuals to build and maintain boundaries with possible extradyadic partners. This would, of course, mean different things for different couples which would in and of itself be challenging, yet advantageous.

From a somewhat different angle, Linquist and Negy (2005) argue that therapists should approach the issue of infidelity from a neutral perspective, that being assisting clients to clarify their feelings and motivations and to delve into feasible advantages and disadvantages of extradyadic behaviour. In doing so, these authors emphasise that at no time should a therapist encourage a client to pursue or maintain an affair, rather they should remain mindful of the client's values and motives, which can range from healthy to unhealthy.

There are many reasons why people may engage in infidelity and as contended, these can pertain to the individual (i.e., lovestyle or attachment style) or to the relationship (i.e. satisfaction). In such circumstances, when there is an attractive alternative to the primary partner perceived to be available, chances of extradyadic behaviour taking place tend to increase. Compounding the issue is that often the infidelity entails a lack of insight on the part of individuals as to their motives (Linquist & Negy, 2005). Implied in the current research is that therapy should be directed at raising individuals' consciousness to the multifaceted factors accompanying infidelity.

Varying exclusivity expectations revealed in the study suggest a neutral stance from therapists is generally necessary. It is noteworthy, however, that for the most part, research supports the notion that infidelity is more often detrimental to the health and well being of individuals than it is beneficial and people are not usually in therapy unless they, or their relationship, are in crisis.

Methodological Issues

A number of limitations should be considered along with the current findings. However, it is important to note in the first instance that an attempt was made to address some of the problems encountered in previous research on infidelity by means of incorporating procedures to optimise the reliability and generalisability of results. These inclusions follow and have since been strongly recommended in two of the most recent reviews of the infidelity literature (Allen et al., 2005; Blow & Hartnett, 2005).

Firstly, a clear theoretical framework was applied to the study and validated measures were utilised. The variables employed in the study were chosen for their theoretical relevance to the study of infidelity and were explored in detail to ensure clarity of interpretation. To operationalise the construct of infidelity the current study included a range of behaviours. This gave rise to detailed data that more fully described the construct and enabled the correlates of various facets of unfaithful behaviour to be compared with the most recent research.

A community sample that included dating, cohabiting and married respondents, as well as divorced individuals, whose separations may have come about as a result of infidelity was utilised. Respondents were asked questions about actual extradyadic behaviours, which makes the current results more representative than studies focusing on hypothetical infidelity. The anonymity of respondents was maximised in an attempt to control socially desirable responses to some degree.

In addition, the mean length of relationships was around seven years, which improves upon numerous previous studies that have used university samples with an average relationship length of six months or less. This is advantageous because whether or not infidelity in the initial stages of a primary relationship is comparable to that experienced in the later stages of a relationship is questionable (Oikle, 2003).

Regarding the limitations of the study, firstly the current study was cross-sectional. The most advantageous design for the study of infidelity is longitudinal rather than cross-sectional as this provides a clearer understanding of the development of

infidelity and its relationship with its predictors (Allen et al., 2005). Still, adequate sampling requires a long time as the base rates for infidelity in any given year are low, making longitudinal designs exigent.

Secondly, the study did not include a measure of social desirability to account for the influence of social norms on people's attitudes, which may have impacted results. People are less likely to admit to behaviours that transgress social conventions (Ajzen, 1988). In this regard, women may be more likely than men to underreport infidelity, considering the social backlash that women receive compared to the relative acceptance of the same behaviour in men (Buunk & Dijkstra, 2000). In addition, Buunk and Bakker (1995) found that people were more likely to be accepting of infidelity if they had friends whose attitudes were more accepting of infidelity.

Retrospective bias is another limitation that plagues this type of research and it could certainly apply to the current study as participants were asked about infidelity in previous relationships. In addition, three of the measures used in the study required participants to identify their feelings towards romantic relationships, which for those not currently in a relationship would render retrospective bias an issue.

The focus of the current study was individuals' attitudes and behaviours about extradyadic relationships. As such, only one perspective of the couple is represented in the data. It may prove beneficial to include the perspective of both partners to provide a more comprehensive analysis of this phenomenon.

Although participants in the current study were largely from the wider community and demographic variables were therefore more broadly represented, some limitations in the sample should also be mentioned. The number of males in the study was small and respondents were relatively educated. There have been mixed results across studies regarding the association between education and infidelity. Atkins et al. (2001) found higher levels of education correlated with higher levels of infidelity and 83.5% of the current sample had some tertiary education. In addition, although education was not associated with infidelity overall in Treas and Giesen's (2000) study, these authors found that respondents with a masters degree or higher were significantly more likely to engage in infidelity. A sample more representative of differential education levels, as well as sexual orientation, ethnicity, and socioeconomic status might generate different results.

Future Directions

Future research could profit from replicating and extending the current findings. The attachment styles and lovestyles are evidenced as influential in the context of infidelity, as are the relationship and environmental variables included in the investment model. Combining these theoretical approaches has been a fruitful endeavour, suggesting future efforts to do so using Australian samples would be advantageous.

The use of qualitative interviews to generate rich data is another avenue for future research. This procedure might assist researchers in developing infidelity scales that more fully reflect contemporary society. Qualitative data can also be derived from qualitative sections of surveys, to avoid to some degree the problem of social desirability in light of the sensitive nature of the topic. Such information would further expand on the current findings regarding individuals' beliefs about the particular behaviours that constitute infidelity. There are also several behaviours that previous research and other sources, such as focus groups, suggest could be included in this type of study. One example is open relationships, a focal point that surfaced in the current focus group, and another is internet infidelity behaviours (Whitty, 2003). This would broaden the outlook on infidelity for today's Australians. In addition, qualitative information about the exclusivity expectations of partners would benefit both theory and practice.

Another avenue for future research would be to investigate the process of infidelity, from deciding to become involved with an extradyadic partner through the progression of the involvement. Allen et al. (2005) note that qualitative interviews have been employed by a number of authors to address this and recommend that quantitative ratings and control groups also be used to extend the infidelity criterion from incidence or absence to include such experiences as temptation, responses to temptation, or disclosure to a spouse.

CONCLUSION

The current findings that 20% of individuals have engaged in unfaithful behaviour in their current relationship and 42% have been unfaithful in a past relationship, taken together with previous findings summed at around 25% reporting infidelity is further evidence that infidelity is indeed widespread. The study confirms that infidelity involves a violation of the expectation that a range of interpersonal behaviours remain exclusive in romantic relationships. This sample of Australians viewed a variety of sexual and emotional behaviours as unfaithful. Conversely, fantasy and flirting behaviours were generally seen as acceptable. Of note, however, a substantial minority (as many as 35%) believe fantasising about someone other than one's primary partner constitutes infidelity.

In addition, this research supports previous findings that aspects of individuals, relationships, and the environment impact on infidelity. Specifically, a Ludus lovestyle is most strongly associated with infidelity, while more perceived alternatives and avoidant attachment are also correlated. Those least likely to engage in unfaithful behaviour are those with an Eros lovestyle, followed by those with greater levels of commitment. A particularly interesting outcome was that individuals highly invested in their relationships are not necessarily more monogamous, which underlines the need to consider the multifaceted nature of motivations towards infidelity. It is hoped the functions of the theories underpinning these outcomes can be further extended into relationship research.

Much of the infidelity literature supports the notion that the aftermath of infidelity is detrimental to the well being of individuals and their relationships. The relational assumptions that are violated, not the least of which is trust in one's partner, have extensive consequences. The dominant culture sanctions exclusivity in committed relationships which the current findings substantiate, and there are many constructive sociological reasons, beyond the scope of this thesis, to maintain this convention. Still, as the current results indicate, infidelity is prevalent and individuals vary in their attitudes towards this phenomenon. Consider again that for each result that indicates a majority belief, there is a firm minority that has a different, often opposite, view. Perhaps then, in the words of Linquist and Negy (2005) "extramarital affairs are inherently neither good nor evil, but a fact of life" (p.1427).

Naturally, the variables included in the current research will impact on couples differently and it is important to note that many committed relationships endure

following the disclosure of infidelity. Thus, it is also hoped that these findings can inform therapeutic practice and thereby assist individuals and couples to take the course that best suits their respective psychological and physical well being. A major component of the therapy process should be to help couples unravel part of the apparent mystery associated with infidelity. Each individual will have unique factors that interact with those of their partner to form their own relationship dynamic. A greater understanding and acceptance of these factors, which could be considered part of the cause of infidelity, may assist in rebuilding relationship trust and longevity in its aftermath.

REFERENCES

Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, E. (1978). *Patterns of attachment: A psychological study of the strange situation*. Hillsdale, NJ: Erlbaum.

Allen, E. S., & Atkins, D. C. (2005). A multidimensional and developmental nature of infidelity: Practical applications. *Journal of Clinical Psychology, 61*, 1371 - 1382.

Allen, E. S., Atkins, D. C., Baucom, D. H., Snyder, D. K., Gordon, K. C., & Glass, S. P. (2005). Intrapersonal, interpersonal, and contextual factors in engaging in and responding to extramarital involvement. *Clinical Psychology: Science and Practice, 12*, 101 - 130.

Allen, E. S., & Baucom, D. H. (2004). Adult attachment and patterns of extradyadic involvement. *Family Process, 43*, 467-481.

Amato, P. R., & Rogers, S. J. (1997). A longitudinal study of marital problems and subsequent divorce. *Journal of Marriage and the Family, 59*, 612 - 624.

Atkins, D. C., Eldridge, K. A., Baucom, D. H., & Christensen, A. (2005). Infidelity and behavioral couple therapy: Optimism in the face of betrayal. *Journal of Consulting and Clinical Psychology, 73*, 144-150.

Atkins, D. C., Jacobson, N. S., & Baucom, D. H. (2001). Understanding Infidelity: Correlates in a National Random Sample. *Journal of Family Psychology, 15*, 735-749.

Bailey, W. C., Hendrick, C., & Hendrick, S. S. (1987). Relation of sex and gender role to love, sexual attitudes and self-esteem. *Sex Roles, 16*, 637-648.

Barash, D. P., & Lipton, J. E. (2001). *The myth of monogamy: Fidelity and infidelity in animals and people*. New York: Freeman.

Bartholomew, K. (1990). Avoidance of intimacy: an attachment perspective. *Journal of Social and Personal Relationships, 7*, 147-178.

Bartholomew. K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four category model. *Journal of Personality and Social Psychology, 61*, 226-244.

Berg, J. H., & Derglea, V. J. (1987). Themes in the study of self-disclosure. In V. J. Derglea & J. H. Berg (Eds.), *Self-disclosure* (pp. 1-8). New York: Plenum Press.

Bersheid, E., & Walster, E. (1974). *A little bit about love*. New York: Academic Press.

Betzig, L. (1989). Causes of conjugal dissolution: A cross-cultural study. *Current Anthropology, 30*, 654-676.

Blow, A. J., & Hartnett, K. (2005). Infidelity in committed relationships: A substantive review. *Journal of Marital and Family Therapy, 31*, 217-234.

Blumstein, P., & Schwartz, P. (1983). *American couples*. New York: William and Morrow.

Boekhout, B. A., Hendrick, S. S., & Hendrick, C. (2003). Exploring infidelity: Developing the Relationship Issues Scale. *Journal of Loss & Trauma, 8*, 283-306.

Bogaert, A. F., & Sadava, S. (2002). Adult attachment and sexual behavior. *Personal Relationships, 9*, 191.

Borrello, G. M., & Thompson, B. (1990). A note regarding the validity of Lee's typology of love. *Journal of Psychology, 124*, 639-644.

Bosnjak, L., & Winkelman, C. (2003). The Contribution of attachment style to identity formation in late adolescence. Paper presented at the *Proceedings of the 3rd Australasian Psychology of Relationships Conference: Relationships: Family, Work and Community.* November, Melbourne, Australia.

Bowlby, J. (1969). *Attachment and loss: Vol. 1. Attachment.* New York: Basic Books.

Bowlby, J. (1973). *Attachment and loss: Vol. 2. Separation: Anxiety and anger.* New York: Basic Books.

Bowlby, J. (1980). *Attachment and loss: Vol. 3. Loss.* New York: Basic Books.

Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). *Self-report measurement of adult attachment: An integrative overview*. New York: Guilford.

Brennan, K. A., & Shaver, P. R. (1995). Dimensions of adult attachment, affect regulation, and romantic relationship functioning. *Personality and Social Psychology Bulletin, 21*, 267-283.

Buss, D. M. (2000). *The dangerous passion: Why jealousy is as necessary as love and sex*. London: Bloomsbury Publishing.

Buss, D. M., Larsen, R. J., Westen, D., & Semmelroth, J. (1992). Sex differences in jealousy: Evolution, physiology, and psychology. *Psychological Science, 3*, 251-255.

Buss, D. M., & Schmitt, D. P. (1993). Sexual strategies theory: An evolutionary perspective on human mating. *Psychological Review, 100*, 204-232.

Buss, D. M., & Shackelford, T. K. (1997). Susceptibility to infidelity in the first year of marriage. *Journal of Research and Personality, 31*, 193-221.

Buss, D. M., Shackelford, T. K., Kirkpatrick, L. A., Choe, J. C., Lim, H. K., Hasegawa, M., et al. (1999). Jealousy and the nature of beliefs about infidelity: Tests of competing hypotheses about sex differences in the United States, Korea, and Japan. *Personal Relationships, 6*, 125-150.

Buunk, B. P. (1987). Conditions that promote breakups as a consequence of extradyadic involvements. *Journal of Social and Clinical Psychology, 5*, 237-250.

Buunk, B. P., & Bakker, A. B. (1995). Extradyadic sex: The role of descriptive and injunctive norms. *Journal of Sex Research, 32*, 313-318.

Buunk, B. P., & Bakker, A. B. (1997). Commitment to the relationship, extradyadic sex, and AIDS preventative behavior. *Journal of Applied Social Psychology, 27*, 1241-1257.

Buunk, B. P., & Dijkstra, P. (2000). Gender differences in rival characteristics that evoke jealousy in response to emotional versus sexual infidelity. *Personal Relationships, 11*, 395-408.

Cann, A., Mangum, J. L., & Wells, M. (2001). Distress in response to relationship infidelity: The role of gender and attitudes about relationships. *Journal of Sex Research, 38*, 185-191.

Cano, A., & O'Leary, K. D. (2000). Infidelity and separations precipitate major depressive episodes and symptoms of nonspecific depression and anxiety. *Journal of Consulting and Clinical Psychology, 68*, 774-781.

Carnelley, K. B., Pietromanaco, P. R., & Jaffe, K. (1996). Attachment, caregiving and relationship functioning: Effects of self and partner. *Personal Relationships, 3*, 257-278.

Collins, N. L. (1996). Working models of attachment: Implications for explanation, emotion, and behaviour. *Journal of Personality & Social Psychology, 71*, 810-832.

Collins, N. L., & Feeney, B. C. (2004). Working models of attachment shape perceptions of social support: Evidence from experimental and observational studies. *Journal of Personality And Social Psychology, 87*, 363-383.

Collins, N. L., & Read, S. J. (1990). Adult attachment, working models, and relationship quality in dating couples. *Journal of Personality and Social Psychology, 58*, 644-663.

Collins, N. L., & Read, S. J. (1994). Cognitive representations of adult attachment: The structure and function of working models. In K. Bartholomew & D. Perlman (Eds.), *Advances in personal relationships: Vol. 5. Attachment processes in adulthood* (pp. 53-90). London: Jessica Kingsley.

Contreras, R., Hendrick, S., & Hendrick, C. (1996). Perspectives on love and satisfaction in Mexican-American and Anglo-American couples. *Journal of Counselling and Development, 74*, 408-414.

Cranowski, J. M., & Anderson, B. L. (1998). Schemas, sexuality, and romantic attachment. *Journal of Personality and Social Psychology, 74*, 1364-1379.

Daly, M., & Wilson, M. (1988). *Homicide*. Hawthorne, New York: Aldine deGruyter.

Davila, J., Karney, B. R., & Bradbury, T. N. (1999). Attachment change processes in the early years of marriage. *Journal of Personality and Social Psychology, 76*, 783-802.

Davis, K. E., & Latty-Mann, H. (1987). Lovestyles and relationship quality: A contribution to validation. *Journal of Social and Personal Relationships, 4*, 409-428.

DeStano, D. A., & Salovey, P. (1996). Evolutionary origins of sex differences in jealousy: Questioning the "fitness" of the model. *Psychological Science, 7*, 367-372.

Doherty, N. A., & Feeney, J. A. (2004). The composition of attachment networks throughout the adult years. *Personal Relationships, 11*, 469-488.

Drigotas, S. M., & Barta, W. (2001). The cheating heart: Scientific explorations of infidelity. *Current Directions in Psychological Science, 10*, 177.

Drigotas, S. M., Safstrom, C. A., & Gentilia, T. (1999). An investment model prediction of dating infidelity. *Journal of Personality & Social Psychology, 77*, 509-524.

Edwards, J. N., & Booth, A. (1976). Sexual behavior in and out of marriage: An assessment of correlates. *Journal of Marriage and the Family, 38*, 73-81.

Fallon, B. J., & Goh, H. (2004). Does our attachment style change as a result of relationship experiences and contexts? Paper presented at the *Proceedings of the 39th APS Annual Conference.* September, Sydney, Australia.

Feeney, J. A. (1996). Attachment, caregiving, and marital satisfaction. *Personal Relationships, 3*, 401-416.

Feeney, J. A. (1998). Adult attachment and relationship-centered anxiety: Responses to physical and emotional distancing. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 189-218). New York: Guilford.

Feeney, J. A. (1999). Adult romantic attachment and couple relationships. In J. Cassidy & P. R. Shaver (Eds.), *The handbook of attachment: Theory, research, and clinical applications* (pp. 355-377). New York: Guilford.

Feeney, J. A. (2003). The systematic nature of couple relationships: An attachment perspective. In P. Erdman, T. Caffery, (Eds.), *Attachment and Family Systems: Conceptual, Empirical, and Therapeutic Relatedness*. New York: Brunner-Routledge.

Feeney, J. A. (2004). Transfer of attachment from parents to romantic partners: Effects of individual and relationship variables. *Journal of Family Studies, 10*, 220-238.

Feeney, J. A., & Hohaus, L. (2001). Attachment and spousal caregiving. *Personal Relationships, 8*, 21 -39.

Feeney, J. A., & Noller, P. (1990). Attachment style as a predictor of adult romantic relationships. *Journal of Personality and Social Psychology, 58*, 281-291.

Feeney, J. A., & Noller, P. (1996). *Adult attachment*. Thousand Oakes, CA: Sage.

Feeney, J. A., Noller, P., & Hohaus, L. (2003). Attachment insecurity, depression, and the transition to parenthood. *Personal Relationships, 10*, 475-493.

Feeney, J. A., Noller, P., & Patty, J. (1993). Adolescents' interactions with the opposite sex: Influence of attachment style and gender. *Journal of Adolescence, 16*, 169 - 186.

Feldman, S. S., & Cauffman, E. (1999). Your cheatin' heart: Attitudes, behaviours, and correlates of sexual betrayal in late adolescents. *Journal of Research on Adolescence, 9*, 227-253.

Fenigstein, A., & Peltz, R. (2002). Distress over the infidelity of a child's spouse: A crucial test of evolutionary and socialization hypotheses. *Personal Relationships, 9*, 301-312.

Forste, R., & Tranfer, K. (1996). Sexual exclusivity among dating, cohabitating, and married women. *Journal of Marriage and the Family, 58*, 33-47.

Frazier, P. A., & Esterly, E. (1990). Correlates of relationship beliefs: Gender, relationship experience, and relationship satisfaction. *Journal of Social and Personal Relationships, 7*, 331-352.

Frey, K., & Hojjat, M. (1998). Are love styles related to sexual styles? *Journal of Sex Research, 35*, 265-271.

Fricker, J. C., & Moore, S. (2002). Relationship satisfaction: The role of lovestyles and attachment styles. *Current Research in Social Psychology, 7*, 182-204.

Glass, S. P., & Wright, T. L. (1977). The relationship of extramarital sex, length of marriage, and sex differences on marital satisfaction and romanticism: Athanasiou's data reanalysed. *Journal of Marriage and the Family, 39*, 691-703.

Glass, S. P., & Wright, T. L. (1985). Sex differences in type of extramarital involvement and marital dissatisfaction. *Sex Roles, 12*, 91-109.

Glass, S. P., & Wright, T. L. (1988). Clinical implications of research on extramarital involvement. In R. Brown & J. Fields (Eds.), *Treatment of sexual problems in individual and couples therapy* (pp. 301-346). New York: PMA.

Gordon, K. C., Baucom, D. H., & Snyder, D. K. (2005). Treating couples recovering from infidelity: An integrative approach. *Journal of Clinical Psychology, 61*, 1393-1405.

Hansen, G. L. (1885). Dating jealousy among college students. *Sex Roles, 12*, 713-721.

Hansen, G. L. (1987). Extradyadic relations during courtship. *The Journal of Sex Research, 23*, 382-390.

Harris, C. R. (2000). Psychophysiological responses to imagined infidelity: The specific innate modular view of jealousy reconsidered. *Journal of Personality and Social Psychology, 78*, 1082-1091.

Harris, C. R. (2002). Sexual and romantic jealousy in heterosexual and homosexual adults. *Psychological Science, 13*, 7-12.

Harris, C. R. (2003a). Factors associated with jealousy over real and imagined infidelity: an examination of the social-cognitive and evolutionary psychology perspectives. *Psychology of Women Quarterly, 27*, 319-329.

Harris, C. R. (2003b). A review of sex differences in sexual jealousy, including self-report data, psychophysiological responses, interpersonal violence, and morbid jealousy. *Personality and Social Psychology Review, 7*, 102-128.

Harris, C. R., & Christenfeld, N. (1996). Gender, jealousy, and reason. *Psychological Science, 7*, 364-366.

Hatfield, E., & Sprecher, S. (1986). Measuring passionate love in intimate relationships. *Journal of Adolescence, 9*, 383-410.

Hazan, C., & Diamond, L. M. (2000). The place of attachment in human mating. *Review of General Psychology, 4*, 1089-2680.

Hazan, C., & Shaver, P. R. (1987). Romantic love conceptualised as an attachment process. *Journal of Personality and Social Psychology, 52*, 511-524.

Hazan, C., & Zeifman, D. (1999). Pair bonds as attachments: Evaluating the evidence. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 336-354a). New York: Guilford Press.

Hendrick, C., & Hendrick, S. (1986). A theory and method of love. *Journal of Personality and Social Psychology, 50*, 392-402.

Hendrick, C., & Hendrick, S. S. (1989). Research on love: Does it measure up? *Journal of Personality & Social Psychology, 56*, 784-794.

Hendrick, C., Hendrick, S. S., & Dicke, A. (1998). The love attitudes scale: Short form. *Journal of Social and Personal Relationships, 15*, 147-159.

Hendrick, C., Hendrick, S. S., Foote, F. H., & Slapion-Foote, M. J. (1984). Do men and women love differently? *Journal of Social and Personal Relationships, 1*, 177-195.

Hendrick, S. S., & Hendrick, C. (1987). Love and sexual attitudes, self-disclosure and sensation seeking. *Journal of Social and Personal Relationships, 4*, 281-297.

Hendrick, S. S., & Hendrick, C. (2002). Linking romantic love with sex: Development of the perceptions of love and sex scale. *Journal of Social & Personal Relationships, 19*, 361.

Hendrick, S. S., Hendrick, C., & Adler, N. L. (1988). Romantic relationships: Love, satisfaction, and staying together. *Journal of Personality and Social Psychology, 54*, 980-988.

Hill, C. T., Rubin, Z., & Peplau, L. A. (1976). Breakups before marriage: The end of 103 affairs. *Journal of Social Issues, 32*, 147-168.

Hollist, C. S., & Miller, R. B. (2005). Perceptions of attachment style and marital quality in midlife marriage. *Family Relations, 54*, 46-57.

Holmes, T. H., & Rahe, R. H. (1967). The Social Readjustment Rating Scale. *Journal of Psychosomatic Research, 11*, 213-218.

Johnson, D. J., & Rusbult, C. E. (1989). Resisting temptation: Devaluation of alternative partners as a means of maintaining commitment in close relationships. *Journal of Personality and Social Psychology, 57*, 967-980.

Johnson, S. M. (1996). *The practice of emotionally focused marital therapy: Creating connection*. New York: Brunner/Mazel.

Jones, J. T., & Cunningham, J. D. (1996). Attachment styles and other predictors of relationship satisfaction in dating couples. *Personal Relationships, 3*, 387-399.

Kanemasa, Y., Taniguchi, J., Ishimori, M., & Daibo, I. (2004). Love styles and romantic love experiences in Japan. *Social Behavior and Personality, 32*, 265-282.

Keelan, J. P. R., Dion, K. L., & Dion, K. K. (1994). Attachment style and heterosexual relationships among young adults: A short-term panel study. *Journal of Social and Personal Relationships, 11*, 201-214.

Kelley, H. H., Berscheid, E., Christensen, A., Harvey, J. H., Levinger, G., McClintock, E., et al. (1983). Analysing close relationships. In H. H. Kelley, E. Berscheid, A. Christensen, J. H. Harvey, T. L. Huston, G. Levinger, E. McClintock, L. A. Peplau & D. R. Peterson (Eds.), *Close relationships* (pp. 20-67). New York: Freeman.

Kelley, H. H., & Thibaut, J. W. (1978). *Interpersonal relations: A theory of interdependence*. New York: Wiley.

Kirkpatrick, L. A., & Hazan, C. (1994). Attachment styles and close relationships: A four-year prospective study. *Personal Relationships, 1*, 123-142.

Kirpatrick, L. A., & Davis, K. E. (1994). Attachment style, gender, and relationship stability: A longitudinal analysis. *Journal of Personality and Social Psychology, 66*, 502-512.

Kitson, G. C., & Sussman, M. B. (1982). Marital complaints, demographic characteristics, and symptoms of mental distress in divorce. *Journal of Marriage and the Family, 44*, 87-101.

Kobak, R. R., & Sceery, A. (1988). Attachment in late adolescence: Working models, affect regulation, and representations of self and other. *Child Development, 59*, 135-146.

Laswell, T. E., & Laswell, M. E. (1976). I love you but I'm not in love with you. *Journal of Marriage and Family Counseling, 2*, 211-224.

Laumann, E., Gagnon, J., Michael, R., & Michaels, S. (1994). *The social organization of sexuality: Sexual practices in the United States*. Chicago: University of Chicago Press.

Lee, J. A. (1973). *The colours of love: An exploration of the ways of loving*. Ontario, Canada: New Press.

Lee, J. A. (1998). Ideologies of lovestyle and sexstyle. In V. C. deMunck (Ed.), *Romantic love and sexual behaviour: Perspectives from the social sciences* (pp. 33-76). Westernport, Connecticut: Praeger.

Levy, M. D., & Davis, K. E. (1988). Lovestyles and attachment styles compared: Their relations to each other and to various relationship characteristics. *Journal of Social and Personal Relationships, 5*, 439-471.

Linquist, L., & Negy, C. (2005). Maximizing the experiences of an extramarital affair: An unconventional approach to a common social convention. *Journal of Clinical Psychology, 61*, 1421-1428.

Main, M., Kaplan, N., & Cassidy, J. (1985). Security in infancy, childhood, and adulthood. In I. Bretherton & E. Waters (Eds.), *Growing points in attachment theory and research. Monographs of the Society for Research in Child Development* (Vol. 50, pp. 66-104).

Mallandain, I., & Davies, M. F. (1994). The colours of love: Personality correlates of lovestyles. *Personality and Individual Differences, 17*, 557-560.

Mathes, E. W. (1980). Nine "colours" or types of romantic love? *Psychological Reports, 47*, 371-376.

McAnulty, R. D., & Burnette, M. M. (2004). *Exploring human sexuality: making healthy decisions* (2nd ed.). Boston: Allyn & Bacon.

McCrae, R. R., & Costa, P. T. (1986). Personality, coping, and coping effectiveness in an adult sample. *Journal of personality, 54*, 385 - 404.

Mikulincer, M., & Nachshon, O. (1991). Attachment styles and patterns of self disclosure. *Journal of Personality and Social Psychology, 61*, 321-331.

Morrow, G. D., Clark, E. M., & Brock, K. F. (1995). Individual and partner lovestyles: Implications for the quality of romantic relationships. *Journal of Social and Personal Relationships, 12*, 363-387.

Nadler, A., & Dotan, I. (1992). Commitment and rival attractiveness: Their effects on male and female reactions to jealousy-arousing situations. *Sex Roles, 26*, 293-310.

Naninni, D. K., & Meyers, L. S. (2000). Jealousy in sexual and emotional infidelity: An alternative to the evolutionary explanation. *Journal of Sex Research, 37*, 117-123.

Oikle, J. M. (2003). *The prediction and description of dating infidelity: The role of gender, relationship satisfaction, commitment, and attitude toward dating infidelity.* (Doctoral dissertation, University of Kansas, 2002), Lawrence, KS.

Oliver, M. B., & Hyde, J. S. (1993). Gender differences in sexuality: A meta-analysis. *Psychological Bulletin, 114*, 29-51.

Pistole, M. C., & Clark, E. M. (1995). Love relationships: Attachment style and the investment model. *Journal of Mental Health Counseling, 17*, 199-210.

Pittman, F. S., & Wagers, T. P. (2005). Teaching fidelity. *Journal of Clinical Psychology, 61*, 1407-1419.

Prasinos, S., & Tittler, B. I. (1984). The existential context of lovestyles: An empirical study. *Journal of Humanistic Psychology, 24*, 96-112.

Richardson, D. R., Medvin, N., & Hammock, G. (1988). Lovestyles, relationship experience, and sensation seeking: A test of validity. *Personality and Individual Differences, 9*, 645-651.

Rissel, C. E., Ritchers, J., Grulich, A. E., deVissor, R. O., & Smith, A. M. (2003). Sex in Australia: Selected characteristics of regular sexual relationships. *Australian and New Zealand Journal of Public Health, 27*, 124-130.

Roscoe, B., Cavanaugh, L. E., & Kennedy, D. R. (1988). Dating infidelity: Behaviours, reasons and consequences. *Adolescence, 23*(89), 35-43.

Rubin, Z. (1970). Measurement of romantic love. *Journal of Personality & Social Psychology, Vol. 16*, 265-273.

Rubin, Z., Peplau, L. A., & Hill. (1981). Loving and leaving: Sex differences in romantic attachments. *Sex Roles, 7*, 821-835.

Rusbult, C. E. (1980). Commitment and satisfaction in romantic associations: A test of the investment model. *Journal of Experimental and Social Psychology, 16*, 172-186.

Rusbult, C. E. (1983). A longitudinal test of the investment model: The development (and deterioration) of satisfaction and commitments in heterosexual involvements. *Journal of Personality & Social Psychology, 45*, 101-117.

Rusbult, C. E., Martz, J. M., & Agnew, C. R. (1998). The investment model scale: Measuring commitment level, satisfaction level, quality of alternatives, and investment size. *Personal Relationships, 5*, 357-391.

Scharfe, E., & Bartholomew, K. (1994). Reliability and stability of adult attachment patterns. *Personal Relationships, 1*, 23-43.

Schmitt, D. P. (2004). The big five related to sexual behaviour across 10 world regions: Differential personality associations of sexual promiscuity and relationship infidelity. *European Journal of Personality, 18*, 301-319.

Schmitt, D. P., & Buss, D. M. (2000). Sexual dimensions of person description: Beyond or subsumed by the Big Five? *Journal of Research in Personality, 34*, 141-177.

Seal, D. W., Agostinelli, G., & Hannett, C. A. (1994). Extradyadic romantic involvement: Moderating effects of sociosexuality and gender. *Sex Roles, 31*, 1-22.

Shackelford, T. K., & Buss, D. M. (1997). Cues to infidelity. *Personality and Social Psychology Bulletin, 23*, 1034-1045.

Shackelford, T. K., Buss, D. M., & Weekes-Shackelford, V. A. (2003). Wife killings committed in the context of a lovers triangle. *Basic and Applied social Psychology, 25*, 137-143.

Shackelford, T. K., LeBlanc, G. J., & Drass, E. (2000). Emotional reactions to infidelity. *Cognition and Emotion, 14*, 643-659.

Shackelford, T. K., Voracek, M., Schmitt, D. P., Buss, D. M., Weekes-Shackelford, V. A., & Michalski, R. L. (2004). Romantic jealousy in early adulthood and in later life. *Human Nature, 15*, 283-300.

Shaver, P. R., & Hazan, C. (1988). A biased overview of the study of love. *Journal of Social & Personal Relationships, 5*(4), 473-501.

Simpson, J. A. (1990). Influence of attachment styles on romantic relationships. *Journal of Personality & Social Psychology, 59*, 971-980.

Simpson, J. A., & Gangstad, S. W. (1991). Personality and sexuality: Empirical relations and an integrative theoretical model. In K. McKinney & S. Sprecher (Eds.), *Sexuality in close relationships* (pp. 71-92). Hillsdale, NJ: Erlbaum.

Simpson, J. A., Rholes, W. S., & Nelligan, J. S. (1992). Support seeking and support giving within couples in an anxiety provoking situation: The role of attachment styles. *Journal of Personality & Social Psychology, 62*, 434-446.

Spanier, G. B., & Margolis, R. L. (1983). Marital separation and extramarital sexual behaviour. *Journal of Sex Research, 19*, 23-48.

Stanley, S. M., & Markman, H. J. (1992). Assessing commitment in personal relationships. *Journal of Marriage & Family, 54*, 595-608.

Stein, H., Koontz, A. D., Fonagy, P., Allen, J. G., Fultz, J., Brethour, J. R. J., et al. (2002). Adult attachment: What are the underlying dimensions? *Psychology and Psychotherapy: Theory, Research and Practice, 75*, 77-91.

Sternberg, R. J. (1996). A triangular theory of love. *Psychological Review, 93*, 119-135.

Sternberg, R. J., & Grajek, S. (1984). The nature of love. *Journal of Personality & Social Psychology, 47*, 312-329.

Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques.* Newbury Park, CA: Sage.

Strube, M. J., & Davis, L. E. (1998). Race, gender, and romantic commitment. In V. C. deMunck (Ed.), *Romantic love and sexual behavior: Perspectives from the social sciences* (pp. 155-169). Westernport, Connecticut: Praeger.

Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics* (4th ed.). New York: Harper Collins.

Tennov, D. (1979). *Love and Limerence*. New York: Stein & Day.

Thompson, A. P. (1983). Extramarital sex: A review of the research literature. *Journal of Sex Research, 19*, 1-22.

Thompson, A. P. (1984). Emotional and sexual components of extramarital relations. *Journal of Marriage and the Family*, 35-42.

Treas, J., & Giesen, D. (2000). Sexual infidelity among married and cohabitating America. *Journal of Marriage and the Family, 62*, 48-60.

Trivers, R. (1972). Parental investment and sexual selection. In B. Cambell (Ed.), *Sexual selection and the descent of man* (pp. 136-179). Chicago: Aldine-Atherton.

Vandello, J. A., & Cohen, D. (2003). Male Honor and female fidelity: Implicit cultural scripts that perpetuate domestic violence. *Journal of Personality and Social Psychology, 84*, 997-1010.

Weis, D. L., & Felton, J. R. (1987). Marital exclusivity and the potential for marital conflict. *Social Work, 32*, 45-49.

Weis, D. L., & Slosnerick, M. (1981). Attitudes towards sexual and nonsexual extramarital involvements among a sample of college students. *Journal of Marriage and the Family, 43*, 349-358.

West, A. E., & Fallon, B. J. (2005). Relationship rules: A conceptual model of rule-setting and rule violations in romantic relationships. Paper presented at the *Proceedings of the*

Australian Psychology Society's Psychology of Relationships Interest Group 5th Annual Conference: The Good, the Bad, and the Ugly in Personal, National and International Relationships. November, Melbourne, Australia.

Whisman, M. A., Dixon, A. E., & Johnson, B. (1997). Therapists' perspectives of couple problems and treatment issues in couple therapy. *Journal of Family Psychology, 11*, 361-366.

Whisman, M. A., & Wagers. (2005). Assessing relationship betrayals. *Journal of Clinical psychology, 61*, 1383 - 1391.

Whitty, M. T. (2003). Pushing the wrong buttons: Men's and women's attitudes toward online and offline infidelity. *Cyber Psychology & Behavior, 6*, 569-579.

Wiederman, M. W. (1997). Extramarital sex: Prevalence and correlates in a national survey. *The Journal of Sex Research, 34*, 167 -174.

Wiederman, M. W., & Allgeier, E. R. (1993). Gender differences in sexual jealousy: Adaptionist or social learning explanation? *Ethnology and Sociobiology, 14*, 115-140.

Wiederman, M. W., & Allgeier, E. R. (1996). Expectations and attributions regarding extramarital sex among young married individuals. *Journal of Psychology and Human Sexuality, 8*, 21-35.

Wiederman, M. W., & Hurd, C. (1999). Extradyadic involvement during dating. *Journal of Social & Personal Relationships, 16*, 265-274.

Wilson, M., & Daly, M. (1992). The man who mistook his wife for chattel. In J. Barkow, L. Cosmides & J. Tooby (Eds.), *The Adapted Mind*. New York: Oxford University Press.

Wilson, S. M., & Medora, N. P. (1990). Gender comparisons of college students' attitudes towards sexual behavior. *Adolescence, 25*, 615-627.

Yancey, G., & Berglass, S. (1991). Lovestyles and life satisfaction. *Psychological Reports, 68*, 883-890.

Yarab, P. E., & Allgeier, E. R. (1998). Don't even think about it: The role of sexual fantasies as perceived unfaithfulness in heterosexual dating relationships. *Journal of Psychology and Human Sexuality, 23*, 246-254.

Yarab, P. E., Sensibaugh, C. C., & Allgeier, E. R. (1998). More than just sex: Gender differences in the incidence of self-defined unfaithful behavior in heterosexual dating relationships. *Journal of Psychology and Human Sexuality, 10*, 45-57.

APPENDIX A

FOCUS GROUPS
LOVE AND FIDELITY: YOUR ATTITUDES AND BELIEFS

Julie Fricker
Doctoral Student
Swinburne University of Technology

Professor Sue Moore
Swinburne University of Technology

Our intention for these groups is to explore what behaviours people view as unfaithful. We are looking for participants who are adults between the ages of 18 and 60 years who have had a steady relationship (dating, living together, married) of at least six months. We hope to run a couple of groups with five or six people in each.

The task requires you to:

- reflect on what you consider to be unfaithful behaviour when in a steady relationship.
- comment on a list of behaviours considered unfaithful in an American study. In the discussion we are hoping that you might decide which behaviours should be deleted and what other behaviours might well be added.
- read the full questionnaire and provide feedback about the items and any other comments.

* We would ask that you **do not** divulge any personal infidelities; we are only interested in your ideas about what constitutes infidelity.
* **Refreshments** will be provided throughout the session and we should not be longer than an hour.

Your interest in this study would be greatly appreciated, but participation is entirely voluntary. All information will be kept confidential and you will not be required to supply your surname. Your voluntary attendance will imply your consent to participate. Participation can be withdrawn at any time. Only group quantitative data will be reported in the event of any subsequent publications. If quotes are used, all identifying data will be removed.

If you are interested in participating or have any questions regarding this research please contact Julie on 0409 250 578 or email: jfricker@bigpond.com. Sessions will take place in August. Exact dates will be given to participants early in Semester 2.

If you have any concerns about your relationship which you would like to discuss with a professional helper you can contact the Swinburne Centre for Psychological Services on 9214 8653, or the Australian Psychological Society Information Service on 8662 3300.

If you have any queries which the researchers have been unable to satisfy contact the Chair, School of Social and Behavioural Sciences Research Ethics Committee, Swinburne University of Technology, PO Box 218, Hawthorn, 3122. For any complaints contact the Chair, Swinburne HREC, at the same address.

APPENDIX B

Love and Fidelity: Your Attitudes and Beliefs

Julie Fricker and Susan Moore

First some questions about you

1. Your Age: _____ Your Partner's Age:_____

2. Occupation:_____

3. **Sex:** Female Male

4. Circle one number that best describes your relationship status.
   Dating 1
   Living together 2
   Married 3

5. How long have you been in your current/recent relationship? _____

6. Is your relationship with someone of the opposite sex / same sex ?

7. Circle one number which best describes the highest level of education you have achieved.
   Secondary school education 1
   Some tertiary studies 2
   Completed undergraduate degree 3
   Post graduate studies 4

8. Country of birth? _____
   Mother's country of birth? _____
   Father's country of birth?_____

9. Do you and your partner have any children? Yes No

If yes, how many live with you?

None One Two More than two

10. Before your relationship with your current partner, were you ever seriously involved with someone else? Yes No

11. How many relationships of three or more months duration have you had prior to your current relationship?_____

12. In the last three months how often have you and your partner engaged in sexual activities (of any type) with each other? (Circle one number)

Never	1
Once a month	2
Two or 3 times a month	3
Once or twice a week	4
More often	5

13. Have you ever been unfaithful in your current relationship?

No	1
Yes, once	2
Yes, more than once	3

14. Have you ever been unfaithful in any of your previous relationships?

No, haven't had any	1
No	2
Yes, once	3
Yes, more than once	4

THE LOVE ATTITUDES SCALE (LAS)

The following questions are about your attitudes towards love. Please read each one carefully and indicate whether you agree or disagree, and to what extent, by circling one number in each row.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. My partner and I have the right physical "chemistry".	1	2	3	4	5
2. I feel that my partner and I were meant for each other.	1	2	3	4	5
3. My partner fits my ideal standards of physical attractiveness.	1	2	3	4	5
4. I believe that what my partner doesn't know about me won't hurt him/her.	1	2	3	4	5
5. I have sometimes had to keep my partner from finding out about other lovers.	1	2	3	4	5
6. My partner would get upset if he/she knew about some of the things I've done with other people.	1	2	3	4	5
7. Our love is the best kind because it grew out of a long friendship.	1	2	3	4	5
8. Our friendship merged gradually into love over time.	1	2	3	4	5
9. Our love relationship is the most satisfying because it developed from a good friendship.	1	2	3	4	5
10. A main consideration in choosing my partner was how he/she would reflect on my family.	1	2	3	4	5
11. An important factor in choosing my partner was whether he/she would be a good parent.	1	2	3	4	5
12. One consideration in choosing my partner was how he/she would reflect on my career.	1	2	3	4	5
13. When my partner doesn't pay attention to me I feel sick all over.	1	2	3	4	5
14. I cannot relax if I suspect that my partner is with someone else.	1	2	3	4	5
15. If my partner ignores me for awhile, I sometimes do stupid things to try to get his/her attention back.	1	2	3	4	5
16. I would rather suffer myself than let my partner suffer.	1	2	3	4	5
17. I cannot be happy unless I place my partner's happiness before my own.	1	2	3	4	5
18. I would endure all things for the sake of my partner.	1	2	3	4	5

THE EXPERIENCES IN CLOSE RELATIONSHIPS INVENTORY

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

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. I prefer not to show a partner how I feel deep down.	1	2	3	4	5
2. I worry about being abandoned.	1	2	3	4	5
3. I am very uncomfortable about being close to romantic partners.	1	2	3	4	5
4. I worry a lot about my relationships	1	2	3	4	5
5. Just when my partner starts to get close to me I find myself pulling away.	1	2	3	4	5
6. I worry that romantic partners won't care about me as much as I care about them.	1	2	3	4	5
7. I get uncomfortable when a romantic partner wants to be very close.	1	2	3	4	5
8. I worry a fair amount about losing my partner.	1	2	3	4	5
9. I don't feel comfortable opening up to romantic partners.	1	2	3	4	5
10. I often wish that my partner's feelings for me were as strong as my feelings for him/her.	1	2	3	4	5
11. I want to get close to my partner but I keep pulling back.	1	2	3	4	5
12. I often want to merge completely with romantic partners and this sometimes scares them away.	1	2	3	4	5
13. I am nervous when partners get too close to me.	1	2	3	4	5
14. I worry about being alone.	1	2	3	4	5
15. I feel comfortable sharing my thoughts and feelings with my partner.	1	2	3	4	5
16. My desire to be very close sometimes scares people away.	1	2	3	4	5
17. I need a lot of reassurance that I am loved by my partner.	1	2	3	4	5

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
18. I try to avoid getting too close to my partner.	1	2	3	4	5
19. I find it relatively easy to get close to my partner.	1	2	3	4	5
20. Sometimes I feel that I force my partner to show more feeling, more commitment.	1	2	3	4	5
21. I find it difficult to allow myself to depend on romantic partners.	1	2	3	4	5
22. I do not often worry about being abandoned.	1	2	3	4	5
23. I prefer not to be too close to romantic partners.	1	2	3	4	5
24. If I can't get my partner to show interest in me, I get upset or angry.	1	2	3	4	5
25. I tell my partner just about everything	1	2	3	4	5
26. I find that my partner/s don't want to get as close as I would like.	1	2	3	4	5
27. I usually discuss my problems and concerns with my partners.	1	2	3	4	5
28. When I'm not involved in a relationship, I feel somewhat anxious and insecure.	1	2	3	4	5
29. I feel comfortable depending on romantic partners.	1	2	3	4	5
30. I get frustrated when my partner is not around as often as I would like.	1	2	3	4	5
31. I don’t mind asking romantic partners for comfort, advise or help.	1	2	3	4	5
32. I get frustrated if romantic partners are not available when I need them.	1	2	3	4	5
33. It helps to turn to my romantic partner in times of need.	1	2	3	4	5
34. When romantic partners disapprove of me, I feel really bad about myself.	1	2	3	4	5
35. I turn to my partner for many things, including comfort and reassurance.	1	2	3	4	5
36. I resent it when my partner spends time away.	1	2	3	4	5

THE EXTRADYADIC BEHAVIOURS LIST/UNFAITHFUL BELIEFS LIST

This list is about some behaviours associated with relationships outside your main relationship. We want to know: (a) Have you ever engaged in the following behaviours with someone other than your current primary partner? (b) Would you ever engage in the following behaviours with someone other than your primary partner?

	Ever done this?	
	NO	**YES**
1. Slow dance	1	2
2. Fast dance	1	2
3. Casually flirt	1	2
4. Ask someone out	1	2
5. Go on a date	1	2
6. Hold hands	1	2
7. Go to lunch	1	2
8. Go to dinner	1	2
9. Go to a movie	1	2
10. Have mild romantic feelings	1	2
11. Fall in love	1	2
12. Develop a deep romantic attachment	1	2
13. Fantasise about falling in love	1	2
14. Become sexually attracted to	1	2
15. Fantasise about engaging in sexual play	1	2
16. Fantasise about having sexual intercourse	1	2
17. Fantasise about receiving oral sex	1	2
18. Fantasise about giving oral sex	1	2
19. Kiss	1	2
20. Passionately kiss	1	2
21. Engage in sexual play	1	2
22. Give oral sex	1	2
23. Receive oral sex	1	2
24. Engage in sexual intercourse	1	2
25. Have a long term sexual relationship	1	2

(2) PLEASE LOOK BACK AT THE ABOVE LIST AND CIRCLE THE ITEMS YOU THINK ARE UNFAITHFUL BEHAVIOURS.

THE INFIDELITY PRONENESS SCALE

There are times within relationships when we are attracted to other people. Part of being human is being aware of and attracted to people. Sometimes that attraction is mutual and sometimes it is not. When it is mutual it often leads to certain flirting behaviours. We want you to think of a person you have been attracted to besides your partner. We do not want you to name this person, but please respond to the following general questions about this other person.

1) How attractive did you find this person?

0 1 2 3 4 5 6 7 8

Not at all Attractive — Extremely Attractive

2) How attractive do you think this person found you?

0 1 2 3 4 5 6 7 8

Not at all Attractive — Extremely Attractive

3) How much arousal did you feel in their presence?

0 1 2 3 4 5 6 7 8

No Arousal — A Great Deal of Arousal

4) How much time did you spend thinking about this person?

0 1 2 3 4 5 6 7 8

No Time — A Great Deal of Time

5) How much flirting occurred between the two of you?

0 1 2 3 4 5 6 7 8

No Flirting — A Great Deal of Flirting

6) Who initiated the attraction between the two of you?

0 = Other Person 1 = Equal 2 = Me

7) How often did you and this person do couple things together? (e.g spend time together)

0 1 2 3 4 5 6 7 8

Never — Very Often

8) How tempted were you to be emotionally intimate (e.g share feelings, emotions) with this person?

0 1 2 3 4 5 6 7 8

Not at all Tempted — Extremely Tempted

9) How emotionally intimate were you with this person?

0 1 2 3 4 5 6 7 8

Not At All — Extremely

10) How tempted were you to be physically intimate with this person?

0 1 2 3 4 5 6 7 8

Not at all Tempted — Extremely Tempted

11) How physically intimate were you with this person?

0 1 2 3 4 5 6 7 8

Not At All — Extremely

THE INVESTMENT MODEL SCALE

Please indicate the degree to which you agree with each of the following statements regarding your current relationship.

	Don't Agree At All	Agree Slightly	Agree Moderately	Agree Completely
1. My Partner:				
(a) fulfills my needs for intimacy (sharing personal thoughts).	1	2	3	4
(b) fulfills my needs for companionship.	1	2	3	4
(c) fulfills my sexual needs.	1	2	3	4
(d) fulfills my needs for security.	1	2	3	4
(e) fulfills my need for emotional involvement.	1	2	3	4

2. I feel satisfied with our relationship (please circle a number).

0 1 2 3 4 5 6 7 8

Do Not Agree At All — Agree Somewhat — Agree Completely

3. Our relationship is much better than others' relationships

0 1 2 3 4 5 6 7 8

Do Not Agree At All — Agree Somewhat — Agree Completely

4. Our relationship is close to ideal.

0 1 2 3 4 5 6 7 8

Do Not Agree At All — Agree Somewhat — Agree Completely

5. Our relationship makes me very happy.

0 1 2 3 4 5 6 7 8

Do Not Agree At All — Agree Somewhat — Agree Completely

6. Our relationship does a good job of fulfilling my needs for intimacy, companionship, etc.

0 1 2 3 4 5 6 7 8

Do Not Agree At All — Agree Somewhat — Agree Completely

Please indicate the degree to which you agree with each statement regarding the fulfillment of each need in alternative relationships (e.g. by another dating partner, friends, family)

	Don't Agree At All	Agree Slightly	Agree Moderately	Agree Completely
1. An alternative relationship could fulfill:				
(a) my needs for intimacy.	1	2	3	4
(b) my needs for companionship.	1	2	3	4
(c) my sexual needs.	1	2	3	4
(d) my needs for security.	1	2	3	4
(e) my needs for emotional involvement.	1	2	3	4

2. The people with whom I might become involved are very appealing.

0 1 2 3 4 5 6 7 8

Do Not Agree At All — Agree Somewhat — Agree Completely

3. My alternatives to our relationship are close to ideal (dating another, spending time with friends or on my own, etc.).

0 1 2 3 4 5 6 7 8

Do Not Agree At All — Agree Somewhat — Agree Completely

4. If I weren't with my partner I would do fine - I would find another appealing person to be with.

0 1 2 3 4 5 6 7 8

Do Not Agree At All — Agree Somewhat — Agree Completely

5. My alternatives are attractive to me (dating another, spending time with friends or on my own, etc.).

0 1 2 3 4 5 6 7 8

Do Not Agree At All — Agree Somewhat — Agree Completely

6. My needs for intimacy, companionship, etc., could easily be met in an alternative relationship.

0 1 2 3 4 5 6 7 8

Do Not Agree At All — Agree Somewhat — Agree Completely

Please indicate the degree to which you agree with each of the following statements regarding your current relationship.

	Don't agree At All	Agree Slightly	Agree Moderately	Agree Completely
1. (a) I have invested a great deal of time in our relationship.	1	2	3	4
(b) I have told my partner many private things about myself.	1	2	3	4
(c) My partner and I share an intellectual life that would be very difficult to replace.	1	2	3	4
(d) My sense of personal identity is linked to my partner and our relationship.	1	2	3	4
(e) My partner and I share many memories.	1	2	3	4

2. I have put a great deal into our relationship that I would lose if the relationship were to end.

0	1	2	3	4	5	6	7	8
Do Not Agree At All				Agree Somewhat				Agree Completely

3. Many aspects of my life have become linked to my partner (recreational activities, etc.) and I would lose all of this if we were to break up.

0	1	2	3	4	5	6	7	8
Do Not Agree At All				Agree Somewhat				Agree Completely

4. I feel very involved in our relationship - like I have put a great deal into it.

0	1	2	3	4	5	6	7	8
Do Not Agree At All				Agree Somewhat				Agree Completely

5. My relationship with friends and family members would be complicated if my partner and I were to break up (e.g. partner is friends with people I care about).

0	1	2	3	4	5	6	7	8
Do Not Agree At All				Agree Somewhat				Agree Completely

6. Compared to other people I know, I have vested a great deal in my relationship with my partner.

0	1	2	3	4	5	6	7	8
Do Not Agree At All				Agree Somewhat				Agree Completely

7. I want our relationship to last for a very long time.

0	1	2	3	4	5	6	7	8
Do Not Agree At All				Agree Somewhat				Agree Completely

8. I am committed to maintaining my relationship with my partner.

0	1	2	3	4	5	6	7	8
Do Not Agree At All				Agree Somewhat				Agree Completely

9. I would not feel upset if our relationship were to end in the near future.

0	1	2	3	4	5	6	7	8
Do Not Agree At All				Agree Somewhat				Agree Completely

10. It is likely that I will date/live with someone other than my partner within the next year.

0	1	2	3	4	5	6	7	8
Do Not Agree At All				Agree Somewhat				Agree Completely

11. I feel very attached to our relationship - very strongly linked to my partner.

0	1	2	3	4	5	6	7	8
Do Not Agree At All				Agree Somewhat				Agree Completely

12. I want our relationship to last forever.

0	1	2	3	4	5	6	7	8
Do Not Agree At All				Agree Somewhat				Agree Completely

13. I am oriented towards the long term future of our relationship (e.g. I imagine being with my partner several years from now).

0	1	2	3	4	5	6	7	8
Do Not Agree At All				Agree Somewhat				Agree Completely

APPENDIX C

LOVE AND FIDELITY: YOUR ATTITUDES AND BELIEFS

Julie Fricker
Doctoral Student
Swinburne University of Technology

Professor Sue Moore
Swinburne University of Technology

This study gives you an opportunity to reflect on your romantic relationships. Our intention is to explore your attitudes and beliefs about love and fidelity issues. In so doing, we aim to further understand the dynamics of romantic involvement and the factors that influence the decision to become involved either sexually or emotionally with a person or persons other than a partner in the primary relationship.

We are looking for participants who are adults between the ages of 18 and 60 years currently in a steady relationship (dating, living together, married) of at least one year, or individuals who have been in such a relationship.

The task requires you to reflect on your attitudes towards love, how you experience relationships and what you consider to be unfaithful behaviour. There are also a number of questions that require you to think about your level of satisfaction and degree of commitment to your primary relationship. The questionnaire takes about 20 minutes to complete. There is also a further optional section, which could take another 10 minutes. It is vital that answers represent your own responses so your partner should not fill out the questionnaire with you, although your partner may complete his/her own questionnaire. Please answer all questions and remember there are no right or wrong answers.

Your interest in this study would be greatly appreciated, but participation is entirely voluntary. You need to be aware that some questions are very personal and ask about issues of infidelity (some of these questions are of a sexual nature), however, all information will be kept confidential The slip with your number on it is required only to verify your participation in the REP programme and will be removed from your responses and kept separate. Your questionnaire will, therefore, be anonymous along with those collected from outside the university. Participation can be withdrawn at any time. Only group quantitative data will be reported in the event of any subsequent publications. If quotes are used, all identifying data will be removed.

If you have any concerns about your relationship which you would like to discuss with a professional helper you can contact Lifeline on 131114, Swinburne Centre for Psychological Services on 9214 8653, or the Australian Psychological Society Information Service on 8662 3300. Any questions regarding this research may be directed to the investigators on 9214 5694.

If you have any queries which the researchers have been unable to satisfy contact the Chair, School of Social and Behavioural Sciences Research Ethics Committee, Swinburne University of Technology, PO Box 218, Hawthorn, 3122. For any complaints contact the Chair, Swinburne HREC, at the same address.

APPENDIX D

LOVE AND FIDELITY: YOUR ATTITUDES AND BELIEFS

Julie Fricker
Doctoral Student
Swinburne University of Technology

Professor Sue Moore
Swinburne University of Technology

This study gives you an opportunity to reflect on your romantic relationships. Our intention is to explore your attitudes and beliefs about love and fidelity issues. In so doing, we aim to further understand the dynamics of romantic involvement and the factors that influence the decision to become involved either sexually or emotionally with a person or persons other than a partner in the primary relationship.

We are looking for participants who are adults between the ages of 18 and 60 years currently in a steady relationship (dating, living together, married) of at least one year, or individuals who have been in such a relationship.

The task requires you to reflect on your attitudes towards love, how you experience relationships and what you consider to be unfaithful behaviour. There are also a number of questions that require you to think about your level of satisfaction and degree of commitment to your primary relationship. The questionnaire takes about 20 minutes to complete. There is also a further optional section, which could take another 10 minutes. It is vital that answers represent your own responses so your partner should not fill out the questionnaire with you, although your partner may complete his/her own questionnaire. Please answer all questions and remember there are no right or wrong answers.

Your interest in this study would be greatly appreciated, but participation is entirely voluntary. You need to be aware that some questions are very personal and ask about issues of infidelity (some of these questions are of a sexual nature), however, all information will be kept confidential and you will not be required to supply your name. Your anonymous return of the questionnaire in the mail back envelope provided will be taken as evidence of your consent to participate. If you do not wish to participate, do not return the survey. Participation can be withdrawn at any time. Only group quantitative data will be reported in the event of any subsequent publications. If quotes are used, all identifying data will be removed.

If you have any concerns about your relationship which you would like to discuss with a professional helper you can contact Lifeline on 131114, Swinburne Centre for Psychological Services on 9214 8653, or the Australian Psychological Society Information Service on 8662 3300. Any questions regarding this research may be directed to the investigators on 9214 5694.

If you have any queries which the researchers have been unable to satisfy contact the Chair, School of Social and Behavioural Sciences Research Ethics Committee, Swinburne University of Technology, PO Box 218, Hawthorn, 3122. For any complaints contact the Chair, Swinburne HREC, at the same address.

APPENDIX E

CONFERENCE PAPERS RESULTING IN PUBLICATIONS

Fricker, J. & Moore, S. (2003). Predicting infidelity: The role of attachment styles, lovestyles and the investment model. Paper presented at the *Proceedings of the 3rd Australasian Psychology of Relationships Conference: Relationships: Family, Work and Community.* November, Melbourne, Australia.

Fricker, J. & Moore, S. (2005). A closer look at the dimensionality of infidelity and its predictors. Paper presented at the *Proceedings of the Australian Psychology Society's Psychology of Relationships Interest Group 5th Annual Conference: The Good, the Bad, and the Ugly in Personal, National and International Relationship.* November, Melbourne, Australia.