# Intrusive Expressions of Jealousy

by

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*In loving memory of Dr Ann Hopkins*

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I certify that this thesis contains no material which has been accepted for any other degree or diploma in any tertiary institution and that, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference is made in the text of the thesis.



Hayley Whitford

Abstract

Jealousy has been documented as a leading motivation for domestic violence, homicide, and murder-suicide. Furthermore, despite a lack of research, clinical observations and case studies have identified intrusive conduct such as interrogation, checking, monitoring, and surveillance, as behaviours common to the jealousy complex and problematic to the jealousy sufferer and their romantic partners. Extending previous research based on cognitive-behavioural theories, the present research assessed a wide range of irrational schema and their association with jealousy, intrusiveness, and intimate abuse in a student population following the development and empirical validation of a measure of interpersonal intrusive behaviour. The results support previous findings of the association between jealousy and sexual behaviour schema, and attractiveness schema. Further associations between jealousy and trust-related, abandonment, and danger/fear-related schema were also found. These frequent negative cognitions about romantic relationships were the strongest predictors of jealousy and intrusive behaviour, which were, in turn, associated with intimate abuse, especially for women. These results provide new findings about gender and the proximal link between intrusive or stalking-related behaviour and physical abuse in intact, intimate relationships.

Further assessment of schema showed that individuals acknowledge similar inferences about a range of ambiguous situations. However, those with increased jealousy concerns infer additional negative, relationship-specific assumptions about hypothetical events or situations. These findings support contentions that the activation of faulty underlying schema direct an individual's attention to known threats, disrupting normal information processing and leading to common misinterpretations of neutral or ambiguous events. Future research into the propensity for jealousy-related intrusiveness and aggression in relationships is discussed with reference to gender differences, newly developed psychometric instruments, cognitive-behavioural intervention strategies, and developing theories of cognition.

# CHAPTER 1

# CONCEPTUALISING JEALOUSY

The person who lives with chronic jealousy, like the coward, always lives in a life-threatening situation, even when none is there. He sees himself as vulnerable; life is a place where he's walking through minefields.

Gaylin (in Friday, 1985, p. 229)

The phenomenon of jealousy has intrigued writers, philosophers, lawyers, psychologists, and psychiatrists for centuries. It has been considered as an emotion, a perception of a situation, a group of behaviours, and a complex combination of all three (White & Mullen, 1989). In modern Western society, jealousy has reached significance as a 'pathology' because of its constant perceived association with psychiatric disorders, aggression, and violence (Mullen, 1993). Jealousy is documented as a common motivation for domestic violence (Barnett, Martinez, & Bluestein, 1995; Brisson, 1983; Dobash & Dobash, 1980; Dutton, Van Ginkel, & Landolt, 1996; Gayford, 1979; Gibbens, 1958; Hilberman & Munson, 1978; Holtzworth-Munroe, Stuart, & Hutchinson, 1997; Rounsaville, 1978; Saunders, 1992a; Whitehurst, 1971), suicide, murder-suicide, and homicide (Carcach & James, 1998; Daly & Wilson, 1988; Easteal, 1993; James & Carcach, 1997; Milroy, 1995; Morenz & Lane, 1996; Mouzos, 1999, 2001; Mowat, 1966; Mullen, 1995, 1997; Mullen & Maack, 1985; White & Mullen, 1989). More recently the devastating effects of jealousy have been further acknowledged with accounts being provided of intrusive and intimidating behaviours such as personal devaluation, humiliation, interrogation, and stalking (Kienlen, Birmingham, Solberg, Oregan, & Meloy, 1997; McKenna, 1984; Mullen, 1990b, 1997a; Mullen & Martin, 1994; Shepherd, 1961; Tarrier, Beckett, Harwood, & Bishay, 1990).

Although jealousy occurs in many contexts (e.g., in the workplace, between siblings, etc.), the main focus of this thesis is jealousy in interpersonal relationships of a romantic nature. Romantic jealousy is viewed by White and Mullen (1989) as encompassing "a variety of relationships that involve blends of different kinds of love" (p. 11). This concept is favoured over sexual jealousy as it can refer to relationships that do not always involve sex, yet are not perceived as purely platonic. Wherever jealousy

is referred to, the concept of romantic jealousy will be implied unless otherwise specified.

Structure of the Thesis

In essence, the current thesis investigates the association between romantic jealousy and intrusive manifestations (such as stalking) and intimate abuse. This first chapter attempts to conceptualise jealousy before examining debates surrounding the normal verus abnormal delineations of jealousy which are highlighted in Chapter 2. Theoretical formulations and clinical studies are explored in detail in Chapter 3. Chapter 4 discusses the intrusive and aggressive manifestations of jealousy. Conclusions from the current literature are presented in Chapter 5.

Chapter 6 presents the first empirical study (Study 1). Specifically, this section outlines the development and validation of a measure of interpersonal intrusive behaviour. Chapter 7 (Study 2) reports the results of an analysis of jealousy in a general student population. Assessment of the relationships between jealousy, intrusiveness, and aggressive responses such as anger, type of anger expression, and related behavioural elements (i.e., verbal aggression and intimate abuse) are also provided. Moreover, hypothesised cognitive-behavioural models of aggressive responses to morbid jealousy by Tarrier, Beckett, Harwood, and Bishay (1990) are presented diagrammatically utilising path modelling techniques.

Chapter 8 (Study 3) provides further testing of the types of cognitions activated when general student samples are presented with hypothetical jealousy scenarios. Subsequently, five case illustrations of individuals presenting with jealousy problems are included for descriptive purposes and comparisons are made between case study material and the quantitative results from Study 2. A final general discussion is provided regarding the nature of the relationship between jealousy, intrusiveness, and

intimate abuse. In addition, recommendations for clinical intervention and future research endeavours are presented.

Defining Jealousy

Bringle and Buunk (1985) defined jealousy as "an aversive emotional reaction that occurs as the result of a partner's extradyadic relationship that is real, imagined, or considered likely to occur" (p. 242). Similarly, Daly and Wilson (1988) defined jealousy as a "state that is aroused by a perceived threat to a valued relationship or position" (p. 182). This state is further proposed as motivating a person to behave in a way to combat this threat. However, despite the emphasis on emotion components in these definitions, thought processes (i.e., "imagined", "considered" and "perceived") and behaviour (i.e., "combat") feature as intrinsic elements when describing this phenomenon. Taking this into account, White and Mullen (1989) define romantic jealousy in greater depth...

> ...a complex of thoughts, emotions, and actions that follows loss of or threat to self-esteem and/or the existence or quality of the romantic relationship. The perceived loss or threat is generated by the perception of a real or potential romantic attraction between one's partner and a (perhaps imaginary) rival (p. 9).

Although empirical research regarding the association between threatened self-esteem and jealousy is mixed (see Hansen, 1982; Stewart & Beatty, 1985; White, 1981), the inclusion of cognitive, emotional, and behavioural elements in the above definition is particularly important. Similarly, the idea that a threat to the quality of a relationship can provoke jealousy is equally important. Jealousy, viewed purely as a suspicion of sexual infidelity, does not take into account the intricacies that can lead to jealousy-provocation. For instance, the perceived loss of time, attention, and intimacy with a partner due to a real or a perceived rival are enough to prompt jealous reactions (Mullen

& Martin, 1994). As De Silva and Marks (1994) suggested, the rules of exclusivity in romantic relationships vary between individuals and often encompass more than sexual monogamy...

> Holding hands, going for a meal, discussing personal matters, having tea together regularly, exchanging presents, and many other common behaviours are often areas of discordance with regard to exclusivity, and can lead to problems. (De Silva & Marks, 1994, p. 197)

It is therefore of paramount importance that the unique perspective of each individual is explored when jealousy presents as a problem, as it is not always obvious under what circumstances any person may experience jealousy or why. The perception of unfaithfulness is a complex phenomenon, created not only by current events, but also by past experiences, values and the unspoken rules of a relationship. There is no one trigger or group of underlying thoughts, feelings or behaviours that constitute a universal phenomenology (Clanton & Smith, 1977; Mullen, 1990b). The only consistent feature of the jealousy experience across individuals is the perceived presence of a rival that, in turn, is seen as threatening an existing relationship that is of some subjective value to the sufferer.

From a clinical and research perspective, the uniqueness of individual perceptions and experiences is not unusual, however, individual variability hinders preparing solid clinical guidelines for intervening with jealousy sufferers and their partners on the whole. As previously discussed, there are numerous expressions of jealousy ranging from a sufferer's extreme personal distress to aggressive manifestations as extreme as homicide (Carcach & James, 1998; Daly & Wilson, 1988; Easteal, 1993; James & Carcach, 1997; Milroy, 1995; Morenz & Lane, 1996; Mouzos, 1999, 2001; Mowat, 1966; Mullen, 1995, 1997a; Mullen & Maack, 1985; White &

Mullen, 1989). Testable theories of the jealousy complex need to be developed and empirically validated if we are to provide a coherent approach to treatment. An adequate theory or model would need to address all components of jealousy - thought processes, associated feelings, and related conduct. Furthermore, such models, ideally, would be simple, flexible, account for individual differences, and clearly highlight what types of clinical intervention will produce the best results.

Expressions of Jealousy

Common jealousy-related behaviours discussed in the literature generally centre on attempts to confirm suspicious, preoccupying thoughts – once again highlighting the need to view the interrelationships between components. McKenna (1984), Mullen (1990b), Shepherd (1961) and Tarrier, Beckett, Harwood, and Bishay (1990) have provided case illustrations and further generalisations from decades of clinical observations. For example, overt behaviours discussed have included intercepting the partner's telephone calls and mail, searching through possessions and reading diaries, preventing the partner from wearing attractive clothes or make-up, or "bugging" rooms or phones with microphones and recording devices. Ritualistic checking behaviours discussed have included checking address books for new numbers, checking bed linen, underwear and furniture covers for semen stains, and sometimes checking genitals for signs of moistness. Supervising visits, setting traps, and the hiring of private detectives have been highlighted as behaviours indicative of extreme jealous responses. In addition, accusations of infidelity, constant arguments, interrogations involving physical abuse, excessive sexual demands to exhaust the partner or demands to take lie-detection tests or hypnosis to extract confessions are referred to (McKenna, 1984; Mullen, 1990b; Shepherd, 1961; Tarrier et al., 1990).

Tarrier et al. (1990) also discuss the prominence of avoidance behaviours such as cutting pictures of attractive people from magazines and newspapers, and avoiding certain television programs, films, social events, and the mentioning of names that may prompt ideas of sexual infidelity in the partner. It is noteworthy that many of these behaviours, such as continuous unwanted interrogation, monitoring, and surveillance, are now commonly classified as 'stalking' behaviours and gaining wide attention in the area of psychological research. Specifically, as Mechanic, Weaver and Resick (2000) have pointed out, the previously violent aspects of stalking were classified under the rubric of battering while harassing aspects were considered generally under emotional abuse.

Aggressive interrogations, accusations, and arguments can go beyond emotional and mental abuse and lead to physical harm including torture (McKenna, 1984; Mullen, 1990b; Mullen & Maack, 1985; Shepherd, 1961; Tarrier et al., 1990). Violence is often discussed as a behavioural manifestation of jealousy provocation throughout the literature. Mullen and Martin (1994) reported that around 15% of jealous individuals may be aggressive toward their partners and, contrary to popular belief, supposed rivals are rarely the target of aggressive or violent acts (Mathes & Verstraete, 1993; Mowat, 1966; Mullen & Maack, 1985). Studies of male batterers have consistently found accusations of sexual unfaithfulness and excessive jealousy to be major contributors, if not the primary motivations, for violent episodes between intimates (Barnett et al., 1995; Brisson, 1983; Dobash & Dobash, 1980; Gayford, 1979; Hilberman & Manson, 1977; Holtzworth-Munroe et al., 1997; Rounsaville, 1978; Saunders, 1992; Whitehurst, 1971).

Jealousy is often identified as the most common motivation for murder-suicide (Milroy, 1995). Morenz and Lane (1996) reported that one-half to three-quarters of all

murder-suicides in the United States are prompted by jealousy. In Paris between 1991 and 1996 jealous males were the most common instigators of 56 incidents (Lecomte & Fornes, 1998). As for homicide, Gibbens (1958) found that jealousy was the primary motivation in 22% of 195 cases while Wolfgang (1958), after reviewing 588 homicides, reported that jealousy was the third most common motivation.

Daly and Wilson (1988) suggested that the figures presented in many of these studies represent under-reporting. For instance, Wolfgang's (1958) study includes categories of motivation such as 'domestic quarrels', 'revenge', and 'altercation' that may have included jealousy-provoked incidents (Daly, Wilson, & Weghorst, 1982). More recent statistics indicate that jealousy can be considered as the leading motivation for homicide. For instance, in a study of 2226 homicide incidents in Australia between 1989 and 1996, 'jealousy/revenge' was identified as the most common motivation, while just over one-quarter of those incidents involved killing an intimate partner. In 202 of these cases, the offender was unknown so jealousy as a motivation for these homicides may once again be underestimated (Carcach & James, 1998; James & Carcach, 1997).

Several theoretical approaches have been applied to aid in the understanding of jealousy-provocation and the often aggressive manifestations of such experiences. The most widely discussed approaches are psychoanalytic, socio-biological, and cognitive-behavioural theories. Other less influential approaches include pure behavioural and social frameworks, and the systems theories (see Keenan & Farrell, 2000 for brief reviews). In this introduction to these diverse viewpoints, a brief overview of the psychoanalytic approach will be followed by an outline of some of the socio-biological contributions to the literature. However, this thesis will concentrate mainly on the

contribution of cognitive-behavioural frameworks, as they have contributed the most significantly in terms of providing successful clinical treatment strategies.

The Psychoanalytic Approach

According to Freud (1955) there are three types of jealousy developed via different mechanisms, although each category is not considered entirely discrete as the underlying processes have been suggested as co-occurring or overlapping in some individuals. The first category, defined as 'normal' jealousy, is said to develop because of unresolved issues from early in a child's life. Specifically, in adult life, the potential loss of the loved one and anger at the rival are suggested as stirring repressed (unconscious), unresolved conflicts from the Oedipal development stage. This stage (age 3 to 5 years) consists of working through a complex of unconscious wishes focused on the notion of possessing the opposite-sexed parent and removing the same-sexed parent from the competition (often referred to as the Electra complex for females) (Reber, 1985). Similarly, other unresolved conflicts from childhood, such as sibling rivalry, are further suggested as evoking jealousy when circumstances in adult life rekindle painful processes such as impulses to compete and narcissistic wounding. Freud (1955) contended that those who did not experience jealousy showed evidence of particularly repressed conflict from childhood.

The second category is defined by Freud (1955) as 'projection' jealousy, where jealousy (and guilt) is the product of the individual's own desires, or acted out infidelity, that are projected onto the loved one. The conscious experience of this projection is that the jealous individual perceives that the loved one is attracted to potential rivals. The jealous individual is described as reacting in one of two ways. Firstly, they may attempt to understand their partner's attractions and further maintain possession of their partner by restricting their access to others, controlling the exposure

to rivals, etc. Secondly, the jealous individual may become aggressive toward the loved one (rather than attacking themselves for having such desires) (Freud, 1955; White & Mullen, 1989).

Finally, 'delusional' jealousy is suggested as manifesting when homosexual impulses or desires are projected, once again, onto the loved one. These repressed impulses are often thought to be unresolved desires for the same-sexed parent developed during the Oedipal stage. This type of jealousy is considered to be the most anxiety-provoking of the three categories, leading to severe defences such as distortions of reality (delusions) that prevent the true impulses from entering the conscious stream (White & Mullen, 1989).

Alternatively, from the Object Relations approach, Klein (1977) suggested that jealousy was a defence against feelings of worthlessness based on unresolved conflict stemming from infantile fantasies. In brief, the infant is viewed as wishing for the destruction of the bad mother (or breast) for having the power to take gratification away from the infant. Following this desire for destruction, the infant is said to experience depressive anxiety when the good mother (or breast) is perceived as destroyed due to the infant's wishes. In adult life, when anxieties concerning worthlessness surface, this unconscious feeling of a lack of ability to love is projected onto the loved one and jealousy ensues. Furthermore, the wish for destruction of the love object is projected away from the self onto the rival. This process is considered to be a failure of differentiation between the self and others (Klein, 1977; Klein, & Riviere, 1964).

As White and Mullen (1989) have suggested, other than case studies, there is very little empirical research to support psychoanalytic explanations of jealousy. Furthermore, as Keenan and Farrell (2000) have contended, this approach (a) ignores the possible reality of infidelity by a partner, (b) fails to take into account the influence

of any social or cultural factors in the development and maintenance of jealousy, and (c) focus heavily on male jealousy (true, in particular, for Freud's theories). However, psychoanalytic approaches have provided a useful account of defence mechanisms in jealousy, such as projection - mechanisms frequently observed in the clinical literature (see Bishay, Tarrier, Dolan, Beckett, & Harwood, 1996).

The Socio-Biological Approach

Derived from observations of animal behaviour (such as the killing or neglect of unrelated young by males, or the diligent guarding of a female by her mate during a fertile period), the socio-biological approach has suggested that human males also instinctually guard the female from rivals to defend their paternity confidence. In other words, it is argued that a male's sexual access to his female partner must be exclusive to ensure that any offspring produced are indeed his own, as the human male is expected to spend a large amount of time, energy, and resources caring for the child. The emotion of sexual jealousy is therefore viewed as having evolutionary significance in that it acts as a signal that prompts a male to be wary of rivals who may eventually produce offspring with his own partner without his knowledge (Daly, Wilson, & Weghorst, 1982).

Daly and colleagues (1982) have contended that, in addition to the emotional experience of jealousy, the 'behavioural/motivational complex' of male sexual jealousy includes propensities such as motivations to possess and control women, and the use (or threat) of violence toward women to achieve sexual exclusivity. In support of this theory, Daly et al.'s (1982) study described sex differences in the experience and expression of jealousy. In addition, cross-cultural and historical references to law and social conflict are provided.

Daly and Wilson's (1988) first proposition is that men experience jealousy differently and probably more often than women. Specifically, men are more concerned about sexual exclusivity in order to be certain they have fertilised their partner, and women are more concerned about the loss of time, attention, and resources by their mate in the upbringing of the child. Several researchers have provided support for this contention. Furthermore, these differences have been found across different cultures (Buss, 2000, 2001; Buss, Larsen, Westen, & Semmelroth, 2001; Buss, Shackelford, Kirkpatrick, Lim, Hasegawa, Hasegawa, & Bennett, 1999; Buunk, Angleitner, Oubaid, & Buss, 1996; Daly et al., 1982).

For example, Reik (1957) claimed that men experienced jealousy as concern for sexual infidelity while women were more concerned with losing the relationship and the security it offered. Similarly, Shettel-Neuber, Bryson, and Young (1978) reported that when students viewed a jealousy-provoking scene on video, males and females described how they expected to behave in very different ways. Females claimed they would try to appear more attractive to their partner, pretend it did not bother them or cry. Males predicted they would become angry and threatening, start to drink, and would be likely to see other women. Results from Mullen and Martin's (1994) community study suggested other differences. Specifically, women were more likely to be concerned with the effect that infidelity would have on the quality of the relationship in the future. Men on the other hand were mainly concerned about losing their partner. Women were more likely than men to express their distress and confront their partner, while men predicted they would opt for denial or avoidance. Consistent with Shettel-Neuber et al. (1978), Mullen and Martin (1994) found that women were likely to try and increase their attractiveness to win back their partner. However, there are studies in which sex differences have not been identified. For instance, Brainerd, Hunter, Moore,

and Thompson (1996) found no differences between males and females in a student sample on several measures, including the use of jealousy-induction techniques and the frequency of psychological aggression and physical violence.

Daly et al.'s (1982) second argument is that support for the evolutionary model can be found in the way people have codified law. Cross-culturally and historically, adultery law consistently upholds that "unauthorised sexual conduct with a married woman is a crime and the victim is the husband" (p. 11). This regularity is upheld even across ancient societies with the equality of sexes in adultery law only being acknowledged recently. Finally, male sexual jealousy has been identified as the leading cause of relationship conflict and a common motivation for homicide. This supposed attempt to control female sexuality parallels the observations made in many animal species (Daly et al., 1982).

In opposition to the socio-biological explanation of jealousy, Keenan and Farrell (2000) have contended that evolutionary theories rest on faulty reasoning. Specifically, they argue that sex differences in jealousy do not mean that the differences are due to genetic mechanisms determining human behaviour and motivation. Similarly, White and Mullen (1989) have suggested that socio-biological approaches rely on "after-the-fact explanations" (p. 66). Other objections to the socio-biological approach have been raised that question the basis of the theory. Firstly, if aggression is directed toward the loved one rather than the rival, and the loved one is harmed or killed, then the survival chances of offspring are therefore lowered. Secondly, if this form of human behaviour is determined by evolution, then human behaviour should be most closely related to genetically similar specifies (i.e., primates). However, observations of primate behaviour have suggested their actions are different from those of humans and other species (Lancaster, 1985 in White & Mullen, 1989). Thirdly, socio-biological

approaches, like psychoanalytic theories, fail to sufficiently consider the impact of culture on behaviour. Fourthly, as shown by our ability to learn and adapt to new situations and environments, humans appear to have some control over genetic predispositions. This notion is often overlooked in socio-biological explanations of any behaviour. White and Mullen (1989) have provided a detailed discussion of these and other objections to the socio-biological approach and concluded that genetic explanations for the experience and expression of jealousy are in need of further justification.

The Cognitive-Behavioural Approach

The model most commonly adapted for understanding jealousy, or abnormal jealousy, is Lazarus' cognitive-transactional theory of stress and coping (Lazarus & Folkman, 1984). Recently revised and named Lazarus' cognitive-motivational-relational theory of emotions (Lazarus, 1991), it has been applied directly to jealousy and used as a basis for creating new models (see Mathes, 1991; White & Mullen, 1989; White, 1981). The main concepts include the processes of primary appraisal, secondary appraisal, and reappraisal. In its most basic form, this theory contends that when an individual encounters stimuli or events, they firstly decide whether those stimuli or events are of some relevance to their well-being (primary appraisal).

To illustrate using a jealousy-provoking experience, this event may be a partner returning home unusually late from work. If the stimuli or events are perceived as negative for their well-being (e.g., I think my partner is late because they are having an affair), the individual will review their coping options (e.g., if I confront my partner they are likely to stop being unfaithful, etc.). This process is referred to as secondary appraisal. Any further feedback encountered from the environment or the individual's own actions or reactions are further evaluated - a process termed reappraisal.

Essentially, how any individual appraises a situation is based on a combination of his or her past experiences in similar situations and more stable characteristics (e.g., personality, culture, etc.). As a person's experience with the situation at hand is continually changing (e.g., coping activities may result in new outcomes or the environment itself may change), reappraisal is regarded as a continual process of evaluation (Lazarus, 1991).

Using an alternative cognitive framework, Bishay, Petersen, and Tarrier (1989) attempted to explain abnormal (or morbid) jealousy with concepts derived from Beck, Rush, Shaw, and Emery's (1979) cognitive model of depression. Specifically, these authors stated that, in morbid jealousy, faulty assumptions about human emotional and sexual behaviour, based on past experiences, are applied to current situations. Once these schema are activated, they further distort the processing of new information leading to the misinterpretation of current events.

In light of Bishay et al.'s (1989) findings, Tarrier, Beckett, Harwood, and Bishay (1990) further developed this framework and presented a cognitive-behavioural model for non-psychotic morbid jealousy based on a combination of Beck's and Lazarus' frameworks. Cultural and social factors, as well as personality and previous learning experiences, are discussed as influencing the development of schemas related to sexual and emotional relationships. Once activated, these schema influence the primary appraisal of events. Individuals misinterpret stimuli and events that, in turn, provoke feelings of jealousy and related behavioural elements (such as checking for evidence of unfaithfulness). Secondary appraisal (or the coping style of the individual) further influences the individual to respond with emotions and behaviour such as avoidance, guilt and depression, or anger and aggression.

Following the observation of 40 morbidly jealous individuals, Dolan and Bishay (1996b) identified sexual behaviour schema, attractiveness schema, danger/fear-related schema, and anger-related schema as being commonly activated during jealousy experiences. For instance, 21 patients held irrational beliefs about the sexual behaviour of men and women in general (e.g., that all women/men would be sexually unfaithful with any other man/woman). Another large group of patients (21) were "preoccupied with not allowing their partner to fool them (an anger-related schema)" (p. 50).

Dolan and Bishay (1996a) further supported the usefulness of the cognitive-behavioural formulation by assessing the effectiveness of treating non-psychotic morbid jealousy using cognitive techniques. Results indicated that most of the 23 patients who underwent treatment for the modification of dysfunctional cognitive processes showed a marked improvement on all jealousy measures immediately following treatment and at follow-up 3 to 6 months later. Partner ratings supported these outcomes. Furthermore, a group of 15 patients not treated (delayed treatment group) showed no significant improvement on the same measures of the cognitive-behavioural and emotional aspects of jealousy. Further empirical validation has been presented by other researchers, including Intili and Tarrier (1998), and Keenan and Farrell (2000).

Similar notions regarding the importance of cognitions are presented in the more recent literature on emotions. In brief, the appraisals of events or situations are also thought by emotion theorists to play an important role in the experience and expression of affective states (Roseman, Wiest, & Swartz, 1994). Rather than being viewed as a "basic" or "primary" emotion (although this latter concept is highly debated), jealousy is often referred to as a secondary emotion: a mixture or compound of several less complex emotions such as grief, anger, self-pity, panic or rage, to name a few (see

Draghi-Lorenz, Reddy, & Costall, 2001; White & Mullen, 1989). However, consensus in this area remains elusive.

There are numerous debates in the literature as to whether jealousy is actually an emotion or whether we label a group of emotions as 'jealousy' because they occur under similar circumstances (i.e., when a rival is perceived as existing). For example, jealousy may always be constituted as anger to one individual and fear to another. Alternatively, under some circumstances an individual may experience multiple emotions (i.e., anger then fear then loss) over a period of time, the totality of the emotions being defined as jealousy.

White and Mullen (1989) have suggested that, as varying conditions affect an individual's primary and secondary appraisals, the emotions linked to these judgments have the ability to vary with them. These authors have proposed that anger, fear, sadness, envy, sexual arousal, and guilt all form components of the jealousy complex. Therefore, rather than attempting to identify the exact blend of emotions that constitute jealousy *per se*, researchers should aim to predict which more basic emotions are linked with which contexts[1].

Roseman et al. (1994) suggested that, although early research attempted to distinguish discrete, basic emotions by identifying distinctive expressions, physiology, and phenomenology, recent theories have suggested that emotions can also be differentiated by actions, action tendencies, and emotivational goals (emotion goals). Briefly, actions refer to purposeful or non-purposeful acts, action tendencies refer to impulses to respond with a particular action, and emotivational goals refer to the end result the person is aiming for. Roseman et al. (1994) asked 100 respondents to recall experiences of negative emotions such as fear, sadness, distress, frustration, disgust,

dislike, anger, regret, guilt, and shame. Respondents were further asked questions pertaining to what they thought, felt, felt like doing, wanted and actually did in response to these emotions. Results indicated that, in addition to having distinctive thoughts and feelings, each discrete emotion had distinctive goals and action tendencies. For example, respondents recalling anger experiences...

> ...thought about how unfair something was and of violence toward other people, felt like yelling and hitting someone, said something nasty, and wanted to hurt and get back at someone...our data supported the conception of anger as an emotion that involves attacking to hurt another person (p. 213).

Emotions were most easily distinguished by characteristic thoughts and most difficult to distinguish in terms of the actions that actually occurred. This research supports frameworks, such as Lazarus' (1991), that argue that emotions have distinctive cognitive elements. Furthermore, emotivational goals were also found to distinguish between emotions even more successfully than action tendencies and feelings. Roseman, et al. (1994) suggested that these goals enable us to gain some understanding of why the behavioural manifestations of each emotion can be so broad...

> A punch in the nose, praise that is too faint, the "silent treatment", and air let out of automobile tires may have no physical properties in common, but they can all be recognised as actions with the common goal of getting back at someone toward whom one is angry (p. 218).

Chadwick et al. (1996) have also suggested that emotions elicited by a situation can be viewed as dependent on how the situation is perceived and that these emotions

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[1] For recent, general arguments regarding the debate surrounding the primacy of emotion versus cognition see Dalgleish and Power (1999) and Parrott (2001).

have associated behavioural responses. Specifically, these authors discuss three negative emotions commonly thought to be basic emotions - anxiety, sadness, and anger. If an individual envisages the arrival of a third party as a threat (possible physical or psychological danger) then the emotional response is likely to be anxiety. If the rival's presence is perceived as likely to elicit loss (either loss of attention, loss of the partner, etc.) then the ensuing emotion is likely to be sadness or depression. Finally, if the rival's presence evokes negative self-other evaluations (e.g., blame) or a belief that there has been an infringement of one's rights (i.e., my partner knows that the rules of this relationship do not permit flirting) then anger is likely to be the predominant response.

These same basic emotions are likely to evoke specific behavioural responses. For instance, anxiety is often responded to with avoidance or escape behaviour, depression is linked to withdrawal and inhibition, and finally, anger with aggression and violence (Chadwick et al., 1996). However, as Roseman et al. (1994) contended, a person does not have to respond with a characteristic action just because they have experienced the emotion. Rather, people may just consider taking the action.

Summary

Many theories have been derived from various approaches in psychology in an attempt to understand jealousy and its constellation of responses. Unlike the psychoanalytic and socio-biological approaches, the various cognitive-behavioural theories utilised to understand jealousy take many facets into account, including social and cultural influences, personality characteristics, past experiences, and intra-psychic phenomenon. They provide insight into the cognitive, affective, and behavioural components and their interrelationships, while attempting to explain individual differences. Furthermore, cognitive-behavioural theories have provided successful clinical intervention strategies based on empirical understanding. Specifically, research

findings have suggested that faulty schema (stable patterns of thoughts) appear to influence information processing leading to the common misinterpretations of neutral or ambiguous events by jealousy sufferers. Hypothesised relationships between schema activation and primary and secondary behavioural manifestations have been proposed. However, understanding the process from thought and affective activation to aggressive behaviour appears to be the most important research need at present, as jealousy continues to be one of the most common motivations for domestic violence, homicide and murder-suicide.

# CHAPTER 2

# PROBLEMATIC JEALOUSY

That love and jealousy could be not only excessive and misplaced but part of a madness seems to have been recognized almost as long as there have been categories of mental illness. Pragmatically, it is reasonable to assume there is a realm of the pathological in reference to the passions though its boundaries are neither fixed nor above challenge.

Mullen (1997a, p. 132)

Classifications of Jealousy

In his influential article written in 1961, Shepherd discussed the many psychiatric illnesses where jealousy commonly appeared as a prominent symptom. These symptomatic classifications included toxic/cerebral disorders (alcoholism, cocaine addiction, Huntington's chorea, Parkinson's disease, Alzheimer's disease, cerebral tumour, etc.), functional psychoses (schizophrenia, paranoid states, affective psychoses), and neurotic/personality disorders. More recent publications have supported Shepherd's (1961) comprehensive list with additions such as obsessive-compulsive disorder, depression, manic-depressive psychosis, thyrotoxicosis, cerebral syphilis, multiple sclerosis, and specifically paranoid, asthenic, and sociopathic personality disorders (Cobb, 1979; Cobb & Marks, 1979; McKenna, 1984; Mullen, 1990b; Parker & Barrett, 1997; Tarrier et al., 1990).

Other researchers have proposed further taxonomic distinctions in relation to jealousy, particularly between psychotic and non-psychotic types. In 1908, Mairet distinguished between four major types of jealousy (normal, hyperaesthetic, monomania, and insanity) while Jaspers (1910) proposed three types of delusions of infidelity (delusional development, delusional psychic process, and delusions associated with mental disorders) (in Mullen, 1990b). Other prominent authors such as Freud (1955), Mooney (1965), and Docherty and Ellis (1976) have postulated further classifications. However, the separation of 'normal', 'pathologically reactive', and 'symptomatic', as suggested by White and Mullen (1989), is most recent and attempts to extend the understanding of jealousy beyond its view as a purely clinical feature of a disorder (Mullen, 1990b, 1997a; White & Mullen, 1989).

Mullen (1997a) attempts to outline the characteristics of *normal jealousy.* Firstly, he has suggested that jealous responses should be based on actual or suspected

infidelity (remembering that infidelity is construed differently by each individual). Second, the jealousy should be focused on a "plausible object" (p. 135). Thirdly, the responses provoked should remain within reasonable limits (within the person's self-concept and broader cultural norms). Fourthly, the development of the jealous response should be understandably related to provoking events, and finally, the individual should actively seek or accept a solution.

Although normal jealousy is suggested to be reactive to infidelity (real or suspected), White and Mullen (1989) have suggested that the classification of *pathologically reactive* is distinguished by the gravity of the individual's response to provocation. Furthermore, the fruition of the jealous response is said to be dependent on "aspects of the relationship that tend to maintain or reinforce jealousy" (p. 200). Similarly, the jealous individual is suggested as having a tendency to be oversensitive to jealousy-provocation because of either...

(a) Deviations from a normal personality structure such as "oversensitivity and poor self-esteem, or...superficially aggressive self-confidence that covers unacknowledged vulnerability" (p. 200)

(b) A mental disorder that does not determine the course of the jealousy, but instead predisposes the individual to a state of mind that increases the likelihood of a response to jealousy-provocation

(c) Previous sensitisation to jealousy (experienced desertion or infidelity)

(d) Any combination of a, b or c

White and Mullen (1989) have further suggested that when provocation is not evident and jealousy is dependent on a mental disorder (a manifestation of a type of

mental illness such as outlined earlier by Shepherd, 1961) it falls under the *symptomatic classification* of jealousy. Furthermore, this type of jealousy is described as developing before or alongside other clinical features of the underlying disorder.

The delineations proposed by these three classifications appear complex, however the basic notion of separating jealousy as a symptom of various medical or psychiatric illnesses from jealousy as a reaction to events or situations is useful from both a research and a clinical perspective. Specifically, in the absence of an underlying illness, jealousy needs to be approached differently in terms of theory and intervention. Although the contribution of personality, the cognitive processes, and the skills or coping options an individual possesses may be important when intervening with symptomatic jealousy (paired with psychopharmacological intervention), these concepts are more central to guiding intervention procedures in reactive cases.

However, in practice, the lines dividing reactive and symptomatic jealousy are not as easy to distinguish as suggested theoretically. For instance, White and Mullen (1989) have noted that individuals experiencing delusions of infidelity can fall equally into reactive or symptomatic classifications depending on the case (see Figure 1). In

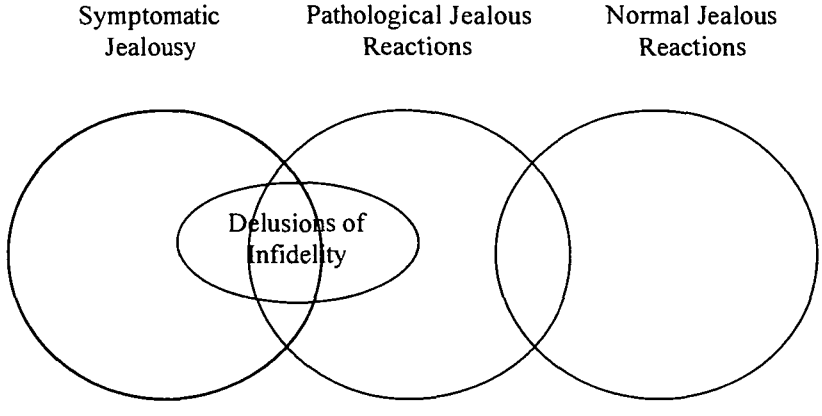


Figure 1 Diagram of jealousy classifications as adapted from White and Mullen (1989; p. 263)

other words, delusions may be a reaction to environmental stress that lead to cognitive distortions or they may be a symptom of a larger disorder such as schizophrenia.

As an illustration, Mullen and Maack (1985) presented the case of a man who was convinced his wife was having an affair with the man next door because the neighbour's Christmas tree lights were flashing in synchrony with their own. Despite the morbid nature of these "delusions", the man was in fact reacting to his wife's actual infidelity. Similarly, Arya (1993) presented the findings of an intervention with a 50-year old woman. Her specific jealousy-related responses included hallucinations of lipstick/make-up on her husband's collars, the smell of perfume on his clothes and phone numbers written on his underpants and back that disappeared when she attempted to note them. No additional psychotic features associated with known disorders such as schizophrenia or alcoholism were present.

Arya (1993) suggested the client presented a clear case of rejection/abandonment schema activation. Beliefs were seemingly developed by past life experiences and the schema triggered by events such as increased isolation (e.g., her husband having to work overtime due to financial difficulties). Importantly, as illustrated by these cases of jealousy that *appear* delusional and therefore, at first glance, appear to be symptoms of a larger mental disorder, they are in fact pathologically reactive. These findings therefore highlight the more fundamental question researchers need to address – is there a line dividing 'normal' and 'abnormal' jealousy?

Normal Versus Abnormal Jealousy

The psychiatric literature has provided an abundance of information regarding the disorders for which jealousy is a particular part of the clinical picture, but beyond the symptomatic classification, as suggested above, the line between normal and

abnormal is less clear. Specifically, the Diagnostic and Statistical Manual of Mental Disorders - Fourth Edition (DSM-IV) only formally recognises jealousy experiences that fit the category defined *Delusional Disorder - Jealous Type* (American Psychiatric Association, 1994).

Clinicians and researchers have mainly concentrated on problematic jealousy experiences, that do not appear delusional, by attending to unusual behavioural patterns. Pathological behaviour is distinguished as conduct excessive and uncharacteristic of jealous responses, usually, in terms of current social norms (see McKenna, 1984; Mullen, 1990b; Shepherd, 1961; Tarrier et al., 1990). For example, in response to a supposed threat to a romantic relationship, continuous and prolonged attempts to obtain confessions that may involve physical abuse, or constant checking of clothing or bed linen for evidence of semen stains, would probably be deemed as unacceptable by most in society. Instances such as these are interchangeably referred to as 'morbid', 'pathological' or 'abnormal' instances of jealousy in the literature.

There are various theoretical criteria that have aided researchers in classifying behaviour as abnormal. Although these criteria appear useful in some cases, their application is limited when classifying jealousy and other types of disorders. When applying the social *norm violation* criterion of abnormal behaviour, there are instances where norm violation is present but the behaviour is unlikely to be considered abnormal. For instance, although often considered to be a social norm violation (dependent on certain cultural and generational variations in attitude), sexual infidelity is not classified as abnormal.

*Statistical infrequency,* where abnormal responses are identified as infrequent or unlikely responses, can be equally problematic as a marker of abnormality. For instance, a high score on a scale measuring depression is abnormal when compared to the rest of

the population. However a high score on a test of musical ability is not abnormal, just infrequent. There are also problems applying the criterion of *personal distress*. It may be abnormal to experience constant anxiety or depression. However exceptions include being constantly anxious before exam periods (normal distress) and disorders such as psychopathy that do not usually cause distress in the sufferer (abnormal lack of distress). Similar arguments can be made for relying on other abnormal behaviour classification criteria such as the presence of a *disability/dysfunction*, *unexpectedness* of behaviour, a *deviation from the mental health ideal* or even the fact that someone *seeks treatment* (see Bootzin & Acocella, 1988; Davison & Neale, 1998; Raine, 1993).

Ultimately, Davison and Neale (1998) have suggested that two or more criteria should be considered when determining whether a particular behaviour is abnormal. Table 1 provides a summary of criteria for determining abnormality and whether excessive jealous responses meet each criterion.

Table 1

Abnormal Behaviour Criterion Applied to Excessive Responses to Jealousy-Provocation

| Abnormal Behaviour Criterion | Excessive Response to Jealousy |
|---|---|
| Deviation from social norm | Yes |
| Statistically infrequent | Yes |
| Personal distress | Yes |
| Dysfunction | Yes |
| Unexpectedness of behaviour | Uncertain |
| Deviation from mental health ideal | Yes |
| Seek treatment | Uncertain |

However, requirements other than the above criteria may also have to be considered when determining whether jealousy is abnormal or not. For instance, in the area of jealousy research, there is dispute as to whether any pattern of behaviour can be

classified as abnormal if it is in reaction to real unfaithfulness as opposed to imagined unfaithfulness (Mullen, 1990b; Mullen & Maack, 1985; Tarrier et al., 1990).

Shepherd (1961) and Shrestha, Rees, Rix, Hore, and Faragher (1985) have stated that jealousy can be classified as abnormal when reactions exceed those dictated by current social norms, regardless of whether sexual infidelity is real or imagined. In contrast, Tarrier et al. (1990) stated that including real instances of unfaithfulness "confounds jealousy in terms of suspicion where infidelity is imagined, and anger where it is real." (p. 320). These latter authors suggested that normal jealousy could be regarded as centering on the partner, specific event or rival only for as long as the partner is perceived to be unfaithful. In addition, the jealousy experienced in this case would not be unusual given the circumstances, however, the partner's behaviour rather than the jealousy itself would be of concern. Conversely, these authors have suggested that abnormal jealousy is characterised by irrational thoughts that have no basis in reality, apply to a variety of rivals and situations, and disrupt either the sufferer's or the partner's life across time. Specifically, Tarrier et al. (1990) described morbid jealousy as a problem of irrationality and lack of objectivity that *precipitates* an excessive response (p. 320). In essence, these authors view abnormal jealousy as a cognitive problem and intrusive thoughts are suggested as existing on a continuum.

As presented earlier, Mullen (1995, 1997a) also defined the characteristics of a 'normal' reaction to aid in distinguishing between normal and abnormal reactions. However, unlike Tarrier et al. (1990), Mullen (1990b) and Mullen and Maack (1985) have argued that deciphering what is a real case of infidelity and what is imagined (thoughts that have no basis in reality) is often not possible. Specifically, the actual facts surrounding each individual case are not testable in terms of the information provided by the client or whether the client appears irrational to the therapist or not.

For example, a clinician may think it safe to assume that predominant delusions of infidelity are evidence of an imagined encounter. However, some delusions can arise out of meaningful events and represent a private attempt at explanation by the individual (for instance, in the case of the man who acknowledged his wife's real affair with the neighbour by pointing out the synchronised flashing of Christmas tree lights) (Chadwick et al., 1996; Mullen, 1997a; Mullen & Maack, 1985). Although the mode of explanation is abnormal (from a statistically infrequent viewpoint) and may indeed warrant psychological intervention, the factual basis for the concern may exist in reality; the partner may well be having an affair. As Mullen (1997a) and Chadwick and Lowe (1994) have contended, delusions are attempts to make sense of particular events and they are not restricted to perceptual disturbances. Therefore, it may be that a distinction between *real* delusions (perceptual disturbances stubbornly maintained despite contradictory evidence) and generally unusual explanations of real events, needs to be made. However, in most clinical settings, it will be unclear to the therapist if a delusion is actually a delusion without evidence (i.e., the acknowledgement of sexual infidelity by a partner). As Mullen (1991) has pointed out, if proposed statistics of extramarital affairs (including multiple affairs) are anything to go by, there is a good chance adultery has occurred. Lawson (1987), for example, estimated that up to 65% of men and 50% of women engaged in affairs.

Alternatively, to state that jealousy may be classified as abnormal if the focus of the jealousy is not specific to one rival (statistical infrequency in the sense that it is unusual to suspect the existence of several rivals existing) is to classify the partners of the promiscuous as mad. Sometimes there is reason to suspect every possible rival. Mullen (1990b) contended that to deal with these complex issues jealousy should be

viewed as abnormal or pathological when any element of the jealousy complex (e.g., judgements, feelings, behaviour or desires) appears abnormal itself.

Based on Tarrier et al.'s (1990) observation of intrusive thoughts in non-psychotic jealousy existing on a continuum, it could be argued that the other elements of the jealousy complex (affective and behavioural responses) similarly exist on a continuum, at least across the normal to pathologically reactive classifications as proposed by White and Mullen (1989). This point is supported by Mullen (1997a), at least in relation to the emotional component of jealousy: "pathologies of passion are in part an extreme form of normally occurring emotions, with the reactive forms in a continuum with normal emotional experiences" (p. 138). For example, at the more extreme end of the scale, anger may be more intense and last for longer periods of time, thoughts about a partner's possible infidelity may be more intrusive, and checking behaviour may be more thorough and frequent, or violence as an action tendency may manifest as an actual behaviour. Therefore, rather than continuing the investigation into distinguishing between normal and abnormal jealousy, the more meaningful question may be whether the jealousy sufferer or their partner perceives the jealousy reaction to be problematic, or whether the jealousy experience has adverse or catastrophic social consequences at the specific historical point in time (in the same way that recent legislation in many states now upholds that, repeated, unwanted following that evokes some degree of fear in a partner is considered stalking). This is a more comprehensive extension of the abnormal behaviour criteria of *norm violation, personal distress,* and *dysfunction.*

This view of normal to pathologically reactive states as existing along a continuum, whether the focus is cognitive, affective, or behavioural, suggests that any current theory of morbid jealousy (apart from the symptomatic classification) should be

applicable in the general population. Similarly, these frameworks should be equally applicable to delusions of infidelity that are not typical clinical features of an underlying disorder (pathologically reactive manifestations).

Despite much research across the decades, only one prominent publication has presented clear descriptive information about the occurrence, associations, and manifestations of jealousy in a large, random sample from the general community (see Mullen and Martin, 1994). In this study, 351 randomly selected inhabitants of New Zealand completed a 12 page questionnaire consisting of measures of jealousy, social support, self-esteem, anger expression, alcohol consumption, general health, and demographic questions. All participants admitted to experiencing jealousy on at least one occasion, with 66 respondents (19%) reporting high jealousy (scores more than one standard deviation above the mean) (Mullen & Martin, 1994)

Situations deemed the most jealousy-provoking by respondents included a partner showing interest in someone else (63%), not knowing where a partner was (14%), and increased stress not related to partner (15%). Overall, 79% women reported increased jealousy concerns during times of pre-menstrual tension. The most prominent fears reported when jealous were losing the partner (65%), followed by fears of loss of attention and time with the partner (21%), with emotional responses including anger, sadness, agitation, and less prominently, feelings of shame and humiliation (Mullen & Martin, 1994).

Jealousy concerns were correlated with decreased self-esteem, alcoholism, poor general health (described as indicative of a recognisable mental disorder), suppressed anger, and overt anger expression. Main coping strategies included confronting the partner, for women, and ignoring the situation and hoping it would disappear, for men. Suppressed anger was most likely to be dealt with by trying to gain a greater

commitment from the partner or by engaging in displacement activities (binge drinking and eating), while overt anger expression was related to confronting the partner or threatening them (Mullen & Martin, 1994).

As outlined in Chapter 1, behaviours such as searching or checking a partner's belongings, interrogating a partner, or checking clothing for signs of sexual conduct, were all more prominent in the high jealousy group, as were aggressive behaviours. For instance, 13 respondents admitted to threatening a partner and 5 respondents admitted to threatening a rival, while 8 admitted to hitting the partner and 3 admitted to physical aggression directed toward a rival (Mullen & Martin, 1994).

Variables found to correlate with high jealousy scores were all entered into a logistic regression analysis for men and women separately. Results indicated that the significant risk factors for jealousy for men were being married before the age of 20, having an older sibling, not currently living with a partner, and high continuing stress. For women, significant risk factors for jealousy included drinking to excess, impaired self-esteem, and being under 30 years (Mullen & Martin, 1994).

Although data was collected from a large random community sample, results are still difficult to generalise from Mullen and Martin's (1994) findings, mainly because the measure of jealousy administered was not standardised. All items from White's (1981) Chronic and Relationship Jealousy Scales were included, however, numerous items (approximately 38) were added to collect more detailed information about the way people thought, felt, and acted in response to jealousy provocation. It appears that overall jealousy scores were derived from this 50 item measure, and not just from the two smaller standardised scales. Therefore, the classification of high-jealousy and low-jealousy individuals is not comparable to other studies. Similarly, only variables highly correlated with these jealousy scores were added to logistic regressions to determine the

most prominent predictors of jealousy. It is likely that other variables, less highly correlated with jealousy scores at the bivariate level, could have been good predictors when viewed in combination with other variables. Hosmer and Lemeshow (1989) have suggested that when using logistic analyses, bivariate correlations with p values as small as .25 should be considered. However, no competing models of jealousy prediction were presented.

Overall, this study by Mullen and Martin (1994) has provided an abundance of knowledge about jealousy in the general population, and similarly brought attention to the incidence of intrusive and aggressive behaviour associated with jealousy in normal samples. Furthermore, correlational results from this research provide initial empirical support for continuum classifications of jealousy components.

Summary

Early psychiatric classifications viewed jealousy as purely a symptom of underlying mental disorders. Continuum models of jealousy, from normal to pathologically reactive manifestations, have only recently been discussed in the literature. However, apart from symptomatic classifications of jealousy (such as a clinical feature of schizophrenia), distinguishing between normal and abnormal responses to jealousy-provocation appears difficult. It is proposed that cognitive, affective, and behavioural components of the jealousy experience can be better construed as existing along continua, and therefore that, theories of morbid jealousy should be equally applicable to normal and abnormal populations. Models that attempt to predict (and further help prevent) aggressive responses to jealousy need to be tested in normal, not just psychiatric or known abusive populations. Given the sparse research into the incidence, occurrence, and manifestations of jealousy in the general community, further descriptive research is needed.

# CHAPTER 3

# COGNITIVE-BEHAVIOURAL THEORIES AND THERAPIES

That was the worst period of all: it is my profession to imagine, to think in images: fifty times through the day, and immediately I woke during the night, a curtain would rise and the play would begin: always the same play, Sarah making love, Sarah with X, doing the same things that we had done together, Sarah kissing in her own particular way, arching herself in the act of sex and uttering that cry like pain, Sarah in abandonment. I would take pills at night to make me sleep quickly, but I never found any pills that would keep me asleep 'til daylight.

Greene (1951, p. 74)

As outlined in Chapter 1, recent cognitive-behavioural formulations appear to provide the most coherent approach to the empirical validation of theories and to the treatment of morbid jealousy thus far. Such frameworks address all components of the jealousy complex, appear simple and flexible, and clearly guide clinical intervention strategies, having contributed most significantly in terms of providing successful intervention for sufferers. Unlike other more limited views, cognitive-behavioural models acknowledge an array of influences in the development and maintenance of jealousy problems, including social and cultural factors, personality characteristics, past experiences, and intra-psychic influences. Over time, original formulations have been built upon and further developed in an attempt to provide more solid frameworks that can be directly applied to the treatment of individuals.

The Adaptation of Cognitive-Behavioural Theories

Cobb and Marks (1979) presented the results of treating four patients diagnosed with morbid jealousy using behavioural methods commonly utilised to treat obsessive-compulsive complaints. All patients suffered from obsessive-compulsive thoughts and behaviour related to jealousy for at least a one-year duration. None of the patients suffered from alcoholism or any physical or psychotic illness. Assessments made before and after treatment (including follow-ups at 15 months) included self-ratings of obsessive thoughts, behaviours, and depression. Other assessments included motivation and compliance ratings by therapists. The specific behavioural treatment appeared to vary, depending on the individual client. Concrete descriptions of individual treatment techniques were omitted in this publication, however, the authors referred to the therapy utilised as "broad-spectrum behavioural treatment" (p. 301). The results indicated that two patients were much improved and one was improved in terms of their problematic behaviour (compulsive rituals). On the other hand, only one patient's ruminations

(obsessive thoughts) appeared to be improved. Specifically, in contrast to the positive changes in mood and behaviour (including the cessation of physical violence in an illustrative case), jealous thoughts were the most resistant to change after implementing behavioural intervention techniques.

Cobb and Marks (1979) suggested, this "broad-spectrum 'cafeteria approach' [to treatment]...makes it difficult to be certain which techniques were the most effective." (p. 304). Additionally, at least one patient was said to be taking medication (desimipramine) six months prior to treatment and throughout this entire study thus further confounding the results, and there was no information provided about drug intake for the remaining cases. Limited information was provided about the actual types of measurement used to assess thoughts and depression. It is not clear whether they were standardized. Similarly, no specific outcome scores collected at baseline and follow-up were provided. The results of treating only 4 patients with different interventions is obviously not generalisable, however, this study initiated other research where known frameworks were applied to jealousy.

Based on Cobbs and Marks' (1979) method of approaching morbid jealousy using techniques found to be useful in treating complaints with similar presentations, Bishay, Petersen, and Tarrier (1989) treated 13 cases of morbid jealousy based on methods consistent with Beck, Rush, Shaw, and Emery's (1979) cognitive framework developed for depression. Specifically, these authors postulated that in morbid jealousy generalised assumptions (i.e., about human emotional and sexual behaviour) that have grown out of past experiences, are accepted without question (not reality tested) and applied to current situations. These assumptions (or schemas), once activated, distort the processing of new information leading to the misinterpretation of current events.

Bishay et al. (1989) provided the example of a man who, after encountering an unfaithful partner, goes on to assume that all women will be unfaithful. Following this one negative experience, the man could not trust his new, current wife although she had given him no obvious signs that she was interested in other men. The man's thoughts about his wife being unfaithful became intrusive, unchallenged, and easily evoked by salient events (such as an unknown car parked opposite his house). Ambiguous or neutral events or situations were interpreted as evidence of infidelity due to the man's underlying assumptions (e.g., my wife is home late, therefore she has been with a lover). Unlike Beck and colleagues' descriptions of automatic thoughts in depression (conscious thoughts linked to specific affect or behaviour), schema are described as more stable cognitions likely to be formed by past events that aid in directing an individual's attention in the future. Therefore, as in depression, the jealous individual engages in very systematic distortions of events or situations (Tarrier et al., 1990).

Of the clients recruited for Bishay et al.'s (1989) trial, there were 7 male and 6 female clients presenting with jealousy problems ranging from delusions of infidelity to morbid behavioural manifestations. No clients involved in the treatment program demonstrated any evidence of schizophrenia or organic disorders. Three subjects were physically violent towards their partners, while all patients held irrational beliefs frequently associated with interrogating and checking behaviour. In line with Beck et al.'s (1979) cognitive model, Bishay et al. (1989) hypothesised that generalised assumptions regarding a partner's infidelity contributed to irrational jealous thoughts. The 13 clients were treated by first establishing each individual's cognitive distortions by asking questions about their jealous thoughts. Second, each patient was assisted in testing out alternative explanations to help them gain a subjective understanding of the mood change that accompanies a change in thinking. Eventually, all clients developed

their own rational statement to recall several times a day. Assessments of jealous thoughts and behaviours were made using self-report methods, retrospective ratings of case material, and, for those clients who were previously identified as depressed, the Beck Depression Inventory (BDI) and the Hamilton Rating Scale for Depression (HRSD) were administered. Patients were assessed before and after treatment and following a six-month period. Results indicated that following treatment nine clients (69%) showed a significant improvement that was maintained at the six-month follow-up. For the remaining 4 clients, 2 patients dropped out, 2 were rated as improved in terms of ruminations directly after treatment, and 1 of these 2 was not improved at all at follow-up.

Two additional findings should also be acknowledged. First, 7 of the clients were diagnosed with depression that stabilised after the introduction of anti-depressant medication, however, the jealous thoughts and associated emotional turmoil remained unchanged until after the introduction of cognitive therapy. Second, two delusional clients being treated unsuccessfully with medication (one on pimozide, one on chlorpromazine) showed marked improvements following cognitive therapy, however, both declined rapidly if their medication was withdrawn. The authors concluded that medication plays an essential role for patients suffering from delusions (Bishay et al., 1989). As is to be expected, other research has reported the successful treatment of some sufferers with the administration of drugs such as thiothixene, pimozide, fluoxetime, phenytoin, clomipramine and chlorpromazine (Mooney, 1965; Morenz & Lane, 1996; Mullen, 1997a; Parker & Barrett, 1997). Mullen (1997a) specified that practically any anti-psychotic drug administered in low to moderate doses may help alleviate symptoms of morbid jealousy.

More conservatively, De Silva and Marks (1994) suggested that drug therapy should only be considered when jealousy is associated with a psychotic disorder with clear evidence of delusions. Specifically, these authors warned of the need to be careful when dealing with delusions of infidelity without further evidence of psychotic symptoms. They contended that psychological treatments should be attempted before drug therapy, as, often, jealousy on its own is sometimes resistant to medication. For instance, as mentioned above, Bishay et al. (1989) discovered that anti-depressants helped alleviate some of their clients' symptoms of depression but did not reduce associated jealousy problems. Similarly, Parker and Barrett (1997) found that a 54-year old man with pathological jealousy (described as an obsessive-compulsive complaint) was relieved of his ruminations and rituals using exposure therapy, response prevention, and cognitive restructuring. Previous drug therapy using clomipramine eased anxiety and feelings associated with the jealousy, however, he still felt compelled to carry out jealousy-related rituals (e.g., harassing his wife for hours). It should also be acknowledged that, in some cases, problems of jealousy may be the primary cause (or at least the exacerbating factor) of an underlying problem, such as depression (De Silva & Marks, 1994).

In further support of the adoption of Beck et al.'s (1979) model, Tarrier, Beckett, Harwood, and Ahmed (1989) tested Beck's (1983) hypothesis that stable personality structures could underlie these schemas, acting as a central value system. Results indicated that 159 morbidly jealous females were significantly more introverted, neurotic, and psychotic according to the three, specific sub-scales of the Eysenck Personality Questionnaire - Revised (EPQ-R) (Eysenck, Eysenck, & Barrett, 1985), when compared to a matched sample from the general population. A thorough description of the original theory and how these results provided support for underlying

schema was absent. Additionally, whether the measure utilized was an adequate measure of any of the "stable personality structures" as discussed by Beck was not discussed.

As discussed in Chapter 2, in addition to the application of Beck et al.'s (1979) model, Lazarus' cognitive-transactional theory of stress and coping (Lazarus & Folkman, 1984) has been applied directly and used as a basis for creating new models by other researchers in the area of jealousy (see Mathes, 1991; White & Mullen, 1989; White, 1981). White (1981) suggested that the adaptation of a clear conceptual framework, such as Lazarus', was necessary for bringing together previous research findings and guiding future research. In support of this notion, Tarrier, Beckett, Harwood, and Bishay (1990) further developed Bishay et al.'s (1989) framework and presented a cognitive-behavioural model for non-psychotic morbid jealousy based on a combination of Beck's and Lazarus' frameworks. To reiterate from Chapter 2, cultural and social factors, as well as personality and previous learning experiences, are discussed as influencing the development of schemas related to sexual or emotional relationships. Once activated, these schemas influence the primary appraisal of events. Individuals misinterpret stimuli and events that in turn provoke feelings of jealousy and related behavioural elements (such as checking for evidence of unfaithfulness). Secondary appraisal (or the coping style of the individual) is proposed further as influencing the individual to respond with emotions and behaviour such as avoidance, guilt and depression, or anger and aggression. Figure 2 is the diagrammatic representation of the proposed process presented by Tarrier, et al. (1990).

Referring to Novaco's (1979) cognitive-behavioural model of anger, Tarrier et al. (1990) theorised that although jealousy appears to be primarily a response to the misinterpretation of events or stimuli (including classic confirmatory behaviour such as

checking for evidence), in addition, there appear to be subsequent or secondary reactions such as anger and aggression. The authors suggested these additional responses might reflect the outcome of the secondary appraisal process. They propose, for example, that if an individual reflects on their initial suspicion and confirmatory behaviour as irrational, they are likely to experience guilt and depression as a secondary response. Alternatively, if an individual accepts their initial interpretation and reaction as rational, secondary appraisal may strengthen these distorted beliefs possibly resulting in anger that may lead to aggression and violence (depending on the individual and specific circumstances). See Figure 3 for an example from Tarrier et al. (1990) of a possible angry-aggressive response.

Although Tarrier and colleagues (1990) have suggested their cognitive-behavioural formulation was derived for explaining non-psychotic morbid jealousy, Arya (1993) discusses the development and recurrence of a case of psychotic morbid jealousy similarly using Beck's (1975) cognitive framework for depression. The case involved the treatment of a 50-year old woman that presented with depression in addition to psychotic morbid jealousy. To reiterate from Chapter 1, specific jealousy-related symptoms included checking her husband's clothes for evidence of infidelity and hallucinations of lipstick/make-up on collars, the smell of perfume on clothes and phone numbers written on her husband's underpants and back that disappeared when she attempted to note them. No additional psychotic features associated with known disorders such as schizophrenia or alcoholism was present. In accordance with Tarrier et al.'s (1990) formulation, the client's schema appeared to be a belief that she would be rejected and left. This belief was seemingly developed by past life experiences and the schema triggered by events such as increased isolation (e.g., her husband having to work overtime due to financial difficulties). Arya (1993) suggested this case

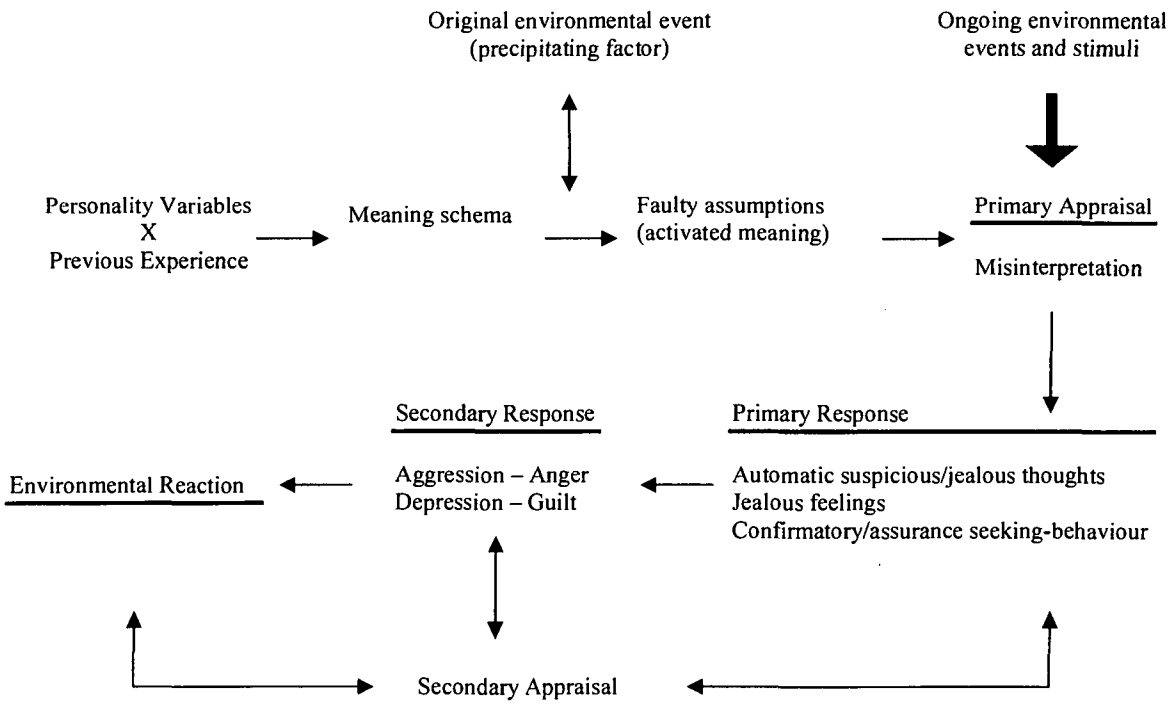


Figure 2. Diagrammatic representation of the process which may underlie morbid jealousy (Tarrier, Beckett, Harwood, & Bishay, 1990, p. 323)

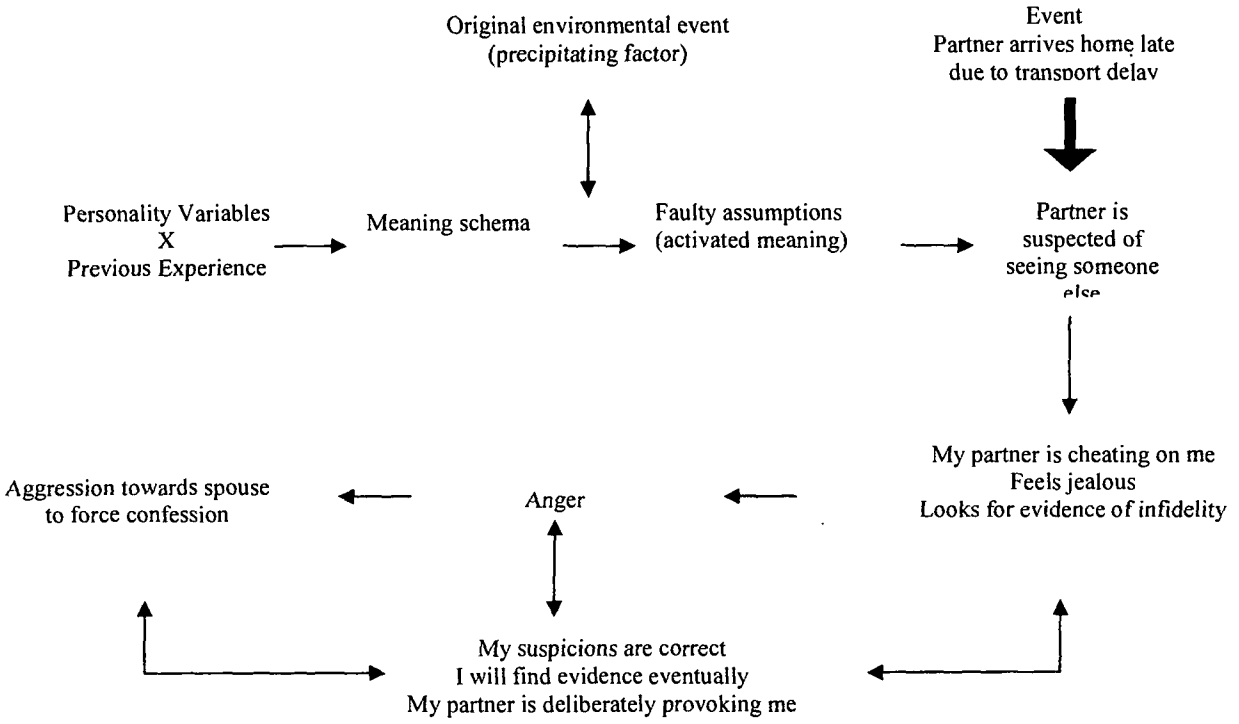


Figure 3. Example of the development of morbid jealousy (anger/aggression secondary response) (Tarrier, Beckett, Harwood, & Bishay, 1990, p. 324)

demonstrated the effectiveness of applying cognitive-behavioural frameworks to individuals exhibiting psychotic symptoms resulting from cognitive distortions. Most importantly, this case illustrates a successful way to empirically formulate, and possibly treat, a psychotic disorder known to be particularly resistant to treatment. However, Ayra (1993) does not discuss whether this patient was in fact treated successfully or even whether the patient was treated using an intervention derived from Tarrier et al.' (1990) formulation. Therefore, apart from illustrating a single psychotic case that fits the formulation for non-psychotic morbid jealousy, very little, in terms of application, is provided.

Testing the Formulations

To systematically test Tarrier et al.'s (1990) cognitive model, Dolan and Bishay (1996b) attempted to assess the role of sexual behaviour and attractiveness schema in, (a) the misinterpretation of neutral stimuli, and (b) the emotional and behavioural manifestations of jealousy. The study compared 40 non-jealous and 40 morbidly jealous individuals. Excluded from the study were individuals with drug or alcohol dependence, psychotic illness, organic disorders or major affective disorders. Measures administered included the Beck Depression Inventory (BDI), the Beck Anxiety Inventory (BAI) and the Hospital Anxiety and Depression Scale (HADS). Non-standardised measures included the sexual jealousy questionnaire (SJQ), the scale for tenacity of a jealousy belief (TEN), the morbid jealousy thoughts questionnaire for men and women (MJQ), the jealousy interpretation questionnaire (JIQ), and the spouse's jealousy questionnaire (SPQ). Results indicated that all instruments – including measures of cognitive, emotional, and behavioural aspects of the jealousy complex - demonstrated significant differences between controls and jealous subjects. However, in should be noted that, some of the measures were very similar to each other, testing the same constructs. For

instance, the HADS is a short measure of depression and anxiety – constructs adequately covered by the administration of the BDI and the BAI. Additionally, it is unclear why differences in depression and anxiety were expected between the two groups. Finally, there were no psychometric properties reported for the new, un-standardised measures, including no internal consistency reports, therefore it is difficult to establish how reliable these measures were initially.

Despite the emphasis of the research being on sexual behaviour and attractiveness schema, Dolan and Bishay (1996b) clearly identified sexual behaviour schema, attractiveness schema, danger/fear-related schema, and anger-related schema as being commonly activated during jealousy experiences. For instance, 21 of the 40 jealous patients held irrational beliefs about the sexual behaviour of men and women in general (e.g., that all women/men would be sexually unfaithful with any other man/woman). The same number of patients (21) were "preoccupied with not allowing their partner to fool them (an anger-related schema)" (p. 50). Nineteen patients reported frequent thoughts that they were unattractive, and 13 reported being preoccupied with the idea that their partner would have an affair (danger/fear-related schema). Furthermore, these morbidly jealous individuals were found to misinterpret neutral or ambiguous stimuli as threats, further supporting the notion of influential schema underlying perceptions.

Dolan and Bishay (1996b) argued that these results supported the usefulness of Tarrier et al.'s (1990) cognitive framework in the conceptualization of jealousy, offering a possible explanation of how jealous behaviour might continue in the absence of objective evidence. Specifically, the misinterpretation of events by the individual is described as continuing despite the passing of the original activating event, which may have been particularly idiosyncratic, and therefore difficult to identify empirically.

Overall, findings from this research suggest assumptions other than those relating to sexual behaviour and attractiveness warrant attention in the study of cognitive distortions in jealous individuals. The one item related to an anger-related schema was endorsed by 53% of the jealous respondents with over a quarter endorsing thoughts linked to danger/fear-related schema. The prominence of such themes in jealousy makes intuitive sense, and may aid in delineating more precise paths from thoughts to the various behavioural outcomes, in the proposed formulation. Therefore, more adequate measures of these schema need to be devised and tested.

Thirty-eight participants from Dolan and Bishay's (1996b) study were further included in treatment research. Dolan and Bishay (1996a) allocated fifteen morbidly jealous patients to a treatment waiting list to assess the stability of the general condition. The remaining twenty-three patients underwent cognitive-behavioural treatment in accordance with Tarrier et al.'s (1990) formulation. Specifically, from the information the therapist identified about patients' faulty schema and associated environmental factors, patients were guided through sessions to help see the irrationality of their thoughts and behaviour. Homework assignments included repetition of self-statements to combat jealous thoughts, and skill training was further implemented to help patients control emotions and behaviour. The main aim of the therapy was to modify dysfunctional cognitive processes (errors). Overall, 8 patients did not complete treatment, however, thirty participants completed before treatment, after treatment, and follow-up assessments between 3 and 6 months later.

Results indicated that, in the majority of cases, the jealous subjects who underwent treatment displayed a significant improvement on all measures of jealousy after treatment and at follow-up. This improvement was supported by partners' ratings. Conversely, there were no significant alterations in scores for the jealous subjects in the

delayed treatment group following a 12-week period. These results suggest that non-psychotic morbid jealousy is a stable condition that can be effectively treated with cognitive therapy. Helping an individual realise the irrational nature of their thoughts and behaviour and aiding them in replacing these thoughts with rational self-statements is an effective psychological technique for reducing jealous experiences (Dolan & Bishay, 1996a).

Using an alternative validation method, Intili and Tarrier (1998) compared 20 morbidly jealous with 20 non-jealous respondents on dichotic listening tasks and modified Stroop tests. Both of these attentional allocation tests have been previously shown to discriminate between controls and individuals with emotional disorders, such as phobias, anxiety disorders, and obsessive-compulsive complaints. Such tasks have been used to test predictions that individuals process schema-congruent information more readily than non-related information, to help guide their limited attentional resources.

In the dichotic listening task, word pairs were presented to each ear at the same time. Subjects were asked to shadow (not attend to) words presented in one ear, while identifying set target words. Ten percent of the words presented in the non-attended channel were target words of which half represented jealousy-related content. As expected, results demonstrated that the 20 morbidly jealous subjects showed superior performance on the dichotic listening task when detecting jealousy-related stimuli (faster responses).

For the modified Stroop test, subjects were instructed to name the colour of a series of words or symbols including Os, colour words, and jealousy-related words, among others. As expected, the 20 morbidly jealous subjects demonstrated impaired performance in the colour naming of jealousy-related stimuli in comparison to control

subjects and control conditions. In other words, the jealous subjects found it harder to name the colour of the jealousy-related words, as they were more vigilantly attending to the word meaning. The authors suggested these results lend support to Tarrier and colleagues' (1990) proposed formulation, in that morbidly jealous individuals have an attentional bias towards jealousy-related information. Specifically, they selectively attend to threat-relevant stimuli.

More recently, Keenan and Farrell (2000) discussed their use of alternative cognitive-behavioural techniques in the treatment of a 40-year old man (Tony) with a life-long history of morbid jealousy. These authors suggested that, Tony's case of excessive jealousy was maintained by his irrational assumptions about sexual behaviour and his prominent schema of unworthiness/unattractiveness. This analysis was based on MJQ scores (Dolan & Bishay, 1996b), among other subjective and empirical assessments.

Tony was plagued by frequent, intrusive cognitions about his partner's previous sexual relationships and her potential for future extra marital affairs, thought to have developed following his history of parental rejection and physical abuse. He agreed to try counselling in an attempt to save his second marriage of 6 years. He was described as telephoning his wife up to 20 times per day, continuously questioning her whereabouts and intentions, degrading her in private and public situations, expressing excessive anger (both by sulking and yelling), and demanding sex to test her devotion. Tony's current attempts to provoke his wife were described as negatively reinforcing, as his venting followed by his partner's intense anger would calm him and relieve his own excessive emotional upset (Keenan & Farrell, 2000).

Keenan and Farrell (2000) suggested that negative cognitions, negative affect, and traumatic imagery needed to be addressed and thus eye movement desensitization

and reprocessing (EMDR) utilizing cognitive interweave was employed. Briefly, some theories consider traumatic memories to be stored differently so that when activated, these thoughts are processed inappropriately (without using the normal information processing system) (Shapiro, 1995). EMDR is suggested to encourage the normal information processing system to function when traumatic images or memories are evoked by stimulating both the left and right hemispheres of the brain by the use of alternate hand taps, or in this case, saccadic eye movement (quickly looking from one fixation point to another). Cognitive interweave (whereby the counsellor additionally offers the client rational images to think about) is used as an adjunct in extreme cases to provide the client with a guide of appropriate imagery (Shapiro, 1995). In Tony's specific case, EMDR helped right negative schemas of unworthiness, specifically related to his social incompetence, his physical stature, and his penis size. Following the initial stage of treatment (5 sessions), Tony exhibited more appropriate perceptions of his partner's behaviour and his own worthiness (Keenan & Farrell, 2000).

Summary

In summary, it appears that cognitive-behavioural formulations have proved useful in conceptualising and guiding successful treatment strategies of morbidly jealous individuals. In particular, the role of irrational schema about human sexual behaviour and personal unattractiveness/unworthiness, have often been observed as underlying contributors to the common misinterpretations of neutral or ambiguous stimuli or events that jealous individuals make. However, it has clearly emerged through previous research findings (Dolan & Bishay, 1996b) that a more extensive range of related negative schema about human relationships (i.e., anger-related schema, danger/fear-related schema, and abandonment schema) may also underlie the jealousy experience in some cases.

In addition to the need to further investigate a wider range of schema, the association between the activation of schema and the affective and behavioural expressions at both primary and secondary appraisal levels, requires evaluation. Specifically, how highly related are known jealousy-related schema to confirmatory behavioural responses (such as intrusiveness), angry, and aggressive behaviour? As noted earlier, although jealousy may cause personal distress to the sufferer and their partner, the outcomes of jealousy that justify the most stringent research attention are those of intrusive behaviours and violence.

Furthermore, many clinical studies presented thus far have not utilised control groups from the general population. Therefore, it is unclear whether schema such as those related to faulty perceptions of unattractiveness, unworthiness or sexual behaviour are indeed commonly occurring themes in everyday life. It follows from this initial research with clinical populations that the relationship between jealousy and schema in general population samples need investigation.

# CHAPTER 4

# JEALOUSY, AGGRESSIVE BEHAVIOUR, AND INTRUSIVENESS

First, there is an almost constant harassment of the spouse, which takes the form of meticulous observation and reflects the watchful vigilance for any sign of the suspected infidelity. This observation may extend to the most absurd trivia of the spouse's personal life. Second, there is an alternating cycle of rage and remorse. Actual physical assault is not unusual, homicide is a real risk, and physical destructiveness of one form or another tends to be the rule.

Docherty and Ellis (1975, p. 679)

## Jealousy and Aggressive Behaviour

Although pathological jealousy is linked in the public mind with gruesome murders and crimes of passion sensationalised by the media, jealousy is an experience said to be common to most. The outcome of homicide following a jealous confrontation is still a rarity but domestic disputes provoked by jealousy are common and often involve ongoing, aggressive confrontations.

### Jealousy and Extreme Aggressive Manifestations

In 1677 Spinoza contended that anger, hatred, and aggression towards the loved one were at the very core of the jealousy experience (Dutton et al., 1996; White & Mullen, 1989). White and Mullen (1989) reported the case of one man who engaged in stabbing sheep as surrogates for his wife. In another case, a schizophrenic man's delusions of his wife's infidelity were exacerbated by further delusions...

> ...in addition, he believed that at night she withdrew the "vital essence" from his backbone, and that this rendered him impotent and was slowly destroying him. He planned to save himself by killing his "witch wife"... (p. 261).

These dramatic accounts, of course, do not adequately describe the picture of violence associated more often with jealousy-provoking experiences. As White and Mullen (1989) have further established ...

> ...pathological jealousies may reasonably be presumed to pose a greater risk of violence, but normal jealousy also presents a potential threat that must be assessed. It cannot be emphasized too strongly that the assessment of dangerousness is a necessary step in all cases of jealousy (p. 257).

As raised in Chapter 1, in its most extreme aggressive manifestation, jealousy has been identified as one of the most common motivations, if not the primary motivation, for homicide and, similarly, murder-suicide (Daly, Wilson, & Weghorst, 1982; Gibbens, 1958; Lecomte & Fornes, 1998; Milroy, 1995; Morenz & Lane, 1996; Wolfgang, 1958). Recent statistics indicate that jealousy is the leading motivation for homicide in Australia (Carcach & James, 1998; James & Carcach, 1997). Mouzos (2001) reported that, of the 300 homicide incidents in Australia from 1999 to 2000 "almost half of all female victims (n = 62) were killed as a result of a domestic altercation, jealousy or termination of a relationship" (p. 5), although motives are complex and difficult to isolate to one specific cause. When homicide in Australia is limited to femicide, 94% of females are killed by male offenders. In the majority of these cases (55 on average per year), the male has been the intimate partner of the victim and in 90% of intimate cases, the murder is precipitated by a domestic altercation such as jealousy or arguments regarding relationship termination (Mouzos, 1999). Scott (1977) has even suggested that murderers motivated by morbid jealousy are the group most likely to kill again following post-incarceration or hospitalization.

Contrary to popular belief, actual or supposed rivals are rarely the target of aggressive acts. Instead, loved ones are often the recipients of jealous attacks. In his account of 110 jealous individuals who murdered or attempted to kill, motivated by pathological jealousy, Mowat (1966) reported that the partners were the recipients of violence in 94 instances with only 7 rivals attacked. Similarly, Ruin (1933) and Psarska (1970) reported the same results when investigating jealous homicides – in the majority of cases the partner was killed. Silva, Ferrari, Leong, and Penny (1998) reported that 12 out of 20 delusional jealousy cases attacked their spouses with their hands, canes, handguns, and knifes, but there were no reports of attacks or threats toward suspected

paramours. In a study by Mathes and Verstraete (1993) 40 college students responded to hypothetical statements regarding the unfaithfulness of a partner. Results indicated that respondents were likely to direct anger and aggression at the partner, especially if the partner was loved very much and they were married to that partner (high relationship commitment). Mullen and Maack (1985) have hypothesized that the partner is most often the target of anger or aggression in jealousy as the partner has committed the betrayal (of relationship rules) rather than the rival.

In line with this notion of aggression directed at the loved one, there are a growing number of studies that concentrate on the incidence of jealousy and its relationship to non-fatal, ongoing abuse by male batterers. White and Mullen (1989) have stated that "the violence of jealousy is predominantly domestic violence" (p. 219) while Cupach et al. (2000) similarly suggested that "jealousy is often considered a proximal cause of relational coercion and violence" (p. 142).

Jealousy and Domestic Violence

In earlier studies of abused women in shelters, Whitehurst (1971), Gayford (1979), and Hilberman and Munson (1977) found that accusations of sexual unfaithfulness and excessive jealousy were major contributors to spousal violence in nearly all cases of battered women approached. Rounsaville (1978) and Dobash and Dobash (1980) reported that approximately half of the battered women they interviewed claimed jealousy or possessiveness to be the primary cause of violent attacks. In addition, Rounsaville (1978) stated that at least 94% of his sample reported jealousy as a frequent cause of violence. These studies encompass battered women populations from Scotland, North America, London, and the United States. Research aimed at gathering data directly from abusive males appears to be more recent.

Brisson (1983) administered self-report surveys to 122 males involved (some involuntarily) in a US treatment program for spousal abuse. The most frequently mentioned trigger perceived by the men as preceding violent incidents was jealousy. Other important characteristics that distinguished this group of abusive men was that over 63% had either witnessed their parents physically fight when they were young or had been abused themselves as children. In addition, alcohol was discussed by over one-third of the men as a factor that induced violence while over half declared that alcohol posed a problem in their relationships. Alcohol appeared to pose a greater problem for those men classified by Brisson (1983) as 'generally violent' (men who were also violent outside of the home) than those classified as 'relationship-specific violent'. However, none of the mens' reports were corroborated by third party (partner) reports, therefore the motives for violent outbursts were based on the mens' memories of times when many admitted to being under the influence of alcohol. Additionally, the degree or type of abuse received or witnessed when young is not elaborated.

According to Saunders (1992a) male batterer typologies can aid in isolating which types of men are more likely to be violent in response to jealousy. After cluster analysing data on 165 male batterers, Saunders (1992a) identified three types: family-only aggressors, generalised aggressors, and emotionally volatile aggressors. As in Brisson's (1983) study, the generalised aggressors had particularly severe problems with alcohol. The emotionally volatile aggressors were the group found to be excessively jealous and psychologically abusive. They appeared dependent, depressed, suicidal, and angry. In addition, these particular men reported rigid sex-role attitudes, dissatisfaction with intimate relationships, and less severe childhood abuse in comparison to the generalised aggressors.

In an attempt to compare different facets of violent and nonviolent men, Barnett et al. (1995) administered several self-report measures to 180 men in the US. Forty-four of the men were classified as maritally violent, uncounselled wife beaters (MVU), 46 as maritally violent, counselled wife beaters (MVC), 46 as nonviolent, unhappily married (discordant) men (NVD) and 44 as nonviolent, satisfactorily married men (NVS). Results indicated that the violent men were no more jealous (or romantically anxious) than the nonviolent men who were unhappy in their marriages. However, all three of these groups (MVU, MVC and NVD) were significantly more jealous than the nonviolent men who were satisfied with their relationships. In line with these results, jealousy and marital satisfaction were negatively related. Violent men did differ from both nonviolent groups in that they reported more potent reasons for remaining in their relationships and reported witnessing and receiving more physical abuse as children. Of particular interest is the finding that non-physical forms of childhood abuse characterised the nonviolent-discordant group (NVD) as well as the two violent groups. Barnett et al. (1995) stated that the men who comprised these three groups interpreted their partners' social behavior as jealousy-provoking. The overall results indicate that nonphysical forms of child abuse (e.g., criticism) may promote the development of jealousy in adult marital relationships, while physical abuse is a better predictor of adult violence.

Holtzworth-Munroe, Stuart, and Hutchinson (1997) designed two studies to compare jealousy, dependency, and the attachment patterns of violent and nonviolent men in the US. The first study compared 58 maritally violent-maritally distressed men, 32 maritally nonviolent-maritally distressed men and 29 maritally nonviolent-nondistressed men. The second study compared similar groups of violent and nonviolent men using alternative measures of attachment styles. Results indicated that

the violent men showed insecure, preoccupied, and disorganised attachment styles. Specifically these men were anxious about abandonment, yet uncomfortable with closeness. In addition, the violent men were more preoccupied with their wives, more dependent on them, exhibiting less trust in their marriages as well as more jealousy. In comparison, the nonviolent-maritally distressed men were uncomfortable with both dependency and closeness. Finally, the nonviolent-nondistressed men were similar to the violent-distressed men in that they appeared dependent and preoccupied with their partners. However, they did not feel uncomfortable with closeness therefore failing to exhibit anxious or insecure attachment styles.

In summary, these results indicate that factors other than jealousy contribute to violence within relationships. As Mullen (1995) suggested, why any individual at any specific time engages in violence requires complex analysis of a multitude of variables. He clearly pointed out that almost all people experience jealousy at some stage of their lives, but extreme violence, such as homicide, is a particularly rare outcome. However, murder aside, jealousy appears to be an extremely common precipitator of abuse and marital conflict. Unlike homicide, domestic violence is by no means a rarity. Although the incidence of intimate abuse is difficult to empirically ascertain because of under-reporting, some researchers have suggested that on at least one occasion, as many as half of all US families will claim a violent episode while women battered on a regular basis are estimated to range between 2 ½ and 4 million in the US alone. In other words, an estimated 8 out of every 1,000 women are physically or sexually assaulted (or both) by a current or former intimate compared to 1 out of every 1, 000 men (McFarlane, Willson, Malecha, & Lemmey, 2000; Walker & Meloy, 1998; White & Mullen, 1989).

The research presented above on jealousy and domestic violence alludes to the idea that, although receiving or witnessing physical abuse during childhood may be a

strong predictor of future violent behaviour in adulthood, psychological abuse such as high criticism (something that co-occurs with physical violence) may be a better predictor of jealousy. Dutton, Van Ginkel, and Starzomski (1995) have provided more detailed research results in regards to the link between abusiveness and early experiences of parental coldness and rejection. Specifically, these authors contended that the development of shame-proneness is related to anger and the external attribution for one's own behaviour, both common features of men who abuse their partners. To test these theories the authors assessed a combination of 140 court-referred and self-referred males with prior histories of wife assault. Self-reports and some partner-reports of recollections of early experiences, borderline personality organization, anger, abusiveness, and trauma symptoms were collected. Results indicated that shaming and guilt-inducing experiences were significantly related to nearly all measures.

In detail, shaming experiences, such as public scolding, random punishment, and generic criticism, were more strongly related to all variables and only shaming recollections were related to self-reports of physical abusiveness. Furthermore, partial correlations suggested that past shaming experiences were more indicative of adult abusiveness than past recollections of physical abuse by parents. When shame and guilt-inducing experiences were not recollected, parental abusiveness was not found to be related to current adult abusiveness. Dutton et al. (1995) contended that a possible two-step process may therefore underlie the development of the abusive personality. Specifically, shame and guilt-inducing experiences by parents may develop an abusive-prone personality – a necessary but not sufficient development for future abusive behaviour. The second developmental step is suggested to be exposure to the actual modelling of abusive behaviour. As pointed out by the authors, under most circumstances, the two steps occur at the same time in most abusive families. However,

these results are purely correlational and other facets of early experiences such as over-involvement of parents, consistency of parenting, strictness, etc, were not measured and compared to shaming and guilt-inducing experience. Similarly, a control group was not included in the study.

As outlined in more detail earlier, Dutton et al. (1996) conducted further research and found adult jealousy to be significantly associated with these same measures of the abusive personality. Specifically, jealousy was found to be significantly associated with abusiveness in current relationships, and the strongest predictor of intrusiveness for separated couples. Overall, taken together, the above research from the area of domestic violence suggests that the link between jealousy and attachment styles developed due to childhood psychological abuse, appear to be important and in need of further attention (Dutton et al., 1996; Hansen, 1982).

However, according to White and Mullen (1989), predicting the dangerousness of jealousy provocation is unlike general risk assessment for whether violent behaviour may occur or not. For instance, it has been contended that the single most predominant predictor of general violence is a past history of violence (including, to a lesser extent, witnessing violence in the family), in addition to substance abuse (including alcohol). Other variables previously identified as increasing the likelihood of violent behaviour have suggested that the perpetrator is more often a young male, usually of a lower socio-economic status (including low educational status, and low income). Belonging to a minor ethnic and racial group increases the risk once again. Other predictive variables include marital status (divorced/separated individuals followed by those never married), marital conflict, verbal abuse, anger, and perceived power imbalance (Brewster, 2000; White & Mullen, 1989). However, jealousy often appears to break the rules.

Specific to jealousy situations, alcohol consumption is well documented as a precipitator of violence (Michael, Mirza, Mirza, Babu, & Vithayathil, 1995; Mooney, 1965; Mullen & Maack, 1985; Shrestha et al., 1985). Similarly, there is some case evidence to suggest that underlying mental disorders with hallucinations as primary clinical features are a risk factor for violence in jealousy (American Psychiatric Association, 1994; Mullen & Martin, 1994; Silva et al., 2000). However, age and gender to not appear to be predictive of violence, although jealousy does seem to dissipate with age in most (Mullen, 1995; Mullen & Maack, 1985; Mullen & Martin, 1994). Similarly, jealous attacks, including homicides and murder-suicides, are not always precipitated by other forms of violence, or childhood physical abuse (Silva et al., 1998; White & Mullen, 1989). In reference to an upper-class, middle-aged wife of a doctor who shot her husband's receptionist following fears of a possible infidelity, White and Mullen (1989) eloquently stated that "the women's social, economic, and personality profile would predict her to be one of the least likely individuals to commit a crime of violence" (p. 230).

Once again, apart from the community study conducted by Mullen and Martin (1994), little is known about the incidence and precursors to jealousy-related aggression in normal populations To reiterate, scores obtained by Mullen and Martin (1994) from the 1988 Spielberger Anger Expression Scale (a measure of suppressed and overt anger) were significantly correlated with jealousy scores for both sexes. Specifically, respondents with scores indicative of suppressed anger (anger-in) reported coping by mainly trying to gain a more stable commitment from their partners or by engaging in displacement activities (e.g., excessive alcohol use). However, it was found that respondents who overtly expressed their anger (anger-out) when jealous coped by confronting or threatening their partners. Overall, 13 respondents admitted to

threatening their partner with violence, while 8 admitted to engaging in physical abuse. A smaller number of respondents (5) admitted being physically aggressive toward a rival or threatening a rival (3). The 164 respondents who scored above the median on the jealousy scale employed were significantly more threatening and more physically abusive than the low jealousy group. Alternatively, 15% of respondents reported being subjected to violence by their jealous partners, however, the actual motive at the time of violence was not reported. In other words it was not divulged whether jealousy was the cause of any violent outbursts in this group.

Summary

Most of the evidence suggesting that violence is commonly associated with jealousy comes from studies of male batterers and women in shelters (Mullen, 1990b). Findings from this body of research have suggested that early experiences, particularly psychological abuse by original care givers, may play an important role in the development of jealousy. Previous research has highlighted the need to investigate the seemingly obvious association between jealousy, anger, anger expression, and intimate violence. Examining the association between these variables, guided by the proposed cognitive-behavioural formulations for morbid jealousy in general, rather than clinical, populations appears to be the next step to aid in delineating what is common and therefore normal in jealousy and what is extreme.

## Jealousy and Intrusiveness

As highlighted in Chapter 1, it appears that, perhaps more so than is the case for aggressive acts, intrusive behaviours are prominent expressions of jealousy experiences. These acts include checking and searching for evidence, engaging in surveillance or interrogation of a partner, intercepting a partner's communication with others, or

demanding control of a partner's exposure to certain jealousy-provoking matter. In short, these forms of intrusion can range from a morbid curiosity about a partner's thoughts or life outside of the relationship to extreme accounts of stalking. As Tov-Ruach (in Friday, 1985) described...

> There are two ways in which the obsessive character of jealousy tends to exert itself ... One is the need to know, the endless tests and investigations and spyings that are so characteristic of jealousy. The other is the need to visualise. Both obsessions seem to make the person less passive, less helpless because he is actively engaged in investigating and imagining (p. 367).

In fact, the DSM-IV (American Psychiatric Association, 1994) specifically refers to these types of behaviours when providing examples of conduct an individual usually engages in when the diagnosis resembles Delusional Disorder – Jealousy Type...

> The individual with the delusion usually confronts the spouse or lover and attempts to intervene in the imagined infidelity (e.g., restricting the spouse's autonomy, secretly following the spouse, investigating the imagined lover, attacking the spouse) (p. 298).

Research has suggested that between 29% and 59% of all stalking incidents are perpetrated by a current or former intimate of the victim, despite the focus of media and research attention being on stranger (or celebrity) stalking with a lower estimated incidence of 16% (Budd, Mattinson, & Myhill, 2000; Pathe & Mullen, 1997; Tjaden & Thoennes, 1998).

To date, there have been many attempts to define stalking and related intrusive behaviours from both theoretical and legal perspectives. The range is wide. However, most basic definitions of stalking have included notions of repeated (on more than two

occasions), unwanted communication that instils fear in the victim of pursuit. Recently, the 1998 National Violence Against Women (NVAW) Survey in the US defined stalking as...

> ...a course of conduct directed at a specific person that involves repeated visual or physical proximity, non-consensual communication, or verbal, written or implied threats, or a combination thereof, that would cause a reasonable person fear (Tjaden & Thoennes, 1998, p. 2).

Other derivatives of stalking behaviour have been defined in the psychological literature to aid in acknowledging the wider range of conduct that can occur at the lesser pole of the stalking spectrum; behaviours that are of clinical concern, yet do not satisfy the various legal definitions such as instilling fear in the victim. These classifications perhaps more closely describe the intrusive behaviours often linked to jealousy. Unwanted Pursuit Behaviours (UPB) are described as ranging in severity, frequency, and impact from hang-up telephone calls to severe instances of stalking and are defined as...

> ...activities that constitute ongoing and unwanted pursuit of a romantic relationship between individuals who are not currently involved in a consensual romantic relationship with each other (Langhinrichsen-Rohling, Palarea, Cohen, & Rohling, 2000, p. 73).

These behaviours are commonly thought to occur under two specific circumstances, (a) prior to the start of a relationship, in pursuit of a future romantic attachment and, (b) following the termination of a relationship when one party wishes to reconcile (Langhinrichsen-Rohling et al., 2000). Similarly, Obsessive Relational Intrusion (ORI) is defined as...

> ...repeated and unwanted pursuit and invasion of one's sense of physical or symbolic privacy by another person, either a stranger or acquaintance, who desires and/or presumes an intimate relationship (Cupach & Spitzberg, 1998, p. 235).

Severe forms of ORI are described as constituting the more classic legal definitions of stalking, however, a more complex array of intrusive activities is taken into account. Theoretically ORI concentrates on the perpetrator's thoughts and behaviours as being obsessive or "persistent, preoccupying, and often morbid" (Cupach & Spitzberg, 1998, p. 235) whereas UPB at its most extreme pole, is discussed as having a possibly positive outcome where relationships are started or reconciled through such conduct.

Despite this broadening of the definition of intrusive behaviour, UPB and ORI definitions still do not appear to capture the kind of checking, monitoring, and surveillance types of behaviours classically linked with jealousy expression within current (intact) intimate relationships. However, Cupach, Spitzberg, and Carson (2000) have contended that jealousy is one of the most prominent emotional underpinnings of ORI, including more severe acts of stalking. These authors have suggested that whether or not an individual is actually in a current intimate relationship, and whether or not that person is delusional (i.e., the relationship exists only in the mind of the pursuer), jealousy is likely to be followed by stalking-like behaviours that aim to ward off potential rivals (i.e., surveillance, guarding, possessiveness, preventing communication). ORI is therefore viewed as a cousin to jealousy's usual interrogative and intrusive manifestations (Spitzberg & Cupach, 1999).

In support of this notion, Carson and Cupach found in a 1999 study that jealous ruminations were positively associated with intrusive or controlling behaviours

including spying on the partner, attempting to control the partner's access to potential rivals, and violent communication (in Cupach et al., 2000). Other empirical links between jealousy and intrusiveness have also emerged in the literature.

As referred to previously, in their community study of jealousy, Mullen and Martin (1994) found that 30% of respondents had engaged in cross-questioning of a partner, 10% had deliberately arrived unexpectedly and 10% had, at some stage of their lives, phoned to ascertain the location of their partner. Searching through a partner's belongings was admitted by 7% of women and 1% of men, while intercepting mail was reported by nearly 4% of women and just over 1% of men. Finally, 2% admitted to following their partner while six women and one man had examined their partners' clothes for evidence of sexual conduct. Perpetration of intrusive behaviour increased dramatically when responses from high jealousy individuals were isolated. Specifically, for the 164 respondents who scored above the median on the jealousy scale employed, all reports of jealousy-related behaviour were significantly higher. Fifty-three percent of high jealousy individuals reported cross-questioning their partner compared with 13% of low jealousy individuals. Sixteen percent of the high jealousy group reported phoning to ascertain the location of their partner compared with 3% of the low jealousy group. Similarly, 14% of the high jealousy group reported arriving unexpectedly to check on their partners compared with 4% of the low jealousy group. Searching clothes for evidence of sexual conduct, following, and searching through possessions were behaviours exclusive to the high jealousy group. Mullen and Martin (1994) suggested that the presence of such conduct supports the clinical notion that actual intrusive acts are clear indicators of more extreme jealousy.

Dutton, Van Ginkel, and Landolt (1996) assessed the self-reports of 160 assaultive men on several measures found to be previously predictive of "abusive

personalities". In addition, measures of jealousy and intrusive behaviour were administered to ascertain these further associations. A demographically matched control group of 40 men was also assessed, in addition to the collection of partner reports for 43 of the assaultive men and 33 of the control group. Jealousy was found to be significantly associated with known measures of the abusive personality including borderline personality, fearful attachment, the experience of trauma symptoms, and anger scores. Levels of intrusiveness were not measured for men in current relationships, however, jealousy was found to be the strongest predictor of post-relationship intrusion/stalking. In summary, jealousy was significantly associated with abusiveness in current relationships, and a strong predictor of intrusiveness for separated couples.

In his review of several preliminary studies of obsessional followers, Meloy (1996) reported that, although one-half of subjects had threatened their victims, they were usually not physically violent. The incidence of violence ranged from 3% to 36% with the incidence of homicide reported at less than 2%. However, as presented above, Dutton et al.'s (1996) research, along with a recent wave of published studies, have highlighted an alarmingly high association between *intimate* stalking and domestic violence. Although, in the following review of intrusiveness and stalking literature, jealousy is not often measured or mentioned as a precipitator of incidents, the distinction between whether a current or former intimate has engaged in intrusive acts and their link to abuse is important to recognise. As Easteal (1993) has pointed out in the Australian Institute of Criminology report on homicide between adult sexual intimates, *Killing The Beloved...*

> The male jealousy cases often contained elements of severe emotional and/or psychological abuse, with the woman prevented from leaving the house without the partner or being closely monitored and questioned (p. 84).

Intimate Intrusiveness and Violence

Zona, Sharma, and Lane (1993) analysed 74 police records of obsessional harassment subjects investigated for stalking by the Los Angeles Police Department's Threat Management Unit. Stalkers were classified into three sub-categories including erotomania, love obsessional, and simple obsessional. The simple obsessional category was the typology most closely related to former intimates, where all victims and suspects had a prior relationship. This group accounted for 47% of the overall sample, with stalking incidents described as occurring directly following a precipitating event such as the breakdown of an intimate relationship or following the perception of mistreatment. Comparisons between the three subtypes of stalkers indicated that the simple obsessional group engaged in more person and property damage than the other categories. In addition, this group made more threats, carried out more threats, and engaged in more person-to-person confrontations.

Harmon, Rosner, and Owens (1995) reviewed the records of 48 individuals charged with harassment and menacing in the New York area between 1987 and 1994. Two categories of obsessive, harassing subjects were identified, both evidencing high levels of anger and aggression. The first type - the affectionate/amorous - were viewed as becoming hostile in response to rejection (real or perceived), and the second type – the persecutory/angry - were seen as pursuing the victim due to injury (real or perceived). Either category could be viewed as reacting to jealousy-provocation. Harmon et al. (1995) suggested that the dangerousness of individuals who engage in stalking behaviour had been previously underestimated.

Similarly, Meloy and Gothard (1995) analysed the psychiatric and legal records of 20 obsessional followers and compared them on clinical and demographic variables to 30 randomly selected mentally disordered offenders. The group of obsessional followers comprised approximately half former-intimates and half strangers. Results indicated that the majority of obsessional followers threatened their victims, with a significant relationship found to exist between threats and prior intimacy. Overall, 25% of the obsessional followers physically assaulted their victims. However, no in-depth analysis of the victim-suspect relationships was presented.

Coleman (1997) found that, compared with men who were classified as "harassers" and a control group, men who stalked former intimates were likely to have been verbally and physically abusive during the relationship. Similarly, Kienlen et al. (1997) compared psychotic and non-psychotic stalkers and found that the non-psychotic group, which mainly comprised former intimates, made more verbal threats and acted more violently than the psychotic group. These authors described non-psychotic stalkers as being influenced by various psychological factors including anger, projection of blame, obsession, and jealousy, among others. However, these associations were purely observational by the author and not corroborated by data collection and analysis.

In one of the most comprehensive studies on stalking, data from the National Violence Against Women (NVAW) Survey in the US suggested that the majority of victims of stalking are women (78%) (Tjaden & Theonnes, 1998). A significantly larger proportion of stalked women (59% compared to 30% of men) reported their stalkers to be current or former partners; 38% current or former husbands; 10% current or former defacto partners; 14% current or former dates/boyfriends. Alarmingly, 81% of the women who reported intimate/former-intimate stalking encounters also reported physical assaults by those same partners with 31% also reporting sexual assault. These

results have suggested that, in comparison to husbands or partners in the general population, men who stalk their intimate or former-intimate partners were, (a) 4 times more likely to physically assault their partners and, (b) 6 times more likely to sexually assault their partners. In an overall comparison of data, Tjaden and Theonnes (1998) concluded that in any 1-year period, women are 3 times more likely to be stalked than raped, and two times more likely to be physically assaulted than stalked.

Of the 59% of women who reported being stalked by a current or former-intimate, 43% said that stalking occurred following relationship severance, 21% said stalking only occurred during the relationship, and 36% said stalking occurred both during and post-relationship. Similarly, the link between stalking and controlling or emotionally abusive behaviours in intimate relationships was prominent in Tjaden and Theonnes (1998) research findings. Specifically, in comparison to ex-husbands who did not engage in stalking, ex-husbands who stalked (both during a relationship and following relationship severance) were significantly more likely to engage in controlling and emotionally abusive behaviour toward their wives. This conduct included, among other behaviours, expressing jealousy or possessiveness (84% compared to 46%), trying to provoke arguments (90% compared to 45%), and insisting on knowing where their wives were at all times (81% compared to 34%). Tjaden and Theonnes (1998) pointed out that these results clearly demonstrate that intimate stalking, including stalking during intact relationships, is a problem in need of greater research attention.

Following is a clear case example of jealousy as a factor in aggression and murder-suicide that, highlights the link to intrusion and control...

> Sophia and Paulo, both overseas-born, had been married for almost fifteen years. They had three children. Both were employed in blue collar skilled positions. In the three years prior to the

killing, Paulo had become increasingly jealous of Sophia making unfounded allegations about infidelity. He prohibited her from leaving the house without him and, on one occasion the year before, he threatened her with a gun. He was sent to a psychiatrist who diagnosed him as having pathological jealousy. After an argument about her visiting relatives in Melbourne, Sophia and the children decided to go there despite Paulo's objection. As they were driving along the highway, they saw Paulo's car parked on the side of the road. He took a shotgun out of the boot and then began to follow their car...Paulo followed and forced them off the road. He got out of his car and approached Sophia's car with the shotgun. He yelled at her, "You've got to come home. You have to stay inside the house and not see your parents anymore. You're going to be all right because I am going to control your life." She pleaded with him stating that she would indeed return home. However, Paulo pointed the gun through the window and shot her. The children ran out of the car and he shot her again. He then reloaded the gun and killed himself (Easteal, 1993, p. 84).

Schwartz-Watts and Morgan (1998) reviewed the records of 42 stalkers awaiting trial in South Carolina, including 40 men and 2 women during 1992 to 1996, to attempt to ascertain the difference between a violent versus a nonviolent stalker. Twenty-two were classified as nonviolent, 20 as violent. Following a comparison of variables such as age, sex, marital status, education, substance abuse, psychiatric diagnosis (among others) the only variable approaching statistical significance that distinguished between the two groups was, once again, the perpetrator's relationship to the victim. However, as the sample size was low, more significant relationships may have been observed if power were increased. The violent stalkers were more likely to have had a previous attachment to their victims. Victims who were subjected to violence including attacks such as shooting, rape, hitting/fracturing, attempted attack with an axe, and being hit by a vehicle were in most cases, former wives of the stalker. Provocations for such incidents were not discussed.

Palarea, Zona, Lane, and Langhinrichsen-Rohling (1999) conducted an analysis of the degree of intimacy between stalkers and their victims by comparing 135 intimate and 88 non-intimate cases managed by the Los Angeles Police Department's Threat Management Unit. Results indicated that the intimate group were significantly more likely to engage in violence towards persons and property, although motivations for such conduct (such as jealousy) are not referred to. This relationship was further influenced by threats of violence and the suspect's level of proximity to the victim (i.e., more likely to be engaging in face-to-face confrontations). Unlike previous research findings, but in support of Schwartz-Watts and Morgan (1998), other suggested risk factors of stalker violence (suspect's criminal, psychiatric, and domestic violence history) were not found to be significant predictors of violence in these cases.

Mullen, Pathe, Purcell, and Stuart (1999) conducted a clinical study of 145 stalkers (79% men). Thirty-percent pursued ex-partners, 34% pursued professional/work contacts, and 14% pursued strangers. The authors' classification scheme included five (nonexclusive) types of stalkers: rejected, intimacy seeking, incompetent, resentful, and predatory. The largest group was rejected stalkers that mainly (but not exclusively) comprised stalkers of ex-partners. Thirty-six percent of stalkers were found to be assaultive with rejected and predatory stalkers committing the most assaults. Previous convictions, threats, and substance abuse were also variables predictive of assault. On the other hand, 63% made threats. This group comprised resentful stalkers, a group who also engaged in more property damage.

Brewster (2000) assessed the link between verbal threats of violence and actual physical violence by interviewing 187 female, former intimate stalking victims. Results indicated that, verbal threats were moderately and significantly related to actual physical injury during stalking episodes. More specifically, threats were found to be

more predictive of violence during stalking than was a previous history of violence. Drug and alcohol usage was also identified as a significant predictor of violence.

Kohn (2000) reported that of the 132 stalked women in a Louisiana survey, who reported dangerous or life-threatening victimisation, 51% described their perpetrators as current or former-intimate partners. This group of women were also 4 times as likely to report sustaining an injury from their stalker than women who had not been intimate with their perpetrator. Once again, the motivations of stalking and violent acts are not discussed.

Langhinrichsen-Rohling et al. (2000) assessed unwanted pursuit behaviour (UPB) in two samples of college students; 120 who had not initiated the relationship break-up (break-up sufferers); 162 who had initiated the break-up (relationship dissolvers). Measures of overall attachment style, partner-specific attachment style, jealousy, abusiveness, and love style (the nature of expression of love between partners) were also administered. Results indicated that following the dissolution of a relationship, UPB by the break-up sufferer were common; specifically, 99% of this group engaged in at least one UPB at the time of relationship dissolution. The most common of these behaviours according to break-up sufferers were unwanted phone messages, phone calls, and in-person conversations. Relationship dissolvers reported experiencing mainly unwanted phone calls and having their ex-partner ask friends about them. Break-up sufferers reported generally milder types of behaviour and tended to view their acts as more positive in nature than relationship dissolvers viewed them. Partner-specific attachment experiences and love styles were significant predictors of UPB, according to both victims and perpetrators. Conversely, only victims viewed UPB as due to the level of jealousy and physical abusiveness of their ex-partners. Relationship dissolvers also perceived that UPB was related to a lack of friendship,

however, breakup sufferers perceived the opposite – their perpetration was related to perceived positive feelings and friendship with their ex-partner. These authors concluded that further research into the behaviours that occur before, during, and after each specific relationship, in addition to the way a relationship is dissolved, are important areas for future investigation.

Logan, Leukefeld, and Walker (2000) examined the self-reports of 46 male and 84 female undergraduates who reported stalking victimization and stalking perpetration following a difficult break-up. Data were also collected on psychological and physical victimization and perpetration that occurred during that specific relationship. Results indicated that stalking victimization was significantly associated with previous psychological abuse by a partner for both males and females. However, note there was no control group to compare these results with. Furthermore, stalking victimization was significantly associated with previous physical abuse by a partner for females. In addition, a reciprocal relationship of stalking and psychological victimization and perpetration was found. This relationship was particularly strong for males – a result which the authors suggested may be indicative of either the mutual abuse within relationships or males over-reporting victimization to justify their own perpetration. Finally, alcohol was also significantly associated with victimization and perpetration of both stalking and psychological abuse for males. In summary, the results suggested that post-relationship stalking is a possible continuation of previous psychological abuse for men and women, and a possible continuation of intimate violence for women, where some forms of abuse may be reciprocal. However, Logan et al. (2000) pointed out that further research is necessary to examine the differences in relationships where stalking begins before a break-up occurs. Similarly, the link between jealousy and such conduct is needed.

Mechanic et al. (2000) researched intimate and former-intimate partner stalking in a sample of 114 battered women and assessed the relationship between stalking and emotional and physical abuse, and stalking in battered women. Highly frequent accounts of stalking and violent behaviour were observed in this sample, both within-relationship and post-relationship. Even after controlling for physical violence, harassing stalking behaviours were associated with the victims' fears of future serious harm including death. Interestingly, the most prominent predictor of post-relationship stalking was increased length of time out of the relationship; a result the authors suggested may be indicative of the lack of proximity to the victim to allow for violence and therefore the increasing need for control post-separation. Mechanic et al. (2000) concluded that further research into the relationship between stalking and emotional and physical abuse was greatly needed using more diverse samples (including nonbattered women samples) to clarify associations, as all these forms of abusive conduct "tend[ed] to be serial and ongoing and [could] occur during and after the termination of the romantic relationship" (p. 68).

Although research into intimate or former-intimate stalking and its link to violence has recently begun to emerge, studies specifically concentrating on intrusiveness within intact, intimate relationships is non-existent. Due to this lack of research attention, the motivations (such as jealousy) for engaging in such intrusions can only be hypothesised. The only reported prevalence of stalking within relationships was published by Tjaden and Theonnes (1998) based on data collected as part of the NVAW Survey. Of the women stalked by current or former intimates, 21% said stalking occurred during the relationship and 36% said stalking occurred both during and following relationship termination. Empirical assessment of stalking within relationships is needed to understand the relationship between such conduct and the

experience of jealousy and the further potential for violence. As Silva, Derecho, Leong, and Ferrari (2000) have pointed out, even in the area of psychiatry, much of the attention on stalking has centred on delusions of an erotomanic sort and failed to attend to jealousy-related delusions and their relationship with intrusion and violence. However, many cases exist. Silva et al. (2000) have provided a detailed account of one man's stalking and subsequent violence within his current relationships...

> ...Mr L's belief [was] that his first wife was unfaithful to him by engaging in multiple liaisons with other men. He had followed her on many occasions in the hope of identifying her putative lovers. He had never been able to locate any lovers, resulting in his increased frustration. He reported having beaten his first wife with his fists on several occasions as he attempted to extract confessions of infidelity. When his first wife threatened to leave the relationship, this served to further fuel suspicion that she was unfaithful. He responded by increasing his surveillance of her in the hope of finding her with her putative lovers (p. 78).

Assessment of Intrusiveness

As is obvious from the research presented above, the empirical assessment of stalking or intrusiveness in current relationships has received little research attention, although a number of studies have started to address stalking of former partners, and to a lesser extent, intimate and former-intimate stalkers in a combined category. Several specific measures of stalking or intrusiveness are discussed in the literature.

In their study of the link between the abusive personality, jealousy, and intrusiveness, Dutton et al. (1996) derived a 15-item scale (termed The Intrusiveness Scale) directly from the Canadian Criminal Code. The measure was administered to 30 women separated from their assaultive partners to ascertain the frequency of intrusive acts committed by former partners during the past year (such as being followed by their partner, being threatened, etc.). The focus of this scale was to ascertain the degree of

criminal stalking conduct engaged in by a sample of known assaultive men, post-relationship.

Similarly, using anecdotal accounts, Coleman (1997) created, piloted, and administered the 29-item Stalking Behavior Checklist (SBC): a measure of the type and frequency of potential stalking behaviours that a former partner may direct toward a victim following separation. Responses from undergraduates (categorised as 90 controls, 38 harassed, and 13 stalked subjects) were factor analysed with results revealing two reliable factors, termed the Violent Behavior subscale (.78 alpha) and the Harassing Behavior subscale (.83 alpha).

In 1997 Sonkin provided a list of behaviours common in domestic violence, termed the Spouse Abuse History Form, that allows clinicians to assess the extent of psychological coercion in battering situations; this form also includes stalking behaviours such as surveillance (in Walker & Meloy, 1998).

In 1998, Palarea and Langhinrichsen-Rohling devised the Unwanted Pursuit Behavior Inventory (UPBI; in Langhinrichsen-Rohling et al., 2000). This 26-item instrument is aimed at assessing the presence, frequency, impact, and motivation underlying a large range of pursuit behaviours suggested as occurring when a new relationship is sought, or when a relationship is terminated and one party desires reconciliation. Behaviours included in the inventory range from leaving unwanted phone messages, to injury, and forced sex following a break-up. As outlined earlier, at one end of the UPB spectrum, such conduct may be considered as encouraging a positive outcome such as reconciliation between former intimates.

Spitzberg and Cupach (1999) reported the conversion of the Obsessive Relational Intrusion-Victim Short Form (Spitzberg, Nicastro, & Cousins, 1998) into a perpetration measure to assess predictors of ORI such as jealousy, suspicion, and

possessiveness. This 24-item instrument is aimed at assessing the extent to which respondents have ever persistently pursued another person to form an intimate relationship that, the pursued specifically did not want. Respondents are asked to rate items related to such areas as *monitoring them or their behaviour* (including "calling at all hours to check their whereabouts") on 5-point scales ranging from "never" to "over 5 times". Spitzberg and Cupach (1999) reported the coefficient alpha to be .92.

The existing instruments presented above are, however, of limited utility as measures of within relationship intrusiveness, as they either (a) confound intrusive and physically/sexually abusive behaviours or (b) focus on pre or post-relationship stalking. Although legal definitions of stalking often include threats or violence as components, it is important that intrusiveness within relationships is distinguished both functionally and empirically from physically abusive behavior. Moreover, in reflecting the classic definition of stalking behaviors as those intended to elicit fear in the victim, current measures have no reference to covert, secretive acts. It was considered important for the current line of research that secret intrusions be acknowledged as behaviours that may eventually escalate into highly intimidating acts, especially if the victim becomes aware of them. Firstly, Walker and Meloy (1998) pointed out that the beginnings of overpossessiveness and controlling behaviour in relationships (such as stalking) often go unnoticed, as the conduct (such as questions about a partner's day, or telephone calls to see what a partner is doing) appear to mimic daily interactions between normal couples. However, there is a line between wanted attention and excessive monitoring or surveillance. Secondly, although relationship severance by the victim is documented as a common escalation factor for stalking behaviour (for instance see Coleman, 1997; Dutton et al., 1996; Walker & Meloy, 1998), there is little research available that suggests how to identify which relationships are at risk and any other factors that may

influence the onset or exacerbation of stalking. Consideration of related behaviours (snooping, checking, and monitoring), that may occur as precursors to active stalking is therefore warranted.

As Tjaden and Thoennes (1998) contended, up until this point "research on stalking has been limited to studies of small, unrepresentative, or clinical samples of known stalkers..." (p. 1). Research into the incidence of stalking in the general population is recent, as is the concentration of effort into stalking or intrusiveness within current, intact domestic relationships. With the prevalence rates of stalking increasing from 8% to 12% for women, and 2% to 4% of men, if less stringent criteria are employed (i.e., victims only somewhat frightened by their pursuer's behaviour), related intrusive manifestations can be seen as posing a great concern.

Summary

Intrusive behaviours such as checking, monitoring, and surveillance of a partner have been commonly identified as the behaviour of jealousy. Extreme manifestations of intrusive conduct can be legally classified as stalking behaviours, thus warranting forensic examination. Recent research has identified a wider range of stalking-related behaviours (such as Unwanted Pursuit Behaviours and Obsession Relational Intrusion) that do not necessarily meet legal definitions of stalking as instilling fear in the target, but nevertheless appear problematic in relationships and in need of further research attention. Beyond the publication of various case studies, empirical research in the form of community studies and assaultive male studies, have suggested that jealousy is highly associated with intrusive expressions. More recently, stalking-related behaviours have been linked further to other forms of domestic violence including physical assault. Therefore, in addition to the primary concern of a high incidence of intimate intrusiveness in the general population, the emerging link between intrusiveness and

intimate violence raises a genuine public health concern. However, empirical assessment of the range of intrusive behaviours that may manifest in intact, intimate relationships, particularly in response to jealousy, is currently unavailable. In response to this gap in the research, it is suggested that a new measure of interpersonal intrusiveness be devised and validated, and further evaluated. Specifically, further research into the link between intrusiveness and jealousy is needed, as is research into the potential association between intrusiveness and violence.

# CHAPTER 5

# RESEARCH PROJECT RATIONALE

Based on the previous review of literature, several points have been raised highlighting research needs in the area of jealousy. To summarise, recent models of cognition and emotions have acknowledged the interrelationship of cognitive, affective, and behavioural components of emotions, including intentions to act and desired outcomes or goals (Frijda, 1986; Lazarus, 1991). In relation to these formulations, jealousy has been viewed as a complex of these various components rather than a purely affective state (White & Mullen, 1989). However, no single combination of components defines the jealousy complex (Mullen, 1990). Specifically, jealousy sufferers appear to experience highly variable reactions to a wide array of situations, events, or introspective thoughts, with a broad underlying theme of a perception of a rival existing. The rival threatens an existing relationship that is of some subjective value to the sufferer (Tarrier et al., 1990). Given the idiosyncratic nature of the jealousy complex, the framework adapted to guide research must be capable of explaining individual differences (White, 1981).

The most insightful theoretical applications, as measured by success of clinical interventions, appear to consist of a combination of cognitive-behavioural frameworks such as those proposed by Beck and colleagues and Lazarus and colleagues (Bishay et al., 1989; Tarrier et al., 1990). These formulations have provided evidence-based guidelines for identifying underlying, irrational schema (stable patterns of thoughts). These frameworks propose how these schema are developed, how individuals respond to jealousy at primary and secondary levels, and how jealous suspicions continue to exist in the absence of activating events (Dolan & Bishay, 1996a, 1996b; Intili & Tarrier, 1998; Tarrier et al., 1990). Faulty schema about romantic relationships appear to influence information processing, leading to the misinterpretation of neutral or ambiguous events by jealousy sufferers. Primary responses to jealousy aimed at

confirming suspicions (intrusive manifestations) are hypothesised as preceding other secondary affective and possible behavioural reactions, including anger and aggression (Tarrier et al., 1990).

Irrational schema about human sexual behaviour and personal unattractiveness or unworthiness has been continually observed in morbidly jealous patients. However, the same research has identified the need to study a more expansive range of related negative schema about romantic relationships. These include anger-related schema, danger/fear-related schema, and possibly, abandonment schema (Arya, 1993; Dolan & Bishay, 1996a, 199b; Intili & Tarrier, 1998; Keenan & Farrell, 2000; Tarrier et al., 1989, 1990). Similarly, there is a lack of research into the presence of these schema and their relationship to jealousy outside of clinical populations presenting with morbid jealousy. Faulty schema related to personal attractiveness or sexual behaviour practices may be as common in the general population as in morbidly jealous samples. In other words, it is unknown whether current theories are applicable in other populations.

In relation to primary and secondary appraisal levels and responses to jealousy, proposed models lack empirical investigation. It is unknown if jealousy-related schema are good predictors of primary, confirmatory behavioural responses (such as intrusiveness), or how frequent or intense such reactions are in the general population. Moreover, the likelihood of a primary response to jealousy leading to anger and aggressive manifestations is even less clearly understood. Theoretical models therefore warrant evaluation as does the propensity of jealousy sufferers to engage in intrusive behaviours and further physical abuse of the partner (Barnett et al., 1995; Brisson, 1983; Coleman, 1997; Cupach et al., 2000; Dobash & Dobash, 1980; Dutton et al., 1996; Easteal, 1993; Gayford, 1979; Hilberman & Manson, 1977; Holtzworth-Munroe et al.,

1997; Langhinrichsen-Rohling et al., 2000; Rounsaville, 1978; Saunders, 1992; Silva et al., 2000; Whitehurst, 1971).

Overall, cognitive-behavioural formulations are useful for conceptualising jealousy and guiding successful treatment strategies of morbidly jealous patients. However, many questions remain unanswered and many results previously obtained are in need of replication. Therefore the following aims, questions, and hypotheses are posed for the present study.

Aims

Firstly, this research will attempt to verify Mullen and Martin's (1994) basic descriptive findings from their community study regarding the level of jealousy in a general student sample, including identifying the most prominent emotions felt when jealous and the types of concerns (fears) acknowledged when jealous. Secondly, this research will examine the relationships between jealousy and other constructs discussed in the literature, such as schema, and variables thought to be related to domestic violence. Specifically, the scope of previous research into sexual behaviour and attractiveness schema will be expanded to include anger-related, danger/fear-related, and abandonment-related schema. Similarly, associations between jealousy and perceptions of parental rearing, anger, and anger expression will be examined in addition to demographic variables including age and gender. Thirdly, Tarrier et al.'s (1990) proposed model of a possible aggressive response to morbid jealousy will be tested by utilising path analysis techniques. The relationships between schema and jealousy, intrusive behaviour, anger, and intimate partner abuse will be examined in relation to hypothesised primary and secondary responses to jealousy (Tarrier et al., 1990). A path analysis of jealousy and its link to intrusive and violent behaviour will be

presented to guide further research and clinical risk assessment in a range of populations.

Questions

$Q_1$ What proportion of the general population will show high levels of jealousy?

$Q_2$ What emotions are most commonly associated with jealousy-provocation?

$Q_3$ What fears are the most prominent when people are jealous?

$Q_4$ What schema are associated with high levels of jealousy in this general student population?

$Q_5$ Does the frequency of cognitions related to schema, or the emotional distress caused by cognitions related to schema, more strongly predict high jealousy?

$Q_6$ Are perceptions of parental rearing related to jealousy in the general population?

Hypotheses

It is predicted that high jealousy will be associated with...

$H_1$ anger expression, specifically higher levels of both suppressed anger and overt anger

$H_2$ increased intrusive behaviour

$H_3$ aggressive behaviour, such as high levels of verbal aggression and violence directed toward intimates

Design

The research design will involve a contemporaneous collection of data in the form of a battery of questionnaires administered to a group of adults in a general student population. The following variables will be assessed using standardised and newly developed measures: jealousy, perceptions of parental rearing (specifically, early experiences of rejection), the frequency of faulty cognitions related to romantic

relationships (schema), intrusive behaviour, anger, and anger expression[1], intimate abusiveness, age, and gender.

As suggested in Chapter 4, to accomplish these aims, a measure of intimate intrusiveness within current, intact relationships needs to be devised and validated, as no suitable psychometric instruments appear to be available. This process and outcome will be presented as the first empirical study (Chapter 6 – Study 1) before the main study is undertaken (Chapter 7 – Study 2).

An additional study (Chapter 8 – Study 3) will also be undertaken to further explore (a) whether high-jealousy individuals are clearly discernable from low-jealousy individuals in the types of cognitions activated in response to neutral or ambiguous situations, and (b) whether high-jealousy individuals have generally excessive, faulty response sets to diverse situations or whether their cognitive biases are centered on romantic relationships only. Following this additional quantitative analysis of cognitions in a general student population, case illustrations of the cognitions activated in individuals with self-confessed jealousy problems will be presented in an attempt to provide a detailed exploration of underlying schema and cognitive biases across jealous individuals including their responses to personal incidents (real-life events), hypothetical events, and major variables assessed in Study 2.

[1] Cornell, Peterson, and Richards (1999) have suggested that trait anger and anger-out should be most predictive of aggression, therefore these particular measures of anger will be utilised.

# CHAPTER 6

# STUDY 1

## Purpose and Research Questions

As previously argued, intrusive acts, such as checking for evidence of infidelity and engaging in surveillance of an intimate partner, have long been identified as behaviours inextricably tied to the jealousy experience (American Psychiatric Association, 1994; Cupach & Spitzberg, 1998; Easteal, 1993; Friday, 1985; Mullen & Martin, 1994; Silva et al., 2000). However, empirical research in the area of stalking and intrusiveness has largely centred on severe instances of stranger (erotomanic) and pre and post-relationship stalking with little emphasis on various related behaviours within general domestic relationships (Coleman, 1997; Dutton et al., 1996; Langhinrichsen-Rohling et al., 2000; Mullen, 1997b; Spitzberg & Cupach, 1999; Walker & Meloy, 1998). Therefore, to fill this gap, the purpose of this first empirical study of the research project was to devise and test a psychometric instrument that tapped behavioural constructs intrinsically related to the jealousy complex – a group of acts commonly described as intrusive behaviours including snooping, checking, watching, and following.

The first scale draft was devised to measure the frequency of intrusive behaviour that may occur within the context of interpersonal relationships. Items were derived from the psychological and psychiatric literature on jealousy-related and stalking behaviours (ABS, 1996; Coleman, 1997; Dziegielewski & Roberts, 1995; Kienlen et al., 1997; Kurt, 1995; McKenna, 1984; Mullen, 1990a, 1997a; Mullen & Martin, 1994; Mullen & Pathe, 1994; Pathe & Mullen, 1997; Romans, Hays, & White, 1996; Shepherd, 1961; Tarrier et al., 1990; Wallace & Silverman, 1996; Wright, Burgess, Burgess, Laszlo, McCrary, & Douglas, 1996). These items covered a clear continuum of intrusive acts, ranging from subtle curiosity to severe instances of stalking, a range considered important for normative measurement purposes (Whitford & Howells,

2000). A total of 15 items in the final questionnaire draft were considered adequate in terms of attempting to achieve good reliability, in addition to keeping response time to a minimum.

The scale was devised as a self-report questionnaire, however, it is envisaged that instructions sets could be altered for obtaining ratings of a partner/ex-partner for future research endeavours. It was considered important that initial research into an often secretive, covert behaviour should start with individual accounts of their own conduct to gain a clearer picture of the incidence (Whitford & Howells, 2000). Judd, Smith, and Kidder (1991) have suggested that self-reports of this type of assessment are often found to be equal (if not superior) to other forms of assessment.

Instructions asked respondents to indicate on 5 point scales how often they have engaged in the 15 intrusive acts over the past year in reference to their current partner. Respondents recently separated from their long-term partners are asked to rate an additional 5 items and asked to specify if they engaged in each act (20 items in total) during or after their separation. This "separated" component of the scale was added to cover a group of acts considered to be more likely to occur post-relationship, such as sending unwanted e-mails to an ex-partner. Asking respondents to refer to incidents over the past year was consistent with other standardised scale instruction sets (see Straus, 1979). Periods of time longer than one year are often argued as posing problems of recall (memories are too distant).

Similarly, Likert scales ranging from "never" (0) to "all the time" (4) were chosen for both psychometric and response-ease reasons. Firstly, Likert scales are often argued as providing better reliability in comparison to other types of scales (e.g., Thurstone and Guttman scales), with response categories ranging between five and seven argued to be the optimum range for ensuring good reliability. Secondly, Likert

scales give respondents a range of responses to choose from, however, not too many to cause confusion and take too much time to answer. This form of multi-item measurement also allows summation of responses to obtain scores on one dimension (i.e., intrusiveness) (Judd et al., 1991).

To determine the psychometric properties of this draft of the Intimate Intrusiveness Scale, two studies were conducted. Firstly, as some scale items may be considered more distressing than others, data were collected from a sample of respondents for weighting purposes. Specifically, this sample was asked to rate how emotionally distressing each intrusive act may appear to the average person. For example, looking through a partner's personal mail is likely to be less distressing to the average victim of this act than being followed by a private detective employed by their partner. This process of systematically weighting items before scoring (summation) was aimed at providing some form of severity measurement (emotional impact) in line with Marshall's (1992a, 1992b) research on violence. Secondly, the draft scale was administered to a second sample to ascertain internal consistency and test re-test reliability.

Therefore, in addition to providing emotional impact weights for final scoring purposes, the specific research questions underlying this study asked, Was the scale internally consistent (reliability)? Could the scale predict scores over a short period of time (test re-test reliability)? Did the respondents understand the instructions clearly?

Based on the answers to these questions, this empirical work was used to determine whether this first draft of The Intimate Intrusiveness Scale was a valid and reliable measure of stalking-related behaviour within the context of intimate relationships, and therefore a viable instrument for use in the second study of this research project.

## Part 1: Method

### Respondents

One hundred questionnaires aimed at collecting average emotional distress ratings for each item comprising the Intimate Intrusiveness Scale were distributed to a sample of undergraduates. Eighty-seven students responded (87 % response rate), including 64 women and 23 men. Ages ranged from 17 to 52 years with a mean age of 24.37 years (SD = 7.49).

Respondents were asked to read the 20 scale items and rate how emotionally distressing they believed each of the acts would be to the average person if their partner directed these acts toward them. Respondents were asked to use the provided 10-point scale ranging from "not distressing at all" (1) to "devastating" (10) (see appendix 1).

## Part 2: Method

### Respondents

One hundred and sixty questionnaires containing the Intimate Intrusiveness Scale were distributed to undergraduates in current heterosexual relationships. Eighty-five students responded (53 % response rate), including 69 women and 16 men. Ages ranged from 17 to 58 years with a mean age of 28.74 years (SD = 12.07). Sixty questionnaires were distributed twice, approximately 4 weeks apart, to measure test re-test reliability. Thirty-eight students responded both times (63 % response rate), including 31 women and 7 men. Ages ranged from 17 to 57 years with a mean age of 25.97 years (SD = 10.75).

### Materials

The scale was administered as the Partner Curiosity Scale to avoid the possible negative impact of the words 'stalking' or 'intrusiveness'. Respondents were asked to

read through 15 items and indicate on 5 point scales ranging from "never" (0) to "all the time" (4) how often they engaged in the act over the last year. Separated respondents were asked to rate 20 items in the same manner. In addition, separated respondents were asked to rate each item in terms of whether they engaged in the act during the relationship, post-relationship or under both circumstances in the spaces provided. Participants were asked to think of the questions in reference to their current partner or the long-term partner they considered themselves to be separated from in the past year. Included were statements such as "I read my partner's personal mail without them knowing". A demographic section collecting information about the age of the respondent, sex of the respondent, and the time separated from their partner (if applicable) was included, in addition to a section where participants could provide comments about the questionnaire in general. Responses were anonymous, with identification codes - the last four digits of the respondents' telephone numbers - used to match retests (see appendix 2 for a copy of the questionnaire).

Procedure

Testing of Respondents. There were no exclusion criteria for those students responding to part 1 of the study (the collection of average emotional distress ratings), as the "average" person's response to items was required. However, only students currently in a heterosexual relationship for a minimum of 6 months, or students separated from their long-term partner within the last year, were asked to participate in part 2 (general responses to the scale). These exclusion criteria were chosen for three reasons. Firstly, 6 months was considered to be a reasonable amount of time to develop some investment in a relationship therefore increasing the probability of at least one jealousy incident. Secondly, most of the standardised questionnaires refer to incidents over the last year (usually for memory reasons, as recall is expected to be poorer the

older the event), so separated participants were limited to this arbitrary time period. Finally, homosexual participants were excluded as little research has been done in this area and it was anticipated that there would be too few respondents to analyses differences in these groups.

Students fitting the above criteria were firstly given an information sheet about the study to read before deciding whether to participate or not (see appendix 3). In addition, respondents were advised that the questionnaire was part of a pilot study investigating the relationship between thoughts, feelings, and behaviour in personal life and that their participation was voluntary. Participants were advised that participation would require approximately 3 minutes of their time and that all responses were completely anonymous.

Respondents were told that many people are inquisitive and curious about others, especially their own partners and that the questions asked were aimed at measuring that level of curiosity in relationships. These additional instructions were aimed at normalising the content of the questionnaire to make people feel more comfortable to admitting to such socially undesirable behaviour.

Scoring. Before an individual's responses to the 15 items (or 20 items, if separated) were summated to obtain a score on intrusiveness, raw item scores were weighted to provide a form of severity measurement (as previously discussed). Mean "emotional distress" scores collected during part 1 of the study were used as weights. Although measured on scales ranging from 1 to 10, mean emotional distress scores were converted to more useful weighting figures by adding a decimal place (Marshall, 1992a). Therefore, if the mean "emotional distress" rating for hiring a private detective was 8 out of 10, ratings for this item were multiplied by .8. Weighted item ratings were then summed to provide a final score on intrusiveness. Scores could range from 0 to

43.40 (higher scores depicting greater degrees of intrusiveness). Table 2 provides the weights used to make these calculations. Numbers closer to 1.0 depict items thought to be more distressing to the average victim.

Table 2

Mean Emotional Distress Scores for the Intimate Intrusiveness Scale Items

| No | Item | Weight |
|---|---|---|
| 1 | I asked my partner where they had been and what they had been doing. | .348 |
| 2 | I checked through my partner's belongings such as their wallet/purse, bags or pockets. | .721 |
| 3 | I looked through my partner's personal diary or journal without them knowing | .799 |
| 4 | I read my partner's personal mail without them knowing. | .761 |
| 5 | I pressed the re-dial button on my partner's telephone to see who they had recently called. | .737 |
| 6 | I secretly listened in on my partner's phone calls either on another phone or by listening in the next room. | .739 |
| 7 | I telephoned my partner when they were away from me to check up on where they were. | .570 |
| 8 | I arrived at places unexpectedly to see where my partner was and what they were doing. | .608 |
| 9 | I secretly watched my partner from a distance to see what they were doing. | .503 |
| 10 | I secretly followed my partner to see where they were going and what they were doing. | .778 |
| 11 | I broke into my partner's property, such as their car or house, to look around. | .902 |
| 12 | I checked my partner's underwear or bed linen for signs of lovemaking. | .872 |
| 13 | I hired someone to follow my partner to see what they were doing or who they were with. | .943 |
| 14 | I have "bugged" telephones or used surveillance equipment in rooms to check up on my partner's movements or conversations. | .920 |
| 15 | I have purposefully stayed in the room with my partner when they have been entertaining guests to keep an eye on what they were saying and doing. | .649 |

## Results

A small group of 5 respondents classified themselves as separated from their long-term partner at the time of the study, therefore only statistical analyses of the original 15 items of the Intimate Intrusiveness Scale were conducted. Analyses of the extra 5 items devised for separated respondents were considered not empirically useful.

Descriptive Statistics and Reliability

The distribution of the weighted intrusiveness scores was unimodal and highly positively skewed with a mean of 3.04 (SD = 3.54), mode of .70 and median of 1.80. Scores ranged from 0 to 21.84. According to the current research, the internal reliability of the Intimate Intrusiveness Scale was moderately high (Cronbach's alpha = .84). Similarly, the test-retest reliability for the scale was high. The correlation between the matched scores of respondents who completed the scale twice within the one-month period was .95.

Understanding of Instruction Sets

The researcher reviewed general responses to the scale, and the comment section for each questionnaire. There were no general comments in regards to the instruction sets, however the majority of non-separated respondents filled in the section that asked separated respondents to indicate when they engaged in each act (e.g., while together with partner, while separated, or both). Therefore, it was decided that due to this common complication, this section of the questionnaire was to be excluded from the scale.

## Discussion

Preliminary analyses of the Intimate Intrusiveness Scale were promising. The internal consistency of the scale was moderately high. Test re-test analyses suggest the scale can predict scores over a short time. As intrusiveness is expected to vary due to circumstances (such as whether a person is in a relationship or not), test re-test reliability over longer periods of time is considered unnecessary.

As previously mentioned, due to some obvious complications with the instruction sets, it was decided to simplify the scale by removing the section that prompted separated respondents to specify their relationship status at the time they

engaged in intrusive acts. In addition, as there were no psychometric analyses of the additional 5 items added to the scale for separated respondents, it was decided to eliminate these from the questionnaire for the main research study. Therefore, the scale was simplified to 15 items with a basic instruction set (see appendix 4 for an example).

As part of the next phase of the research project (Study 2), further analyses to determine the internal consistency of the scale are provided, including a factor analysis to assess dimensionality, and correlations between intrusiveness and jealousy for concurrent validation. Finally, further hypothesised associations between jealousy, intrusiveness, and intimate abuse are diagrammatically presented in the form of path models in an attempt to show the more complex relationships suggested as occurring between cognitions, emotions, and aggressive behaviour.

# CHAPTER 7

# STUDY 2

Based on the research project rationale presented in Chapter 5 and following the development of a measure of interpersonal intrusive behaviour presented in Chapter 6, a quantitative study was conducted (Study 2). The results are presented here. The method section outlines the justification and description of the general student sample and the psychometric measures administered, including the scoring criteria. Preliminary analyses and a summary of how the data were screened are presented before the formal analyses that were conducted to address the research hypotheses, questions, and aims posed in Chapter 5. A detailed, descriptive analysis of the jealousy experience precedes correlational analyses. Diagrammatic representations of the jealousy complex in line with Tarrier et al.'s (1990) cognitive-behavioural framework, using path modelling techniques, are presented. Finally, competing models are explored, including a detailed model of the associations between schema, intrusive behaviour, and intimate violence for women.

## Method

### Respondents

University of South Australia undergraduates attending a core subject in the division of Business and Enterprise were approached to fill in a survey containing jealousy and romantic relationship-related questionnaires. It was anticipated that students from this division would present with wider, more diverse backgrounds than the more commonly approached psychology students. In total, 670 questionnaires were distributed with 165 surveys returned in completed form (25% response rate) following a reminder to return questionnaires one week after administration. Respondents included 49 males and 116 females. Ages ranged from 17 to 58 years with a mean of age of 23.82 years (SD = 7.51).

Eighty-four percent nominated Australia as their country of origin while a smaller percentage were Asian (9%) or European (6%) born (2 respondents declined to answer this question). Fifty percent classified themselves as students while the remainder of the sample had unskilled (13%) or skilled (36%) occupations (1 respondent chose 'unemployed' as their occupational classification). Two percent of respondents had completed secondary education, 71% were undergoing tertiary education, 25% had already completed a tertiary degree, and 2% were undertaking postgraduate studies. Approximately 56% of the sample classified themselves as "dating", 22% were married, 16% were defacto, 3% were engaged, 2% were having a long-distance relationship (1 respondent classified their partner as their cousin and 1 respondent did not answer this question). The average relationship length was 3.84 years (SD = 5.40, median = 2) ranging from 1 month to 29 years in duration. Twenty-eight respondents (17%) were separated from their long-term partner at the time of participating in this study for an average of 7.32 months (SD = 10.68, median = 3).

Materials

The battery of questionnaires circulated to participants was titled The Association Between Thoughts, Feelings, and Behaviour in Personal Life. It consisted of two distinct parts. Part 1 was labelled Jealousy Questions in an attempt to be open with respondents and prevent attempts at guessing what the researcher wanted (a form of social desirability responding). Standardised questionnaires in this section included the Chronic and Relationship Jealousy Scales (White, 1984) and Spielberger's (1979) Anger Expression Inventory (with jealousy instruction set). Non-standardised questionnaires asked respondents to rate, a) how often they experienced 4 emotions when jealous (Emotions Felt When Jealous), and b) the likelihood of 7 common

jealousy concerns (Jealousy Concerns) as identified in Mullen and Martin's (1994) community study.

Part 2 was labelled General Thoughts, Emotions, and Behaviour. Standardised questionnaires in this section included a short version of the Marlowe-Crowne Social Desirability Scale (M-C 1[10]; Strahan & Gerbasi, 1972), a short version of the EMBU (Egna Minnen Betraffande Uppfostran) - a measurement of the perceptions of parental rearing behaviour - (Winefield, Goldney, Tiggemann, & Winefield, 1989b), Spielberger's (1991) Trait Anger Scale, and the Conflict Tactics Scales (Straus, 1979). Non-standardised measures included the Intimate Intrusiveness Scale, as presented in Chapter 6, in addition to the Private Thoughts Questionnaire (a modified version of the Morbid Jealousy Questionnaire by Dolan, 1992). A personal/demographic section was also included. A copy of the full questionnaire can be found in appendix 5.

The Chronic and Relationship Jealousy Scales

There are a variety of measures that aim to provide empirical assessments of jealousy, including formats that ask respondents to imagine their reactions to hypothetical situations, rate or discuss current or past jealousy experiences, or respond to questions that aim to tap certain desires (projective) (see Bringle, 1981; Mathes & Severa, 1981; Pfeiffer & Wong, 1989; Shettel-Neuber et al., 1978, etc). White (1984) and White and Mullen (1989) have classified these different types of jealousy scales as dispositional, rational, phenomenological or theoretical. In short, dispositional measures focus on jealousy as a personality trait (including jealousy across romantic, work, family, and acquaintance relationships); rational approaches aim to measure jealousy as an independent entity (whether this be construed as a set of thoughts, emotions or behaviours) where scales are constructed via factor analytic analyses of items chosen at the face-validity level; phenomenological measures aim to tap the thoughts, emotions,

and behaviours respondents and observers subjectively label as jealousy; theoretical scales are based on theoretical definitions or models of jealousy.

The Chronic and Relationship Jealousy Scales were designed on the basis of White's (1984) notion that jealousy can be described as a complex of interrelated cognitive, emotional, and behavioural components. Rather than attempting to conceptualise or measure jealousy as an emotion or trait, White (1984) described the scales as most closely resembling phenomenological forms of assessment. Specifically, the scales attempt to directly assess thoughts, feelings, and acts by using the word "jealousy" as perceived by the individual respondent. In addition to being short and simple, phenomenological scales are superior to dispositional and rational types, as they tap subjective perceptions minimising cultural biases as the perceiver decides on the interpretation of the term jealousy rather than the researcher (White and Mullen, 1989).

The Relationship Jealousy Scale attempts to measure the level of jealousy specific to the current relationship. Additionally, the Chronic Jealousy Scale attempts to measure the level of jealousy across past relationships. Although the Chronic Jealousy Scale is a measure of the history of jealousy as perceived by the respondent, White (1984) does not classify this concept as a trait. He states that dispositional elements may influence both Chronic and Relationship jealousy ratings, but in essence they are measures of romantic jealousy alone.

The psychometric properties of both scales have been reported across several studies and summarised in White and Mullen (1989). The reliability coefficients for both scales have been reported in the .80's, test re-test coefficients (over one-month periods) have ranged from .75 to .85, and correlations between the two scales have been reported to range from the .50's to the .70's. Furthermore, corrected item-total correlations with scale totals (for all items) are reported to fall within the .50 to the .70

range, and self-reports of jealousy as measured by these scales have been found to be moderately correlated with partner reports (White, 1981, 1984; White & Mullen, 1989). In summary, the Chronic and Relationship Jealousy Scales are short, simple, valid, reliable measures of romantic jealousy that minimize cultural bias by avoiding the complexity of trying to define jealousy as an emotion or trait.

Scoring. Two separate jealousy scores for each participant were obtained by administering the Chronic and Relationship Jealousy Scales. The Chronic Jealousy Scale asks 6 questions about jealousy experiences across relationships such as "How often have you experienced jealousy in your romantic relationships?". Responses to this scale provide researchers with an indication of the respondent's history of jealousy. Respondents were asked to circle numbers on 5-point scales corresponding to the 6 questions about jealousy with the description that questions were 'about you in general'. Items 2, 3, and 6 were recoded in reverse order so all questions were in the same direction for scoring purposes. Scores could range from 6 (little or no jealousy) to 30 (high jealousy), with the alpha coefficient measuring .89.

Alternatively, the Relationship Jealousy Scale measures the degree of jealousy in the respondent's current relationship. It includes 6 questions such as "How much is your jealousy a problem in your relationship with your partner?". Similarly, respondents were asked to circle numbers on 5-point scales corresponding to 6 questions. Items 1, 5, and 6 were reverse coded for scoring purposes. Scores could range from 6 (little or no jealousy) to 30 (high jealousy). The internal reliability for this scale was calculated at .89 (alpha).

The Private Thoughts Questionnaire

The Private Thoughts Questionnaire is a revised version of the Morbid Jealousy Questionnaire (MJQ; Dolan, 1992) – a non-standardised cognitive assessment

instrument consisting of 16-self ratable faulty assumptions about human sexual behaviour and related areas. The MJQ was originally designed to measure how often morbidly jealous individuals had specific thoughts related to cognitive schemas thought to be associated with jealousy problems, including sexual behaviour schema, attractiveness schema, danger/fear related schema, and anger schema (Dolan, 1992). The MJQ asks respondents to read through a list of various assumptions and indicate how frequently they think these thoughts (using a 5-point scale format). A typical item is "My partner will go off with someone else". Furthermore, respondents are asked to rate the degree of emotional distress these thoughts cause them on a 4-point scale. There was a heavy emphasis when writing the scale on items related to thoughts about sexual behaviour and fear (e.g., My partner does not love me) and less emphasis on anger-related thoughts (e.g., I'll not allow my partner to fool me). The results of Dolan's (1992) and Dolan and Bishay's (1996a, 1996b) research indicated that more emphasis should have been placed on items related to anger, as there was a large number of responses to the single anger-related assumption. Therefore, for the purpose of this research, the MJQ was revised to minimise this and other limitations, including a) adding items associated with the specific fear of a rival existing, b) eliminating assumptions in the original scale not clearly related to schema (to increase reliability), and c) extending the emotional distress scale to anchor the most distressing rating at a more extreme point to encourage rating variation.

Firstly, two items were removed to provide a clearer overall theme of schematic assumptions. Specifically, items number 12 (I know it is nonsense but I can't help thinking it) and 13 (jealousy will ruin my life) were not thought to be indicative of clear schema-specific thoughts, so they were disregarded to prevent confounding the overall measure. Secondly, 11 new items were added to extend themes with specific emphasis

on providing more anger-related assumptions (e.g., My partner will try and break the rules of our relationship) and to provide more danger/fear-related assumptions specific to beliefs about rivals existing (e.g., My partner is always flirting with others behind my back). Finally, the emotional distress scale was extended from a 4 to a 5-point scale to take into account "devastation" rather than just high emotional distress. These changes to the original scale were not based on knowledge of poor psychometric properties of the MJQ because no internal reliabilities, test-retest reliabilities or results of factor analyses are provided in the literature (Dolan, 1992; Dolan & Bishay, 1996a, 1996b). Instead, these changes were made at the face-validity level in an attempt to extend the capabilities of the MJQ for the purpose of this research.

Scoring. Respondents were asked to rate 25 statements depicting private thoughts on 5-point scales ranging from "not at all" (0) to "almost all the time" (4). Furthermore, based on Dolan's (1992) research, respondents were also asked to rate how emotionally distressing they found each of the 25 thoughts on a 5-point scale ranging from "not distressing at all" (1) to "devastating" (5). Scores were calculated by summating the responses to all 25 statements. More specifically, two scores for each respondent were calculated – one for the frequency of the thoughts and one for the emotional distress caused by the thoughts. For the frequency of faulty cognitions about romantic relationships, scores could range from 0 (no thoughts) to 100 (many thoughts). The internal reliability for this scale was calculated at .91 (alpha). For the emotional distress caused by the thoughts, scores could range from 25 (not at all distressing) to 125 (devastating). The alpha coefficient for this scale was .94. The Private Thoughts Questionnaire was later factor analysed in an attempt to produce reliable schema-specific sub-scales (see the Preliminary Results section).

The EMBU

The Egna Minnen Betraffande Uppfostran (EMBU) is a Swedish instrument devised by Perris, Jacobsson, Lindstrom, Von Knorring, and Perris (1980) for assessing an individual's perception of each parent's rearing behaviour. Based on dimensional models of parental rearing styles, the 81-item measure includes fourteen subscales including abusive, depriving, punitive, shaming, rejecting, overprotective, overinvolved, tolerant, affectionate, performance-oriented, guilt engendering, stimulating, favouring siblings, and favouring subject. In addition, two separate questions regarding the degree of strictness and the degree of consistency are included. The EMBU has been found to successfully discriminate between depressive subjects, anxious patients, drug addicts and transsexuals, while reliably measuring the two key dimensions thought to comprise parental rearing styles - Affection and Control (Gerlsma, Emmelkamp, & Arrindell, 1990). Furthermore, recollections of parental rejection, as measured by the EMBU, have been found to be related to male abusiveness (Dutton, 1995; Dutton, Van Ginkel, & Starzomski, 1995).

Following the adaptation of the EMBU for use in over 25 countries, the three major factors of Emotional Warmth, Overprotection, and Rejection have been replicated after administration to normal populations in 6 countries, including Australia (Gerlsma et al., 1990). Ross, Campbell, and Clayer (1982) report that their English version of the EMBU supports the identical structure of the Swedish version as obtained via principal components analyses. However, Winefield, Goldney, Tiggemann, and Winefield (1989b) suggested that not all of the 14 subscales identified by Ross et al. (1982) had adequate internal reliability, and that for theoretical and epidemiological research purposes, the English EMBU would gain a wider research utility if it was shortened. Therefore following further factor analyses, these researchers presented a 27-item

version of the EMBU, consisting of three reliable subscales. The Supportive subscale represents parental behaviours such as affection, encouragement, and respect for children. The Rejecting subscale reflects punitive, depriving, and blaming behaviours and the Overinvolved subscale reflects untrusting and intrusive behaviours by parents.

Alpha coefficients for the subscales have been calculated at .90 for mother and .92 for father ratings on the Supportive subscale, .78 for mother and .80 for father ratings on the Rejecting subscale, and .73 for mother and .70 for father ratings on the Overinvolved subscale. Winefield, Goldney, Tiggemann, and Winefield (1989a) report further comparable alpha coefficients with alternative samples.

Scale scores were found by Winefield et al. (1989b) to be correlated with General Health Questionnaire scores (GHQ-28 – a measure of psychological adjustment) at a level comparable to Ross et al.'s (1982) findings, as well as differentiating between cases of psychological disturbance and controls, and depressive and non-depressive subjects. Good test re-test reliability has been reported after 4 years with a community sample of young adults ($\underline{N}$ = 101). Specifically, related-samples t tests between scores collected in 1984 and 1988 were not significant while moderate to high correlations were reported between scores on the Supportive (.61 for mother, .76 for father), Rejecting (.78 for mother, .69 for father), and Overinvolved (.52 for mother, .57 for father) scales (Winefield et al., 1989a).

In summary, although Gerlsma et al. (1990) suggested that other reliable and valid measures of parental rearing styles are available (such as the Childrens' Reports of Parental Behavior Inventory (CRPBI) by Schaefer, 1961 and the Parental Bonding Instrument (PBI) by Parker, Tupling, & Brown, 1979), the EMBU held several additional benefits for the purpose of this research. Specifically, there is various support for the cross-national generalisability of the scale (especially in Australia), the EMBU

provides separate measures for both maternal and paternal rearing styles, and there is previous research to suggest the ability of the EMBU to discriminate between alternative groups of respondents (including men who engage in intimate abusiveness).

Scoring. Respondents' current perceptions of how they believed their parents behaved toward them when they 15 years old were assessed using the short English version of the EMBU (Winefield et al., 1989b). Presented as the Parent-Child Relations Survey, respondents were asked to rate 27 statements about their parents' behaviour on 4-point scales ranging from "never" (1) to "always" (4). Each respondent was asked to rate his or her mother and father separately for each statement. Included were statements used to form subscales such as Supportive ("Did your parents show with words and gestures that they liked you?"), Rejecting ("Did you feel that your parents felt it was your fault when they were unhappy?"), and Overinvolved ("Did you feel that your parents interfered with everything that you did?"). Respondents with no brothers or sisters were advised to answer sibling-related questions in relation to how their friends' parents treated them.

Scores were calculated for three separate sub-scales (Winefield et al., 1989b). For the Supportive scale items 2, 3, 5, 7, 8, 10, 12, 14, 15, 16, 18, 21, 24, 26, and 27 were summated to give total Supportive scores that could range from 15 (not supportive) to 60 (very supportive). For the Rejecting scale items 4, 9, 13, 17, 19, and 25 were added together to give scores that could range from 6 (not rejecting) to 24 (very rejecting). For the Overinvolved scale item 11 is reverse coded before adding items 1, 6, 11, 20, 22 and 23. Scores for this scale could range from 6 (not overinvolved) to 24 (very overinvolved). Coefficients calculated by this research include .80 (mother) and .83 (father) for the overall scale, .94 (mother) and .93 (father) for the Supportive scale,

.80 (mother) and .76 (father) for the Rejecting scale, and .81 (mother) and .82 (father) for the Overinvolved scale.

Spielberger's Trait Anger Scale

Spielberger (1991) has provided two psychometric measures of the experience of anger – State Anger and Trait Anger. State anger refers to the 'here and now' experience of anger, varying due to frustration, barriers to goals or perceptions of injustice. It is often accompanied by physiological arousal. Alternatively, trait anger is defined as "the disposition to perceive a wide range of situations as annoying or frustrating, and the tendency to respond to such situations with more frequent elevations in state anger." (p. 1). Specifically, increased trait anger scores are indicative of respondents who frequently experience angry feelings and frustration in response to perceptions of being treated unfairly. Furthermore, high trait anger individuals are described as experiencing a greater intensity of state anger more often.

As the measure of state anger aims to tap anger arousal at a particular time, it was considered not to be a meaningful measure for the purpose of this research without measuring state anger at the time of inducing a jealousy response in participants. Therefore, only trait anger was assessed, to provide a measure of each individual's disposition to experience anger (Spielberger, 1991). As described, trait anger gives some indication of the frequency and intensity of state anger arousal.

Scoring. Participants were asked to rate how they generally felt on 4-point scales ranging from "almost never" (1) to "almost always" (4) in response to 10 items such as "I am quick tempered". Scores could range from 10 to 40. The internal reliability (alpha) for this scale as reported by this research at .85.

Spielberger's (1991) Anger Expression Inventory

Spielberger's (1991) Anger Expression Inventory was used to assess anger expression when jealous by altering the standard instruction set to be jealousy specific...

> Everyone feels angry or furious from time to time, but people differ in the ways that they react when they are angry. A number of statements are listed below which people use to describe their reactions when they feel *angry* or *furious because they are jealous.* Read each statement and choose a number from the scale provided that indicates how *often* you *generally* react or behave in the manner described when you are feeling angry or furious because you are jealous. Remember that there are no right or wrong answers. Do not spend too much time on any one statement.

The scores obtained from this scale can provide information on four different aspects of anger expression. Firstly, 8-items provide information on Anger In - the frequency with which angry feelings are suppressed. An example of an anger-in question is "I boil inside, but I don't show it". Alternatively an Anger Out question is "I strike out at whatever infuriates me" - this set of 8-items measures how often a respondent expresses anger to others or things in the environment. Anger Control questions include items such as "I control my angry feelings". These 8-items, as the name suggests, measures the frequency in which respondents control their angry feelings. Finally, Anger Expression (a combination of all 24 items combined in a research formula) provides an index of general anger expression regardless of the direction (outwards or inwards) (Spielberger, 1991).

Scoring. Respondents were asked to write a number from the 4-point scale in a space provided opposite each of the 24 reactions or behaviours. The number was an indication of how often each respondent generally behaved in the manner described

when they were feeling angry or furious because they were jealous. Anger In scores were calculated by adding items 3, 5, 6, 10, 13, 16, 17, and 21. Anger Out scores were calculated by adding items 2, 7, 9, 12, 14, 19, 22, and 23. Anger Control scores were calculated by adding items 1, 4, 8, 11, 15, 18, 20, and 24. Finally, total Anger Expression scores were calculated by summing Anger In and Anger Out scores, subtracting Anger Control scores and adding 16. Scores could range from 8 to 32 for the 8-item scales and from 0 to 72 for the Anger Expression scale. The current research reports the following internal reliabilities (alphas) for the separate subscales using the jealousy instruction set; Anger In (.75), Anger Out (.80), Anger Control (.86), and Anger Expression (.52).

The Intimate Intrusiveness Scale

As presented in Chapter 6, the Intimate Intrusiveness Scale was specifically designed to measure respondents' degree of intrusive behaviour for the purpose of this research. Participants were asked to indicate on 5-point scales ranging from "never" (0) to "all the time" (4), how often they had engaged in a list of 15 behaviours during the last year. Items include less severe forms of intrusiveness such as "I read through my partner's personal mail without them knowing", to more severe forms of intrusiveness "I arrived at places unexpectedly to see where my partner was and what they were doing".

Scoring. Respondents were asked to read through a list of 15 acts and indicate on 5-point scales how often they engaged in the listed behaviours during the last year. Raw item responses were multiplied by the average distress rating for that item as collected in the Study 1 (outlined in Chapter 6). This process weights each item in terms of social severity. Weighted item scores are then summed to provide respondents with an overall intrusiveness score that could range from 0 to 43.40. The internal consistency of this scale was .87 (alpha).

The Conflict Tactics Scales

Straus' (1979) Conflict Tactics Scales (Form A) were chosen to assess verbal aggression and violence directed toward an intimate partner, as they have provided an abundance of normative data and take little time to complete (Straus, Gelles, & Steinmetz, 1980). Respondents were asked to read through a list of 14 behaviours and rate how often they believed they engaged in each of the listed acts during conflict periods with their partner over the last year. Each item is rated in reference to a 6-point response scale ranging from "never" (0) to "more than once a month" (5). Scores on three different tactics can be calculated. *Reasoning* tactics refer to the use of rational arguments or discussions used by the individual and include items such as "I tried to discuss the issue relatively calmly". *Verbal Aggression* tactics refer to the use of verbal and symbolic methods used to hurt the partner (i.e., insults and threats). A typical item is "yelled and/or insulted". Finally, *Violence* tactics refer to the use of physical force by the individual, including items such as "pushed, grabbed, or shoved my partner". Items are presented in the order of supposed severity, ranging from discussing issues calmly to hitting (or trying to hit) partner with a hard object (Straus, 1979).

Scoring. Scores for Reasoning behaviour are obtained by adding items a, b, c and d with scores able to range from 0 to 20. The internal reliability (alpha) for this scale as reported by the present research is .82. Scores for Verbal Aggression (or Symbolic Aggression) are obtained by adding items e, f, g, h and i with scores able to range from 0 to 25. The current research reports the coefficient for this scale at .83. Finally, scores for Violence are obtained by adding items j, k, l, m, and n with scores able to range from 0 to 25. The internal reliability was calculated at .95 (alpha).

Short Version of the Marlowe-Crowne Social Desirability Scale - M-C1(10)

Social desirability responding is a form of lying by respondents (sometimes unknowingly) in an attempt to conform to ideal social norms. Many researchers have suggested that research attempting to measure socially unacceptable behaviours (such as jealousy, intrusiveness, and violence) should include measurement of this type of responding (Dutton et al., 1996; Saunders, 1992b; White & Mullen, 1989). A short version of the Marlowe-Crowne Social Desirability Scale (M-C 1[10]; Strahan & Gerbasi, 1972) was administered to participants as the Personal Reaction Inventory. Respondents are asked to rate items as true or false including "I like to gossip at times" and "I never resent being asked to return a favour".

Scoring. Respondents were asked to tick boxes that were labelled "true" or "false" that corresponded to10 statements about personal attitudes and traits. Answers depicted as indicative of social desirability responding (for instance, a true answer for the statement "I'm always willing to admit it when I make a mistake") were summed to provide each respondent a score between 0 and 10 (see appendix 5 for individual item scoring). Strahan and Gerbasi (1972) have reported a mean of 4.5 (SD = 2.1) and have reported coefficients (alpha) ranging from .59 to .70 for this particular version of the scale.

Demographics, Personal, and Relationship Information

Respondents were asked to state their sex, age in years, country of origin, educational level, income range, and current occupation. Respondents were also asked to rate their satisfaction with their current (or past) relationship on a 10-point scale ranging from "not satisfied" (1) to "very satisfied" (10). Other information specifically related to respondents' relationships was also collected, including "How long have you been (or were you in) the relationship in question?" and "Who initiated the separation?".

Procedure

Students approached to voluntarily participate in the study were told the research was about the way we think, feel, and act in our personal lives, especially in the context of interpersonal relationships. In addition, students were told that to participate they must be in either a) a current heterosexual relationship, or b) separated from their long-term partner for less than 1 year. Unlike the pilot studies, no limit was placed on the time individuals had been involved in a relationship. This was to ensure as many participants as possible although the length of the relationship was collected for inclusion in analyses.

Willing participants were given an information sheet about the study (see appendix 6) and briefed about the sensitive nature of the questionnaire. Participants were told that some of the topics included in the survey were very sensitive and very personal, and that they may wish to complete the survey in private or skip certain questions. Participants were clearly informed that the information they provided would be completely anonymous, that they could contact the researcher if they had any questions, and that no one would be disadvantaged for not participating. One week following the administration of questionnaires, participants were reminded to complete and return questionnaires as soon as possible.

Statistical Analyses

SPSS version 6.0 and version 9.0 were used to analyse data. A full correlation matrix of all major variables is presented in appendix 7. All correlational analyses presented in the Results section are taken from this larger table. Simple and multiple regressions were utilised to obtain standardised partial regression coefficients (Beta values) for analyses of paths between variables for an empirical representation of Tarrier et al.'s (1990) model of a possible aggressive response to jealousy. Structural

Equation Modelling (SEM) was not considered the best statistical procedure to use for this analysis. Specifically, the factor analytic component of SEM is employed to create latent variables - variables not directly measured but formed by combining other measures - to later add to regression equations. As all variables were directly measured in this research (manifest variables), simple statistical analyses could be employed to test the same formulations. This use of more basic path modelling techniques also permitted analysis of a smaller sample size (Hair, Anderson, Tatham, & Black, 1998; Pedhazur & Pedhazur-Schmelkin, 1991). Due to the high number of correlational analyses used in this research there was a risk of Type 1 error. However, due to the exploratory nature of the project, it was considered more acceptable to risk Type 1 than Type 2 error. In addition, as hypotheses, research questions, and aims were set out before analyses were conducted, Bonferroni adjustments were not applied (Perneger, 1998).

## Preliminary Results

### Data Screening

Responses to each individual item were examined for missing values and replaced with mean scores if values were identified as missing at random (Hair et al., 1999). Although the N is slightly increased, this method can often deflate correlations as the variance is decreased. This was not considered a high risk, as the number of values replaced was small. Frequency distributions were examined and all scores were converted to standardised (z) scores to test for outliers. According to Tabachnik and Fidell (1996) any standardised score above 3.29 should be considered an outlier, although some minor deviations will occur with larger sample sizes (p. 71). Several outliers were identified, however, these were considered genuine responses to

intrusiveness and violence scales where non-normal distributions in a general population sample are to be expected. Transformations were therefore attempted to try and correct skewness and kurtosis (Tabachnik & Fidell, 1996). Results indicated little or no evidence of improvement, so transformations were rejected and scatterplots were examined for linearity. These results showed no obvious non-linear relationships between variables, therefore correlational analyses were considered applicable.

Factor Analysis of the Private Thoughts Questionnaire

The principal-axis factoring procedure with iteration and oblique rotation was utilised to reduce the 25 separate items of the Private Thoughts Questionnaire to subscales representative of cognitive schema (related patterns of thoughts). A non-orthogonal rotation was chosen as the schema were expected to be correlated due to underlying similarities (all associated with romantic relationships) (Rosenthal & Rosnow, 1991). See Table 4 for factor loadings above .30.

A 6-factor solution was derived, accounting for 57.2% of the shared variance, however, only 4 factors presented with eigenvalues above 1.00 accounting for 51.7% of the variance. Factor 1 explained 67% of the extracted variance, with 7 items representing a mixed anger-suspicion type schema termed Trust-Related Schema for the purpose of this research. For instance, the highest loading item (.89) was "My partner will try and break the rules of our relationship". The internal reliability for factor 1 was .88 (alpha). Factor 2 explained 12% of the extracted variance, with 4 items representing an unattractiveness or unworthiness theme simply named Attractiveness Schema as in line with Dolan's (1992) research. The highest loading item (.79) was "No other man/woman will want me if my partner leaves". The internal reliability for this factor was .79 (alpha). Factor 3 accounted for 11% of the extracted variance with 5 items clearly representing an Abandonment Schema. "My partner will go off with someone

Table 3 Principal-Axis Factor Analysis of the Private Thoughts Questionnaire

| Factor Name | Item No. | Item | Loadings | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | F1 | F2 | F3 | F4 | F5 | F6 |
| Factor 1 Trust-Related Schema | 19 | My partner will try and break the rules of our relationship | **.89** | | | | | |
| | 17 | My partner will try to fool me | **.73** | | | | | |
| | 18 | My partner will try to humiliate me | **.70** | | | | | |
| | 16 | My partner, like other men/women, will be unfaithful | **.46** | | | | | |
| | 21 | My partner thinks they can keep secrets from me | **.44** | | | | | |
| | 8 | I suspect my partner is having an affair | **.39** | | | .34 | | |
| | 14 | My partner was unfaithful before, so he/she will do it again in the future | **.33** | | | | | |
| Factor 2 Attractiveness Schema | 11 | No other man/woman will want me if my partner leaves | | **.79** | | | | |
| | 7 | I will never be able to find another partner if my partner leaves | | **.71** | | | | |
| | 9 | I am not attractive | | **.68** | | | | |
| | 10 | I am not a real man/woman | | **.54** | | | | |
| Factor 3 | 2 | My partner will go off with someone else | | | **.78** | | | |
| Abandonment Schema | 3 | My partner will love someone else | | | **.76** | | | |
| | 5 | My partner loves someone else | | | **.58** | | | .30 |
| | 1 | My partner will leave me | | .34 | **.48** | | | |
| | 4 | My partner does not love me | | .32 | **.37** | | | |
| Factor 4 Danger/Fear-Related Schema | 24 | Someone is trying to attract my partner to them | | | | **.92** | | |
| | 23 | Someone is trying to take my partner away | | | | **.77** | | |
| | 25 | Others are always flirting with my partner | | | | **.72** | | |
| | 22 | My partner is always flirting with others behind my back | .32 | | | **.43** | | |
| Factor 5 Sexual Behaviour Schema | 12 | Any man/woman will go with any other woman/man | | | | | **.72** | |
| | 13 | A man/woman can get any partner he/she wants when he/she wants | | | | | **.66** | |
| | 6 | In marriage anything can happen while one thinks everything is okay | | | | | **.49** | |
| Factor 6 Projection | 15 | I was unfaithful to my previous partner so my partner will be unfaithful to me | | | | | | **.72** |
| | 20 | My partner won't be happy if he/she leaves | | | | | | .28 |

else" was the highest loading item (.78), with the internal reliability of this scale at .86 (alpha). Finally, accounting for 9.5% of the extracted variance, factor 4 consisted of 4 items representing a Danger/Fear-Related Schema specifically, fear of a rival, with the highest loading item (.92) being "Someone is trying to attract my partner to them". The internal reliability of this factor was .85 (alpha).

Although not considered statistically significant according to the latent root criterion that states only factors with eigenvalues greater than 1 are empirically useful, the remaining two factors extracted were thematically interpretable and therefore retained for further exploratory analyses (Hair et al., 1998). Factor 5 accounted for 6% of the total 6-factor solution variance, with 3 items representing a Sexual Behaviour Schema - a theme of generalising about how men and women are likely to be unfaithful in relationships, consistent with Dolan's (1992) research. The internal reliability for this factor was .67 (alpha). Factor 6 accounted for 4% of the extracted variance, with 2 items appearing to represent the projection of one's own wishes or behaviour onto the partner. Specifically, the highest loading item (.72) was "I was unfaithful to my previous partner so my partner will be unfaithful to me". Simply termed Projection, these items appear to reflect a process or defense mechanism rather than a common schema (Reber, 1985), with the 2 items not statistically constituting a reliable scale on their own (alpha = .29).

The groups of items found to load on each factor were summated to obtain scores for each of the schema. Each item was originally rated by respondents on a 5-point scale ranging from "not at all" (0) to "almost all the time" (4) therefore scores for factor 1 (Trust-Related Schema) could range from 0 to 28, scores for factor 2 (Attractiveness Schema) could range from 0 to 16. Factor 3 scores (Abandonment Schema) could range from 0 to 20 and factor 4 scores (Danger/Fear-Related Schema)

could range from 0 to 16. Scores for factor 5 (Sexual Behaviour Schema) could range from 0 to 12, while scores for factor 6 (Projection) could range from 0 to 8.

Emotional Distress of Thoughts. To examine the emotional distress caused by each of the schema, the additional rating of each private thought by respondents on the alternative 5-point scale ranging from "not distressing at all" (1) to "devastating" (5) were summated in the same combination as items to obtain schema. Scores for the distress caused by Trust-Related Schema could range from 7 to 35 with an internal reliability for this combination of items of .90 (alpha). Scores for the distress caused by Attractiveness Schema could range from 4 to 20 (alpha = .80) and scores for the distress caused by Abandonment Schema could range from 5 to 25 (alpha = .94). Scores for the distress caused by Danger/Fear-Related Schema could range from 4 to 20 (alpha = .91), scores for Sexual Behaviour Schema distress could range from 3 to 15 (alpha = .71) and scores for the distress caused by Projection could range from 2 to 10 (alpha = .50). Under most circumstances, results are presented for each of the separate factors obtained via these analyses (schema) in addition to presenting results for the summation of all 25 cognitions as the internal reliability of the whole scale was .91 (the distress scale alpha = .94).

Factor Analysis of the Intimate Intrusiveness Scale

The 15 items comprising the Intimate Intrusiveness Scale were subjected to a principal-axis factor analysis with iteration and oblique rotation. Item 13 "I hired someone to follow my partner to see what they were doing or who they were with", was not endorsed by any respondents. Similarly, item 14 "I have "bugged" telephones or used surveillance equipment in rooms to check up on my partner's movements or conversations" was only endorsed by one respondent. These items were therefore excluded from the analysis. See Table 5 for factor loadings above .30.

Table 4

Principal-Axis Factor Analysis of the Intimate Intrusiveness Scale (adapted from Whitford, Mohr, & Howells, 2002)

| Factor | No. | Condensed Item | Loadings | | |
|---|---|---|---|---|---|
| | | | F1 | F2 | F3 |
| 1 | 10 | Secretly followed partner | **.87** | .44 | .35 |
| Active Surveillance | 9 | Secretly watched my partner | **.80** | | .55 |
| | 8 | Arrived at places unexpectedly | **.75** | .48 | .39 |
| | 5 | Pressed the re-dial button on the phone | **.68** | .45 | .39 |
| | 6 | Secretly listened to phone calls | **.66** | .49 | .50 |
| 2 | 11 | Broke into my partner's property | .48 | **.77** | |
| Snooping | 4 | Read partner's personal mail | .45 | **.75** | .30 |
| | 3 | Looked through personal diary | .36 | **.70** | |
| | 12 | Checked partner's underwear | | .29 | |
| 3 | 7 | Telephoned to check up on partner | .64 | | **.68** |
| Curiosity | 15 | Purposefully stayed in the room | .51 | | **.67** |
| | 2 | Checked partner's belongings | .51 | | **.63** |
| | 1 | Asked partner where they had been | | | **.47** |

A 3-factor solution was derived accounting for 62.5% of the shared variance. Factor 1 explained 69% of the extracted variance, with 5 items representing surveillance-like behaviours such as following, watching, and arriving unexpectedly. This factor was therefore named Active Surveillance. Factor 2 explained 18% of the extracted variance, with 4 items representing attempts at finding evidence by searching through a partner's personal information. It was decided to drop item 12 from this factor despite the similarities in item themes. Specifically, item 12 loaded weakly (.29) and the internal reliability for the subscale was increased from .68 to .71 (alpha) without this item. This factor was named Snooping. Factor 3 explained 13% of the extracted variance with 4 items representing lower-level intrusive behaviours such as asking a partner where they had been. This factor was therefore named Curiosity and had an internal reliability of .70 (alpha). In addition to conducting further analyses using the

total scale scores for Intrusiveness, some analyses using the smaller subscales will also be presented to provide a breakdown of important relationships.

Group Differences

Gender Differences. Point-biserial correlations were performed to ascertain whether gender differences existed between men and women on any of the major scales administered. See Table 6 for statistical results. Significant differences were found between sexes for the sum of Private Thoughts (faulty cognitions) scores, Abandonment Schema scores, Parental Perception scores (specifically, Rejecting Mother and Overinvolved Mother), Trait Anger scores, and Anger Expression scores (including Anger Out and Anger Control). Specifically, women scored higher on all these measures apart from Anger Control. Women were also more likely to admit to engaging in all intrusive behaviours especially the curious type of acts, such as asking about their partner's whereabouts, listening in on conversations, or going through their partner's wallet. There were no significant differences between men and women on Chronic Jealousy scores or Violence scores. In summary, it was decided to look at men and women as separate groups when conducting descriptive and advanced analyses including the variables related to perceptions of parental rearing, anger expression, and intrusiveness, as gender difference were most pronounced in these associations ($r$ above .20). However, the groups were collapsed for all other descriptive analyses and simple bivariate correlations when jealousy was the main focus, as little or no differences were identified on these scores.

Table 5

Point-Biserial Correlations between Gender, Non-Separated/Separated Groups, and Major Scales

| | Gender | | Non-Separated/Separated | |
|---|---|---|---|---|
| | n | r | n | r |
| Chronic Jealousy | 165 | .15 | 165 | .22** |
| Relationship Jealousy | 162 | .14 | 162 | .09 |
| Private Thoughts (sum) | 165 | .16* | 165 | .24** |
| Trust-related Schema | 165 | .12 | 165 | .31*** |
| Attractiveness Schema | 164 | .07 | 164 | .00 |
| Abandonment Schema | 164 | .19* | 164 | .18* |
| Danger/Fear-related Schema | 165 | .13 | 165 | .28*** |
| Sexual Behaviour Schema | 158 | .07 | 158 | .06 |
| Projection | 164 | .02 | 164 | .03 |
| Emotional Distress of Private Thoughts | | | | |
| Trust-related Schema | 159 | -.02 | 159 | .00 |
| Attractiveness Schema | 161 | -.06 | 161 | .12 |
| Abandonment Schema | 162 | -.03 | 162 | -.01 |
| Danger/Fear-related Schema | 160 | .07 | 160 | .06 |
| Sexual Behaviour Schema | 152 | .03 | 152 | -.02 |
| Projection | 157 | -.13 | 157 | -.12 |
| Mother Supportive | 158 | -.00 | 158 | .16* |
| Father Supportive | 157 | .12 | 157 | .08 |
| Mother Rejecting | 156 | .25** | 156 | -.06 |
| Father Rejecting | 156 | -.01 | 156 | .04 |
| Mother Overinvoled | 158 | .20* | 158 | -.09 |
| Father Overinvolved | 158 | .11 | 158 | -.03 |
| Trait Anger | 164 | .16* | 164 | .04 |
| Anger Expression | 165 | .26** | 165 | .10 |
| Anger-In | 165 | .06 | 165 | .14 |
| Anger-Out | 165 | .26** | 165 | .07 |
| Anger-Control | 165 | -.23** | 165 | -.01 |
| Reasoning Ability | 164 | -.02 | 164 | .04 |
| Verbal Aggression | 164 | .13 | 164 | -.07 |
| Violence | 164 | .04 | 164 | .04 |
| Intrusiveness | 164 | .30*** | 164 | .06 |
| Active Surveillance | 164 | .23** | 164 | .04 |
| Snooping | 164 | .16* | 164 | .09 |
| Curiosity | 164 | .34*** | 164 | .03 |
| Social Desirability | 165 | -.12 | 165 | -.05 |

* p. < .05, **p. < .01, ***p. < .001.

positive effect sizes indicate women and separated respondents scored higher

Separated versus Non-Separated Respondents. Point-biserial correlations were performed to identify possible group differences between respondents in current relationships (non-separated) and respondents recently separated from their long-term partner. Few differences were identified across the major scales administered for this study. See Table 6 for results of these analyses. Specifically, separated respondents reported significantly more Trust-Related, Abandonment, and Danger/Fear-Related thought patterns (schema) and increased faulty cognitions overall. In addition, separated respondents reported their mothers as significantly more supportive. The more acute activation of the particular schema makes intuitive sense considering this particular group of respondents had recently been through a separation process from a long-term partner. There were no significant differences on the level of Intrusiveness reported between respondents separated from their long-term partners and respondents in relationships. Similarly, there were no significant differences on Chronic Jealousy scores or Violence scores for these groups. Therefore, it was decided to treat these two groups as one in all further analyses.

## Results

### Descriptive Statistics – Jealousy Measures

Chronic and Relationship Jealousy. Figure 4 graphically represents the score distributions for these measures using histograms. Both Chronic and Relationship Jealousy were slightly positively skewed with the former having the more normal distribution. Table 7 provides the descriptive statistics for the Chronic and Relationship Jealousy Scales for the total sample. Overall, 15 respondents (9%) obtained the minimum score possible for the Chronic Jealousy measure and 21 respondents (13%) the minimum score possible for Relationship Jealousy representing a claim to no

historical or current experiences of jealousy. Alternatively, 31 respondents (19%) scored more than one standard deviation above the mean on Chronic Jealousy and 37 respondents (22%) scored more than one standard deviation above the mean on Relationship Jealousy. These results suggest that in response to $Q_1$ posed in the research project rationale that, in terms of the current score distributions, approximately 20% of the general population experience high levels of jealousy. This result is comparable with Mullen and Martin's (1994) community research findings[1].

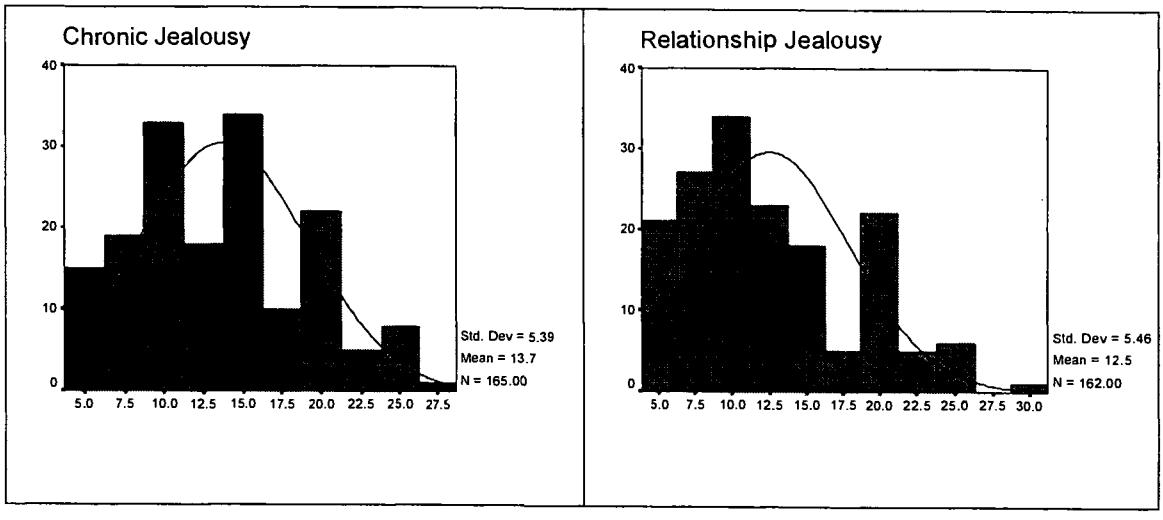


Figure 4 Distribution of scores (histograms) for the Chronic and Relationship Jealousy Scales

Table 6

Descriptive Statistics for the Chronic and Relationship Jealousy Scales

| | n | M | SD | Min. | Max. | Mode | Median |
|---|---|---|---|---|---|---|---|
| Chronic Jealousy | 165 | 13.73 | 5.39 | 6 | 27 | 6 | 13 |
| Relationship Jealousy | 162 | 12.51 | 5.46 | 6 | 29 | 6 | 11 |

[1] Although this is an arbitrary cut off point for isolating individuals with high jealousy scores, viewing scores in excess of one standard deviation above the mean is consistent with Mullen and Martin's (1994) research on jealousy. There are no published norms for the Chronic and Relationship jealousy scales to compare with the present scores, so the similarity in distributions across this study and Mullen and Martin's (1994) work is all that appears to be comparable.

Emotions Felt When Jealous. The frequency (%) of responses to the four categories of emotions that participants were asked to rate in relation to how they felt when jealous, are presented in Table 8 for the total sample. Anger was the most frequent emotion to be admitted as a response to jealousy-provoking situations "often" or "all the time" (41%) followed by sadness (30%), then fear (21%), then excitement (16%). These results suggest that in relation to $Q_2$, anger was the emotion most frequently reported in response to jealousy-provocation.

Table 7

Frequencies of Emotions Felt When Jealous

| | Never | Once | Sometimes | Often | All the time |
|---|---|---|---|---|---|
| Anger | 20 (12%) | 15 (9%) | 63 (38%) | 49 (30%) | 18 (11%) |
| Sadness | 43 (26%) | 12 (7%) | 61 (37%) | 39 (24%) | 10 (6%) |
| Excitement | 122 (74%) | 3 (2%) | 13 (8%) | 19 (11%) | 8 (5%) |
| Fear | 51 (31%) | 26 (16%) | 53 (32%) | 28 (17%) | 7 (4%) |

n = 165

Jealousy Concerns. The frequency of responses to the seven alternative concerns which respondents were asked to rate in reference to jealousy-provoking situations are presented in Table 9 for the total sample. All distributions appear positively skewed to some degree with the concerns of being shamed/humiliated, losing sexual exclusivity or financial security with a partner, all appearing highly positively skewed. In relation to jealousy, these three concerns appear to be less likely to worry respondents in this normative sample than losing the attention of a partner to another, losing time with a partner, being deserted or losing intimacy with a partner. These results suggest that in response to $Q_3$, loss of attention by a partner was the greatest fear when jealous with

29% reporting this fear "often" or "all of the time", followed closely by loss of time with a partner (28%).

Table 8

Frequencies of Jealousy Concerns (Fears When Jealous)

| | Never | Rarely | Sometimes | Often | All the time |
|---|---|---|---|---|---|
| Desertion | 54 (33%) | 28 (17%) | 40 (24%) | 30 (18%) | 13 (8%) |
| Attention Loss | 35 (21%) | 43 (26%) | 39 (24%) | 28 (17%) | 20 (12%) |
| Time Loss | 38 (23%) | 44 (27%) | 36 (22%) | 30 (18%) | 17 (10%) |
| Intimacy Loss | 56 (34%) | 35 (21%) | 38 (23%) | 24 (15%) | 12 (7%) |
| Shame/Humiliation | 74 (45%) | 43 (26%) | 21 (13%) | 12 (7%) | 15 (9%) |
| Sexual Exclusivity | 89 (54%) | 31 (19%) | 15 (9%) | 18 (11%) | 12 (7%) |
| Financial Security | 138 (84%) | 18 (11%) | 5 (3%) | 2 (1%) | 2 (1%) |

n = 165

Descriptive Statistics – Cognitions (schema), Perceptions of Parental Rearing, Anger, and Aggressive Behaviour Measures

Cognitions. Table 10 presents the descriptive statistics for the Private Thoughts Questionnaire in full summated form and separate subscale (schema) form for the total sample. In addition, statistics are presented for the emotional distress ratings collected for each schema. The distributions of scores for the six cognitive schema were all positively skewed, with Trust-Related Schema scores appearing the most markedly skewed. In some instances, the percentage of respondents who reported having thoughts "most of the time" or "almost all the time" were high. Specifically, 34% of respondents were plagued by the thought "I am not attractive", and 30% by the thought "others are always flirting with my partner". This level of reporting possibly indicates that these thoughts may be somewhat normal in this group.

Table 9

Descriptive Statistics for The Private Thoughts Questionnaire

| | N | M | SD | Min. | Max. | Mode | Median |
|---|---|---|---|---|---|---|---|
| Private Thoughts (sum) | 165 | 19.24 | 12.19 | 0 | 79 | 11 | 17 |
| Trust-Related Schema | 163 | 4.46 | 5.32 | 0 | 29 | 0 | 3 |
| Attractiveness Schema | 164 | 4.03 | 3.28 | 0 | 16 | 2 | 3 |
| Abandonment Schema | 164 | 4.31 | 3.45 | 0 | 17 | 0 | 4 |
| Danger/Fear-Related Schema | 165 | 3.22 | 3.04 | 0 | 12 | 0 | 3 |
| Sexual Behaviour Schema | 158 | 3.24 | 2.38 | 0 | 12 | 2 | 3 |
| Projection | 164 | 1.37 | 1.42 | 0 | 5 | 0 | 1 |
| Emotional Distress of Thoughts | | | | | | | |
| Trust-Related Schema | 157 | 19.68 | 7.99 | 8 | 39 | 8 | 19 |
| Attractiveness Schema | 161 | 8.73 | 3.66 | 4 | 20 | 4 | 8 |
| Abandonment Schema | 162 | 17.59 | 6.11 | 5 | 25 | 25 | 19 |
| Danger/Fear-Related Schema | 159 | 7.63 | 3.44 | 3 | 15 | 3 | 7 |
| Sexual Behaviour Schema | 152 | 5.86 | 2.43 | 3 | 14 | 5 | 5 |
| Projection | 157 | 3.91 | 3.91 | 2 | 9 | 2 | 4 |

Perceptions of Parental Rearing. Table 11 presents the descriptive statistics for each of the six separate subscales of the short-version of the EMBU (Winefield et al, 1989). Analyses for Mother Rejecting and Mother Overinvolved are presented separately for men and women as weak-to-moderate gender differences on these scores were previously identified. The distributions of scores for the perception of mothers and fathers being supportive were unimodal and slightly negatively skewed. Perceptions of parental rejection scores were unimodal and markedly positively skewed. Finally, the distributions of scores for the perception of overinvolved parents were unimodal and approximately symmetrical.

Table 10

Descriptive Statistics for the Perception of Parental Rearing

| | n | M | SD | Min. | Max. | Mode | Median |
|---|---|---|---|---|---|---|---|
| Mother Supportive | 158 | 44.11 | 10.70 | 15 | 60 | 53 | 46 |
| Father Supportive | 157 | 41.94 | 10.82 | 15 | 60 | 44 | 43 |
| Mother Rejecting (men) | 47 | 7.66 | 1.71 | 6 | 13 | 6 | 8 |
| Mother Rejecting (women) | 109 | 9.57 | 3.85 | 6 | 24 | 7 | 7 |
| Father Rejecting | 158 | 13.97 | 4.14 | 6 | 24 | 6 | 8 |
| Mother Overinvolved (men) | 48 | 12.65 | 3.88 | 6 | 24 | 10 | 12 |
| Mother Overinvolved (women) | 110 | 14.41 | 4.16 | 6 | 24 | 13 | 14 |
| Father Overinvolved | 158 | 13.17 | 4.10 | 6 | 24 | 12 | 13 |

Anger. Table 12 and Table 13 present the descriptive statistics for Trait Anger, Anger Expression (with the jealousy instruction set) and the corresponding subscales of Anger-In, Anger-Out, and Anger-Control for men and women separately. The distribution of scores for Trait Anger, overall Anger Expression, Anger-In, and Anger-Out were slightly positively skewed, while the distribution of scores for Anger Control was slightly negatively skewed. Norms for college students, as presented in the Spielberger (1991) State-Trait Anger Expression Inventory manual, are also included for comparison in the tables. These comparisons suggest that the current sample of men showed a slight trend towards lower levels of trait anger and anger expression, specifically lower anger-out scores and slightly higher anger-control scores. These differences in anger expression scores could be due to the change in instruction set to represent anger when jealous. For women, the current sample was very similar to the college norms presented for all scales, despite the change to jealousy instruction sets for the anger expression scale.

Table 11

Descriptive Statistics for Trait Anger and Anger Expression for Men

| | | | M (SD) | | | | |
|---|---|---|---|---|---|---|---|
| | n | M (SD) | College Norms | Min. | Max. | Mode | Median |
| Trait Anger | 48 | 18.83 (4.71) | 20.08 (5.24) | 12 | 33 | 16 | 18 |
| Anger Expression | 49 | 21.71 (8.49) | 26.65 (9.74) | 3 | 37 | 24 | 23 |
| Anger-In | 49 | 16.69 (4.06) | 16.79 (4.05) | 9 | 26 | 16 | 16 |
| Anger-Out | 49 | 13.31 (2.82) | 15.64 (3.90) | 9 | 21 | 12 | 13 |
| Anger-Control | 49 | 24.29 (5.12) | 23.19 (5.09) | 14 | 32 | 19 | 26 |

Table 12

Descriptive Statistics for Trait Anger and Anger Expression for Women

| | | | M (SD) | | | | |
|---|---|---|---|---|---|---|---|
| | n | M (SD) | College Norms | Min. | Max. | Mode | Median |
| Trait Anger | 116 | 20.67 (5.50) | 20.35 (5.27) | 10 | 40 | 15 | 20 |
| Anger Expression | 116 | 27.66 (10.78) | 27.14 (9.15) | 3 | 55 | 30 | 28 |
| Anger-In | 116 | 17.28 (4.84) | 16.68 (4.26) | 8 | 30 | 15 | 17 |
| Anger-Out | 116 | 15.89 (4.90) | 15.67 (4.06) | 8 | 31 | 13 | 15 |
| Anger-Control | 116 | 21.51 (5.66) | 22.17 (4.96) | 11 | 32 | 25 | 22 |

Conflict Tactics, Intrusiveness, and Social Desirability Responding. Table 14 presents the descriptive statistics for each of the three Conflict Tactics Scales (Reasoning Ability, Verbal Aggression, and Violence), in addition to the descriptive statistics for Intrusiveness scores for men and women separately and Social Desirability Responding scores. Reasoning Ability scores were slightly positively skewed, scores on Verbal Aggression were moderately positively skewed and as expected with normative samples, the distribution of scores for Violence showed a marked positive skew. The number of respondents reporting at least one incident of violence against their partner in the last year was 34 (21%) while 12 respondents (7%) scored one standard deviation above the mean on the violence measure. In comparison to the norms presented in Straus (1979), the Reasoning Ability mean of the current research fell approximately

Table 13

Descriptive Statistics for The Conflict Tactics Scales, Intrusiveness and Social Desirability Responding

| | n | M | SD | Min. | Max. | Mode | Median |
|---|---|---|---|---|---|---|---|
| Reasoning Ability | 164 | 7.49 | 4.07 | 0 | 18.00 | 6 | 7 |
| Verbal Aggression | 164 | 4.93 | 4.85 | 0 | 24.00 | 0 | 4 |
| Violence | 164 | 1.09 | 3.48 | 0 | 25.00 | 0 | 0 |
| Intrusiveness (MEN) | 49 | 1.39 | 1.13 | 0 | 4.71 | .7 | 1.04 |
| Active Surveillance | 49 | 1.34 | 3.75 | 0 | 14.78 | 0 | 0 |
| Snooping | 49 | 1.28 | 4.06 | 0 | 15.98 | 0 | 0 |
| Curiosity | 49 | 11.31 | 8.41 | 0 | 38.23 | 7 | 10.44 |
| Intrusiveness (WOMEN) | 115 | 3.98 | 4.52 | 0 | 28.36 | .7 | 2.83 |
| Active Surveillance | 115 | 10.67 | 21.63 | 0 | 134.60 | 0 | 0 |
| Snooping | 115 | 4.90 | 11.91 | 0 | 80.44 | 0 | 0 |
| Curiosity | 115 | 23.74 | 18.17 | 0 | 85.03 | 7 | 17.90 |
| Social Desirability | 165 | 4.82 | 2.20 | 0 | 10.00 | 4 | 5 |

within the 60-70$^{th}$ percentile of scores for the husband-wife (N = 2105) and wife-husband (N = 2114) categories. Similarly, the Verbal Aggression mean fell with 50-55$^{th}$ percentile and the Violence mean fell within the 85$^{th}$ percentile. The distribution of the weighted Intrusiveness scores were unimodal and highly positively skewed, as were the subscale score distributions for Active Surveillance and Snooping. The subscale scores for Curiosity were much less positively skewed, approaching a more normative distribution. As in Strahan and Gerbasi's (1972) research, the distribution of Social Desirability scores were unimodal and approximately symmetrical. Table 15 represents the percentages of endorsements of at least one act of various intrusive behaviours by men and women separately. Similarly, Table 16 and Table 17 represent the percentages of endorsements of violent acts directed towards partners during the last year for men and women separately.

Table 14

Endorsement of At Least One Act of Various Intrusive Behaviours Across Gender

| | Men (yes) | Women (yes) |
|---|---|---|
| Active Surveillance | 20 (12%) | 92 (56%) |
| Snooping | 17 (10%) | 40 (24%) |
| Curiosity | 145 (88%) | 158 (96%) |

Table 15

Endorsement of Violent Acts Directed at Partner during the Last Year for Men

| | Never | Once | 2 or 3 times | Often, >monthly | Once month | < Once a month |
|---|---|---|---|---|---|---|
| Threw or smashed something (but not at partner) | 142 (86%) | 10 (6%) | 10 (6%) | 3 (2%) | 0 | 0 |
| Threatened to hit or throw something | 156 (94%) | 3 (2%) | 3 (2%) | 3 (2%) | 0 | 0 |
| Threw something | 156 (94%) | 3 (2%) | 3 (2%) | 3 (2%) | 0 | 0 |
| Pushed, grabbed, or shoved | 153 (92%) | 3 (2%) | 3 (2%) | 0 | 3 (2%) | 3 (2%) |
| Hit or tired to hit but not with anything | 156 (94%) | 3 (2%) | 0 | 3 (2%) | 0 | 3 (2%) |
| Hit or tried to hit with something hard | 159 (96%) | 0 | 3 (2%) | 0 | 0 | 3 (2%) |

Table 16

Endorsement of Violent Acts Directed at Partner during the Last Year for Women

| | Never | Once | 2 or 3 times | Often, >monthly | Once month | < Once a month |
|---|---|---|---|---|---|---|
| Threw or smashed something (but not at partner) | 139 (84%) | 16 (10%) | 5 (3%) | 2 (1%) | 0 | 3 (2%) |
| Threatened to hit or throw something | 145 (88%) | 10 (6%) | 3 (2%) | 3 (2%) | 2 (1%) | 2 (1%) |
| Threw something | 152 (92%) | 3 (2%) | 5 (3%) | 3 (2%) | 0 | 2 (1%) |
| Pushed, grabbed, or shoved | 130 (79%) | 23 (14%) | 4 (2.5%) | 4 (2.5%) | 2 (1%) | 2 (1%) |
| Hit or tired to hit but not with anything | 138 (84%) | 11 (7%) | 7 (4%) | 7 (4%) | 0 | 2 (1%) |
| Hit or tried to hit with something hard | 154 (94%) | 5 (3%) | 2 (1%) | 2 (1%) | 0 | 2 (1%) |

Correlations

Pearson correlations were performed to determine the bivariate associations between both Chronic Jealousy (jealousy across relationships) and (current) Relationship Jealousy scores and all other measures administered as part of the study (see Table 18). The correlation between the two measures of jealousy was positive and high, $r$ (162) = .83, $p$. < .001. Therefore, with scores on Chronic Jealousy accounting for 68.89% of the variance on Relationship Jealousy, it was expected that the measures would have similar correlations with other variables.

Statistical differences between the two measures of jealousy were examined (Cohen & Cohen, 1983). Chronic Jealousy appeared to be significantly more associated with the endorsement of anger and fear as frequent emotions felt when jealous. In addition, the concern of losing financial security appeared to be significantly more associated with Chronic Jealousy than Relationship Jealousy (although this variable is not significantly correlated with either jealousy measure), as were lower scores on Anger Control. These results suggest only minor differences between the two measures in their associations with other variables.

Some of the most notable correlations appear between jealousy and negative thoughts about relationships (specifically Trust-related Schema, Abandonment Schema, Danger/Fear-related Schema, and the emotional distress caused by the Danger/Fear related schema). In response to $Q_4$ as posed in the research project rationale, these results indicate that all schema were related to increased jealousy. Most prominently, high jealousy individuals were more likely to experience regular thoughts about their partner being unfaithful, about their partner leaving the relationship, and about a rival existing. In addition, the thought of a rival (or rivals) existing was highly distressing for

Table 17

Pearson Correlations between Chronic Jealousy, Relationship Jealousy, and Major Scales

| | Chronic | | Relationship | | Difference | |
|---|---|---|---|---|---|---|
| | n | r | n | r | df | t |
| Emotions Felt When Jealous | | | | | | |
| Anger | 165 | .57*** | 162 | .48*** | 159 | 2.37* |
| Sadness | 165 | .38*** | 162 | .37*** | 159 | .24 |
| Excitement | 165 | .13 | 162 | .11 | 159 | .44 |
| Fear | 165 | .55*** | 162 | .44*** | 159 | 2.85** |
| Jealousy Concerns | | | | | | |
| Desertion | 165 | .49*** | 162 | .50*** | 159 | -.25 |
| Attention Loss | 165 | .48*** | 162 | .47*** | 159 | .25 |
| Time Loss | 165 | .46*** | 162 | .46*** | | |
| Intimacy Loss | 165 | .39*** | 162 | .37*** | 159 | .47 |
| Shame/Humiliation | 165 | .41*** | 162 | .38*** | 159 | .71 |
| Sexual Exclusivity | 165 | .37*** | 162 | .34*** | 159 | .70 |
| Financial Insecurity | 165 | .09 | 162 | -.01 | 159 | 2.20* |
| Private Thoughts (sum) | 165 | .55*** | 162 | .54*** | 159 | .26 |
| Trust-related Schema | 163 | .40*** | 160 | .35*** | 160 | 1.18 |
| Attractiveness Schema | 164 | .27** | 161 | .26** | 158 | .22 |
| Abandonment Schema | 164 | .51*** | 161 | .53*** | 158 | -.51 |
| Danger/Fear-related Schema | 165 | .51*** | 162 | .54*** | 162 | -.78 |
| Sexual Behaviour Schema | 158 | .27** | 155 | .23** | 152 | .88 |
| Projection | 164 | .25** | 161 | .30*** | 158 | -1.13. |
| Emotional Distress of Private Thoughts | | | | | | |
| Trust-related Schema | 157 | .36*** | 154 | .32*** | 151 | .69 |
| Attractiveness Schema | 161 | .16* | 158 | .12 | 154 | .91 |
| Abandonment Schema | 162 | .24** | 159 | .26** | 156 | -.44 |
| Danger/Fear-related Schema | 159 | .48*** | 156 | .50*** | 156 | .50 |
| Sexual Behaviour Schema | 152 | .28*** | 149 | .33*** | 146 | -1.10 |
| Projection | 157 | .23** | 154 | .22** | 151 | .22 |
| Mother Supportive | 158 | .03 | 155 | .05 | 152 | -.42 |
| Father Supportive | 157 | .07 | 154 | .12 | 151 | -1.06 |
| Mother Rejecting | 156 | .17* | 153 | .18* | 150 | -.21 |
| Father Rejecting | 156 | .07 | 153 | .10 | 150 | -.63 |
| Mother Overinvolved | 158 | .07 | 155 | .04 | 152 | .64 |
| Father Overinvolved | 158 | .01 | 155 | .04 | 152 | -.64 |

Table 17 continued

| | Chronic | | Relationship | | Difference | |
|---|---|---|---|---|---|---|
| | n | r | n | r | df | t |
| Trait Anger | 164 | .48*** | 161 | .41*** | 158 | 1.72 |
| Anger Expression | 165 | .55*** | 162 | .49*** | 159 | 1.56 |
| Anger-In | 165 | .26** | 162 | .27** | 159 | -.23 |
| Anger-Out | 165 | .44*** | 162 | .38*** | 159 | 1.44 |
| Anger-Control | 165 | -.47*** | 162 | -.39*** | 159 | -1.96* |
| Reasoning Ability | 164 | .20* | 161 | .23** | 158 | -.66 |
| Verbal Aggression | 164 | .38*** | 161 | .41*** | 158 | -.71 |
| Violence | 164 | .24** | 161 | .25** | 158 | -.22 |
| Intrusiveness | 164 | .46*** | 161 | .43*** | 158 | .73 |
| Active Surveillance | 164 | .35*** | 161 | .36*** | 158 | -.23 |
| Snooping | 164 | .30*** | 161 | .22** | 158 | 1.81 |
| Curiosity | 164 | .49** | 161 | .47*** | 158 | .50 |
| Social Desirability | 165 | -.33*** | 162 | -.26** | 159 | -1.60 |
| Age | 165 | -.33*** | 162 | -.37*** | 159 | .93 |
| Relationship Length | 164 | -.31*** | 161 | -.30*** | 158 | -.23 |
| Relationship Satisfaction | 162 | -.17* | 159 | -.11 | 156 | -1.31 |
| Income Range | 159 | -.25** | 156 | -.30*** | 153 | 1.11 |

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

this group, although in general, and in response to $Q_5$, the frequency of negative thoughts were more highly associated with jealousy than the distress caused by these thoughts. In response to $Q_6$, there were small, but significant associations between jealousy and the perception of having a rejecting mother. However, there were no associations with any of the other parental rearing subscales of the EMBU, including the rejecting father subscale.

In support of $H_1$ that predicted that high levels of jealousy were expected to be associated with anger expression, specifically higher levels of both suppressed anger and overt anger, support was found. High jealousy individuals were more likely to

admit to expressing anger (both inwardly and outwardly) more readily than low jealousy individuals. The outward expression of anger was associated with jealousy more strongly. Furthermore, high jealousy individuals were likely to exhibit increased trait anger, and poorer control over their anger expression than low jealousy individuals.

In support of $H_2$ that predicted that high levels of jealousy would be associated with increased intrusive behaviour, results indicated that increased jealousy was most highly related to curious intrusions. Similarly, high levels of jealousy were associated with snooping behaviour and active surveillance of a partner, relationships were simply weaker than those for curiosity.

Finally, $H_3$ predicted high levels of jealousy would be associated with aggressive behaviour, such as high levels of verbal aggression, and intimate violence. Support was also found for this contention. Specifically, high levels of jealousy were weakly-to-moderately associated with verbal aggression and weakly associated with violence directed toward the partner. These results suggest that high jealousy individuals were, on a whole, significantly more aggressive than low jealousy individuals. However, the difference was most noticeable in the increased levels of verbal abuse in the high jealousy individuals, rather than the levels of physical violence.

There was a moderately, significant negative correlation between both measures of jealousy and Social Desirability Responding scores, suggesting that low jealousy individuals were significantly more likely to be responding to the questionnaire in a socially desirable manner. It is therefore possible that the degree of jealousy these individuals actually experience could be higher than what was reported (considering jealousy is often viewed as a negative phenomenon).

The finding that younger respondents were significantly more jealous than older respondents possibly accounted for some other associations. Partial correlations were

performed between both sets of jealousy scores and Relationship Length, Relationship Satisfaction, and Income Range, controlling for Age. Unlike the results of the bivariate analyses presented in Table 18, there was only one significant association between these variables with Age held constant. Relationship Jealousy was still found to be associated with Relationship Satisfaction, $r$ (153) = -.16, $p$. < .05, however this association was very weak.

Advanced Analyses

Taken together, the bivariate analyses appear to lend support to theoretical formulations presented earlier. Specifically, significant associations were evident between jealousy and perceptions of rejection by parents (specifically mothers), negative patterns of thoughts about relationships (schema), intrusiveness, anger, and aggressive behaviour. To further empirically validate Tarrier et al.'s (1990) formulation of a possible aggressive response to jealousy, path analyses were employed to represent the combined contribution of variables at each step of the predictive process from schema activation to primary and secondary responses (refer back to page 42 for the proposed model). The perception of having a rejecting mother in childhood was added to the model as a construct identified as a prominent *previous experience* (especially in relation to aggressive responses) (Barnett et al., 1985; Dutton et al., 1995; Saunders, 1992a). Following the primary associations between current jealousy and confirmatory behaviour (intrusiveness), secondary responses of anger and anger expression when jealous are depicted in relation to the outcomes of general verbal aggression and violence.

Figures 5 and Figure 6 provide path models for males and females separately due to the gender differences identified in the preliminary analyses section of this

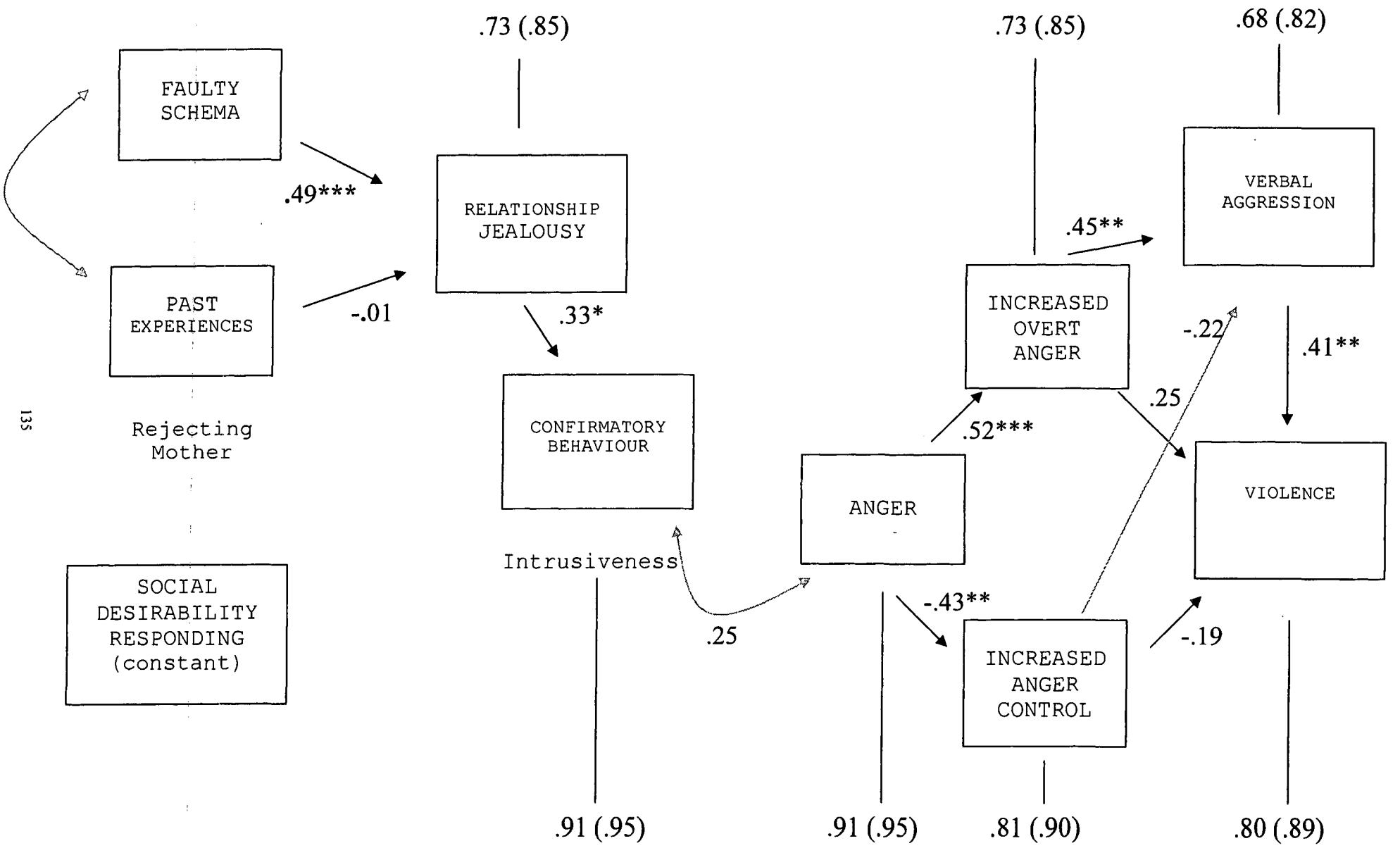




Figure 5 Path model depicting a theoretical formulation of aggressive responses to jealousy for men

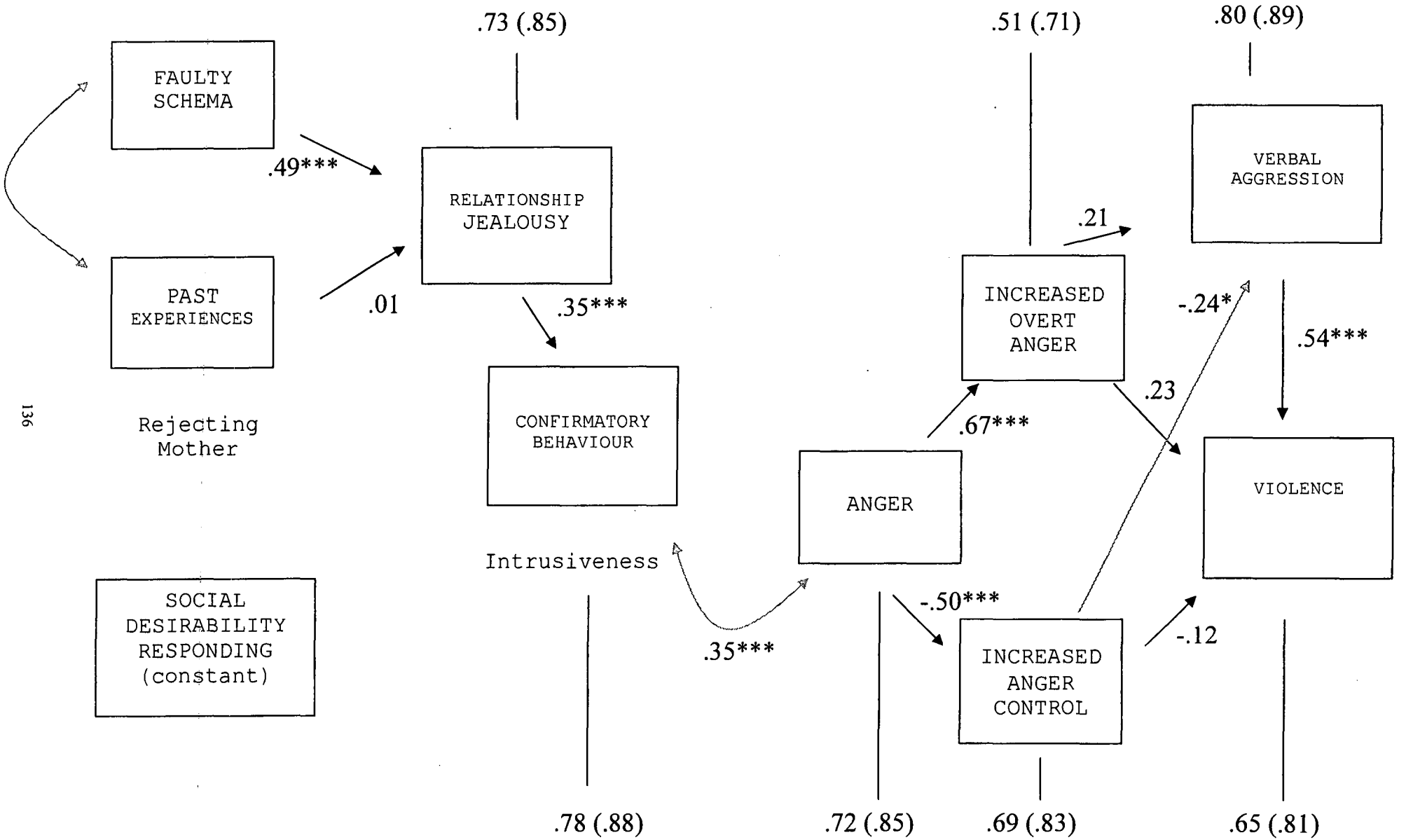




Figure 6 Path model depicting a theoretical formulation of aggressive responses to jealousy for women

chapter[23]. The first set of variables in each path model represent the two exogenous variables[4] of Faulty Schema and Rejecting Mother (past experiences). The variability of these constructs is expected to be determined outside of the model, therefore correlations between these variables are simply depicted by curved lines. Analysed paths are depicted by straight arrows while path regression coefficients (Beta values) provide standardised (scale-free) comparisons across the different variables[5]. As it is not possible to account for the total variance of any one variable, error terms are provided to indicate the effects of variables not included in the model (the unexplained variance). These residuals stem from each endogenous variable[6], calculated by the formula, $1 - R^2$. Conventional path analysis residual terms calculated via the square root of $1 - R^2$ are provided in brackets next to the unexplained variance (Pedhazur, 1982).

The associations between variables in the model for men and the model for women were similar, however, in the majority of cases, stronger associations were

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[2] The contribution of Social Desirability Responding (SDR) scores was held constant for all analyses due to their significant association with each outcome variable. Dutton et al. (1996) and Saunders (1992b) have suggested this is an important factor to control for when attempting to measure constructs with negative impacts such as jealousy, intrusiveness, and violence.

[3] The total sum of negative thoughts about relationships was labelled "faulty schema". The subscales (schema) were not entered separately as the sum of the cognitions was more highly correlated with each of the endogenous variables and the internal reliability of the total scale was higher than any of the separate subscales.

[4] An exogenous variable is a variable whose variance is considered to be determined outside of the model therefore any relationships between exogenous variables are not considered in the model so remain unanalysed (Pedhazur, 1982).

[5] When two or more variables are parallel (competing) in the model, all variables at that stage of the path are entered into the same regression equation to compete for variance on the following outcome variable.

[6] An endogenous variable is a variable whose variance is explained by its relationship to other endogenous or exogenous variables (Pedhazur, 1982).

evident in the female sample[7]. Specifically, the association between relationship jealousy and confirmatory behaviour (intrusiveness) was stronger, as were the paths between anger and the overt expression of that anger when jealous. The models depicted a moderate association between increased faulty cognitions about relationships (schema) and jealousy in current relationships. There was a weak-to-moderate association between current relationship jealousy and the primary response of intrusiveness (confirmatory behaviour). This primary response was further weakly-to-moderately related to anger, which was highly associated with overt anger expression and the lack of control over anger expression. A lack of anger control was weakly associated with verbal aggression. However, a moderate association between overt anger when jealous and verbal aggression was evident for men with the same relationship appearing much weaker for women. Finally, weak associations appeared evident with these types of anger expression and violence, with respondents expressing increased overt anger having a greater propensity for abuse of the partner. Perceptions of having a rejecting mother in childhood did not provide a unique contribution to the model.

Exploratory Analyses

Following these empirical representations of Tarrier et al.'s (1990) model of a possible aggressive response to jealousy, it was decided to further hypothesise a competing model based on several statistical outcomes and theoretical considerations. Figure 7 and Figure 8 present these alternative paths for men and women separately.

[7] The strength of associations is discussed rather than significance levels for two reasons. Firstly, by splitting the sample by gender, the two sample sizes are lowered, decreasing power. Secondly, due to the inclusion of some variables with non-normal distributions (specifically, Intrusiveness and Violence scores), significance levels from regression analyses are not as robust. However, the size of the Beta value is the main interest, not the significance of the model (Howell, 1991).

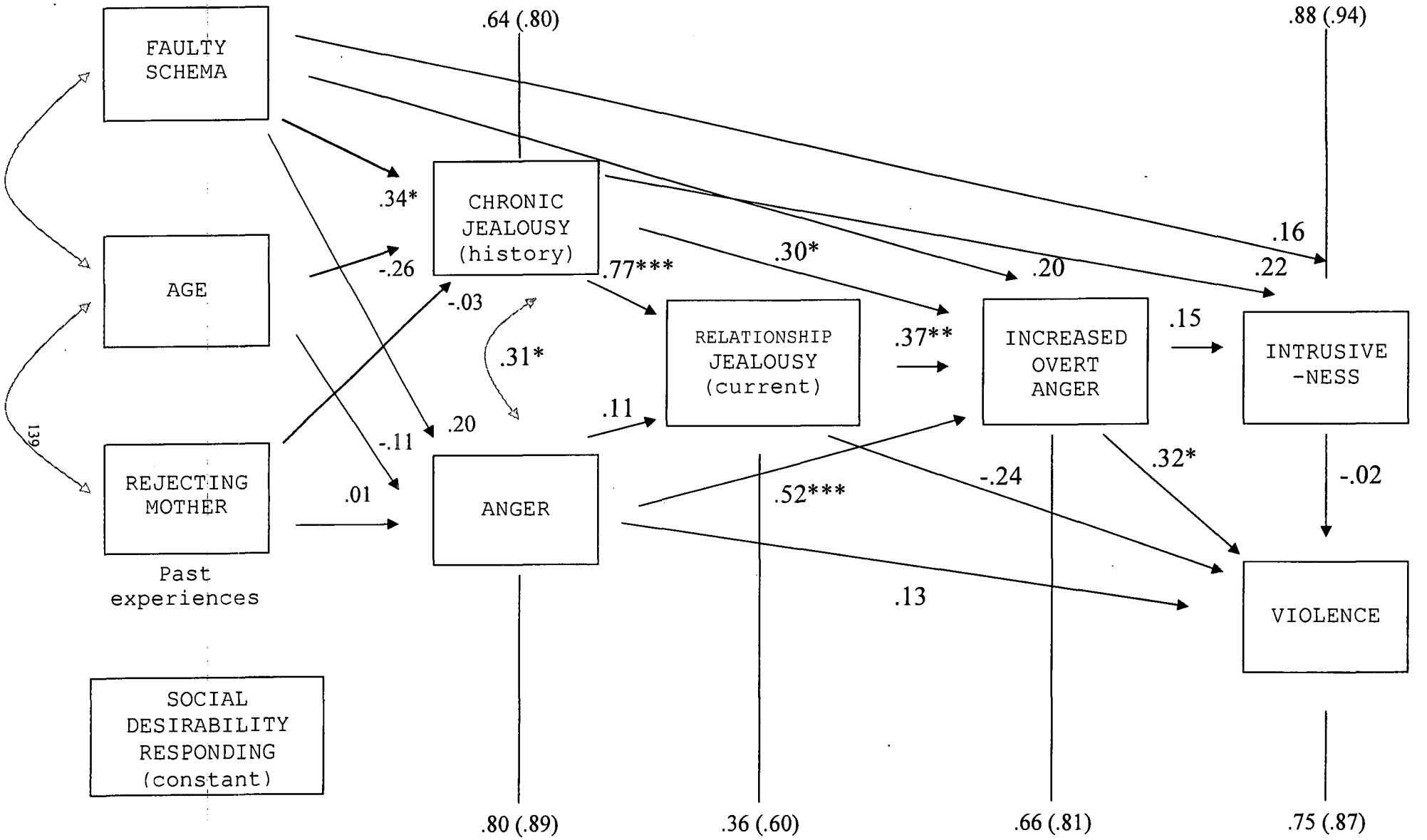


Figure 7 Alternative path model of aggressive responses to jealousy for men (adapted from Whitford & Howells, 2001b)

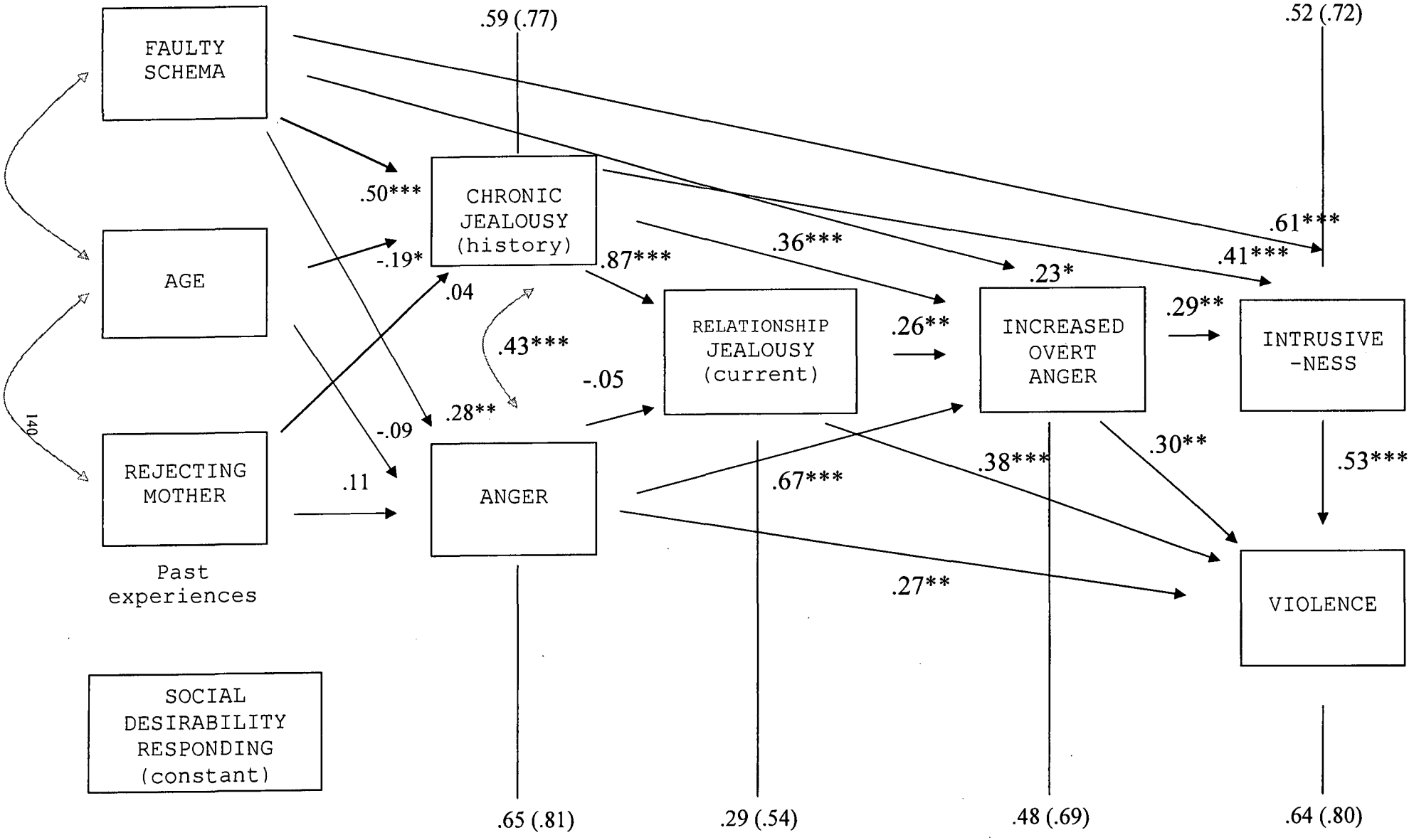


Figure 8 Alternative path model of aggressive responses to jealousy for women (adapted from Whitford & Howells, 2001b)

Firstly, based on the body of literature that contended that anger may be the central component of jealousy (for instance see Dutton et al., 1996; White & Mullen, 1989), it was decided to test the direct association between jealousy and anger at an earlier stage of the model, rather than look at anger as a secondary response[8]. This more proximal relationship warranted examination when the bivariate associations between jealousy and anger, and the high acknowledgment by respondents of anger as an emotion felt when jealous, were taken into account.

Secondly, Relationship Jealousy (rather than Chronic Jealousy, or jealousy across relationships) was chosen to add to the first set of models as this variable represented current jealousy and the other variables mainly represented acts against the current partner during the last year. However, as can be seen by previous analyses, there was very little difference between a respondent's history of jealousy and their current jealousy suggesting that relationship-specific components played a very small role in the provocation of jealousy for this sample. Therefore, it was decided to depict this association within the model by representing the relationship between anger and jealousy across relationships before looking at the effect of these variables on current jealousy levels.

Thirdly, based on the research linking intimate intrusiveness to physical abuse of the partner or ex-partner, it was once again decided to ignore the primary and secondary response distinctions and examine the proximal relationship between Intrusiveness and Violence, therefore depicting intrusive acts as a form of aggressive manifestation rather than a confirmatory response that precedes anger and aggression. Specifically, if anger

[8] Ultimately, the distinction between State and Trait Anger should be made at this point. Specifically, Trait Anger may be more proximally related to jealousy and high levels of State Anger may be exhibited as a secondary response, however, as discussed in the Method section, without actually provoking a jealous episode, State Anger could not be measured accurately.

is viewed as a central component of jealousy, then preliminary expressions are likely to have aggressive elements.

Finally, due to the very weak associations between Anger Control and Violence, Anger Control was dropped from the competing model for purposes of clarity. Similarly, Verbal Aggression was not included in the models to avoid path complications – Intrusiveness and Violence were considered to be the variables of main interest. In essence, the paths from cognitions to affective components to current behaviours is examined in these preceding models, bypassing the theoretical assumptions of primary and secondary response patterns. Furthermore, additional paths are depicted between constructs represented at different points in the model to give a more complex view of the important interrelationships between variables.

For men, perceptions of having a rejecting mother in childhood did not contribute in the competing model. Faulty cognitions about romantic relationships were weakly-to-moderately associated with men's histories of jealousy, especially for younger respondents. Cognitions were only weakly related to other constructs. Anger was weakly-to-moderately associated with men's history of jealousy, however no clear association was found between anger and current jealousy once men's history of jealousy was taken into account. Current jealousy was weakly-to-moderately associated with anger expressed overtly which in turn was only weakly related to intrusiveness and weakly-to-moderately associated with violence. Intrusive behaviour was not found to be related to physical abuse of the partner, in fact, current levels of jealousy were found to be negatively, weakly associated with violence for this group of men.

Similarly, for women there was very little evidence of an association between perceptions of having a rejecting mother in childhood and jealousy. However, there was a moderate association between faulty cognitions about romantic relationships and

women's history of jealousy, once again being a more prominent problem for younger respondents. Furthermore, a moderate-to-high relationship was found between faulty cognitions and intrusive behaviour and a moderate association was found between women's histories of jealousy and intrusiveness. Trait anger was moderately associated with women's histories of jealousy, however not associated with current jealousy once historical jealousy was taken into account. Specifically, Trait Anger and Chronic Jealousy accounted for 71% of the variance on Relationship Jealousy. Current jealousy was further weakly-to-moderately associated with anger expressed overtly which was weakly-to-moderately related with both intrusive behaviour and physical abuse of the partner. A moderate relationship was found between intrusive behaviour and violence for women, while a moderate relationship was found between current jealousy and violence.

Overall, the associations between variables and the variance accounted for at each stage of the competing model for women showed a superior model of associations than those presented for the men, or presented in the original models based on Tarrier et al.'s (1990) formulation[9]. In other words, there was more variance accounted for by variables presented at each step of the model for women than there was for each step of the model for men, suggesting other factors not measured had a greater impact on male outcomes such as jealousy, anger, intrusiveness, and violence. In response to the moderate to moderately high associations evidenced between Faulty Cognitions, Intrusiveness, and Violence for the women, it was decided to breakdown the relationships between these variables to tease out the more precise levels of association.

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[9] Note that model fit could not be compared across models, as models were not nested and therefore not directly comparable statistically (Grimm & Yarnold, 1995; Pedhazur, 1982).

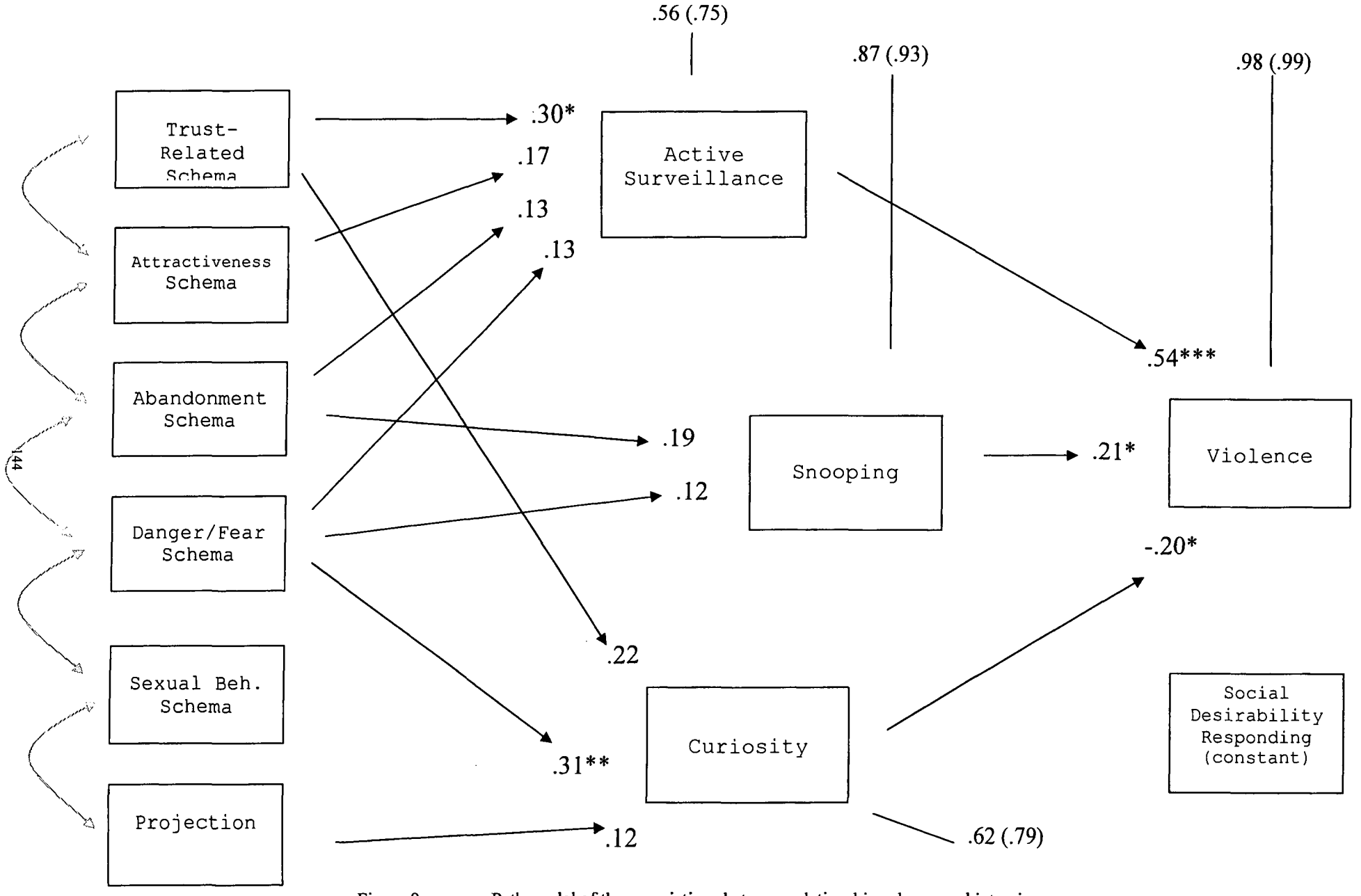


Figure 9 Path model of the associations between relationship schema and intrusive behaviours for women (adapted from Whitford & Howells, 2001a).

Specifically, Figure 9 presents the final, detailed model of relationships between separate schema, types of intrusive behaviour, and violence for women only. The model showed weak associations between Trust-Related Schema, and to a lesser extent Projection, and the intrusive subscale of Curiosity, with the most prominent (weak-to-moderate) relationship appearing between this low level curious behaviour and the fear of a rival existing[10]. Only weak associations appear between Snooping behaviour and the two schema of Abandonment Schema and Danger/Fear-Related Schema. Similarly, weak associations were evident between Active Surveillance and thoughts of being abandoned, being unattractive or unworthy, and thoughts of a rival existing. Most outstandingly, Trust-Related Schema was weakly-to-moderately associated with Active Surveillance which, in turn, was found to be moderately related to Violence. Weak associations also appeared between Snooping, Curiosity, and Violence. A good 44% of the variance was accounted for on Active Surveillance scores by schema, with 13% accounted for on Snooping scores, and 38% on Curiosity scores. However, the three intrusive subscales only accounted for 2% of the variance on Violence scores suggesting that despite the relationship between intimate intrusive behaviours (especially surveillance) and physical abuse of a partner, many other factors contribute to the occurrence of violence perpetrated by women.

## Discussion

Scores across the jealousy spectrum appear to be approaching a normal distribution especially in relation to respondents' general histories of jealousy. The majority of individuals reported some degree of jealousy, with a tendency for respondents to possibly under-report this phenomenon, as indicated by the negative

[10] Only associations with Beta values above .10 are depicted for purposes of clarity.

association between social desirability responding and jealousy scores. Respondents were also less likely to admit jealousy problems in their current romantic relationships, possibly suggesting jealousy issues lessen with age and experience – a result supported by increased jealousy scores in younger respondents. Approximately 20% reported extreme jealousy suggesting jealousy is of clinical significance in the general population, a result in line with Mullen and Martin's (1994) community research where 19% of the sample reported high jealousy concerns. Men and women reported equally high levels of jealousy also in line with Mullen and Martin's (1994) findings.

Anger appeared to be the most prominent emotional response admitted by respondents in relation to jealousy-provoking situations, outweighing sadness, fear, and excitement. High jealousy individuals were more likely to experience more frequent angry, fearful, and sad responses. Prominent fears or concerns when jealous appeared to be losing attention or time with the partner, being deserted or losing intimacy. Fear of being humiliated, losing sexual exclusivity or financial security were much less likely to concern respondents, with no gender differences appearing. Some of these results are not consistent with Mullen and Martin's (1994) findings where desertion was the biggest fear, with men more likely to be concerned by this factor and women more likely to be concerned with loss of intimacy with a partner. Similarly, high jealousy individuals in Mullen and Martin's (1994) study expressed greater fears of humiliation, loss of time and attention, and sexual exclusivity. In the current research, increased jealousy was related to all concerns apart from loss of financial security. Overall, increased jealousy was related to a large range of emotional responses and fears.

In further support of previous research, increased jealousy was related to respondents' perceptions of having a rejecting mother and all schema related to romantic relationships assessed by this research. These results support contentions made

in the jealousy and domestic violence literature (Barnett et al., 1995; Dutton et al., 1995; Saunders, 1992) and further expand on the research linking jealousy and underlying schema (Dolan & Bishay, 1996a, 199b; Intili & Tarrier, 1998; Tarrier et al., 1990). In light of these findings, it appears that a general negative set of cognitions related to romantic relationships underlie increased jealousy concerns, suggesting an even larger set of schema than possibly measured by this research. Most prominently, abandonment schema and danger/fear-related schema were most highly related to jealousy followed by trust-related schema.

Support for Tarrier et al.'s (1990) hypothesised model of a possible aggressive response to jealousy was found for both men and women, although the model for women was stronger as indicated by the increased Beta values and variance explained at each stage of the model. These results suggest theorised models of morbid jealousy are applicable in the general student populations. However, alternative explorations of the jealousy complex devoid of primary and secondary response categorisations appear to have gained stronger empirical support. Specifically, by following the more general pattern of cognitions to emotional response patterns to behaviour, a superior model of a possible aggressive response to jealousy for women was established. This model suggests that intrusive, confirmatory expressions common to jealousy are inherently aggressive manifestations and proximally related to physical abuse of the partner. Despite this proximal relationship between jealousy and anger, and furthermore, intrusiveness and violence for women, this does not suggest that secondary appraisals and responses are not supported. It more clearly suggests that anger and aggression are likely primary responses to jealousy-provocation for women. Further analysis of secondary responses is still needed.

It was very clear from the results that cognitions were the most powerful predictor of intrusive behaviour for women. It could therefore be contended that the cognitive element of the jealousy complex is the best predictor of intrusive behaviour and, in turn, of violent manifestations within current, intact relationships for women. As indicated by the final model for women, trust-related schema and other negative cognitions about romantic relationships appear to be related to the more severe elements of intrusiveness, mainly active surveillance of a partner. This, in turn, appears to be the strongest predictor of intimate abuse for this group. The implications of this study, and some of its limitations, are further discussed in the final chapter of this thesis.

# CHAPTER 8

# STUDY 3

Following on from Study 2, the aim of this section of the research project was to determine whether one could distinguish between high-jealousy and low-jealousy individuals on the basis of the types of cognitions activated in response to neutral or ambiguous situations. In addition, this study was devised to ascertain whether high-jealousy individuals showed excessive, faulty responses to a number of diverse situations or whether their cognitive biases were centered on romantic relationships only. The study consists of three main components.

Part A was designed to assess the normative responses from a small pilot sample to a variety of scenarios taken from the jealousy literature predicted to elicit jealous responses, ranging from ambiguous and vague scenarios to more specific situations. It was anticipated that open-ended responses to scenarios could be used to (a) help choose which particular scenarios were useful in eliciting a good range of responses, and (b) provide common responses to be transformed into rateable items.

Part B was devised to assess normative responses in a larger sample to a shorter set of scenarios. Respondents were asked to rate 4 alternative items for each scenario on 5-point scales ranging from 'not at all likely' (0) to 'very likely' (4).

Finally, Part C was devised to collect qualitative data (case illustrations of individuals presenting with jealousy problems) in an attempt to provide a detailed exploration of underlying schema and cognitive biases across jealous individuals including their responses to personal incidents (real-life events) and hypothetical events. It was anticipated that responses would be collected via the use of clinically-orientated, semi-structured cognitive-behavioural interviews. In addition, scores on all major questionnaires, as administered in Study 2, would be presented for each of the case studies to provide an indication of each individual's cognitive, affective, and behavioural profiles in comparison to the general student sample.

The Use of Scenarios

As discussed in previous chapters, researchers have attempted to measure the types of cognitions activated in jealousy sufferers in response to neutral or ambiguous situations and the emotional distress caused by such thoughts. Various methods have been utilised including presenting respondents with vignettes or scenarios, in interview or written form, and asking questions about those hypothetical situations (Bishay et al., 1989; Dolan, 1992; Dolan & Bishay, 1996a, 199b; Hansen, 1982). For example, Hansen (1982) asked 220 undergraduate students to rate how they felt about their partners' behaviour in eight hypothetical situations designed to measure different types of jealousy (e.g, sexual jealousy, jealousy of partner's hobbies or friends, etc.). Respondents were asked to indicate their happiness or distress about each situation on 11 point scales ranging from 1 (extremely pleased) to 11 (extremely disturbed or bothered).

Dolan (1992), on the other hand, administered a non-standardised measure called the Jealousy Interpretation Questionnaire (JIQ) to 40 morbidly jealous individuals. Respondents were asked to read through brief scenarios (e.g., about their partner watching or looking at a member of the opposite sex) and choose an explanation about what was going on in the scenario from three listed explanations (e.g., the partner will love that person).

Butters, McClure, Siegert, and Ward (1997) have argued that hypothetical events may limit important information that is salient in real-life events (e.g., the influence of affect) or they may be irrelevant to some respondents. However, they also argue that hypothetical scenarios eliminate the effect of memory problems such as those present when recalling real life experiences. In addition, they allow the researcher to control the information they collect, for instance, from a range of situations that the

respondents may or may not have experienced. Overall, real-life events are often assessed when state features are important, while hypothetical events seem to be useful when assessing trait features (Butters, McClure, Siegert, & Ward, 1997).

## Part A

For the purpose of this first part of the study, a pilot sample of respondents from a general student population were asked to write a brief explanation of what they thought was going on in several hypothetical events (see appendix 8). Scenarios were partly adapted from the Jealousy Interpretation Questionnaire (JIQ; Dolan, 1992) or new vignettes were created, for several reasons. First, the JIQ was designed to be administered to morbidly jealous individuals undergoing counselling for jealousy problems. For this reason, some scenarios were thought to be too ambiguous for a normal population sample (e.g., you cannot get a reply when you answer the telephone, why?). Alternatively, other scenarios appeared to be leading (e.g., you know about a previous relationship your partner had with someone you know, the partner arrives three hours late, what do you think is going on?). Therefore, to avoid these problems, the current study presented a set of revised scenarios that were neutral, yet less ambiguous than some of the items presented in the JIQ (e.g., asking what a person thinks if a car is parked across the road from their house, with a person in it watching them as they say goodbye to their partner and leave for work).

Participants were asked to respond to open-ended questions with reference to each scenario rather than choosing from a set of preconceived responses such as those in the JIQ. The aim of collecting this type of data was to (a) assess which of the scenarios prompted a range of responses in a normal sample, and (b) to provide responses that could be transformed into rateable items. This is preferable to forcing participants to

chose between neutral, threatening (jealousy related) or extreme jealous responses such as in the JIQ. To summarise, the specific research questions and aims for Part A of Study 3 were...

Do the scenarios prompt respondents from a general student sample to give varied and useful responses which may be later transformed into rateable items? If yes, then it is intended to transform responses into rateable items.

Can the number of scenarios be minimised to increase testing efficiency without losing the range of ambiguous situations? If yes, then the number of scenarios will be so reduced.

## Method

### Respondents

Sixty questionnaires containing the jealousy scenarios were distributed to University of South Australia undergraduates attending summer classes, offered by the School of Communication and Information Studies. Twenty-nine students responded (48% response rate), including 23 females and 6 males. Ages ranged from 17 to 58 with a mean age of 32.93 years (SD = 14.65).

### Materials

Participants completed a questionnaire consisting of 10 jealousy scenarios. A demographic section collecting information about age and sex was included, in addition to a section where participants could provide comments about the questionnaire in general.

Assessment of Responses to Ambiguous Scenarios. Initial thoughts activated by the ambiguous scenarios were collected by asking participants to write down the first thought they had in relation to each scenario. Included were the following 10 scenarios...

Scenario 1

You say goodbye to your partner, get in your car and drive out of your driveway and at the regular time you leave for work or study. You notice a car parked on the street near your house with a person in it watching you go past. What runs through your mind?

Scenario 2

When you go to answer you home telephone, someone hangs up. This has happened around 6 times in the last three weeks. What do you think about these phone calls?

Scenario 3

You get in your car to go out and realise that nearly half a tank of petrol has been used since you last drove it. You have no idea why this much petrol is missing. Where do you think it has gone?

Scenario 4

You call home to talk to your partner, who you know is there, and there is no reply. You try three times within half an hour and still there is no answer. What do you think?

Scenario 5

Your partner comes home and surprises you with a present (e.g., flowers, chocolates, tickets to an event, your favourite food, etc.). What do you think when this happens?

Scenario 6

You partner comes home unusually late from work or study - what's the first thing that comes into your mind about what may have happened to make them so late?

Scenario 7

Your partner is talking to someone on the telephone and he/she lowers his/her voice when you come close. Why do you think your partner does that?

Scenario 8

An attractive person (the opposite sex of your partner) walks past you and your partner in a shopping centre. What runs through your mind?

Scenario 9

You are out in public and your partner approaches someone of the opposite sex that you do not recognise. Your partner acts excited to see them, kisses and hugs this person. What is the first thing you think when this happens?

Scenario 10

Your partner tells you that they ran into an old boyfriend/girlfriend and had lunch with them during the day. What is the first thing that comes to your mind when you hear this?

## Procedure

Testing of Respondents. Only students currently in a heterosexual relationship for a minimum of 6 months, or students separated from their long-term partner within the last year were asked to participate. These criteria were chosen for three reasons. Firstly, 6 months was considered to be a reasonable amount of time to develop some investment in a relationship therefore increasing the probability of at least one jealousy incident. Secondly, as most standardised questionnaires ask respondents to refer to incidents within the last year of their lives (as recall is suggested to diminish in clarity the older the event), separated participants were limited to this time period. Finally, homosexual participants were excluded as little research has been done in this area and

it was anticipated that there would be too few respondents to analyses differences between groups.

Those fitting the above criteria were firstly given an information sheet (see appendix 9) and advised that the questionnaire was part of a study investigating the relationship between thoughts, feelings, and behaviour in personal life and that their participation was voluntary. No reference was made to jealousy in the questionnaire to avoid prompting participants. Participants were advised that completion of the questionnaire would require approximately 20 minutes of their time and that all responses were completely anonymous.

Scoring. Participants were prompted by questions at the end of each scenario to write down the first thought that came into their head. The researcher used three specific criteria to review all open-ended responses to the 10 scenarios. These criteria were applied to help decide whether each scenario was suitable for inclusion in further studies. The first criteria required that there was at least one jealousy-related response to the scenario. The second criteria required that there was a minimum of 4 different responses to the scenario so four rateable items could be compiled. The third criteria required that the responses were useable as items to be rated in conjunction with the scenario. For instance, take the following scenario...

> You say goodbye to your partner, get in your car and drive out of your driveway at the regular time you leave for work or study. You notice a car parked on the street near your house with a person in it watching you go past. What runs through your mind?

Some participants responded with "no one" or "nothing". These specific responses could not be transformed into clearly rateable items. However, other responses such as

"someone watching to break in" or "could be partner's lover" can be easily transformed such as...

Rate how likely it is that each of these thoughts runs through your mind....

- Maybe someone is waiting to break in?
- Maybe that person is having an affair with my partner?

## Results

Five scenarios met all three criteria. Specifically, each scenario had at least one jealousy-related response and had more than four variations of responses suitable for transformation into items. The remaining 5 scenarios did not meet these criteria and were excluded from further analysis. The 5 chosen scenarios covered a range of ambiguous situations, therefore increasing future testing efficiency without compromising the measurement of cognitions across situations.

For each of these 5 scenarios, similar open-ended responses were grouped together and 4 of the most common responses were chosen for transformation into items to be rated on 5-point scales ranging from 'not at all likely' (0) to 'very likely' (4). Finally, new instructions sets were produced (see appendix 10).

## Part B

In this phase of the study, a larger normative sample was employed to ascertain general responses to each of the 5 rateable ambiguous scenarios described in Part A (above). As with Dolan's (1992) use of the Jealousy Interpretation Questionnaire (JIQ) with morbidly jealous patients, this newly devised instrument was used to assess the likelihood of a normal sample choosing certain alternative assumptions in relation to ambiguous situations. Based on the notion that underlying schema related to romantic relationships direct jealous individuals' attention to jealousy-provoking threats, it was

anticipated that the more jealous an individual, the more likely they would be to misinterpret the ambiguous situations and choose the threat of unfaithfulness by a partner. Therefore, it was hypothesised that...

High-jealousy individuals will rate assumptions about the negative aspects of romantic relationships (i.e., inferences about infidelity) more highly than medium-jealousy and low-jealousy individuals. Similarly, medium-jealousy individuals will rate assumptions about the negative aspects of romantic relationships more highly than low-jealousy individuals.

There will be no difference between high-jealousy, medium-jealousy, and low-jealousy individuals in the rating of assumptions (inferences) not related to romantic relationships.

## Method

### Respondents

The same University of South Australia undergraduates attending a core subject in the division of Business and Enterprise, who participated in Study 2, responded to the scenario questionnaire as part of the full survey containing jealousy and relationship related questionnaires. To reiterate, 670 questionnaires were distributed with 165 surveys returned in completed form (25% response rate). Respondents included 49 males and 116 females. Ages ranged from 17 to 58 years with a mean of 23.82 years (SD = 7.51). A full description of the sample and the additional materials administered can be found in Chapter 7.

Ambiguous Scenarios.

Respondents were asked to read each of the 5 ambiguous scenarios and rate the likelihood of having each of the listed thoughts on 5-point scales ranging from 'not likely at all' (0) to 'very likely' (4). Each scenario had 4 likely responses to rate (once again, see appendix 10 for a complete copy of the questionnaire)...

Scenario 1

You say goodbye to your partner, get in your car and drive out of your driveway at the regular time you leave for work or study. You notice a car parked on the street near your house with a person in it watching you go past. Rate how likely it is that each of these thoughts runs through your mind....

- Maybe someone is waiting to break in?
- Maybe someone is waiting for a neighbour?
- Maybe that person is having an affair with my partner?
- Maybe that person is stalking me?

Scenario 2

When you go to answer your home telephone, someone hangs up. This has happened around 6 times in the last three weeks. Rate how likely it is that each of these thoughts runs through your mind...

- Maybe a prank caller is trying to frighten me?
- Maybe someone is having a relationship with my partner?
- Maybe a bunch of kids are playing around?
- Perhaps burglars are seeing if anyone is home?

Scenario 3

Your partner comes home and surprises you with a present (e.g., flowers, chocolates, tickets to an event, etc.). Rate how likely it is that each of these thoughts runs through your mind...

- My partner is being thoughtful and nice.
- Maybe my partner has some good news to tell me?
- Maybe my partner has cheated on me?
- Maybe my partner has some bad news to tell me?

Scenario 4

Your partner is talking to someone on the telephone and he/she lowers his/her voice when you come close. Rate how likely it is that each of these thoughts runs through your mind...

- Maybe my partner is having a secret relationship with the caller?
- Perhaps my partner is organising a surprise for me?
- Maybe my partner is having a private conversation that is none of my business?
- Perhaps my partner is embarrassed and doesn't want me to hear?

Scenario 5

Your partner tells you that they ran into an old boyfriend/girlfriend and had lunch with them during the day. Rate how likely it is that each of these thoughts runs through your mind...

- It is good that my partner tells me these things and doesn't hide them from me.
- Maybe there is something going on between them?
- It is good that they still get along.
- I hope they had a good lunch.

## Procedure

Testing of Respondents. Students approached to participate in the study were told the research was about the way we think, feel, and act in our personal lives, especially in the context of interpersonal relationships. Students were told that to

participate they must be in either a) a current heterosexual relationship, or b) separated from their long-term partner for less than 1 year. Willing participants were given an information sheet about the study (see appendix 6) and told about the sensitive nature of the questionnaire. Participants were informed that the information they provided would be completely anonymous, that they could contact the researcher if they had any questions and that no one would be disadvantaged for not participating.

## Preliminary Results and Scoring

Although rateable assumptions were originally collected in Part A for each separate ambiguous scenario, certain themes seemed to be evident across scenarios (assumptions of infidelity, trust, crime, etc.). Therefore, it was decided to attempt to aggregate the assumptions rated by respondents in Part B, into thematic clusters representative of possible underlying schema. In other words, data reduction was attempted to simplify scoring and subsequent analyses. Responses to rateable items across all scenarios were subjected to a principal-axis factoring procedure with iteration and varimax rotation. Results revealed 6 clear factors extracting 45% of the total variance, all with eigenvalues above 1.00. See Table 19 for a summary of the factors and item loadings above .30.

Factor 1 explained 31% of the extracted variance and consisted of 5 items all centered on the suspicion of a partner having an affair. This factor was therefore termed Infidelity Schema and had an internal reliability of .80 (alpha). Factor 2 explained 19% of the extracted variance, consisted of 4 items, and was named Positive Trust Schema as the items appeared to represent thoughts of good will towards a partner and their relationships with ex-lovers. The internal reliability of this second factor was .72

Table 18

Principal-Axis Factor Analysis of Rateable Items from 5 Neutral Scenarios

| Factor | Scenario, Item No | Item Content | Loadings | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | F1 | F2 | F3 | F4 | F5 | F6 |
| Infidelity Schema (1) | 1, 3 | Maybe that person is having an affair with my partner? | **.74** | | | | | |
| | 3, 3 | Maybe my partner has cheated on me? | **.73** | | | | | |
| | 2, 2 | Maybe someone is having a relationship with my partner? | **.70** | | | | | |
| | 4, 1 | Maybe my partner is having a secret relationship with the caller? | **.66** | | | | | |
| | 3, 4 | Maybe my partner has some bad news to tell me? | **.53** | | .31 | | | |
| Positive Trust Schema (2) | 5, 4 | I hope they [partner and ex] had a good lunch | | **.79** | | | | |
| | 5, 3 | It is good that they [partner and ex] still get along | | **.77** | | | | |
| | 5, 2 | Maybe there is something going on between them [partner and ex]? (reverse coded) | .49 | **.53** | | | | |
| | 5, 1 | It is good that my partner tells me these things and doesn't hide them from me [having lunch with ex] | | **.30** | | | | |
| Crime Vulnerability | 1, 1 | Maybe someone is waiting to break in? | | | **.65** | | | |
| Schema (3) | 1, 4 | Maybe that person is stalking me? | .38 | | **.54** | | | |
| | 2, 4 | Perhaps burglars are seeing if anyone is home? | | | **.54** | | | |
| | 2, 1 | Maybe a prank caller is trying to frighten me? | | | **.44** | | .42 | |
| Privacy Schema (4) | 4, 4 | Perhaps my partner is embarrassed and doesn't want me to hear? | | | | **.63** | | |
| | 4, 3 | Maybe my partner is having a private conversation that is none of my business? | | | | **.52** | | |
| Environmental Schema (5) | 1, 2 | Maybe someone is waiting for a neighbour? | | | | | **.48** | |
| | 2, 3 | Maybe a bunch of kids are playing around? | | | | | **.46** | |
| Positive Partner Schema (6) | Scenario 3, 1 | My partner is being thoughtful and nice | | | | | .32 | **.59** |
| | Scenario 3, 2 | Maybe my partner has some good news to tell me? | | | | | | **.48** |
| | Scenario 4, 2 | Perhaps my partner is organising a surprise for me? | | | | | | **.46** |

(alpha). Factor 3 consisted of 4 items (alpha = .64), and accounted for 15% of the extracted variance. This factor was named Crime Vulnerability Schema as assumptions were related to crimes that could be committed directly affecting the respondent (like having their house broken into or being stalked). Factor 4 accounted for 13% of the extracted variance and consisted of 2 items (alpha = .57) centering on respect for a partner's privacy. This factor was named Privacy Schema. Factor 5 also consisted of 2 items (alpha = .43), accounting for 11% of the extracted variance. Items were related to environmental explanations such as neighbourhood happenings (people waiting for neighbours, kids playing around). This factor was therefore termed Environmental Schema. Finally, factor 6 accounted for 11% of the extracted variance and consisted of 3 items (alpha = .50) related to positive explanations as to why a partner may be engaging in certain activities. This factor was therefore named Positive Partner Schema.

The set of items found to load on each factor was summated and then divided by the number of items summed to obtain scores for each of the schema. Each item was originally rated by respondents on a 5-point scale ranging from 'not likely at all' (0) to 'very likely' (4), therefore all scores for schema could range from 0 to 4.

## Results

### Descriptive Statistics

Table 20 gives the descriptive statistics for the six scales derived from the responses to ambiguous scenarios. The score distributions for the themes of Positive Trust, Crime Vulnerability, Privacy, and Positive Partner were all approximately normally distributed while the score distribution for Environmental Schema was

Table 19

Descriptive Statistics for the Six Schema Derived from Responses to Ambiguous Scenarios

| | n | M | SD | Min. | Max. | Mode | Median |
|---|---|---|---|---|---|---|---|
| Infidelity Schema | 165 | .76 | .67 | 0 | 4 | 0 | 0.60 |
| Positive Trust Schema | 163 | 2.24 | .81 | .50 | 4 | 2 | 2.25 |
| Crime Vulnerability Schema | 165 | 1.60 | .75 | 0 | 4 | 1.5 | 1.5 |
| Privacy Schema | 165 | 2.11 | .94 | 0 | 4 | 2 | 2.0 |
| Environmental Schema | 165 | 2.58 | .83 | 0 | 4 | 3 | 2.5 |
| Positive Partner Schema | 165 | 2.60 | .64 | 0 | 4 | 2.67 | 2.67 |

slightly negatively skewed. However, of main interest, the score distribution for the schema of Infidelity was highly positively skewed suggesting it was a low frequency assumption that a partner was having an affair across the general student sample.

Inferential Statistics

Chronic jealousy scores (jealousy across relationships), as collected in Study 2 from the same sample of respondents, were trichotomised and three jealousy groups were isolated based on criteria utilised in Mullen and Martin's (1994) community study of jealousy. Individuals with scores one standard deviation below the mean were classified as the low-jealousy group and individuals with scores one standard deviation above the mean were classified as high-jealousy. All scores falling within these two points were classified as medium-jealousy individuals. One-way ANOVAs and post hoc analyses (Tukey's honestly significant difference tests assess differences between all combinations of groups) were utilised to compare the three jealousy groups across the 6 schema derived from the ambiguous scenarios. See Table 21 for a summary of results.

As hypothesized, results indicated that all three jealousy groups (low, medium and high) differed significantly from one another across scores on the Infidelity Schema. Specifically, medium-jealousy individuals and high-jealousy individuals were more likely to believe that their partner was having an affair in response to hypothetical

ambiguous scenarios than low-jealousy individuals. Furthermore, high-jealousy individuals were still significantly more likely than medium-jealousy individuals to have infidelity assumptions.

Table 20

One-Way ANOVAs for Three Levels of Jealousy Across Scenario Schemas

| Factor | Low-Jealousy (n = 31-34) M (SD) | Medium-Jealousy (n = 98-100) M (SD) | High-Jealousy (n = 31) M (SD) | F |
|---|---|---|---|---|
| Infidelity Schema | 0.42 (.49)[a b] | 0.76 (.57)[c] | 1.15 (.91) | 10.97*** |
| Positive Trust Schema | 2.89 (.70)[a b] | 2.14 (.72) | 1.84 (.79) | 18.81*** |
| Crime Vulnerability Schema | 1.52 (.77) | 1.57 (.74) | 1.75 (.79) | 0.86 |
| Privacy Schema | 1.76 (1.12)[a] | 2.21 (.89) | 2.16 (.83) | 3.00* |
| Environmental Schema | 2.60 (.93) | 2.58 (.82) | 2.53 (.82) | 0.06 |
| Positive Partner Schema | 2.64 (.75) | 2.61 (.62) | 2.55 (.59) | 0.16 |

[a] Significant differences (p. < .05) between the low jealousy and the medium jealousy groups

[b] Significant differences (p. < .05) between the low jealousy and the excessive jealousy groups

[c] Significant differences (p. < .05) between the medium jealousy and the excessive jealousy groups

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

Similarly, for the Positive Trust Schema, the low-jealousy individuals were significantly more likely than both the medium and high-jealousy groups to acknowledge that they had positive thoughts in reference to their partner having a good relationship with their ex-lover. This schema did not appear to distinguish between the medium and high-jealousy groups, however, when taking effect size into account due to the small n for the high-jealousy group, results suggest that significant differences may be detected if power were increased (medium to high, r = .20) (Rosenthal & Rosnow, 1991).

Finally, the medium-jealousy individuals scored significantly higher on Privacy Schema than the low-jealousy individuals, suggesting the medium-jealousy group were

more likely to think that their partner needed privacy from them. However, once again effect size suggested that small differences would probably be detected if power were increased (low to high, $\underline{r}$ = .18) (Rosenthal & Rosnow, 1991). Finally, there were no differences between the three jealousy groups in their acknowledgment of assumptions related to Crime Vulnerability, Environmental factors or Positive Partner factors.

## Discussion

When presented with ambiguous hypothetical scenarios, inferences made by individuals in the general population about what is happening appear to be varied. Based on the hypotheses set forth above, three outcomes were expected. First, high-jealousy individuals were expected to rate assumptions about the negative aspects of romantic relationships (infidelity, trust, and partner privacy) more highly than medium-jealousy and low-jealousy individuals. Second, medium-jealousy individuals were expected to rate assumptions about the negative aspects of romantic relationships more highly than low-jealousy individuals. Finally, no difference was expected between high-jealousy, medium-jealousy, and low-jealousy individuals in the rating of assumptions (inferences) not related to romantic relationships (such as crime, and environmental themes). Results supported the majority of these expectations. Specifically, it appears that the more severe an individual's self-confessed history of jealousy is, the more likely they are to respond with an assumption that their partner is being, or is about to be, unfaithful. Infidelity assumptions clearly distinguish between low-jealousy individuals, medium-jealousy individuals, and high-jealousy individuals. Moreover, increasing levels of jealousy distinguish between individuals only in their likelihood to make certain inferences (i.e., when rating inferences related to infidelity, trust of a partner, and privacy needs of a partner). When rating the likelihood of other, more

general explanations for situations (such as their personal vulnerability to crime or environmental explanations), jealousy has no predictive value. These results suggest that the more jealous a person is, the more likely it is that an underlying schema specifically related to romantic relationships (like unfaithfulness of a partner) will be activated by ambiguous or neutral cues. Jealousy does not appear to be related to negative inferences in general.

Other romantic relationship schema distinguished between jealousy levels in the current research, but less specifically than the Infidelity Schema. Differences between low-jealousy individuals and both medium-jealousy, and high-jealousy individuals were significant across scores on the Positive Trust Schema (i.e., trusting or having good will toward a partner's association with an ex-lover). A low-to-medium range effect size also suggests some variation between the association between medium-jealousy and high-jealousy individuals, supporting hypotheses.

Inferences related to a partner needing some privacy were more likely to be made by the medium-jealousy group than the low-jealousy group. Once again low-to-medium range effect size suggests that there were small differences in association between the low and high groups also. These results suggest that individuals with little or no jealousy are less likely than both the medium and high groups to assume that their partner may need privacy when given ambiguous cues, although these same inferences do not distinguish between the two higher jealousy groups. After a certain level of jealousy, it is possible that individuals will suspect a partner needs to keep a secret (have a greater degree of suspicion), and thus privacy becomes an issue.

Finally, it is interesting to note that the level of jealousy an individual reported did not differentiate between scores on the Positive Partner Schema. This particular factor, although not a highly reliable scale, consisted of assumptions about a partner

possibly organizing a surprise, sharing good news or being generally thoughtful. Although related to romantic relationships and specifically to a partner's behaviour, this group of inferences was not predictive of jealousy suggesting that even the most jealous individuals still thought that their partner could be as nice as the least jealous individuals.

## Part C

It was decided to conduct a detailed exploration of underlying schema and cognitive biases freely activated in jealous individuals, to ascertain whether themes discussed throughout the research project were evident without prompting. Therefore, qualitative data were collected from a small group of respondents presenting with self-confessed jealousy problems, using cognitive-behavioural interviewing techniques. It was thought necessary to collect responses to personal incidents (real-life events) and hypothetical events for various reasons. First, as discussed earlier, responding to hypothetical scenarios may be a better way to tap more regular responses (dispositional), while responding to real-life events may offer insight into more salient affective responses (state-conditions). Furthermore, using hypothetical scenarios allows the researcher to control the conditions being responded to (Butters et al., 1997). Secondly, by comparing the content of responses to real-life events and hypothetical events, state and trait features can be explored and consistency in schema activation assessed. Thirdly, by asking a group of individuals to respond to the same hypothetical scenario, some between-subject comparisons are possible.

## Method

### Respondents

An advertisement was placed on University of South Australia notice boards and in the local newspaper asking people who suffered from jealousy if they were interested in attending an interview as part of research being conducted about jealousy in the School of Psychology (see appendix 11). Interested individuals were advised to contact the researcher for further information. A small group (5) of voluntary individuals with self-confessed jealousy problems took part in a semi-structured cognitive-behavioural interview conducted by a blinded, registered clinical psychologist with significant experience and training in clinical Cognitive Behaviour Therapy (CBT) (based on Chadwick et al.'s (1996) recommendation of the skills necessary to conduct a good assessment). In addition to needing a trained and experienced psychologist, it was decided that the researcher should not conduct the interviews as she would be potentially biased (attend to schema found in the other study) and therefore would have risked leading the respondents during the interview. Respondents were also asked to respond to the full battery of questionnaires as administered in Study 2 to allow comparisons between respondents and the general populations sample across all major variables of interest (see Chapter 7 for a full outline of the measures administered).

### The Cognitive-Behavioural Interview

Based on the ABC assessment (Antecedents, Beliefs, and Consequences) set forth by Chadwick et al. (1996) a semi-structured cognitive-behavioural interview was devised to assess respondents' inferences and evaluations linked to one real-life event and one hypothetical event (see appendix 12 for the interview structure). In addition to audio taping the sessions, the interviewing psychologist was asked to record the participants' responses using an ABC chart (see appendix 13). Participants responded

openly to one personal, real-life event that had provoked a strong jealousy response in their past, as well as the most ambiguous hypothetical scenario (Scenario 1) taken from the previous studies above...

> You say goodbye to your partner, get in your car and drive out of your driveway at the regular time you leave for work or study. You notice a car parked on the street near your house with a person in it watching you go past.

Steps 1 through 5 in Chadwick and colleagues' (1996) assessment procedures were followed. These were...

(1) asking the respondent for a problem to start with (real-life event),

(2) assessing the emotional consequence (C)

(3) assessing the activating event (A),

(4) connecting A and C then checking the most worrying component with the client, and

(5) assessing the client's beliefs (images, inferences, and evaluations) including inference chains.

In brief, inference chaining involves prompting an initial inference elicited by a general question such as "what was going on in your mind when _____ occurred?", then several inferences are drawn out by the therapist and connected in a chain. For instance, a common jealousy inference chain may be a person feeling jealous (C) because their partner is unusually late coming home from work (A) because they infer that their partner is seeing a lover (B1) which means the partner does not love them (B2) which means no person will ever love them (B3). Sometimes the therapist will come to the end of a chain where an evaluation is made (an attribution such as "I

am bad"). Through this process, themes emerge analogous to underlying schema (i.e., attractiveness schema, abandonment schema, etc).

Procedure

Testing of Respondents. After responding to the advertisement and having an initial telephone discussion with the researcher informing them of the purpose and structure of the interview to be conducted, participants were sent an information sheet with details on when and where to attend the session (see appendix 14). The date, time and place for the meeting were set for approximately 6 weeks after the telephone contact at a time convenient for the respondent.

Prior to the commencement of the research interview participants were informed that they would be asked a series of questions to help the researchers collect confidential information about the way they thought, felt, and acted within the context of their interpersonal relationship. They were advised that the interview would take approximately 1 hour of their time after which they would be asked to fill in a 15-minute questionnaire. Participants were informed that they were free to miss any question in the survey if they found the content to be too sensitive and that they were free to discontinue their participation at any time, no questions asked. They were told that the information they provided would be confidential and their identity was masked to prevent any participant from being identifiable in the final report. Participants were informed that the interviews would be taped using audio tape and transcribed into written form and securely stored in a locked room in the School of Psychology for a minimum of seven years. The original tapes were then to be destroyed. They were also informed that the study had been approved by the Human Research Ethics Committee.

Consent forms were administered, completed, and checked before the interview commenced (see appendix 15 for a copy of the consent form). All participants who

attended the research interview were given information regarding the University of South Australia Psychology Clinic and the contact details of the clinical psychologist who conducted the interview. Ample time was permitted post-interview for individual discussions about arranging further counselling sessions if warranted.

## Results

Table 22 provides scores for each of the 5 interviewees across all major questionnaires as administered in Study 2. For comparison purposes, the final column provides the mean scores and standard deviations for each of the measures as collected from the general student sample in Study 2. Profiles derived from these scores are provided at the beginning of each separate case illustration (under the heading Questionnaire Outcomes). Following are each individual's responses to (a) their chosen real-life event from memory that provoked a strong jealousy response, and (b) their response to the hypothetical scenario. Summaries are provided for each case before a final overall discussion.

### Case 1 – Sharon

Questionnaire Responses. Sharon's history of jealousy and current level of relationship jealousy was extremely high, with her historical jealousy approaching the maximum score of 30. She admitted experiencing anger all of the time in response to jealousy. Her most prominent concerns when jealous appeared to be desertion by her partner and loss of attention. Sharon was plagued by frequent negative cognitions related to relationships. Specifically, she had frequent trust-related thoughts (my partner thinks they can keep secrets from me), and thoughts of a rival existing (my partner is always flirting with others behind my back, someone is trying to take my partner away, and someone is trying to attract my partner to them). She was also likely to experience frequent, distorted thoughts about sexual behaviour (in marriage anything can happen

Table 21

Comparison of Interviewee Scores with Scores Obtained in Study 2 from the Normative Sample

| Questionnaire | Sharon | Lili | Matt | Helen | Sally | Normative Sample Mean (SD) |
|---|---|---|---|---|---|---|
| Chronic Jealousy | 28 | 27 | 22 | 15 | 14 | 13.73 (5.39) |
| Relationship Jealousy | 26 | 27 | 24 | 7 | 10 | 12.51 (5.46) |
| Emotions Felt When Jealous | | | | | | |
| Anger | 4 | 4 | 2 | 3 | 2 | 2.20 (1.12) |
| Sadness | 3 | 3 | 3 | 1 | 2 | 1.78 (1.24) |
| Excitement | 2 | 0 | 2 | 0 | 1 | .45 (.87) |
| Fear | 0 | 4 | 3 | 2 | 3 | 1.47 (1.22) |
| Jealousy Concerns | | | | | | |
| Desertion | 4 | 4 | 3 | 1 | 4 | 1.51 (1.32) |
| Attention Loss | 4 | 3 | 3 | 2 | 4 | 1.72 (1.29) |
| Time Loss | 3 | 3 | 2 | 1 | 2 | 1.63 (1.28) |
| Intimacy Loss | 2 | 4 | 2 | 0 | 3 | 1.41 (1.29) |
| Shame/Humiliation | 0 | 2 | 3 | 0 | 2 | 1.10 (1.31) |
| Sexual Exclusivity | 0 | 3 | 2 | 0 | 2 | .98 (1.31) |
| Financial Security | 0 | 0 | 1 | 4 | 0 | .24 (.67) |
| Private Thoughts (sum) | 51 | 44 | 41 | 8 | 28 | 19.24 (12.19) |
| Trust-related Schema | 17 | 12 | 11 | 3 | 7 | 4.46 (5.32) |
| Attractiveness Schema | 4 | 6 | 9 | 0 | 6 | 4.03 (3.28) |
| Abandonment Schema | 0 | 10 | 8 | 1 | 8 | 4.31 (3.45) |
| Danger/Fear-related Schema | 15 | 7 | 6 | 1 | 1 | 3.22 (3.04) |
| Sexual Behaviour Schema | 9 | 6 | 4 | 3 | 4 | 3.24 (2.38) |
| Projection | 6 | 3 | 3 | 0 | 2 | 1.37 (1.42) |
| Emotional Distress of Private Thoughts | | | | | | |
| Trust-related Schema | 22 | 30 | 22 | 20 | 14 | 19.68 (7.99) |
| Attractiveness Schema | 9 | 17 | 13 | 4 | 7 | 8.73 (3.66) |
| Abandonment Schema | 12 | 25 | 21 | 13 | 12 | 17.59 (6.11) |
| Danger/Fear-related Schema | 17 | 16 | 13 | 11 | 4 | 7.63 (3.44) |
| Sexual Behaviour Schema | 7 | 9 | 7 | 3 | 8 | 5.86 (2.43) |
| Projection | 3 | 6 | 6 | 4 | 2 | 3.91 (3.91) |
| Mother Rejecting | - | 11 | 8 | 10 | - | 8.99 (3.46) |
| Father Rejecting | 13 | 10 | 7 | 7 | 14 | 8.87 (3.08) |
| Trait Anger | 32 | 21 | 22 | 18 | 26 | 20.13 (5.33) |
| Anger Expression | 40 | 38 | 38 | 13 | 26 | 25.90 (10.49) |
| Anger-In | 21 | 17 | 19 | 14 | 16 | 17.11 (4.62) |
| Anger-Out | 21 | 21 | 19 | 11 | 18 | 15.12 (4.53) |
| Anger-Control | 18 | 16 | 16 | 28 | 24 | 22.33 (5.64) |
| Reasoning Ability | 11 | 18 | 9 | 15 | 17 | 7.49 (4.07) |
| Verbal Aggression | 14 | 11 | 8 | 0 | 21 | 4.93 (4.85) |
| Violence | 0 | 10 | 0 | 0 | 8 | 1.09 (3.48) |
| Intrusiveness | 6.75 | 5.59 | 1.44 | 2.02 | 2.10 | 3.21 (4.01) |
| Curiosity | 3.44 | 3.63 | 0.70 | 1.15 | .70 | 2 (1.69) |
| Snooping | 1.56 | 0 | 0 | 0 | .80 | 0.38 (1.03) |
| Active surveillance | 0 | 1.96 | 0.74 | 0 | .61 | 0.79 (1.87) |
| Social Desirability | 2 | 5 | 2 | 6 | 1 | 4.82 (2.20) |

while one thinks everything is okay) and engage in projective defenses (my partner won't be happy if he leaves). Sharon's assumptions that a rival existed, and her thoughts related to trust, attractiveness, and sexual behaviour were no more distressing to her than the average person reported. Conversely, Sharon was less likely to think about, or be distressed by, thoughts of abandonment than the general sample.

Sharon did not answer questions relating to her perception of her mother when young, but she classified her father as particularly rejecting. Her trait anger and level of anger expression were also extremely elevated, however, her preference for overt and suppressed expression was equal. Sharon appeared to admit to an above average level of intrusiveness, specifically high levels of curiosity and snooping behaviour. Her most common intrusion included staying by her partner when entertaining guests and she sometimes checked her partner's underwear for signs of lovemaking. Sharon's propensity to engage in verbal aggression during times of conflict with her partner was also extremely high in comparison to the general sample although she did not mention engaging in physical abuse of her partner within the last year.

Real-life Event. When asked to identify an occasion on which she experienced strong jealousy, Sharon referred to a time in her life when she was engaged. She had been seeing her partner for about 3 years although they were not living together. The man openly engaged in the regular use of pornographic material when he was on his own and this severely distressed Sharon ("affecting on my self image") who wanted to address the situation, but never actually did. Sharon described a specific time when she was expected at her partner's house. On arrival, found that he had blatantly left pornographic books and tissues on his bed, which she interpreted as evidence that he had been masturbating. Although Sharon said she often engaged in deep breathing

Table 22

Psychologist's Record of Sharon's Real-life Event

| A<br>Activating Event | B<br>Beliefs | C<br>Emotional Consequences | C<br>Behavioural Consequences |
|---|---|---|---|
| In partner's bedroom – saw pictures on the bed<br>Tissue around | I've done something wrong (I)<br>I'm lacking in a physical and emotional way (I)<br>↓ | "Shock/disbelief"<br>"Anger" 95/100<br>"Spitting the dummy" | "Bitchy" behaviour<br>Made a comment about attractive girl |
| Pictures – naked women (Playboy) | "He prefers the women to me" (I)<br>↓ | "Upset/hurt" | |
| | "I am big and ugly" (tried to rationalise) (I)<br>↓ | Physiological – palpitations, perspiration, tense, eyes go dark | Make him pay attention to me |
| | Others won't accept me (I)<br>"I am not OK" (E)<br>"All men are bastards" (E) | | |

(I) = inference, (E) = evaluation

and rationalisation to help control her temper tantrums ("jealousy really sparks it off"), on this occasion she could not control her anger and "exploded". When asked to rate the degree of the emotion of anger on a scale of 1 to 100, she identified the anger as rating a high 95/100, and she also acknowledged feeling "upset" and "hurt".

Table 23 provides the interviewing psychologist's record of Sharon's activating events, beliefs and affective and behavioural consequences. Sharon said she was often distressed by her partner looking at other women, but could rationalise that as normal, but in response to the pornography she couldn't help feeling "shock at first and disbelief". Then she experienced a primary, extreme angry response including heart palpitations, perspiration and pupil dilation. On reflection (secondary appraisal) she wondered what she had done wrong – was she inadequate in bed or lacking in some physical or emotional way (internalisation)? Sharon knew her partner preferred petite blonde women and she was very tall and "not blonde". As her appearance did not fit his

fantasy, she perceived herself as big and ugly (once again strong attractiveness schema activation)...

> ...it was nothing to do with him, it was my inadequacy that I wasn't coping. So therefore he was at no fault whatsoever. It was because, right, I was big and ugly, I saw myself as being that, not him saying that.

In Sharon's mind her unattractiveness meant others would not accept her and therefore she could not accept herself. In addition, although her logic told her differently, she thought her partner's behaviour validated her previous notions that all men were bastards "because of my previous experience in relationships" (sexual behaviour schema).

In response to her jealousy in general, Sharon admitted to engaging in the denigration of other women to her partner (for instance, she would make "snidey" comments about actresses in movies that she perceived her partner would be attracted to). She would also withhold sex until she perceived her partner was paying her full attention – this supposedly increased her self-esteem ("to make me feel like a queen"). Sharon also said she was prone to depressive episodes including obsessive negative thinking that was essentially self-destructive. In previous relationships she had engaged in excessive drug use and during prolonged episodes of distress she would eventually "crash" so badly that she would end up at the doctors in an emotionally dysfunctional state. Recently Sharon said she had learnt new coping behaviours such as eating chocolate and staying single to avoid such destructive behaviour...

> It's the same pattern, I'm learning, I've recognised, I've done a lot of self reflection lately so I've been, there are issues that I have addressed and looked at and I can see now that, the pattern

> is still there but the behaviour patterns have changed. Changing yeah, I'm using more positive um, mechanisms to cope.

Hypothetical Scenario. In response to the hypothetical scenario of a person being parked in a car across the street from her house as she left for work while her partner was at home, Sharon suggested that her immediate thought would be that the person in the car was a female waiting for her partner (or waiting for her to leave). Table 24 summarises Sharon's main responses to the hypothetical scenario, as recorded by the psychologist during the interview.

Sharon said she would try and stop herself from thinking suspicious thoughts, as that is not what she was "meant to feel". However, she insinuated that, as a partner had been unfaithful to her in the past, she could not trust current partners (trust-related schema). Based on this lack of trust, her immediate reaction to such situations was automatically "anxious" including thoughts such as "bastard" and "here we go again and I thought he was different but it's the same story again" (sexual behaviour schema). Sharon suggested that if she could not block suspicious thoughts, rather than refusing to talk about it like in her past, she would...

> ...probably take time out to cool down, possibly move out myself so I don't have to think about him and get some support, crunch my pillow, take my anger out on something else and speak to him or go to counselling, or do something like that.

She said she could imagine herself pulling her car over and crying or getting angry with a feeling of temptation to go back and "walk in on them". Alternatively, Sharon goes on to discuss beliefs of not even wanting to have a relationship (secondary appraisal), as she was currently single, feeling happy and independent. Based on this

current status, she suggested a relationship would be a burden so a rival entering the scene (such as in the car situation) would give her reason to become single again "so I would probably be thanking this woman."

Table 23

Psychologist's Record of Sharon's Response to Hypothetical Scenario 1 (Car on the Street)

| A<br>Activating Event | B<br>Beliefs | C<br>Emotional Consequences | C<br>Behavioural Consequences |
|---|---|---|---|
| You notice a car parked on the street near your house with a person in it watching you go past | She is waiting for me to leave (I)<br>↓ | "Anxious" 96-97/100 | Stop and park car<br>"shit, shit, shit" |
| | They are having an affair (I)<br>↓ | Palpitations/ Perspiration | Crying |
| | I would want to separate (I)<br>↓ | | "Spitting the dummy" |
| | I can't trust him (I)<br>↓ | | Think about walking in on them (action tendency) |
| | Difficult to have a relationship (I)<br>↓ | | Try to be calm and rationale |
| | Happily single<br>"Here we go again"<br>"I thought he was different"<br>(no evaluation provided) | | Row |

(I) = inference, (E) = evaluation

Summary. Overall, Sharon showed evidence of repetitious themes of feeling personally unattractive, especially in comparison to other women, and believing the sexual behaviour of men was inappropriate. Her primary appraisals, external blaming (men's fault), appeared to evoke feelings of anger. However, Sharon appeared to have secondary appraisals that internalised blame (attractiveness schema) that made her feel upset about her appearance and therefore her deeper self-concept of being an unacceptable person in society. Although Sharon described new, more appropriate, less

destructive coping mechanisms for dealing with her jealousy (as she appeared to understand that her responses were often inappropriate in comparison to social norms), she was obviously avoiding relationships to control jealousy-provocation in her environment: an extreme act of protection against experiencing jealousy.

Case 2 - Lili

Questionnaire Responses. Lili's history of jealousy and current level of relationship jealousy was very high, with both scores approaching the maximum score of 30. She reported experiencing anger and fear all of the time in response to jealousy and her most prominent concerns when jealous appeared to be desertion by her partner and loss of intimacy. However, she also experienced strong concerns about loss of time, attention, and sexual exclusivity with her partner. Lili reported extremely frequent negative cognitions about relationships. She scored above average on all schema with especially frequent thoughts related to trust and abandonment. However, she did not report having any particular thoughts more than "sometimes". The emotional distress caused by Lili's thoughts was again generally high for all schema, specifically for her thoughts related to trust and the fear of a rival existing.

Lili scored above average in response to questions relating to her perception of her parents being rejecting, with her mother perceived as slightly more rejecting than her father. Her trait anger was about average in comparison to the general sample, however, her level of anger expression was very elevated. Specifically, she reported high levels of overt anger expression coupled with low control. Lili admitted to a high level of intrusiveness, specifically high levels of curiosity and some surveillance activity. Her most common form of curiosity included asking where her partner had been and what they had been doing. Her active surveillance included sometimes arriving unexpectedly to check up on her partner. Lili's propensity to engage in verbal

aggression during times of conflict with her partner was high, however her physical abusiveness was extremely elevated including hitting (or trying to hit) her partner with something hard in excess of 2 or 3 times within the last year.

Real-life Event. When asked to identify an event that had made her very jealous, Lili recalled a very specific incident that occurred when her boyfriend and some other acquaintances went on a bus trip to the country for a food and wine festival. Table 25 summarises Lili's responses. The bus left early in the morning and some people began drinking straight away, although Lili and her partner did not start drinking until later. One particular married woman who had been drinking said directly to Lili's partner, "I'll get to sit on your knee later on - that's my boyfriend". Lili said that this particular comment made her feel threatened, defensive, and anxious – her heartbeat and temperature were raised and she felt uncomfortable. She felt anger more than any other emotion (75/100), directed specifically at the woman who made the comment, regardless of whether it was a joke or not ("often a true word is said in jest").

Lili attempted to hide her jealousy from others, but did say to her partner that the woman was not to sit on his lap and he agreed. However, this original activating event impacted on the rest of the day. Lili said that although she attempted to camouflage her reaction, she was more quiet than usual – not as happy or friendly or talkative – she experienced a "sombre mood" (secondary emotional response). She suggested that the incident triggered other reactions that would not normally occur. For instance, Lili said she became upset by another married woman who was wearing a low cut top ("I was thinking, you know, who is she trying to impress with that!"). Similarly, she spent the rest of the day having to know where her boyfriend was ("I had to have him in my sights, you know, to make sure that no females were chatting him up or whatever") (danger/fear-related schema activation).

Table 24

Psychologist's Record of Lili's Real-life Event

| A<br>Activating Event | B<br>Beliefs | C<br>Emotional Consequences | C<br>Behavioural Consequences |
|---|---|---|---|
| On a bus going to a wine festival | "I felt threatened" (I) | "My heart beat faster" | Said to him "she's not sitting on your lap |
| Others on the bus had been drinking | "No way will you sit on his lap – over my dead body, just try it" (I) | "Defensive/offensive" | "I would push her off if he didn't" |
| Sitting with boyfriend | She will sit on his lap (I)<br>↓ | "Angry more than depressed" | Put myself between her and him |
| A women (tipsy) says to boyfriend "I will sit on your lap later!" | He might not push her off (I)<br>↓ | "Angry with her" 75/100 | Close to pushing her away – "I came real close" (action tendency) |
| Female with a low cut dress | He doesn't care about it, no big deal (I) | Physical – temperature rose, felt hot and uncomfortable (other people couldn't see it) | |
| She really tried to sit on his lap | My personal space being invaded (I)<br>"He doesn't care" (I)<br>↓ | "Furious" – more intense emotion of anger 85/100 | |
| | We shouldn't be together (I)<br>↓ | "Disappointed, pissed off" | |
| | I would feel used (I)<br>↓ | Duration of emotion – the rest of the day | |
| | He doesn't care (I)<br>↓ | | |
| | Wouldn't have a family with him (implied evaluation – "that's awful") | | |

(I) = inference, (E) = evaluation

Lili recalled that later in the evening she saw the same woman who made the initial upsetting comment "moving in such a way" that if she came any closer to her partner, Lili said she would have pushed her ("I'm the only one who sits on his lap and she was married! Married!"). Lili said that she put her body between the woman and her partner to prevent contact, rating her anger at this point of the day at an increased to 85/100.

Lili explained that although her feelings of being threatened by this woman would have increased if the woman were more attractive, overall, she would have thought the same way regardless of the female trying to sit on her boyfriend's lap. She suggested that this type of behaviour represented someone trying to the break the bond between herself and her partner ("something that would take away from, not so much break but interfere with").

When asked what she would do if the woman had sat on her partner's lap, Lili contended that she would have pushed the woman off, but essentially she would have to be satisfied with her partner's reaction. If her partner did not feel threatened by the incident, Lili suggested this would represent the idea that he did not love her the way he said he did (and the way she thought he did). In other words, his reaction would prove if he loved her or did not love her ("he should be defending my honour, he shouldn't be letting anyone else sit on his lap"). If he did not push the woman off his lap, Lili said she would have felt used. She said she would question whether her and her partner should be together as she did not want to build a family and future based on shallow feelings...

> ...because you really only have one life and you want to be happy and you don't want to be used. You don't want to be with someone who doesn't really love you and doesn't care for you as much as you care for them.

Hypothetical Scenario. In response to the hypothetical scenario a car parked across the street, Lili suggested that her immediate thought would be that the "woman" was simply waiting for someone (see Table 26). Lili said that any further analysis of the situation would depend on (a) the actions of the woman as Lili drove away, and (b) the age of the woman. Specifically, if the woman was old, Lili suggested that she would not

worry about the situation at all. However, if the woman was about Lili's age, she said she would watch out for the woman over the following days and weeks to ascertain what her "connection to the street" may have been and then hope the sighting could be dismissed (danger/fear-related schema).

Lili rated her jealous response to the scenario as 50/100, suggesting the feeling could go "either way". She described the emotion as anxiety if the situation looked suspicious, but not angry or depressed as nothing was confirmed, "wouldn't want to get too upset over nothing". Lili said she might imagine that her partner was cheating on her, but would probably dismiss the thought being born out of her own jealousy.

Table 25

Psychologist's Record of Lili's Response to Hypothetical Scenario 1 (Car on the Street)

| A<br>Activating Event | B<br>Beliefs | C<br>Emotional Consequences | C<br>Behavioural Consequences |
|---|---|---|---|
| You notice a car parked on the street near your house with a person in it watching you go past | Could go either way – it's an unknown | A little jealous (50/100) | Check rear view mirror |
| | "Could imagine he is cheating on me, but I would dismiss it" | "Anxious" | "Keep my eyes open for a few weeks" |
| | "It's me being jealous" | "Not angry/depressed" | |
| | "Don't want to get upset over nothing" | | |

Summary. Overall, Lili appeared to have strong danger/fear-related schema activation in response to possible rivals. In addition, what constituted unfaithfulness by her partner were extremely broad – she expressed a degree of entitlement or ownership of her partner. The duration of her jealousy activation was very prolonged after original activating events – this is clear from both the real-life and hypothetical scenarios – suggesting the cognitions related to her schema were intrusive and her affect strong.

The most prominent schema underlying her jealousy appeared to be that breaking the rules of a relationship did not permit her to build a family with the partner. Unlike many accounts of jealousy that appear to threaten the relationship in the present, Lili's jealousy was more focussed on the threat of losing a future she had outlined in her mind. This was her primary concern, although she was obviously aware of the sometimes irrational nature of her responses.

Case 3 – Matt

Questionnaire Responses. Matt's history of jealousy and current level of relationship jealousy was very high. He was more inclined to experience fear and sadness in response to jealousy than anger or excitement, and his most prominent concerns when jealous appeared to be desertion by his partner, loss of attention and being humiliated. Matt experienced highly frequent negative cognitions related to relationships. Specifically, he appeared to have prominent schema related to attractiveness ("I am not attractive"), trust and furthermore abandonment ("my partner will leave") and fear of a rival existing. The emotional distress caused by Matt's thoughts was above average with the most prominent distress caused by thoughts of his perceived unattractiveness/unworthiness and his fear of a rival. His ability to express his anger was very high, with specific inclinations toward overt expression and low control in comparison to the normative sample. His propensity to engage in intrusive behaviour was low, however his verbal aggression during times of conflict with his partner was high in comparison to the general sample.

Real-life Event. When recalling an occasion in which he experienced strong jealousy, Matt described a time in his life when his wife had a severe fall from the stair area in a studio he was personally building. Matt said that he experienced jealousy when the male ambulance officer came to the aid of his wife, and further visited her in the

hospital ("that was very intimidating"). Matt identified several factors that lead to general feelings of insecurity including that he sensed a "raw connection" between his wife and the ambulance officer. He experienced a feeling of vulnerability because he felt responsible for the faulty building area, and he felt vulnerable when comparing himself to the ambulance officer. Table 27 summarises Matt's responses.

> He came on the scene looking like the great saviour...he was a lovely guy, I mean you would be attracted to him, you would if you were a sensible female. And of course I am feeling totally vulnerable and incomplete and liable at that point.

Table 26

Psychologist's Record of Matt's Real-life Event

| A<br>Activating Event | B<br>Beliefs | C<br>Emotional Consequences | C<br>Behavioural Consequences |
|---|---|---|---|
| Ambulance man arrives following partner's fall<br>"He was an attractive man" | "He is attracting her, he is a warrior" (I)<br>"I am unworthy" (E) | Jealous (75/100)<br>"Went to my heart" | No behavioural manifestation |
| | "I cannot control the situation" (I)<br>"He knew that I knew they had a connection" (I)<br>"He was someone fresh and alive to her" (I)<br>"She has a peaceful feeling from him" (I)<br>"There is empathy between them" (I)<br>"Connection between them" (I)<br>↓<br>"They could get on – fall in love" (I)<br>↓<br>"I would be threatened" (I)<br>↓<br>"She would leave" (I)<br>↓<br>"I would be alone" (I)<br>↓<br>"Not being wanted" (I)<br>(implied evaluation "that's awful") | Physical pain in the chest<br>"Insecure"<br>"Fear"<br>"Vulnerability"<br>"Disorientation"<br>"Sadness"<br><br>"Melancholy" | |

When the jealousy experience was explored, Matt (and his wife at the time) appeared to have created a controlled environment that made jealousy-provoking incidents unlikely to present themselves...

> ...my wife and I had moved in different circles because she was a very beautiful woman, generally. Um, I would have been struggling more with this but we didn't move in social areas where that sort of thing happened. Because we're in a fairly standard, normal sort of community where people generally respect people's emotions and didn't test them.

Matt was unsure about how to describe the emotions he felt other than "jealous". He made reference to physiological feelings of "heartbreak" including pains in the chest ("I actually felt a break") and considered his intensity of emotion to be between 75 and 80 on a scale of 100. Through the interview process Matt moved from reporting the incident and his associated low self-esteem, to identifying his underlying fear of loss after investing his time and effort into an important relationship, and finally his fear of abandonment.

> That why I'm 46, I cannot go through another experience of feeling absolutely vulnerable and giving myself to a relationship which does not make the distance and just has taken so much of me ... I don't know if we can ever deal with this ... being alone.

Hypothetical Scenario. Matt's response to the neutral, ambiguous hypothetical scenario about an unknown car being parked on the street was mixed. He acknowledged that there could be many explanations as to why the car was parked near his house however his main assumption was that his wife was about to meet with the person following his departure (see Table 28). His responses indicated that he assumed the couple would have an affair...

I would feel...the word that comes to me is vile...I would feel that there would have been a complete and utter break in, of the whole structure of the trust the relationship was built around...My response to that would be...intellectually would be a wait and see, emotionally it would be...I don't know sometimes I think I have too much self control for my own good...I have in the past been controlled.

Table 27

Psychologist's Record of Matt's Response to Hypothetical Scenario 1 (Car on the Street)

| A<br>Activating Event | B<br>Beliefs | C<br>Emotional Consequences | C<br>Behavioural Consequences |
|---|---|---|---|
| You notice a car parked on the street near your house with a person in it watching you go past | "I am defiled" (I)<br>"Complete break in trust" (I)<br>I am being rejected (I)<br>She has a need I am not meeting (I)<br>"Everything I thought precious and sacred is being rejected" (I) | Anger (98+/100) | "Wait and see" |

(I) = inference, (E) = evaluation

Matt said he would feel angry in response to the sense of "being rejected" – a feeling that would take over like it does in his real life ("I've got more power and it's the rejection that turns to anger turns to violence"). He insinuated that his partner meeting with another man would be a threat to his sexuality - he views his partner as breaking the "sacredness" of their relationship.

This angry response is different than Matt's reaction to the previous real-life incident, where he felt vulnerable and accepted loss (reacted passively). However, in Matt's secondary appraisal of the hypothetical event he searches for an explanation as to

why his wife might be seeing someone else. He suggested possible reasons including that it would be because he wasn't meeting her needs, he wasn't "worthwhile" or she felt she needed to "block him sexually" because he had let her down in some way. Matt contends that such behaviour "is the cruellest thing one human can do to another." His secondary response is remarkably similar to his response to the real life incident. Matt suggested that he would feel a lack of control over the incident and would try to accept loss despite his hurt.

Summary. Matt's jealousy appeared to stem from feelings of unattractiveness and fears of abandonment. His emotional responses, although often primarily angry, were mainly passive responses to internal, uncontrollable forces (his unattractiveness) and feelings of loss (acceptance of abandonment). He appeared to stop and analyses situations and try and to take the perspective of his partner in addition to making attempts to control his environment to prevent jealousy-provocation.

Case 4 – Helen

Questionnaire Responses. Helen's history of jealousy was slightly above average and her current level of relationship jealousy was very low in comparison to the general population sample. She experienced anger most of the time in response to jealousy, with her most prominent concern when jealous being financial security – the least likely acknowledged concern from the general sample. Helen did not have frequent negative thoughts related to romantic relationships. In fact she scored well below average on all schema except for sexual behaviour schema, which approached the norm. The emotional distress caused by Helen's thoughts related to trust and projection were about average, however the distress caused by all other schema was minimal.

Helen's perception of her mother being rejecting was high, however, she perceived her father as less rejecting. Her level of trait anger was just below average and

her level of anger expression was very low, with particularly elevated control over her expression. Helen admitted to a low level of intrusiveness (some curiosity), and no incidences of verbal aggression or violence directed toward her partner with in the last year. However, Helen's social desirability responding score was 6 suggesting her responses should be treated with caution.

Real-life Event. In reference to a time when she experienced strong jealousy, Helen described a party she attended for her then new boyfriend's birthday. They had been seeing each other for 2 or 3 months. Helen described her boyfriend as spending more time with his long-term friends (the majority of which were female) as he felt that it was the right thing to do. He had previously told Helen that he had "been physical with some of his friends" although she did not know which ones. Helen said she felt uncomfortable, insecure and left out, and refers to wondering which girls he had been with (see Table 29).

Helen rated her feelings of jealousy as being between 35 to 40 on a scale of 100 including a mix of emotions like anxiety (60/100), anger (20/100) and physiological reactions...

> I think it all sort of relates to visually what I see. My partner with another woman, talking, laughing, having fun, no contact or anything, not knowing the content of that conversation. Quickly your mind really fills in the blanks. Then as quickly, I get like a shot of hot sensation.

Helen appeared to counteract her own negative thoughts and feelings several times throughout the interview, perhaps suggesting that although she experienced jealousy, she could control the experience very well (hence the low scores on the quantitative measures). Specifically, she said that when trying to figure out who her

partner had slept with in the past, her thoughts were "quickly countered by the fact that I still see some of my ex lovers" and, more precisely...

> I don't really like to dwell on things that make me feel uncomfortable. So momentarily I might have visualised how they would have been together and what they would have looked like, but as I say, that's a particularly destructive thought pattern and I don't chose to explore that, cause that just makes me feel really uncomfortable.

Table 28

Psychologist's Record of Helen's Real-life Event

| A<br>Activating Event | B<br>Beliefs | C<br>Emotional Consequences | C<br>Behavioural Consequences |
|---|---|---|---|
| Seeing partner with another woman | Left out (I) | Jealousy 35-40/100 | Do not show it at all |
| Boyfriend's birthday party – 3 groups | One of the two women might be the one he told me about (I) | Anxious 60/100 | "Grabbed his hand and gave him a kiss" |
| "He spent all his time in a group I wasn't in" | They had better bodies than me (I) | Insecure | Put on the back burner |
| | ↓ | | |
| He was spending time with two slender women | He might be attracted to that body type (I) | Anger 20/100 | |
| | ↓ | | |
| He previously told me he had been physical with one of his friends | He is seeing me for money reasons (I) | Physiological – hot sensation from stomach up | |
| | ↓ | | |
| | I am being manipulated/used (I) | | |
| | ↓ | | |
| | He might have an affair (I) | | |
| | ↓ | | |
| | The relationship would be over (I) | | |
| | ↓ | | |
| | My life would go back to easy stream (I) | | |
| | (chain broken at this point) | | |
| | He is a strong ethical person and wouldn't do this (I) | | |
| | His friends know we are an item (I) | | |
| | He enjoys being in a couple (I) | | |
| | He would show nervousness (I) | | |

She remembered her partner spending a lot of time with two "boisterous and slender women" and thinking that they had better bodies than her own (attractiveness schema). However yet again in defence of insecurities of her comparative attractiveness, Helen contended (secondary appraisal) that every woman has a "fixation on her body shape" (suggesting it was a normal concern) and her body shape was "nothing cosmetic surgery can't fix". When confronted with her fear that her partner might not find her attractive, the question "what does your partner then see in you?" was raised. In response, Helen suggested her partner would then have to be with her for financial reasons. This assumption made her feel "manipulated", her trust "shattered", and she could then envisage her partner having an affair, in turn ending their relationship. Helen's response to the end of her relationship was very avoidant. She contended that she did not care if she was in a relationship or not, however, she would never be able to start a new relationship if the current one ended ("too time consuming"), "my life would go back into quite an easy sort of stream".

Hypothetical Scenario. In response to the hypothetical scenario of a car being parked outside of her home, Helen believed her reaction would be dependent on the gender of the person sitting in the car. Specifically, she suggested that if the person were male, she would probably think he was monitoring the neighbourhood ("casing out the joint"). Alternatively, if the person were female, she suggested that she would carefully watch to see what the woman's intentions were, estimating this situation would elicit feelings of anxiousness (between 80 and 85 on a scale of 100) and suspiciousness. In addition to being female, Helen said that her interpretation of the woman's features ("how old...how pretty") would help her "resolve...the purpose" (attractiveness schema). She added that if the woman was young and attractive and she felt elements of insecurity, then she might be compelled to make an excuse and return home. If Helen

returned home to find the woman sitting in the car she suggested she would probably assume the woman was a real estate agent, however, if the woman was not in the car, Helen believed she would go into the house and demand an explanation of who she was. See Table 30 for the psychologist's summary of Helen's main chain of responses to the scenario.

Table 29

Psychologist's Record of Helen's Response to Hypothetical Scenario 1 (Car on the Street)

| A<br>Activating Event | B<br>Beliefs | C<br>Emotional Consequences | C<br>Behavioural Consequences |
|---|---|---|---|
| You notice a car parked on the street near your house with a person in it watching you go past | Suspicious – depends on how old/pretty (if in my house on return)<br><br>I should have an explanation | Anxiety 80 to 85/100<br>Tense (if she was in my house on return) | Go slow and check whether went into house (if regular occurrence)<br>Might come back to see if she was still in the car<br>Might make an excuse to come back home |

Summary. Although Helen evidenced an elevated level of jealousy across relationships, it was evident from her current relationship jealousy score and her real-life scenario that her main concern was not the loss of her relationship, but her partner's possible attraction to her financial status. This was her major concern. Although it could be perceived as a defensive response to suggest that she was better off out of the relationship (such as in Sharon's case), it is likely that the specific response represented her underlying desire.

More relevant to her jealousy-provocation was a strong underlying problem of low attractiveness that Helen was well practiced at counteracting with positive self-

thoughts, including normalising and coming up with suggestions about how to change her looks. These specific attempts to rationalise were perhaps keeping more severe jealousy attacks at bay.

Case 5 - Sally

Questionnaire Responses. Sally's history of jealousy was average in comparison to the general population sample, and her current level of relationship jealousy was less than average. She admitted experiencing fear most often in response to jealousy, with her most prominent concerns when jealous appearing to be desertion by her partner and loss of attention. Sally had highly frequent negative cognitions related to romantic relationships. The emotional distress caused by Sally's frequent thoughts were lower than average, apart from her distress related to thoughts of sexual behaviour which were highly elevated (in marriage anything can happen when one thinks everything is okay).

Sally did not answer questions relating to her perception of her mother when young, however, she classified her father as extremely rejecting. Her trait anger was also extremely elevated, however, her anger expression was average with a preference for overt expression. Sally admitted to engaging in a slightly less than average degree of intrusive behaviour, including low levels of curiosity and surveillance conduct, but elevated snooping behaviour. Her most common intrusion was on occasions asking her partner where they had been and what they had been doing. Sally's propensity to engage in verbal aggression during times of conflict with her partner was also extremely elevated – the highest of the 5 cases presented. Similarly, Sally's use of physical abuse direct toward her partner was extremely high including hitting or trying to hit her partner about once a month.

Real-life Event. When asked to identify a time when she experienced strong jealousy, Sally described a time in her life when she was sitting watching television

wearing a t-shirt and jeans with her boyfriend of about 3 years. She describes the relationship as a "bit boring, bit stable". She remembered her boyfriend's flatmate's girlfriend coming over dressed in a formal outfit – a thin "willowy" girl. Sally said that her boyfriend's "eyes popped out of his head" when he saw her. He looked the girl up and down and "raved" on about how beautiful she looked. Sally described herself as feeling ignored, frumpy in comparison to the girl, pissed off and even surprised at how upsetting the incident was to her (in hindsight she suggested that it was an over-reaction). She said it was the worst feeling of jealousy she had ever experienced - 85-90 on a scale of 100.

In response to this incident, Sally said that she went outside and cried. She expressed her fear directly to her boyfriend that he may not love her. She remembered trembling as if she was not in control of her own responses to the situation (see Table 31). On reflection, Sally did not like the lack of attention from her boyfriend, she did not like him behaving that way toward someone else especially when he did not behave like that toward her. She said she found it difficult to be "gracious and pleasant" toward the other girl, as the girl had become the object of her dislike "even though I didn't have anything against her personally".

Sally suggested that even though the girl had attributes she herself did not possess (attractiveness schema), it was her boyfriend's response that fuelled her jealous reaction. His attraction to this girl, although "out of character", made Sally think he was a "shallow bastard" and very insensitive (sexual behaviour schema). She described his reaction as a break in the monogamy of their relationship – a loss of mutual attraction could have ruined the basis of their relationship, and therefore could have lead to relationship dissolution. If the relationship was to end, it meant that she would have to re-establish her whole self-concept as being a single person rather than one part of a

couple. Sally suggested that this process would be painful, that she would no longer be publicly valued as attractive, that she would be unhappy, smile less and her enjoyment and quality of life could be lessened as a consequence (attractiveness and abandonment schema).

Table 30

Psychologist's Record of Sally's Real-life Event

| A<br>Activating Event | B<br>Beliefs | C<br>Emotional Consequences | C<br>Behavioural Consequences |
|---|---|---|---|
| Flat mate's girlfriend arriving | He is more attracted to her than me | Felt upset, angry | Crying |
| His response to her – his eyes popped out of his head | (This is out of character for him) – he is hugely insensitive (I) | "Jealous"/upset 85-90/100 | Went outside |
| He looked up and down her body | Basis of monogamy and mutual attraction is gone (I) | Worse I ever had | Expressed fears he didn't love me |
| | ↓ | | |
| He said 'you look so beautiful' | Relationship is not worth having (I) | "trembling" | |
| | ↓ | | |
| | We will break up (I) | "not rage" | |
| | ↓ | | |
| | I wouldn't have a boyfriend (I) | "not in control of my responses" | |
| | ↓ | | |
| | No identity, not valued or publicly valued as attractive (I) | | |
| | ↓ | | |
| | I will be single (I) | | |
| | ↓ | | |
| | I will be lonely (I) | | |
| | ↓ | | |
| | I would be unhappy (I) | | |
| | ↓ | | |
| | My enjoyment and quality of life lessened (I) | | |
| | ↓ | | |
| | I wouldn't smile | | |

(I) = inference, (E) = evaluation

Hypothetical Scenario. When asked to respond to the scenario describing a car parked across the road, Sally said that if her partner was male and the person in the car

was female, then she would feel suspicious (see Table 32). The degree of her suspiciousness would depend on several factors, including if her partner was going to be in the house for a while, how her partner had been acting that day, if the women in the car was "attractive and glamorous looking" and if her and her partner had good communication and honesty with each other. If there were no good signs, Sally said she would feel disturbed that she could not completely trust her partner and insulted

Table 31

Psychologist's Record of Sally's Response to Hypothetical Scenario 1 (Car on the Street)

| A<br>Activating Event | B<br>Beliefs | C<br>Emotional Consequences | C<br>Behavioural Consequences |
|---|---|---|---|
| You notice a car parked on the street near your house with a person in it watching you go past | I can't trust him | Compassion/empathy 60/100 | |
| | He is doing this blatantly (I)<br>↓<br>I am not enough (I)<br>↓<br>She has something I don't have (I)<br>↓<br>He has low self discipline (I)<br>↓<br>My sense of reality is not true (I)<br>↓<br>Other perceptions of reality may not be true (I)<br>↓<br>I would lose my trust of truly being perceptive of reality (I)<br>↓<br>I don't know what is valuable (I) | Anger/upset 65/100 | |

(I) = inference, (E) = evaluation

that the couple would "do it so blatantly" (primary appraisal and response). She said she would ask herself why she may not be enough for her partner, what the woman

possessed that she did not, and why her partner had such low self discipline (secondary appraisals and responses).

In reference to emotions, Sally suggested she would feel vulnerable, angry that she had lost trust (65/100) and empathetic or compassionate (60/100) as she had been unfaithful in the past and realised how easy it was to do. Although Sally said that she did not think anyone had ever cheated on her, she believed that she would be "reasonably understanding" if her partner and the woman from the car reacted with confusion about their conduct. She suggested that she would only be jealous if they appeared to be sneaking around and being "nasty". Her overall reaction to the scenario was that she would probably then have to question what else in her life she had a false perception about – her work and her friends – her whole reality (generalisation).

Summary. Although not a highly jealous person according to her scores on the jealousy scales, Sally evidenced frequent cognitive elements found to be highly indicative of elevated jealousy. Overall prominent themes of unattractiveness and fears of abandonment are evident in Sally's responses to both the real-life and the hypothetical scenarios. She frequently referred to comparisons between herself and other more attractive women, often suggesting that the attractiveness of other women was a key trigger for her jealous reactions. Similarly, Sally evaluated rejection or abandonment by a partner as detrimental to her core self-concepts as an acceptable, attractive person who could only engage in a happy life as part of a couple. Sally's real and hypothesised affective and behavioural responses to the scenarios were quite diverse including mixtures of vulnerability, anger and even compassion. Her specific response of empathy to the hypothetical scenario (if the couple responded to their affair with confusion) is a possible representation of her own desire (projection) to be treated with compassion due to her past indiscretions.

## Discussion

Viewed as a whole, although the 5 interviewees with self-confessed jealousy issues show a highly varying degree of jealousy, underlying negative perceptions of personal attractiveness, abandonment and sexual behaviour were clear and plentiful. Apart from Helen (who's primary concern when jealous was an unlikely financial security), all respondents evidenced frequent, if not obsessive, negative thoughts about romantic relationships. Although other schema emerged during the interview process not previously examined in the thesis (i.e., Lili appeared to have a "family/marriage schema"), all thought patterns were related to some aspect of relationships. Even Helen's fear related to money was essentially a fear that her partner was only with her for financial reasons and that he did not really love her.

Based on the quantitative measures, 2 out of 5 of the respondents admitted to extremely high intimate abuse levels, while 4 out of 5 said they engaged in common verbal aggressive conflict with their partners. Similarly, 2 out of 5 were very intrusive with 3 out of 5 admitting to some form of active surveillance of their partner.

Most respondents described trying to control some aspect of their environment to try and eradicate jealousy-provocation – Matt didn't mix in certain social circles, and Sharon even remained single. Similarly, most respondents presented their own counter-arguments for their irrational thoughts suggesting that they understood that by social comparison they were being unreasonable – plastic surgery can fix attractiveness, all women have bad perceptions of their bodies, I am just being jealous therefore I can dismiss my thoughts, all men are bastards anyway, I shouldn't think that anyway. In fact there were many instances where self-statements were implemented in attempts to ward off negative cognitions – coping mechanisms learnt over time to dull excessive jealous reactions. This was most noticeable in the cases where jealousy levels (according to

questionnaire outcomes) were about average or below average (i.e., Helen and Sally). It is therefore possible that these individuals who accepted being "jealous" as part of their self-concept (hence their involvement in the interview), had learnt coping mechanisms that, over time, lessened their jealous reactions. Alternatively, these individuals could have presented to the interview with needs to discuss other underlying problems not evident due to the structure of the research.

All respondents insinuated that their partner was probably having an affair in response to the ambiguous, hypothetical situation. Notably, these individuals had just engaged in an interview about their jealousy, activating all kinds of thoughts and emotions, so to present a hypothetical at such a time was essentially leading. What was most valuable in using this method was seeing the same patterns of schema emerge for each separate individual under different circumstances. Results of this exercise supported the notion that schema are stable and enduring, and once activated, they are used to direct attention and information processing.

Finally, this intensive process of chaining helped delineate between primary and secondary appraisals and responses to jealousy. Although it was found in Study 2 that there were more *proximal* relationships between jealousy and anger, and intrusiveness and violence, as pointed out earlier, these results only suggest that under most circumstances anger and aggression (including intrusiveness) are likely *primary* responses to jealousy. This does not rule out further appraisals and responses, secondary in nature, that essentially provide insight into how an individual copes with the primary appraisals and responses. As indicated in the interviews, primary appraisals were mainly angry (denigration of rivals, anger at partner's reaction, wanting to uphold the rules of a relationship, etc.). However, secondary appraisals often functioned as internalising

blame (unattractiveness, unworthiness) producing passive reactions or avoidance (I'm happier without a relationship anyway).

# CHAPTER 9

# GENERAL DISCUSSION AND FUTURE RESEARCH RECOMMENDATIONS

If one kills immediately on apprehending adultery then provocation may still be available as a defence: if one spends some weeks becoming distressed and sad before killing then depression can be used for a defence of diminished responsibility. Those who fail to kill quickly enough, or fail to develop an impressive enough despondency, can still fall back on jealousy itself as evidence of mental disorder.

Mullen (1993, p. 9)

Amongst the questions to be answered by the present research were the following...

$Q_1$ What proportion of the general population will show high levels of jealousy?

$Q_2$ What emotions are most commonly associated with jealousy-provocation?

$Q_3$ What fears are the most prominent when people are jealous?

$Q_4$ What schema are associated with high levels of jealousy in the general population?

$Q_5$ Does the frequency of cognitions related to schema, or the emotional distress caused by cognitions related to schema, more strongly predict high jealousy?

$Q_6$ Are perceptions of parental rearing related to jealousy in the general population?

Mullen and Martin's (1994) basic descriptive findings from their community study regarding the level and experience of jealousy in a general population sample were, in part, replicated. In summary, past research and current findings taken together suggest that jealousy is a common occurrence in society. How problematic jealousy becomes to any one person is dependent on many factors, although it appears that an individual's pattern of jealousy across relationships accounts for the majority of jealousy problems in their current relationship. Based on arbitrary cut off points of one standard deviation above the mean, approximately 20% of the population (both men and women) appear to experience high jealousy concerns. This result suggests that the distribution of jealousy scores, across this study and Mullen and Martin's (1994) research, are comparable.

Individuals plagued by jealousy seem to experience varying emotional responses (anger, fear, sadness, and excitement). However, anger appears to be the most common response. Furthermore, despite popular notions of jealousy being the underlying fear of

losing sexual exclusivity with an intimate partner, jealousy appears to be fuelled by concerns as simple as the fear of losing time and attention with a partner. The most prominent fear expressed, however, was the fear of desertion by a partner. The acknowledgment of such a wide range of concerns or fears suggests that what constitutes a breach of relationship rules makes jealousy a highly idiosyncratic phenomenon.

This research also examined the relationships between jealousy and other constructs discussed in the literature, such as schema. The scope of previous research into sexual behaviour and attractiveness schema was expanded with moderate relationships found between jealousy and additional schema, including trust-related, danger/fear-related, and abandonment schema. Furthermore, the frequency of thoughts related to each of these schema were better predictors of jealousy than the emotional distress caused by the same thoughts.

In response to the final question posed in the research rationale, associations between jealousy and perceptions of parental rearing, mainly perceptions of rejection, were found. Associations were weak, however, both men and women with high jealousy concerns were more likely to perceive increased rejection by their parents when reflecting on their childhood.

In response to Hypothesis 1, that high jealousy was expected to be associated with anger expression, specifically higher levels of both suppressed anger and overt anger, support was found. Jealousy was moderately associated with anger expression, including being positively correlated with anger-out and anger-in, and negatively related to anger-control. In response to Hypothesis 2, that high jealousy was expected to be associated with increased intrusive behaviour, support was also found. Finally, in response to Hypothesis 4, that high jealousy was expected to be related to aggressive

behaviour, support was found. Jealousy was significantly related to high verbal aggression, and intimate abuse directed toward a partner.

Initial path analyses supported Tarrier et al.'s (1990) proposed model of a possible aggressive response to morbid jealousy. However, a superior model of a primary response, for women, was presented indicating more proximal links between (a) jealousy and anger, and (b) intrusiveness and violence for women.

The Contribution of Schema

It appears that most central to the jealousy experience are preconceived assumptions about human romantic relationships. These stable patterns of thoughts, or schema, are thought by theorists to be personal representations of a dispositional nature based on past experiences. Once activated, schema are thought to help minimise the task of information processing by alerting individuals to known threats, possibly similar to those experienced in the past. By attending to schema-congruent information, threats are acknowledged quickly and therefore hopefully avoided. However, many schema, like stereotypes, can be dysfunctional for the person. For example, growing up in an environment with a father who was unfaithful to your mother can aid in the development of a faulty assumption that all men are destined to engage in infidelity (sexual behaviour schema). Similarly, being left by a significant other may set future beliefs that one will always lose the people most loved (abandonment schema). If thoughts become intrusive and consuming, these irrational schema can lead people to continually misinterpret vague or neutral events or situations.

As discussed, previous research identified faulty beliefs about sexual behaviour and thoughts of personal unattractiveness or unworthiness as precursors to jealousy (Dolan & Bishay, 1996a, 1996b). Furthermore, it was hypothesised in the thesis that other schema were as predictive of jealousy problems, including anger-related,

danger/fear-related, and abandonment schema. These notions were supported by the current research, with results suggesting that all types of negative thoughts related to romantic relationships were associated with increased jealousy. Based on this broad finding, it is possible that an even wider range of schema, or a generally negative pattern of thinking about romantic relationships, is a prominent risk factor for jealousy. For instance, as discovered when interviewing jealous individuals, other relationship-orientated schema were evident, including Lili's prominent fixation on whether her partner's behaviour was conducive to her need to build the perfect family.

At the other end of the spectrum, however, as described in Study 3, it is clear that, although many schema appear to be indicative of jealousy responses, these schema are limited to negative aspects of romantic relationships. For instance, high-jealousy individuals were no more or less likely to endorse assumptions about crime vulnerability or environmental explanations for events in response to ambiguous scenarios. On the other hand, the more jealous a respondent was, the more likely they were to endorse assumptions related to infidelity. Similarly, the more jealous an individual, the more likely they were to discount explanations involving the trust of a romantic partner in the company of an ex-love.

The current research adapted two scales (the MJQ and the JIQ; Dolan, 1992) derived from the morbid-jealousy literature to measure assumptions and cognitive biases generated by underlying schema. However, even these developed measures lack a clear theoretical framework about what constitutes a schema. Basic descriptions of schema are available from different theoretical writings, but they are still ambiguous and in need or further development as operationalisable concepts.

Young (1999) has presented a schema theory developed from the original work of Beck (1967) and Segal (1988). Although less researched than Beck's cognitive

therapy, Young (1998, 1999) has proposed that his extension of the cognitive model helps change underlying schema, particularly in complex cases, such as individuals suffering from personality disorders. Young's therapy involves the identification of Early Maladaptive Schema (EMS; stable, dysfunctional underlying themes developed during childhood), understanding schema domains or origins, and understanding schema processes (such as maintenance and avoidance). Empirical testing of related assessment procedures and therapeutic outcomes is at an early stage, but use of the Young Schema Questionnaire (Young & Brown, 1990 in Young 1999) may aid in bringing research in this area together. This questionnaire, like the MJQ, assesses the prominence of sets of underlying assumptions that constitute what Young (1999) has found to be 16 core EMS. The domain representative of parental rejection and abuse is identified as Disconnection and Rejection, giving rise to the maladaptive schema of Abandonment/Instability, Mistrust/Abuse, Emotional Deprivation, Defectiveness/Shame, and Social Isolation/Alienation. These particular schema closely mirror themes identified in the current research project including attractiveness or unworthiness, abandonment, and trust.

As scores based on the revised MJQ were the most predictive of jealousy and intrusiveness in the current research, schema assessment deserves further attention. First, the capability of the MJQ, and possibly other schema focused scales, to predict the propensity of an individual to engage in dysfunctional behaviour (such as stalking of an intimate during a relationship) should be acknowledged and further researched. Second, the finding in the present research that the frequency of negative thoughts was more predictive of aggressive behaviour than was the emotional distress caused by the same thoughts is highly valuable. For instance, the implication for clinical intervention would be that modification of thought frequency should be an important therapeutic goal. The

often weak relationship between emotional distress and jealousy and aggressive responses suggests that a therapeutic goal of modifying emotions would not be as useful. The major findings relating to schema in the present research suggest that schema change should have a high priority in cognitive-behavioural interventions.

Schema and Intrusiveness

Romantic relationship schema, or the so-called cognitive element of jealousy, were the strongest predictors of intrusive behaviour for women, suggesting that, as in obsessive-compulsive disorder, intrusive behaviours are likely to represent attempts to confirm, or even ward off, suspicious, preoccupying thoughts. These results support previous ideas that jealousy can be all-consuming, irrational, and continue despite the passing of an activating event, leading to checking, searching, and monitoring behaviour. As Cupach et al. (2000) have pointed out, although in a slightly different context (that of pursuing an intimate relationship with a non-interested person)...

> ...individuals who tie the importance of a specific relationship to higher-order goals, such as happiness and self-definition, will tend to cognitively dwell on and persist in pursuing that relationship...Rumination is absorbing and pre-occupying, and drives the motivation to pursue the relational goal because goal achievement is the only pathway to relief from the distress of rumination (p. 140).

Similarly, in Silva et al.'s (2000) account of a man with delusional jealousy who engaged in stalking and violence directed toward his wives, it was reported...

> ...confrontations would usually take place only after spending inordinate amounts of time obsessing about his jealousy concerns, and after his anger and frustration reached very high levels (p. 79).

In the more detailed analysis of the relationship between cognitions and intrusive behaviour for women, it appeared that different schema were related to different types of intrusive behaviour. Specifically, low-level intrusive behaviour (curiosity) was most likely to be a response to fears of a rival existing (danger/fear-related schema). Thoughts that another person may be a threat to a current relationship are not necessarily unusual or irrational and low level intrusions, such as checking a partner's wallet or asking a partner where they have been in response to such fears, appear to be common. These 'curious' behaviours were also related to trust-related schema and projection of one's own infidelity or desires. However, these relationships were much weaker.

Fear of a rival existing and thoughts of being abandoned by a partner were weakly associated with snooping behaviour for women, such as reading through a partner's personal mail or diary or breaking into a partner's property to look around. These acts may be considered more intrusive than curious behaviours as they breach a higher level of privacy, require more risk in most circumstances, and may be considered illegal. In addition to fearing that a rival could exist, the added fear that a partner could physically leave the relationship appears to contribute to the increased level of intrusive conduct. However, although these underlying cognitions may be common precursors to snooping behaviour, they are not sufficient elements for this conduct to be manifested. These particular intrusions were not adequately explained by the two related schema, suggesting other major related constructs were not tapped.

These same fears of danger and abandonment, coupled with feelings of unattractiveness or unworthiness and, particularly, a high level of suspicion (or lack of trust of the partner), contribute significantly to surveillance of a partner, by women. This classic stalking conduct of actively following, watching, and monitoring a partner

represents the most extreme group of intrusive behaviours. It appears that a generally broad range of negative cognitions about romantic relationships contribute to this level of intrusion. It is also likely that previous levels of intrusive conduct such as curiosity and snooping behaviour precede or co-occur with acts of surveillance, due to the similar associations with danger/fear-related schema and abandonment schema. However, the linear association (in the path analysis sense) between these different intrusive elements needs further investigation. It is possible that curiosity may lead to active surveillance, yet snooping behaviour may be quite separate. For instance, snooping (breaking into property or opening personal mail) could be construed as involving a much greater degree of risk in terms of being caught, especially in comparison to curious and surveillance-like behaviours that are less likely to be detected (i.e., watching a partner from a distance).

The strong association between trust-related schema and active surveillance for women suggests that this particular intrusive behaviour represents the most aggressive act of the three, fuelled by thoughts such as "my partner will try and break the rules of our relationship", "my partner will try and fool me", "my partner will try and humiliate me" and "my partner thinks they can keep secrets from me", among others. These particular thoughts are akin to angry cognitions, such as thinking one has been badly done by and blaming external forces for maltreatment that could have been prevented (controllability), that are described in the literature. The element of intentionality of the partner's misconduct is central to the theme (Weiner, 1985; Weiner, Amirkhan, Folkes, & Verette, 1987; Weiner, Russell, & Lerman, 1979).

The association between intrusiveness and aggressive behaviour appears most strongly between acts of surveillance and physical abuse of the partner, for women. Snooping behaviour is also related to intimate abuse, but much more weakly, and

curiosity is negatively related to intimate abuse, for women. Overall, it appears that different schema are associated with different types of intrusive acts, that are in turn, associated with intimate abuse in alternative ways. Therefore, it is important to remember that when attempting, for instance, to intervene clinically with, for example, the internalisation of blame (attractiveness schema), then attempting to help a client externalise blame (especially where infidelity is known and blame is real) may have the negative effect of provoking aggressive behaviour. Balance is therefore of the utmost importance.

Past Experiences

In the present research jealousy was related to perceptions of having a rejecting mother. This supports the notion that previous experiences affect jealousy development, and partially supports findings in the area of domestic violence (Barnett et al., 1995; Dutton et al., 1995; Saunders, 1992a). However, this association appears to be weak and only significant at the bivariate level of analysis. After taking into account underlying schema and age (younger respondents), these parental rearing perceptions appear to make no unique contribution to increased levels of jealousy.

Previous findings in the literature are less specific, suggesting that perceptions of general parental rejection appear to play a role in the development of jealousy problems. However, in the current research no effects were found for perceptions of having a rejecting father. Stronger associations may be found in future research if perceptions of shaming and perceptions of guilt-inducing experiences by parents are assessed separately. As discussed earlier, Dutton et al. (1995) found that perceptions of shaming experiences by parents were more highly related to variables indicative of adult domestic abuse (related to jealousy) in comparison to perceptions of guilt-inducing experiences. Interestingly enough, these previous contentions have arisen from

research dedicated exclusively to male batterers, whereas the women in the current sample reported significantly increased perceptions of having a rejecting mother in childhood (relative to men).

Case examples often highlight the clear associations evident between parental behaviour and ongoing assumptions. For instance, Bishay et al. (1996) have provided reference to a case of morbid jealousy where the woman's lack of physical attractiveness was frequently pointed out by her mother and accepted as fact (attractiveness schema). Similarly, Docherty and Ellis (1976) presented the findings from three cases of morbid jealousy where unexpected similarities across past experiences were identified. During therapy it was discovered that these three unrelated men had witnessed their mothers engaged in extramarital activity during early adolescence (sexual behaviour schema).

Bishay et al. (1996) have suggested that guilt provoked by past behaviour plays a significant role in morbid jealousy and warrants clinical attention. They argue that guilt may be the result of past abuse of the loved one, or alternatively, guilt may be related to faulty assumptions. The latter idea highlights the role of assumptions built on past experiences such as "I was previously unfaithful to a partner, therefore my partner will be unfaithful to me", as measured in this research project by the cognitive scale termed Projection. It has been argued in the present research that the latter was not necessarily a schema, but a defense mechanism. As previously discussed, projection of previous infidelity, or desires to be unfaithful, constitute two of the psychoanalytic bases for jealousy manifestation (projection jealousy and delusional jealousy) (Freud, 1955). Bishay et al. (1996) have suggested that the guilt must be attended to during intervention by identifying the original past experience and challenging faulty assumptions linked to the event or events.

Gender Differences

The differences in some scores between men and women, and the lack of support for relationships between some variables for men, prompt several explanations. To reiterate, women obtained significantly higher scores on overall faulty cognitions (including abandonment schema), rejecting mother, trait anger, intrusiveness, and anger expression scales (including anger out), and lower scores on anger control. Similarly, path models showed strong relationships between faulty cognitions, intrusiveness, and violence for women, but not for men.

Firstly, the results may reflect sample-specific characteristics. Questionnaires were administered to individuals studying business degrees, 36% of whom were already working in skilled positions. It is possible that the elevated levels of overtly expressed trait anger for this group of women may be indicative of women working in highly competitive business environments such as property management and marketing. Historically, women have not been socialised to engage in such competitive environments. However, professional roles do not necessarily reflect how a person responds within the context of an intimate relationship. Similarly, published norms for the trait anger scale suggest that these scores were not necessarily elevated compared with women in college settings.

At the other extreme, the weak, negative association between relationship jealousy and violence scores for men in the second model (Figure 7) may suggest that this group of men respond passively to jealousy-provocation. Published norms did suggest that this group of men showed lower levels of trait anger. It is possible that the men who admitted to high degrees of jealousy were a particularly expressive or emotional group of men, who were therefore not prone to aggression in comparison to men in general. Milovchevic, Howells, Drew, and Day (2001) recently found no sex

differences in anger in an Australian community study, but high anger was found to be associated with masculinity. It is interesting to note, however, that despite the increased anger levels in women, men and women did not differ on jealousy or violence scores, although jealousy scores were more highly related to trait anger for women. This result is consistent with Strachan and Dutton's (1992), Paul, Foss, and Galloway's (1993) and Paul and Galloway's (1994) research into hypothetical responses to sexual jealousy, in that women have consistently reported more anger and endorsed more aggressive responses than men. It is possible that past research findings that suggest jealousy is one of the most common motivations for domestic violence inflicted by *men* may be due to reporting bias. Specifically, jealousy may be an acceptable excuse for intimate abuse in certain cultural and social environments and, therefore, is reported as the main reason for spiralling conflict, even by battered women, in an attempt to justify harm infliction.

From an alternative viewpoint, women may be strongly compelled by their negative thoughts about relationships to engage in an active maintenance or control of the relationship to try and prevent separation. In other words, frequent thoughts of losing a partner may entice women to actively seek private information about their partner to help try and prevent eventual loss of the relationship. Alternatively, in line with the emerging research on the high incidence of men engaging in *post*-relationship stalking, men may engage in avoidance behaviour during the relationship in response to similarly negative thoughts. However, it is possible men feel compelled to try and gain control of a lost relationship only following its dissolution, when avoidance is no longer an option.

These speculative explanations are consistent with Mullen and Martin's (1994) findings from their community study. In the latter study, men were found to be significantly more likely to ignore the problem and hope that it would go away, while

women were significantly more likely to confront their partner and demand an explanation. Similarly, women reported more angry recriminations directed at the partner, expressions of tearfulness, and attempts to make themselves more attractive or more interesting as coping strategies.

The emerging link in the literature between post-relationship stalking by men and previous physical abuse of the same partner during the relationship suggests that stalking may be a replacement behaviour for intimate violence, in an attempt to keep controlling the partner when proximity to her is lessened. These explanations of the functional differences of intrusiveness during a relationship (for women) and stalking post-relationship (for often abusive men) are consistent with the current findings that men and women did not in fact differ on (a) the level of jealousy they reported, (b) the frequency of negative cognitions, or (c) the level of violence. Overall, current findings suggest that, intimate intrusiveness is more likely to be a behaviour conducted by women and is a likely pre-cursor (or concurrent behaviour) to intimate abuse by women. The relationship between intimate intrusiveness and post-relationship stalking is yet to be researched.

Models of Morbid Jealousy

Support for Tarrier et al.'s (1990) model of a possible aggressive response in morbid jealousy was found for both men and women, with significant associations evident between most paths. In summary, cognitions and past experiences were predicted as provoking jealousy and, in turn, intrusive behaviour. As a secondary response, anger and aggression may ensue. Once again, the model was stronger for women. These results suggest that models of morbid jealousy are applicable in a general student population. However, very little variance was accounted for at each level of the models.

The more extended path analyses (Figures 7 and 8) depicting the *proximal* relationships between (a) jealousy and anger, and (b) intrusiveness and violence, gained stronger empirical support in the current research. Specifically, when intrusiveness and violence are viewed as primary aggressive responses to jealousy rather than secondary responses, a superior model is produced, for women. This new model suggests that for women, intrusive, confirmatory expressions, common in jealousy, are inherently aggressive and therefore closely related to physical abuse of the partner. As previously noted, this is not to suggest that secondary responses do not exist.

Future Research Recommendations

Limitations of the Current Research. Several points can be made with reference to the limitations of the current research project and how these may be overcome in future research. Although students were selected that might be more representative of the general population than psychology undergraduates, the samples still had the distinctive characteristics of student populations, including a low mean age. It would be desirable for future studies to select participants from random community samples, as in Mullen and Martin's (1994) study of jealousy. In addition, although the main sample included enough responses for good statistical power to be achieved, when groups were divided (by gender), power was compromised. Therefore, replication of these results with larger samples is also needed.

The fact that only 25% of participants returned completed questionnaires in Study 2 may mean that the current sample is, in some way, biased, although every effort was made to follow up questionnaire returns shortly after administration. It is possible that the questions were too 'sensitive' for some individuals, especially if they were troubled with jealousy, intrusiveness, or violence issues in their intimate relationships. Results may therefore be biased in the sense that jealousy and associated behaviours are

under-represented. Alternatively, those with little or no experience of jealousy may have found the questionnaire irrelevant and therefore decided not to complete it. In this case, the results may be viewed as over-representing the prevalence of jealousy in the general population. There appears to be no easy solution to this kind of selection bias. However, it should be noted that, regardless of the probable sampling issues, current results do mirror those presented by Mullen and Martin (1994) who employed random community sampling.

Similarly, the ratio of males to females amongst participants was disproportionate (approximately 1:2), not reflecting the true ratio in the business student population (approximately 1:1). Women appear to be more cooperative in agreeing to participation and completing questionnaires, especially for research about intimate relationships. This bias may help explain the findings (discussed above), that male participants appeared particularly emotional.

All findings from the current research were based entirely on self-report measures, without corroboration from third parties. As noted in the rationale for Study 1, collecting self-reports of intrusiveness was considered important for research into this particular conduct as many of the behaviours engaged in when jealous are covert acts and therefore unlikely to be noticed by a partner. Similarly, it was anticipated that honest responses would have been compromised if partners were asked to try and corroborate such behaviour. However, other forms of assessment (level of jealousy and aggression) would have benefited from third party corroboration as they are likely to be under-reported.

Although very similar schema were identified in the qualitative and quantitative studies, it is possible that further themes would emerge with further qualitative interviews. This speculation is based on the finding that significant correlations were

evident between all schema and jealousy in the quantitative results, suggesting this group of themes were perhaps not exhaustive. Furthermore, additional schema were identified even within the 5 interviews conducted. Although the interviews were few in number, the richness of the results suggests that this form of qualitative assessment would benefit future research in important ways. Specifically, this method would help identify schema actually activated in jealous individuals by real-life experiences. Similarly, patterns of primary appraisals and responses, followed by patterns of secondary appraisals and responses, can be distinguished more clearly, as shown in the cases presented.

It must also be acknowledged that the current research findings were based on a correlational rather than an experimental design. It follows that direction of causation is open to question. However, the application of path analysis techniques has a firm theoretical and statistical basis and the presentation of competing models aids in supporting causal reflections (Pedhazur, 1982). Below are further recommendations for future studies that also highlight limitations in the current research.

The Intimate Intrusiveness Scale. The Intimate Intrusiveness Scale, as devised for this research project, appears to be a useful psychometric measure worthy of further development and validation. Good internal reliability results were replicated across samples and short-term test re-test reliability was high. In addition, the associations between derived intrusiveness scores and other variables, such as negative romantic relationship schema, jealousy, and intimate abuse show the predictive value of scores. Most importantly, the seemingly high value of intrusiveness scores (particularly active surveillance scores) in predicting intimate abuse for women suggests this measure is suitable for future research aimed at tapping propensity for aggression in relationships.

The scale needs to be further validated in different populations such as morbidly jealous groups, and forensic populations of stalkers and violent offenders. Similarly, further development of actual scale items may be necessary (a) with the advent of new technology, and (b) to further streamline the assessment of specific intrusive manifestations. For example, new forms of intrusiveness may need inclusion, such as checking call registers on mobile phones, checking e-mail inboxes, or checking caller identification memory banks. New items may also need to be added in an attempt to more reliably assess sub-categories of behaviour such as snooping.

Finally, more extensive sets of data from alternative populations should also be collected to compare weighting items for assessment in different groups. Perceptions of intrusiveness may also change over time. For instance, the proliferation of "real-life TV" and the associated acceptance of voyeurism and the surrendering of privacy may make people more tolerant of intrusiveness.

The Cognitive Element of Anger. The associations identified between trust-related cognitions (that appear to have a strong anger element) and aggressive behaviour, suggest that this theme of angry cognitions warrants greater research attention. In the current project, scales from Spielberger's (1991) State-Trait Anger Expression Inventory were used as measures of the affective component of anger. However, a strong cognitive element of anger was evident in the measurement of the trust-related schema, centring on elements of external blame of the partner and their intentional maltreatment or breaking of the rules of the relationship. This particular theme was the best predictor of active surveillance which was, in turn, the best predictor of intimate abuse, for women. It is, therefore, important that angry cognitions are acknowledged as integral predictors of aggressive behaviour in the context of jealousy. However, when the anger research to date is consulted, it appears that little effort has

been made to establish sound theories of the cognitive elements of anger and their influence on actual behaviour (for some contributions see Copello & Tata, 1990; Dalgleish & Power, 1999; Dodge, Price, Bachorowski, & Newman, 1990; Dodge & Schwartz, 1997; Hazebroek, Howells, & Day, 2001; Rusting & Nolen-Hoeksema, 1998; Wyer & Srull, 1993).

Perhaps the most comprehensive work published is Novaco and Welsh's (1989) account of the various cognitive biases applicable to anger disturbances. Based on information processing theories and the central assumption that schema influence attention, encoding, memory storage, recall, and the interpretation of new information, five distinct cognitive biases were discussed by these authors as probable processes underlying abnormal anger and aggression.

Firstly, these authors suggested that angry or aggressive people are sensitised to aggressive cues. This bias is defined as "attentional cueing" and refers to how people selectively attend to, and can therefore be provoked by, certain stimuli. This cueing is supposedly based on dispositional elements, including anger itself. This is consistent with Tarrier et al.'s (1990) model of morbid jealousy, in which personality variables (like trait anger) influence the development and further activation of schema.

Secondly, previous ongoing exposure to antagonistic situations is discussed as increasing an individual's perception of aggressive stimuli in the environment. This idea is reminiscent of theories that the witnessing or receiving of abuse in early childhood leads many children to become abusers themselves when adults. This bias is referred to as "perceptual matching" and could be equally applied to the possible links between jealousy and perceptions of parental rejection.

Thirdly, the fundamental attribution error is discussed as a likely influence in anger disturbance. Specifically, the tendency to over-attribute the behaviour of actors to

dispositional rather than situational causes is discussed by Novaco and Welsh (1989) as a possible routine error made by aggressive individuals. Specifically, blame ensues when dispositional factors are attributed as explanations for others' behaviour. A person may be construed as overly friendly and flirtatious with all members of the opposite sex by a jealous partner because of a single incident in the past. The jealous person may tend to underestimate the influence of situational factors on their partner's behaviour.

Fourthly, Novaco and Welsh (1989) discuss the relationship between perspective-taking and anger. The "false consensus" effect (where individuals over estimate the extent to which others have the same opinions and behave in the same way as themselves) and the "corollary bias" (the unjustified assumption that, events have relevance to the self) are identified as egocentric manifestations common in angry individuals. Deficiencies in role-taking are suggested as affecting selection, encoding, storage, and recall of information over time, and therefore influencing the content and development of certain types of schema. In support of this particular notion, Yochelson and Samenow's (1976) research on the self-preoccupied schema of the criminal personality is highlighted. Their research concluded that the inability of criminals to take the perspective of another leads to egocentric attributions of their own values to others. Specifically, others are perceived by the criminals as possessing the same desires as themselves, but misfortune or lack of power are viewed as leading to their own apprehension. This bias is reminiscent of the projective mechanisms often observed in jealous individuals where a person's own desires, or past infidelities, are projected onto the partner.

Fifthly, "anchoring effects" (the tendency of an initial judgement to be resistant to change despite new, discounting information) is suggested as a possible bias in angry individuals' information processing. Specifically, the intensity and prolongation of

anger arousal in highly angry individuals is likely to block further analysis of a situation or event. This bias is discussed as indicative of anger schema activation limiting further searches for alternative explanations. Hence, once the trust-related schema is activated in the jealous individual, counter information suggesting that a partner was not intentionally breaking the rules will be ignored and mistrust and anger will continue.

Although probably not an exhaustive list of the biases applicable to anger disturbances, Novaco and Welsh's (1989) review is important in highlighting the research conducted and the work yet to be done in the area of anger and cognitive mediation. Since this publication, the cognitive element of anger has still received very limited research attention, especially in comparison to depression and anxiety. As Novaco and Welsh (1989) have suggested, cognitive processes are intrinsic in understanding the process from activating event to behavioural manifestation. What receives attention and therefore functions as provocation is influenced by cognitive dispositions such as expectations, schema, and scripts. As Strachan and Dutton (1992) have suggested from their research into responses to hypothetical jealousy scenarios, other elements (i.e., powerfulness or powerlessness) outside of a relationship can influence anger responses within an intimate context, and therefore warrant investigation.

Conclusion

Jealousy is a complex phenomenon – a group of interrelated cognitions, emotions, and behaviours centred on a broad theme of a rival threatening the quality or existence of a valued relationship. The cognitive element underlying romantic jealousy is similarly broad and complex, appearing to consist of schema or patterns of thoughts related to an array of relationship concepts including trust and anger, attractiveness or unworthiness, abandonment, fear of a rival, and assumptions about other people's

sexual behaviour practices (like infidelity). This list is by no means exhaustive, clearly highlighting the idiosyncratic nature of jealousy.

The frequency of negative thoughts about romantic relationships highly predicts intrusiveness for women – the most common behavioural manifestation of jealousy. Furthermore, levels of intrusiveness, specifically active surveillance levels, appear to be good predictors of intimate abuse acted out by women. These results, along with recent contributions to the research on stalking, suggest that intrusive forms of behaviour need to be taken seriously as potentially aggressive behaviours, especially within the context of interpersonal relationships, regardless of whether they occur during a current, intact relationship or following relationship dissolution. Previous estimates of the low incidence of violence related to stalking cases needs to be re-evaluated when the context involves intimate ties between individuals.

The phenomenon of intrusive thoughts compelling individuals to check or monitor is similar to obsessive-compulsive disorder. However, jealousy appears to constitute a primarily angry affective state, compelling many of its sufferers to engage in aggressive behaviours such as stalking and physical abuse of their partners. The development of more sound cognitive-behavioural theories of jealousy and of more precise assessment and intervention strategies will ensure that this multifaceted and intricate human failing can no longer be dismissed as "resistant to treatment".

In a therapeutic setting, schema change and modification of thought frequency should take precedence over modifying a jealousy sufferer's emotions. Clinical intervention strategies of this type are not only likely to alleviate intrusive thoughts, intense affective reactions, and aggressive behavioural manifestations, but aid in lessening future misinterpretations by jealousy sufferers that prevent jealous feelings from subsiding. In essence, the adaptation of schema-focused therapies may be the

future of jealousy intervention. This type of focus allows a clinician a rich window into the jealous mind - past, present, and future.

> Insecurity is the worst sense that lovers feel: sometimes the most humdrum desireless marriage seems better. Insecurity twists meanings and poisons trust. In a closely beleaguered city every sentry is a potential traitor. Even before the days of Mr Parkis [private investigator] I was trying to check on her: I would catch her out in small lies, evasions that meant nothing except her fear of me. For every lie I would magnify into a betrayal, and even in the most open statement I would read hidden meanings. Because I couldn't bear the thought of her so much as touching another man, I feared it all the time, and I saw intimacy in the most casual movement of the hand. "Wouldn't you want me to be happy, rather than miserable?" she asked with unbearable logic. "I'd rather be dead or see you dead," I said, "than with another man. I'm not eccentric. That's ordinary human love. Ask anybody. They'd all say the same – if they loved at all." I jibed at her. "Anyone who loves is jealous."
>
> Greene (1951, p. 55)

References

American Psychiatric Association (1994). *Diagnostic and statistical manual of mental disorders (4th ed.).* Washington, DC: American Psychiatric Association.

Arya, D. K. (1993). Cognitive formulation for morbid jealousy (Othello syndrome). *Irish Journal of Psychological Medicine, 10*(3), 157-159.

Australian Bureau of Statistics. (1996). *Women's safety*. Canberra, Australia.

Barnett, O. W., Martinez, T. F., & Bluestein, B. W. (1995). Jealousy and romantic attachment in maritally violent and nonviolent men. *Journal of Interpersonal Violence, 10*(4), 473-486.

Beck, A. T. (1975). *Cognitive therapy and the emotional disorders*. New York: New American Library.

Beck, A. T. (1983). Cognitions, attitudes and personality dimensions in depression. *British Journal of Cognitive Psychotherapy, 1*, 1-16.

Beck, A. T., Rush, A. J., Shaw, B. F., & Emery, G. (1979). *Cognitive therapy for depression*. New York: Guildford Press.

Bishay, N. R., Petersen, N., & Tarrier, N. (1989). An uncontrolled study of cognitive therapy for morbid jealousy. *British Journal of Psychiatry, 154*, 386-389.

Bishay, N. R., Tarrier, N., Dolan, M., Beckett, R., & Harwood, S. (1996). Morbid jealousy: A cognitive outlook. *Journal of Cognitive Psychotherapy, 10*(1), 9-22.

Bootzin, R. R., & Acocella, J. R. (1988). *Abnormal psychology: Current perspectives (5th ed.)*. New York: Random House

Brainerd, E. G., Hunter, P. A., Moore, D. W., & Thompson, T. R. (1996). Jealousy induction as a predictor of power and the use of other control methods in heterosexual relationships. *Psychological Reports, 79*(3), 1319-1325.

Brewster, M. P. (2000). Stalking by former intimates: Verbal threats and other predictors of physical violence. *Violence and Victims, 15*(1), 41-54.

Bringle, R. G. (1981). Conceptualizing jealousy as a disposition. *Alternative Lifestyles, 4*, 274-290.

Bringle, R. G., & Buunk, B. P. (1985). Jealousy and social behaviour: A review of person, relationship, and situational determinants. *Review of Personality and Social Psychology, 6*, 241-264.

Brisson, N. J. (1983). Battering husbands: A survey of abusive men. *Victimology, 6,* 338-344.

Budd, T., Mattinson, J., & Myhill, A. (2000). *The extent and nature of stalking: Findings from the 1998 British Crime Survey*. London: Home Office, Development and Statistics Directorate.

Buss, D. M. (2000). *The dangerous passion: Why jealousy is as necessary as love and sex*. New York: The Free Press.

Buss, D. M. (2001). Cognitive biases and emotional wisdom in the evolution of conflict between the sexes. C*urrent Directions in Psychological Science, 10*(6), 219-223.

Buss, D. M., Larsen, R. J., Westen, D., & Semmelroth, J. (2001). Sex differences in jealousy: Evolution, physiology, and psychology. In Parrott, W. G. (Ed). *Emotions in social psychology: Essential readings*. Philadelphia: Psychology Press/Taylor & Francis (pp. 143-149).

Buss, D. M., Shackelford, T. K., Kirkpatrick, L. A., Lim, H. K., Hasegawa, M., Hasegawa, T., & Bennett, K. (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(*1), 125-150.

Butters, J., McClure, J., Siegert, R., & Ward, T. (1997). Attributions for real and hypothetical events: Do they predict depression? *Australian Journal of Psychology, 49*, 42-48,

Buunk, B. P., Angleitner, A., Oubaid, V., & Buss, D. M. (1996). Sex differences in jealousy in evolutionary and cultural perspective: Tests from the Netherlands, Germany, and the United States. *Psychological Science, 7*(6), 359-363.

Carcach, C., & James, M. (1998). *Homicide between intimate partners in Australia (Trends and issues in crime and criminal justice No. 90)*. Canberra, ACT: Australian Institute of Criminology.

Chadwick, P., Birchwood, M., & Trower, P. (1996). *Cognitive therapy for delusions, voices and paranoia*. Chichester, England: John Wiley & Sons.

Chadwick, P., & Lowe, C. F. (1994). *A cognitive approach to measuring and modifying delusions*. England: Elsevier Science Ltd.

Clanton, G., & Smith, L. G. (1977). *Jealousy*. Englewood Cliffs, NJ: Prentice Hall.

Cobb, J. (1979). Morbid jealousy. *British Journal of Hospital Medicine, 21*, 511-518.

Cobb, J., & Marks, I. (1979). Morbid jealousy featuring as obsessive-compulsive neurosis. Treatment by behavioural psychotherapy. *British Journal of Psychiatry, 134,* 301-305.

Cohen, J., & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioral sciences (2nd ed.)*. Hillsdale, NJ: Lawrence Erlbaum.

Coleman, F. L. (1997). Stalking behaviour and the cycle of domestic violence. *Journal of Interpersonal Violence, 12*(3), 420-432.

Copello, A. G., & Tata, P. R. (1990). Violent behaviour and interpretive bias: An experimental study of the resolution of ambiguity in violent offenders. *British Journal of Clinical Psychology, 29*, 417-428.

Cornell, D. G., Peterson, C. S., & Richards, H. (1999). Anger as a predictor of aggression among incarcerated adolescents. *Journal of Consulting and Clinical Psychology. 67*, 108-115.

Cupach, W. R., & Spitzberg, B. H., (1998). Obsessive relational intrusion and stalking. In B. H. Spitzberg, W. R. Cupach, et al. (Eds.), *The dark side of close relationships.* Mahwah, NJ: Lawrence Erlbaum Associates, Inc., Publishers. (pp. 233-263).

Cupach, W. R., Spitzberg, B. H., & Carson, C. L. (2000). Toward a theory of obsessive relational intrusion and stalking. In K. Dindia & S. Duck (Eds.), *Communication and personal relationships*, Chichester: John Wiley & Sons, Ltd.

Dalgleish, T., & Power, M. J. (Eds.) (1999). *Handbook of cognition and emotion.* Chichester, England: John Wiley & Sons Ltd.

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

Daly, M., Wilson, M. I., & Weghorst, S. J. (1982). Male sexual jealousy. *Ethology and Sociobiology, 3*(1), 11-27.

Davison, G. C., & Neale, J. M. (1998). *Abnormal psychology (7th ed.).* New York: Wiley.

De Silva, P., & Marks, M. (1994). Jealousy as a clinical problem: Practical issues of assessment and treatment. *Journal of Mental Health UK, 3*(2), 195-204.

Deweerth, C., & Kalma, A. P. (1993). Female aggression as a response to sexual jealousy: A sex role reversal. *Aggressive Behavior, 19*(4), 265-279.

Dobash, R. E, & Dobash, R. P. (1980). *Violence against wives: A case against the patriarchy.* London: Open Books.

Docherty, J. P., & Ellis, J. (1976). A new concept and finding in morbid jealousy. *American Journal of Psychiatry, 133*(6), 679-683.

Dodge, K. A., Price, J. M., Bachorowski, J., & Newman, J. P. (1990). Hostile attribution biases in severely aggressive adolescents. *Journal of Abnormal Psychology, 99*, 385-392.

Dodge, K. A., & Schwartz, D. (1997). Social information processing in aggressive behavior. In D. M. Stoff, & J. Breiling, *Handbook of antisocial behaviour.* New York, USA: John Wiley & Sons Ltd.

Dolan, M. (1992*). The effectiveness of cognitive therapy in the treatment of morbid jealousy.* MSc. Thesis, University of Manchester.

Dolan, M., & Bishay, N. R. (1996a). The effectiveness of cognitive therapy in the treatment of non-psychotic morbid jealousy. *British Journal of Psychiatry, 168,* 588-593.

Dolan, M., & Bishay, N. R. (1996b). The role of sexual behavior/attractiveness schema in morbid jealousy. *Journal of Cognitive Psychotherapy, 10*(1), 41-61.

Draghi-Lorenz, R., Reddy, V., & Costall, A. (2001). Rethinking the development of "nonbasic" emotions: A critical review of existing theories. *Developmental Review, 21*(3), 263-304.

Dutton, D. G. (1995). A scale for measuring propensity for abusiveness. *Journal of Family Violence, 10,* 203-221.

Dutton, D. G., Van Ginkel, C., & Landolt, M. A. (1996). Jealousy, intimate abusiveness and intrusiveness. *Journal of Family Violence, 11*, 411-423.

Dutton, D. G., Van Ginkel, C. & Starzomski, A. (1995). The role of shame and guilt in the intergenerational transmission of abusiveness. *Violence and Victims, 10*, 121-130.

Dziegielewski, S. F., & Roberts, A. R. (1995). Stalking victims and survivors: Identification, legal remedies, and crisis treatment. In A. R. Roberts (Ed), *Crisis intervention and time-limited cognitive treatment*. California: Sage Publications, Inc. (pp. 73-90).

Easteal, P. (1993). *Killing the beloved: Homicide between adult sexual intimates*. Canberra, ACT: Australian Institute of Criminology,.

Freud, S. (1955). Some neurotic mechanisms in jealousy, paranoia and homosexuality. In J. Strachey (Ed), *The complete psychological works of Sigmund Freud, standard edition, vol. 18*. London: Hogarth Press.

Friday, N. (1985). *Jealousy.* London: HarperCollins.

Frijda, N. H. (1986). *The emotions.* Cambridge: Cambridge University Press.

Gayford, J. J. (1979). Battered wives. *British Journal of Hospital Medicine, 22*, 496-503.

Gerlsma, C., Emmelkamp, P. M. G., & Arrindell, W. A. (1990). Anxiety, depression, and perception of early parenting: A meta-analysis. *Clinical Psychology Review, 10,* 251-277.

Gibbens, T. C. N. (1958). Sane and insane homicide. *Journal of Criminal Law, Criminology and Police Science, 49*, 110-105.

Greene, G. (1951). *The end of the affair*. England: Penguin Books.

Grimm, L. G., & Yarnold, P. R. (Eds.) (1995). *Reading and understanding multivariate statistics*. Washington, DC: American Psychological Association.

Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate data analysis ($5^{th}$ ed.)*. New Jersey: Prentice-Hall, Inc.

Hansen, G. L. (1982). Reactions to hypothetical, jealousy-producing events. *Family Relations, 31*, 513-518.

Harmon, R. B., Rosner, R., & Owens, H. (1995). Obsessional harassment and erotomania in a criminal court population. *Journal of Forensic Sciences, 40*(2), 188-196.

Hazebroek, J. F., Howells, K., & Day, A. (2001). Cognitive appraisals associated with high trait anger. *Personality and Individual Differences, 30*, 31-45.

Hilberman, E., & Munson, K. (1978). Sixty battered women. *Victimology, 2,* 460-470.

Holtzworth-Munroe, A., Stuart, G. L., & Hutchinson, G. (1997). Violent versus nonviolent husbands: Differences in attachment patterns, dependency, and jealousy. *Journal of Family Psychology, 11*(3), 314-331.

Hosmer, D.W., & Lemeshow, S. (1989). *Applied logistic regression*. New York: Wiley.

Howell, D. C. (1992). *Statistical methods for psychology ($3^{rd}$ ed.)*. Belmont, CA: Duxbury Press.

Intili, R., & Tarrier, N. (1998). Attentional bias in morbid jealousy. *Behavioural and Cognitive Psychotherapy, 26*(4), 323-338.

James, M., & Carcach, C. (1997). *Homicides in Australia 1986-1996. Research and Public Policy No. 13*. Canberra, ACT: Australian Institute of Criminology.

Judd, C. M., Smith, E. R., & Kidder, L. H. (1991). *Research methods in social relations (6th ed.).* USA: Harcourt Brace Jovanovich College Publishers.

Keenan, P. S., & Farrell, D. P. (2000). Treating morbid jealousy with eye movement desensitization and reprocessing utilizing cognitive inter-weave – a case report. *Counselling Psychology Quarterly, 13*(2), 175-189.

Kienlen, K. K., Birmingham, D. L., Solberg, K. B., Oregan, J. T., & Meloy, J. R. (1997). A comparative study of psychotic and nonpsychotic stalking. *Bulletin of the American Academy of Psychiatry and the Law, 25*, 317-334.

Klein, M. (1977). *Envy and gratitude and other works 1946-1963*. New York: Delacorte.

Klein, M., & Riviere, J. (1964). *Love, hate, and reparation*. New York: Norton.

Kohn, M. (2000). Prevalence and health consequences of stalking: Louisiana, 1998-1999. *MMWR, 49*, 653-655.

Kurt, J. L. (1995). Stalking as a variant of domestic violence. *Bulletin of the American Academy of Psychiatry and the Law, 23*(2), 219-230.

Langhinrichsen-Rohling, J., Palarea, R. E., Cohen, J., & Rohling, M. L. (2000). Breaking up is hard to do: Unwanted pursuit behaviors following the dissolution of a romantic relationship. *Violence and Victims, 15*(1), 73-90.

Lazarus, R. S. (1991). *Emotion and adaptation*. New York: Oxford University Press.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal and coping*. New York: Springer.

Logan, T. K., Leukefeld, C., & Walker, B. (2000). Stalking as a variant of intimate violence: Implications from a young adult sample. *Violence and Victims, 15*(1), 91-111.

Marshall, L. L. (1992a). Development of the severity of violence against women scales. *Journal of Family Violence, 7,* 103-121.

Marshall, L. L. (1992b). The severity of violence against men scales. *Journal of Family Violence, 7,* 189-203.

Mathes, E. W. (1991). A cognitive theory of jealousy. In P. Salovey (Ed), *The psychology of jealousy and envy*. New York: Guilford Press (pp. 52-78).

Mathes, E. W., & Severa, N. (1981). Jealousy, romantic love, and liking: Theoretical considerations and preliminary scale development. *Psychological Reports, 49,* 23-31.

Mathes, E. W., & Verstraete, C. (1993). Jealous aggression: Who is the target, the beloved or the rival? *Psychological Reports, 72*(3), 1071-1073.

McFarlane, J., Willson, P., Malecha, A., & Lemmey, D. (2000). Intimate partner violence: A gender comparison. *Journal of Interpersonal Violence, 15,* 158-169.

McKenna, P. J. (1984). Disorders with overvalued ideas. *British Journal of Psychiatry, 145,* 579-585.

Mechanic, M. B., Weaver, T. L., Resick, P. A. (2000). Intimate partner violence and stalking behavior: Exploration of patterns and correlates in a sample of acutely battered women. *Violence and Victims, 15*(1), 55-72.

Meloy, J. R. (1996). Stalking (obsessional followers): A review of some preliminary studies. *Aggression and Violent Behavior, 1,* 147-162.

Meloy, J. R., & Gothard, S. (1995). Demographic and clinical comparison of obsessional followers and offenders with mental disorders. *American Journal of Psychiatry, 152,* 258-263.

Michael, A., Mirza, S., Mirza, K. A. H., Babu, V. S., & Vithayathil, E. (1995). Morbid jealousy in alcoholism. *British Journal of Psychiatry, 167,* 668-672.

Milovchevic, D., Howells, K., Drew, N., & Day, A. (2001). Sex and gender role differences in anger: An Australian community study. *Personality and Individual Differences, 30,* 117-127.

Milroy, C. M. (1995). The epidemiology of homicide-suicide (dyadic death). *Forensic Science International, 71*(2), 117-122.

Mooney, H. (1965). Pathologic jealousy and psychochemotherapy. *British Journal of Psychiatry, 111,* 1023-1042.

Morenz, B., & Lane, R. D. (1996). Morbid jealousy and criminal conduct. In L. B. Schlesinger (Ed), *Explorations in criminal psychopathology: Clinical syndromes with forensic implications.* Springfield, Il: Charles C. Thomas.

Mouzos, J. (1999). *Femicide: The killing of women in Australia 1989-1998. Research and Public Policy Series No. 18.* Canberra, ACT: Australian Institute of Criminology.

Mouzos, J. (2001). *Homicide in Australia 1999-2000. Trends and Issues in Criminal Justice No 187.* Canberra, ACT: Australian Institute of Criminology.

Mowat, R. R. (1966). *Morbid jealousy and murder.* London: Tavistock.

Mullen, P. E. (1990a). Morbid jealousy and the delusion of infidelity. In R. Bluglass & P. Bowden (Eds), *Principles and practice of forensic psychiatry*. London: Churchill Livingstone (pp. 823-834).

Mullen, P. E. (1990b). A phenomenology of jealousy. *Australian and New Zealand Journal of Psychiatry, 24,* 17-28.

Mullen, P. E. (1991). Jealousy: The pathology of passion. *British Journal of Psychiatry, 158*, 593-601.

Mullen, P. E. (1993). The crime of passion and the changing cultural construction of jealousy. *Criminal Behaviour and Mental Health, 3*, 1-11.

Mullen, P. E. (1995). Jealousy and violence. *Hong Kong Journal of Psychiatry, 5,* 1-7.

Mullen, P. E. (1997a). Disorders of passion. In D. Bhugra & A. Munro (Eds), *Troublesome disguises: Underdiagnosed psychiatric syndromes*. Oxford, England: Blackwell Science (pp. 127-167).

Mullen, P. E. (1997b). Erotomanias (pathologies of love) and stalking. *Directions in Mental Health Counseling, 7*(3), 1-17.

Mullen, P. E., & Maack, L. H. (1985). Jealousy, pathological jealousy, and aggression. In D. P. Farrington & J. Gunn (Eds), *Aggression and dangerousness*. New York: Wiley (pp. 103-126).

Mullen, P. E., & Martin, J. (1994). Jealousy: A community study. *British Journal of Psychiatry, 164*, 35-43.

Mullen, P. E., & Pathe, M. (1994). Stalking and the pathologies of love. *Australian and New Zealand Journal of Psychiatry, 28*(3), 469-477.

Mullen, P. E., Pathe, M., Purcell, R., & Stuart, G. W. (1999). Study of stalkers. *American Journal of Psychiatry, 156*, 1244-1249.

Novaco, R. (1979). The cognitive regulation of anger and stress. In S. D. Hollon & P. C. Kendall, *Cognitive-behavioural interventions: Theory, research and procedures*. New York: Academic Press.

Novaco, R. W., & Welsh, W. N. (1989). Anger disturbances: Cognitive mediation and clinical prescriptions. In K. Howells & C. R. Hollin (Eds.), *Clinical approaches to violence*. London: John Wiley & Sons Ltd. (pp. 39-60).

Palarea, R. E., Zona, M. A., Lane, J. C., & Langhinrichsen-Rohling, J. (1999). The dangerous nature of intimate relationship stalking: Threats, violence and associated risk factors. *Behavioural Sciences and the Law, 17*, 269-283

Parker, G., & Barrett, E. (1997). Morbid jealousy as a variant of obsessive-compulsive disorder. *Australian and New Zealand Journal of Psychiatry, 31*(1), 133-138.

Parrott, W. G. (Ed.). (2001). *Emotions in social psychology: Essential readings*. Philadelphia: Psychology Press/Taylor & Francis.

Pathe, M., & Mullen, P. E. (1997). The impact of stalkers on their victims. *British Journal of Psychiatry, 170,* 12-17.

Paul, L., Foss, M. A., & Galloway, J. (1993). Sexual jealousy in young women and men: Aggressive responsiveness to partner and rival. *Aggressive Behavior, 19*, 401.

Paul, L., & Galloway, J. (1994). Sexual jealousy: Gender differences in response to partner and rival. *Aggressive Behavior, 20*, 203-211.

Pavlou, M., & Knowles, A. (2001). Domestic violence: Attributions, recommended punishments and reporting behavior related to provocation by the victim. *Psychiatry, Psychology, and Law, 8*(1), 76-85.

Pedhazur, E. J. (1982). *Multiple regression in behavioral research: Explanation and prediction* (2nd ed.). New York: Holt, Rinehart & Winston.

Pedhazur, E. J., & Pedhazhur-Schmelkin, L. (1991). *Measurement, design, and analysis: An integrated approach.* Hillsdale, NJ: Lawrence Erlbaum & Associates.

Perneger, T. V. (1998). What's wrong with Bonferroni adjustments. *British Medical Journal, 316*, 1236-1238.

Perris, C., Jacobsson, L., Lindstrom, H., von Knorring, L., & Perris, H. (1980). Development of a new inventory for assessing memories of parental rearing behaviour. *Acta Psychiatrica Scandinavica, 61,* 265-274.

Pfeiffer, S. M., & Wong, P. T. P. (1989). Multidimensional jealousy. *Journal of Social and Personal Relationships, 6,* 181-196.

Pines, A. M., & Friedman, A. (1998). Gender differences in romantic jealousy. *Journal of Social Psychology, 138,* 54-71.

Psarska (1970). Jealousy factor in homicide in forensic material. *Polish Medical Journal, 9*, 1504-1510.

Raine, A. (1993). *The psychopathology of crime: Criminal behavior as a clinical disorder*. San Diego: Academic Press.

Reber, A. S. (Ed.) (1985). *The Penguin dictionary of psychology.* London: Penguin Books

Reik, T. (1957). *Of love and lust.* New York: Grove Press.

Romans, J. S., Hays, J. R., & White, T. K. (1996). Stalking and related behaviors experienced by counseling center staff members from current and former clients. *Professional Psychology: Research and Practice, 27*(6), 595-599.

Roseman, I. J., Wiest, C., & Swartz, T. S. (1994). Phenomenology, behaviors, and goals differentiate discrete emotions. *Journal of Personality and Social Psychology, 67*, 206-221.

Rosenthal, R., & Rosnow, R. L. (1991). *Essentials of behavioural research: Methods and data analysis* (2nd ed.). USA: McGraw-Hill.

Ross, M. W., Campbell, R. L., & Clayer, J. R. (1982). New inventory for measurement of parental rearing patterns: An English form of the EMBU. *Acta Psychiatrica Scandinavica, 66,* 499-507.

Rounsaville, B. J. (1978). Theories in marital violence: Evidence from a study of battered women. *Victimology, 3,* 11-21.

Rusting, C. L., & Nolen-Hoeksema, S. (1998). Regulating responses to anger: Effects of rumination and distraction on angry mood. *Journal of Personality and Social Psychology, 74*, 790-803.

Saunders, D. G. (1992a). A typology of men who batter: Three types derived from cluster analysis. *American Journal of Orthopsychiatry, 62*, 264-275.

Saunders, D. G. (1992b). Procedures for adjusting self-reports of violence for social desirability bias. *Journal of Interpersonal Violence, 6,* 336-344.

Schwartz-Watts, D., & Morgan, D. W. (1998). Violent versus nonviolent stalkers. *Journal of the American Academy of Psychiatry and the Law, 26*(2), 241-245.

Seeman, M. V. (1978). Delusional loving. *Archives of General Psychiatry, 35*, 1265-1267.

Shapiro, F. (1995). *Eye movement desensitisation and reprocessing. Basic principles, protocols and procedures*. New York: Guildford Press.

Shepherd, M. (1961). Morbid jealousy: Some clinical and social aspects of a psychiatric symptom. *Journal of Mental Science, 107*, 687-753.

Shettel-Neuber, J., Bryson, J. B., & Young, L. E. (1978). Physical attractiveness of the "other person" and jealousy. *Personality and Social Psychology Bulletin, 4,* 612-615.

Shrestha, K., Rees, D. W., Rix, K. J. B., Hore, B. D., & Faragher, E. B. (1985). Sexual jealousy in alcoholics. *Acta Psychiatrica Scandinavica, 72*(3), 283-290.

Silva, J. A., Derecho, D. V., Leong, G. B., & Ferrari, M. M. (2000). Stalking behavior in delusional jealousy. *Journal of Forensic Science, 45*, 77-82.

Silva, J. A., Ferrari, M. M., Leong, G. B., & Penny, G. (1998). The dangerousness of persons with delusional jealousy. *Journal of the American Academy of Psychiatry and the Law, 26*(4), 607-623.

Smith, C. A., Haynes, K. N., Lazarus, R. S., & Pope, L. K. (1993). In search of the "hot" cognitions: Attributions, appraisals, and their relation to emotion. *Journal of Personality and Social Psychology, 65*, 916-929.

Spielberger, C. D. (1991). *Manual for the State-Trait Anger Expression Scale (STAXI).* Odessa, FL: Psychological Assessment Resources, Inc.

Spitzberg, B. H., & Cupach, W. R (1999). *Jealousy, suspicion, possessiveness and obsession as predictors of Obsessive Relational Intrusion.* Paper presented at the International Communication Association Convention. San Francisco, CA, May.

Stewart, R. B., & Beatty, M. J. (1985). Jealousy and self-esteem. *Perceptual and Motor Skills, 60,* 153-154.

Strachan, C. E., & Dutton, D. G. (1992). The role of power and gender in anger responses to sexual jealousy. *Journal of Applied Social Psychology, 22,* 1721.

Strahan, R., & Gerbasi, K. C. (1972). Short, homogeneous versions of the Marlowe-Crowne Social Desirability Scale. *Journal of Clinical Psychology, 28,* 191-193.

Straus, M. A. (1979). Measuring intrafamily conflict and violence: The Conflict Tactics (CT) Scales. *Journal of Marriage and the Family, 41,* 75-88.

Straus, M. A., Gelles, R. J., & Steinmetz, S. (1980). *Behind closed doors: Violence in the American family.* New York: Anchor/Doubleday.

Tabachnik, B. G., & Fidell L. S. (1996). *Using multivariate statistics* (3rd ed.). New York: HarperCollins.

Tarrier, N., Beckett, R., Harwood, S & Ahmed, Y. (1989). Comparison of the morbidly jealous and a normal female population on the EPQ. *Personality and Individual Differences, 10,* 1327-1328.

Tarrier, N., Beckett, R., Harwood, S., & Bishay, N. R. (1990). Morbid jealousy: A review and cognitive-behavioural formulation. *British Journal of Psychiatry, 157,* 319-326.

Tjaden, P., & Theonnes, N. (1998). *Stalking in America: Findings from the national violence against women survey (NCJ Report No. 169592).* Washington, DC: US Department of Justice.

Walker, L. E., & Meloy, J. R. (1998). Stalking and domestic violence. In J. R. Meloy (Ed.), *The psychology of stalking: Clinical and forensic perspectives.* San Diego, CA: Academic Press (pp. 139-161).

Wallace, H., & Silverman, J. (1996). Stalking and post traumatic stress syndrome. *The Police Journal, LXIX*(3), 203-206.

White, G. L. (1981). A model of romantic jealousy. *Motivation and Emotion, 5,* 295-310.

White, G. L., & Mullen, P. E. (1989). *Jealousy. Theory, research and clinical strategies.* New York: Guilford Press.

Whitehurst, R. N. (1971). Violently jealous husbands. *Sexual Behaviour, 1,* 32-47.

Whitford, H. S., & Howells, K. (2001a). *Aggressive expressions of jealousy: Testing the cognitive-behavioural formulations in the general population.* Paper presented at the Australian Psychological Society's Annual Conference, Adelaide 2001: A Psychological Odyssey. Adelaide, Australia, 21-25 Feb.

Whitford, H. S., & Howells, K. (2001b). *Intrusive and violent expressions of jealousy in the general population.* Paper presented at the Australian Psychological Society's 1st Australian Forensic Psychology Conference. Sydney, Australia, 7-11 Feb.

Whitford, H. S., & Howells, K. (2000). *Stalking in domestic relationships: Preliminary analyses of The Intrusiveness Scale.* Paper presented to the Australian Institute of Criminology Conference, Stalking: The Criminal Justice Response. Sydney, Australia, 7-8 Dec.

Whitford, H., Mohr, P., & Howells, K. (2002). *Stalking-related behaviours in intimate relationships: Preliminary analyses of The Intimate Intrusiveness Scale.* Manuscript submitted for publication.

Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review, 92,* 548-573.

Weiner, B., Amirkhan, J., Folkes, V. S., & Verette, J. A. (1987) An attributional analysis of excuse giving: Studies of a naïve theory of emotion. *Journal of Personality and Social Psychology, 52,* 316-324.

Weiner, B., Russell, D., & Lerman, D. (1979). The cognition-emotion process in achievement related contexts. *Journal of Personality and Social Psychology, 37*, 1211-1220.

Winefield, H. R., Goldney, R. D., Tiggemann, M., & Winefield, A. H. (1989). Parental rearing behaviors: Stability of reports over time and relation to adult interpersonal skills. *The Journal of Genetic Psychology, 151*, 211-219.

Winefield, H. R., Goldney, R. D., Tiggemann, M., & Winefield, A. H. (1989). Reported parental rearing patterns and psychological adjustment: A short from of the EMBU. *Personality and Individual Differences, 10,* 459-465.

Wright, J. A., Burgess, A. G., Burgess, A. W., Laszlo, A. T., McCrary, G. O., & Douglas, J. E. (1996). A typology of interpersonal stalking. *Journal of Interpersonal Violence, 11*(4), 487-502.

Wyer Jr, R. S., & Srull, T. K. (1993). *Perspectives on anger and emotion. Advances in social cognition, Vol VI.* Hillsdale: Erlbaum.

Yochelson, S., & Samenow, S. E. (1976). *The criminal personality.* New York: Aronson.

Young, J. E. (1998). Schema-focused therapy for personality disorders. In N. Tarrier, A. Wells, & G. Haddock (Eds.), *Treating Complex Cases: The Cognitive Therapy Approach.* USA: John Wiley & Sons Ltd (pp. 340-376).

Young, J. E. (1999). *Cognitive therapy for personality disorders: A schema-focused approach* (3rd ed.). Sarasota, FL: Professional Resource Press.

Zona, M., Sharma, K., & Lane, J. (1993). A comparative study of erotomanic and obsessional subjects in a forensic sample. *Journal of Forensic Sciences, 38*, 894-903.

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## The Partner Curiosity Scale

Many people are inquisitive and curious about others, especially their own partners. The following questions are aimed at measuring that level of curiosity in relationships. Read through the list of behaviours below and decide on the 10 point scale provided how ***emotionally distressing*** you believe each of these acts would be to the **AVERAGE** person if their partner directed these acts toward them.

| **Not Distressing at all** | | | | **Distressing** | | | | | **Devastating** |
|---|---|---|---|---|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** |

1. The partner secretly watched them from a distance to see what they were doing. _____
2. The partner asked where they had been and what they had been doing. _____
3. The partner "bugged" telephones or used surveillance equipment in rooms to check up on their movements or conversations. _____
4. The partner arrived at a place unexpectedly to see where they were and what they were doing. _____
5. The partner looked through their personal diary or journal without them knowing. _____
6. The partner hired someone to follow them to see what they were doing or who they were with. _____
7. The partner read their personal mail without them knowing. _____
8. The partner checked through their belongings such as their wallet/purse, bags or pockets. _____
9. The partner telephoned them when they were away to check up on where they were. _____
10. The partner secretly listened in on their phone call either on another phone or by listening in the next room. _____
11. The partner checked their underwear or bed linen for signs of lovemaking. _____
12. The partner pressed the re-dial button on their telephone to see who they had recently called. _____
13. The partner secretly followed them to see where they were going and what they were doing. _____
14. The partner broke into their property, such as their car or house, to look around. _____
15. The partner purposefully stayed in the room when they were entertaining guests to keep an eye on what they were saying or doing. _____

## The Partner Curiosity Scale (part 2)

The following list of behaviours are things people might do to their **EX-partners**. Rate how emotionally distressing you think the **AVERAGE** person might find these using the same 10 point scale provided.

| **Not Distressing at all** | | | | **Distressing** | | | | | **Devastating** |
|---|---|---|---|---|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** |

1. The ex-partner sent *pleasant* mail or objects to them. _____
2. The ex-partner sent *unpleasant* mail or objects to them. _____
3. The ex-partner telephoned them even though they did not want to talk to the ex-partner. _____
4. The ex-partner left telephone messages for them, even though they did not want to talk to the ex-partner. _____
5. The ex-partner sent e-mail messages to my them, even though they did not want to communicate with the ex-partner. _____

## The Partner Curiosity Scale (Part 1)

**Many people are inquisitive and curious about others, especially their own partners. The following questions are aimed at measuring that level of curiosity in relationships. Read through the list of behaviours below and decide on the 5 point scales provided how often you have engaged in these acts in the *LAST YEAR* in reference to your current partner (or the partner you are currently separated from).**

First of all indicate whether you are SEPARATED from your partner. YES ☐ NO ☐

If YES, how long have you been separated (in weeks or months)? _____

| | Never | Once | Sometimes | Often | All The Time | Please indicate whether you engaged in this behaviour while you were still with your partner, separated from your partner or under both circumstances. With Partner | Separated | Both |
|---|---|---|---|---|---|---|---|---|
| **1.** I asked my partner where they had been and what they had been doing. | **0** | **1** | **2** | **3** | **4** | ☐ | ☐ | ☐ |
| 2. I checked through my partner's belongings such as their wallet/purse, bags or pockets. | **0** | **1** | **2** | **3** | **4** | ☐ | ☐ | ☐ |
| **3.** I looked through my partner's personal diary or journal without them knowing. | **0** | **1** | **2** | **3** | **4** | ☐ | ☐ | ☐ |
| **4.** I read my partner's personal mail without them knowing. | **0** | **1** | **2** | **3** | **4** | ☐ | ☐ | ☐ |
| 5. I pressed the re-dial button on my partner's telephone to see who they had recently called. | **0** | **1** | **2** | **3** | **4** | ☐ | ☐ | ☐ |
| 6. I secretly listened in on my partner's phone calls either on another phone or by listening in the next room. | **0** | **1** | **2** | **3** | **4** | ☐ | ☐ | ☐ |
| 7. I telephoned my partner when they were away from me to check up on where they were. | **0** | **1** | **2** | **3** | **4** | ☐ | ☐ | ☐ |
| 8. I arrived at places unexpectedly to see where my partner was and what they were doing. | **0** | **1** | **2** | **3** | **4** | ☐ | ☐ | ☐ |
| 9. I secretly watched my partner from a distance to see what they were doing. | **0** | **1** | **2** | **3** | **4** | ☐ | ☐ | ☐ |
| 10. I secretly followed my partner to see where they were going and what they were doing. | **0** | **1** | **2** | **3** | **4** | ☐ | ☐ | ☐ |
| 11. I broke into my partner's property, such as their car or house, to look around. | **0** | **1** | **2** | **3** | **4** | ☐ | ☐ | ☐ |

| | Never | Once | Sometimes | Often | All The Time | Please indicate whether you engaged in this behaviour while you were still with your partner, separated from your partner or under both circumstances. With Partner | Separated | Both |
|---|---|---|---|---|---|---|---|---|
| 12. I checked my partner's underwear or bed linen for signs of lovemaking. | 0 | 1 | 2 | 3 | 4 | ☐ | ☐ | ☐ |
| 13. I hired someone to follow my partner to see what they were doing or who they were with. | 0 | 1 | 2 | 3 | 4 | ☐ | ☐ | ☐ |
| 14. I have "bugged" telephones or used surveillance equipment in rooms to check up on my partner's movements or conversations. | 0 | 1 | 2 | 3 | 4 | ☐ | ☐ | ☐ |
| 15. I have purposefully stayed in the room with my partner when they have been entertaining guests to keep an eye on what they are saying and doing. | 0 | 1 | 2 | 3 | 4 | ☐ | ☐ | ☐ |





## The Partner Curiosity Scale (Part 2)

**The following questions are for people who have indicated that they are CURRENTLY SEPARATED from their partner. Please indicate how often you have engaged in these behaviours in the last year now that you are separated from your partner.**

| | Never | Once | Sometimes | Often | All The Time |
|---|---|---|---|---|---|
| 1. I sent *pleasant* mail or objects to my ex-partner. | 0 | 1 | 2 | 3 | 4 |
| 2. I sent *unpleasant* mail or objects to my ex-partner. | 0 | 1 | 2 | 3 | 4 |
| 3. I telephoned my ex-partner even though they did not want to talk to me. | 0 | 1 | 2 | 3 | 4 |
| 4. I left telephone messages for my ex-partner, even though they did not want to talk to me. | 0 | 1 | 2 | 3 | 4 |
| 5. I sent e-mail messages to my ex-partner., even though they did not want to communicate with me. | 0 | 1 | 2 | 3 | 4 |

UNIVERSITY OF SOUTH AUSTRALIA



School of Psychology

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**Forensic and Applied Psychology Research Group**

School of Psychology

## The Association Between Thoughts, Emotions, and Behaviour in Personal Life

***Participant Information Sheet***

This is an invitation to take part in an extensive research study being conducted at the University of South Australia. Your role in this project will be to provide confidential information about things you may have done in the last year. To participate in this research you **must** be either a) in a current heterosexual relationship for a minimum of 6 months, or b) separated from your long-term partner for less than 1 year.

If you agree to participate, you will be required to complete a short questionnaire by choosing numbers from a set of scales on two separate occasions, two weeks apart. It will take approximately 3 minutes each time you fill in the questionnaire. The questions relate to things you may have done when you were curious about your partner or ex-partner. The aim of this study is **NOT** to assess you personally, but to assess what the general person does in their relationships or shortly following a separation from their partner when they are curious.

The information you provide will be treated in the strictest confidence. No single participant will be identifiable in the final report. You are free to miss any particular question in the survey and you are free to discontinue your participation at any time, no questions asked. All information will be securely stored in a locked room in the School of Psychology for a minimum of seven years. All personally identifiable information (age, sex and codes) will be stored separately from the general questionnaires.

This study has been approved by the Chair of the Human Research Ethics Committee, Dr Brian Cheers. If you have any concerns about the general nature of the study please feel free to contact Dr Cheers on 8302 4811. Any specific questions can be directed to Professor Kevin Howells on 8302 2404.

Thank you for your time and consideration.

**Hayley Whitford**
*Masters Candidate*

**Professor Kevin Howells**
*Professor in Forensic Psychology*

UNIVERSITY OF SOUTH AUSTRALIA

APPENDIX 3

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School of Psychology

**The Association Between Thoughts, Emotions, and Behaviour in Personal Life**

***Participant Information Sheet***

This is an invitation to take part in an extensive research study being conducted at the University of South Australia. Your role in this project will be to provide anonymous information about the way YOU think the AVERAGE person may feel about a set of behaviours.

If you agree to participate, you will be required to complete a short questionnaire by choosing numbers from a scale. It will take approximately 3 minutes of your time. The questions relate to the way you think the average person may feel about acts their partner or ex-partner might perform. The aim of this study is **NOT** to assess you personally, but to assess how the general community feels about some of the things people do in relationships or shortly following a separation from their partner.

The information you provide will be anonymous to prevent any participant from being identifiable in the final report. You are free to miss any particular question in the survey and you are free to discontinue your participation at any time, no questions asked. All information will be securely stored in a locked room in the School of Psychology for a minimum of seven years.

This study has been approved by the Chair of the Human Research Ethics Committee, Dr Brian Cheers. If you have any concerns about the general nature of the study please feel free to contact Dr Cheers on 8302 4811. Any specific questions can be directed to Professor Kevin Howells on 8302 2404.

Thank you for your time and consideration.

**Hayley Whitford**
*Masters Candidate*

**Professor Kevin Howells**
*Professor in Forensic Psychology*

## The Partner Curiosity Scale (Part 1)

**Many people are inquisitive and curious about others, especially their own partners. The following questions are aimed at measuring that level of curiosity in relationships. Read through the list of behaviours below and decide on the 5 point scales provided how often you have engaged in these acts in the *LAST YEAR* in reference to your current partner (or the partner you are currently separated from).**

First of all indicate whether you are SEPARATED from your partner. YES ☐ NO ☐

If YES, how long have you been separated (in weeks or months)? _____

| | Never | Once | Sometimes | Often | All The Time |
|---|---|---|---|---|---|
| 1. I asked my partner where they had been and what they had been doing. | 0 | 1 | 2 | 3 | 4 |
| 2. I checked through my partner's belongings such as their wallet/purse, bags or pockets. | 0 | 1 | 2 | 3 | 4 |
| 3. I looked through my partner's personal diary or journal without them knowing. | 0 | 1 | 2 | 3 | 4 |
| 4. I read my partner's personal mail without them knowing. | 0 | 1 | 2 | 3 | 4 |
| 5. I pressed the re-dial button on my partner's telephone to see who they had recently called. | 0 | 1 | 2 | 3 | 4 |
| 6. I secretly listened in on my partner's phone calls either on another phone or by listening in the next room. | 0 | 1 | 2 | 3 | 4 |
| 7. I telephoned my partner when they were away from me to check up on where they were. | 0 | 1 | 2 | 3 | 4 |
| 8. I arrived at places unexpectedly to see where my partner was and what they were doing. | 0 | 1 | 2 | 3 | 4 |
| 9. I secretly watched my partner from a distance to see what they were doing. | 0 | 1 | 2 | 3 | 4 |
| 10. I secretly followed my partner to see where they were going and what they were doing. | 0 | 1 | 2 | 3 | 4 |
| 11. I broke into my partner's property, such as their car or house, to look around. | 0 | 1 | 2 | 3 | 4 |
| 12. I checked my partner's underwear or bed linen for signs of lovemaking. | 0 | 1 | 2 | 3 | 4 |
| 13. I hired someone to follow my partner to see what they were doing or who they were with. | 0 | 1 | 2 | 3 | 4 |
| 14. I have "bugged" telephones or used surveillance equipment in rooms to check up on my partner's movements or conversations. | 0 | 1 | 2 | 3 | 4 |
| 15. I have purposefully stayed in the room with my partner when they have been entertaining guests to keep an eye on what they are saying and doing. | 0 | 1 | 2 | 3 | 4 |

# The Association Between Thoughts, Feelings and Behaviour in Personal Life

## *Anonymous Self-Report Questionnaire*

*To fill in this questionnaire you will simply need to circle or choose a number from different scales. Fill in the* ***front and back*** *of each separate piece of paper. Each new section has different instructions so make sure you read them carefully.*

*Try to work as quickly as possible and don't spend too much time on one question. This is not an intelligence test - there are no right or wrong answers. Remember no one can identify the questionnaire* ***you*** *fill in, so be as honest as possible.*

*If you are* ***separated****, when you see the word "partner" you should refer to your* ***ex****-long term partner.*

***Please note that this questionnaire contains sensitive questions that focus on the negative aspects of relationships - this is strictly because space is limited.***

# PART 1

# Jealousy Questions

---

**How often do you experience the following emotions when you are jealous?**

| | Never | Once | Sometimes | Often | All the time |
|---|---|---|---|---|---|
| Anger | 0 | 1 | 2 | 3 | 4 |
| Sadness | 0 | 1 | 2 | 3 | 4 |
| Excitement | 0 | 1 | 2 | 3 | 4 |
| Fear | 0 | 1 | 2 | 3 | 4 |

## Jealousy Concerns

The following is a list of some of the concerns people experience when jealous. Please rate how concerned (if at all) you are of these consequences when you experience jealousy.

| | I don't fear this at all when jealous | | I sometimes fear this when jealous | | I fear this all the time when jealous |
|---|---|---|---|---|---|
| Losing your partner (desertion) | 0 | 1 | 2 | 3 | 4 |
| Losing attention from your partner | 0 | 1 | 2 | 3 | 4 |
| Losing time with your partner | 0 | 1 | 2 | 3 | 4 |
| Losing intimacy with your partner | 0 | 1 | 2 | 3 | 4 |
| Being shamed or humiliated by your partner's infidelity | 0 | 1 | 2 | 3 | 4 |
| Losing sexual exclusivity with your partner | 0 | 1 | 2 | 3 | 4 |
| Losing financial security | 0 | 1 | 2 | 3 | 4 |

# White's Jealousy Scales.

## *About You In General*

**How jealous a person are you generally?**

1_____2_____3_____4_____5

not at all jealous — moderately jealous — fairly jealous

**How often have you experienced jealousy in your romantic relationships?**

1_____2_____3_____4_____5

fairly often — sometimes — very rarely

**When you get jealous, how intense is that feeling usually?**

1_____2_____3_____4_____5

very strong — somewhat strong — very weak

**Do those who know you well tend to think of you as...**

1_____2_____3_____4_____5

not usually jealous — sometimes jealous — often jealous

**How much have your jealous feelings been a problem in your romantic relationships?**

1_____2_____3_____4_____5

no problem at all — sometimes a problem — often a problem

**Do you think of yourself as a person who can get jealous easily?**

1_____2_____3_____4_____5

definitely yes — sometimes — definitely no

## *About Your Current Relationship*

**Compared to your other romantic relationships, are you more or less jealous in your relationship with your partner?**

1_____2_____3_____4_____5

more jealous | equally jealous | less jealous

**How much is your jealousy a problem in your relationship with your partner?**

1_____2_____3_____4_____5

no problem at all | sometimes a problem | often a problem

**How jealous do you get of your partner's relationships with those of the opposite sex?**

1_____2_____3_____4_____5

not at all jealous | somewhat jealous | fairly jealous

**Do those who know your relationship with your partner tend to think of you as...**

1_____2_____3_____4_____5

not usually jealous | sometimes jealous | often jealous

**How intense are your feelings of jealousy in your relationship with your partner?**

1_____2_____3_____4_____5

very strong | somewhat strong | very weak

**How often do you get jealous of your partner's relationships with those of the opposite sex?**

1_____2_____3_____4_____5

fairly often | sometimes | very rarely

## Directions

Everyone feels angry or furious from time to time, but people differ in the ways that they react when they are angry. A number of statements are listed below which people use to describe their reactions when they feel ***angry*** or ***furious because they are jealous.*** Read each statement and choose a number from the scale provided that indicates how ***often*** you ***generally*** react or behave in the manner described when you are feeling angry or furious because you are jealous. Remember that there are no right or wrong answers. Do not spend too much time on any one statement.

| Almost Never | Sometimes | Often | Almost Always |
|---|---|---|---|
| 1 | 2 | 3 | 4 |

### When Angry or Furious because I am jealous...

I control my temper _____

I express my anger _____

I keep things in _____

I am patient with others _____

I pout or sulk _____

I withdraw from people _____

I make sarcastic remarks to others _____

I keep my cool _____

I do things like slam doors _____

I boil inside, but I don't show it _____

I control my behaviour _____

I argue with others _____

I tend to harbour grudges that I don't tell anyone about _____

I strike out at whatever infuriates me _____

I can stop myself from losing my temper _____

I am secretly quite critical of others _____

I am angrier than I am willing to admit _____

I calm down faster than most other people _____

I say nasty things _____

I try to be tolerant and understanding _____

I'm irritated a great deal more than people are aware of _____

I lose my temper _____

If someone annoys me, I'm apt to tell him or her how I feel _____

I control my angry feelings _____

# Part 2

# General Thoughts, Emotions and Behaviour

---

## Personal Reaction Inventory

**Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is *true* or *false* as it pertains to you personally.**

1. I like to gossip at times. True ☒ False ☐
2. There have been occasions when I took advantage of someone. True ☒ False ☐
3. I'm always willing to admit it when I make a mistake. True ☐ False ☒
4. I always try to practice what I preach. True ☐ False ☒
5. I sometimes try to get even rather than forgive and forget. True ☒ False ☐
6. At times I have really insisted on having things my own way. True ☒ False ☐
7. There have been occasions when I felt like smashing things. True ☒ False ☐
8. I never resent being asked to return a favour. True ☐ False ☒
9. I have never been irked when people expressed ideas very different from my own. True ☐ False ☒
10. I have never deliberately said something to hurt someone's feelings. True ☐ False ☒

APPENDIX 5

## The EMBU - English Version

Read through the following statements and use the four-point scale provided to decide how the statement describes the way you remember your mother and your father to be when you were young (e.g., before you were 16 years old). Give a rating for each parent for each statement.

| **It Never Occurred** | **It Could Occur But It Was Exceptional** | **It Occurred Quite Frequently** | **It Was Always So** |
|---|---|---|---|
| **1** | **2** | **3** | **4** |

| | **MOTHER** | **FATHER** |
|---|---|---|
| 1. Did your parents show with words and gestures they liked you? | _____ | _____ |
| 2. Did you feel that your parents liked you? | _____ | _____ |
| 3. If you had done something foolish, could you then go to your parents and make everything right by asking their forgiveness? | _____ | _____ |
| 4. If things went badly for you, did you then feel that your parents tried to comfort and encourage you? | _____ | _____ |
| 5. If you had a difficult task in front of you, did you then feel support from your parents? | _____ | _____ |
| 6. Would your parents demonstrate they were fond of you? | _____ | _____ |
| 7. Do you think your parents respected your opinions? | _____ | _____ |
| 8. Do you think that your parents tried to make your adolescence stimulating, interesting and instructive (for instance by giving you good books, arranging for you to go on camps, taking you to clubs)? | _____ | _____ |
| 9. Did your parents usually praise you? | _____ | _____ |
| 10. Could you seek comfort from your parents if you were sad? | _____ | _____ |
| 11. Did your parents usually take an interest in what kind of friends you frequented? | _____ | _____ |
| 12. Did your parents usually engage themselves in your interests and hobbies? | _____ | _____ |
| 13. Do you feel that warmth and tenderness existed between you and your parents? | _____ | _____ |
| 14. Did you feel that your parents were proud when you succeeded in something you had undertaken? | _____ | _____ |
| 15. Did your parents usually hug you? | _____ | _____ |
| 16. Did your parents treat you unjustly (badly) compared with how they treated your sister(s) and/or brother(s)? | _____ | _____ |
| 17. Did you feel your parents thought it was *your* fault when they were unhappy? | _____ | _____ |
| 18. Do you think your parents were mean and grudging toward you? | _____ | _____ |
| 19. Did you parents usually criticise you and tell you how lazy and useless you were in front of others? | _____ | _____ |

| It Never Occurred | It Could Occur But It Was Exceptional | It Occurred Quite Frequently | It Was Always So |
|---|---|---|---|
| 1 | 2 | 3 | 4 |

| | MOTHER | FATHER |
|---|---|---|
| 20. Would your parents punish you hard, even for trifles? | _____ | _____ |
| 21. Did you feel that your parent's anxiety interfered with everything you did? | _____ | _____ |
| 22. Did it happen that either of your parents forbade you to do things other children were allowed to because they were afraid something might happen to you? | _____ | _____ |
| 23. Did you feel that your parents trusted you so that you were allowed to do things on your own? | _____ | _____ |
| 24. Did it happen that you wished your parents would worry less about what you were doing? | _____ | _____ |
| 25. Did your parents put decisive limits on what you were and were not allowed to do to which they adhered vigorously? | _____ | _____ |
| 26. Do you think that your parent's anxiety that something might happen to you was exaggerated? | _____ | _____ |

# STAXI

## Directions

A number of statements that people use to describe themselves are given below. Read each statement and then choose a number from the scale provided that indicates how you ***generally*** feel. There are no right or wrong answers. Do not spend too much time on any one statement, but give the answer that ***best*** describes how you ***generally*** feel.

| Almost Never | Sometimes | Often | Almost Always |
|---|---|---|---|
| 1 | 2 | 3 | 4 |

EXAMPLE ONLY

**How I Generally Feel....**

I am quick tempered _____

I have a fiery temper _____

I am a hotheaded person _____

I get angry when I'm slowed down by others' mistakes _____

I feel annoyed when I am not given recognition for doing good work _____

I fly off the handle _____

When I get mad, I say nasty things _____

It makes me furious when I am criticised in front of others _____

When I get frustrated, I feel like hitting someone _____

I feel infuriated when I do a good job and get a poor evaluation _____

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## The Conflict Tactics Scales

Here is a list of things you might have done when you had a conflict or disagreement with your partner. Try and imagine any instances over the **last year** when you experienced **conflict** and circle a number for each of the things listed below to show how often you did it...

**0 = Never**
**1 = Once during the year**
**2 = Two or three times**
**3 = Often, but less than once a month**
**4 = About once a month**
**5 = More than once a month**



| | | | | | | |
|---|---|---|---|---|---|---|
| a. I tried to discuss the issue relatively calmly | **0** | **1** | **2** | **3** | **4** | **5** |
| b. Did discuss the issue relatively calmly | **0** | **1** | **2** | **3** | **4** | **5** |
| c. Got information to back up my side of things | **0** | **1** | **2** | **3** | **4** | **5** |
| d. Brought in someone else to help settle things (or tried to) | **0** | **1** | **2** | **3** | **4** | **5** |
| e. Argued heatedly but short of yelling | **0** | **1** | **2** | **3** | **4** | **5** |
| f. Yelled and/or insulted | **0** | **1** | **2** | **3** | **4** | **5** |
| g. Sulked and/or refused to talk about it | **0** | **1** | **2** | **3** | **4** | **5** |
| h. Stomped out of the room | **0** | **1** | **2** | **3** | **4** | **5** |
| i. Threw something (but not at my partner) or smashed something | **0** | **1** | **2** | **3** | **4** | **5** |
| j. Threatened to hit or throw something at my partner | **0** | **1** | **2** | **3** | **4** | **5** |
| k. Threw something at my partner | **0** | **1** | **2** | **3** | **4** | **5** |
| l. Pushed, grabbed, or shoved my partner | **0** | **1** | **2** | **3** | **4** | **5** |
| m. Hit (or tried to hit) my partner but not with anything | **0** | **1** | **2** | **3** | **4** | **5** |
| n. Hit (or tried to hit) my partner with something hard | **0** | **1** | **2** | **3** | **4** | **5** |

APPENDIX 5

## The Partner Curiosity Scale

**Many people are inquisitive and curious about others, especially their own partners. The following questions are aimed at measuring that level of curiosity in relationships. Read through the list of behaviours below and decide on the 5 point scales provided how often you have engaged in these acts in the *LAST YEAR* in reference to your current partner (or the partner you are currently separated from).**

First of all indicate whether you are SEPARATED from your partner. YES ☐ NO ☐

If YES, how long have you been separated (in weeks or months)? _____

| | Never | Once | Sometimes | Often | All The Time |
|---|---|---|---|---|---|
| 1. I asked my partner where they had been and what they had been doing. | 0 | 1 | 2 | 3 | 4 |
| 2. I checked through my partner's belongings such as their wallet/purse, bags or pockets. | 0 | 1 | 2 | 3 | 4 |
| 3. I looked through my partner's personal diary or journal without them knowing. | 0 | 1 | 2 | 3 | 4 |
| 4. I read my partner's personal mail without them knowing. | 0 | 1 | 2 | 3 | 4 |
| 5. I pressed the re-dial button on my partner's telephone to see who they had recently called. | 0 | 1 | 2 | 3 | 4 |
| 6. I secretly listened in on my partner's phone calls either on another phone or by listening in the next room. | 0 | 1 | 2 | 3 | 4 |
| 7. I telephoned my partner when they were away from me to check up on where they were. | 0 | 1 | 2 | 3 | 4 |
| 8. I arrived at places unexpectedly to see where my partner was and what they were doing. | 0 | 1 | 2 | 3 | 4 |
| 9. I secretly watched my partner from a distance to see what they were doing. | 0 | 1 | 2 | 3 | 4 |
| 10. I secretly followed my partner to see where they were going and what they were doing. | 0 | 1 | 2 | 3 | 4 |
| 11. I broke into my partner's property, such as their car or house, to look around. | 0 | 1 | 2 | 3 | 4 |
| 12. I checked my partner's underwear or bed linen for signs of lovemaking. | 0 | 1 | 2 | 3 | 4 |
| 13. I hired someone to follow my partner to see what they were doing or who they were with. | 0 | 1 | 2 | 3 | 4 |
| 14. I have "bugged" telephones or used surveillance equipment in rooms to check up on my partner's movements or conversations. | 0 | 1 | 2 | 3 | 4 |
| 15. I have purposefully stayed in the room with my partner when they have been entertaining guests to keep an eye on what they are saying and doing. | 0 | 1 | 2 | 3 | 4 |

APPENDIX 5

# Private Thoughts Questionnaire

Read through the list of assumptions below and indicate on the 5 point scales provided how often you have these thoughts.

| | Not at all | Rarely | Sometimes | Most of the time | Almost all the time |
|---|---|---|---|---|---|
| My partner will leave me | 0 | 1 | 2 | 3 | 4 |
| My partner will go off with someone else | 0 | 1 | 2 | 3 | 4 |
| My partner will love someone else | 0 | 1 | 2 | 3 | 4 |
| My partner does not love me | 0 | 1 | 2 | 3 | 4 |
| My partner loves someone else | 0 | 1 | 2 | 3 | 4 |
| In marriage anything can happen while one thinks everything is okay | 0 | 1 | 2 | 3 | 4 |
| I will never be able to find another partner if my partner leaves | 0 | 1 | 2 | 3 | 4 |
| I suspect my partner is having an affair | 0 | 1 | 2 | 3 | 4 |
| I am not attractive | 0 | 1 | 2 | 3 | 4 |
| I am not a real man/woman | 0 | 1 | 2 | 3 | 4 |
| No other man/woman will want me if my partner leaves | 0 | 1 | 2 | 3 | 4 |
| Any man/woman will go with any other woman/man | 0 | 1 | 2 | 3 | 4 |
| A man/woman can get any partner he/she wants when he/she wants | 0 | 1 | 2 | 3 | 4 |
| My partner was unfaithful before, so he/she will do it again in the future | 0 | 1 | 2 | 3 | 4 |
| I was unfaithful to my previous partner so my partner will be unfaithful to me | 0 | 1 | 2 | 3 | 4 |
| My partner, like other men/women, will be unfaithful | 0 | 1 | 2 | 3 | 4 |
| My partner will try to fool me | 0 | 1 | 2 | 3 | 4 |
| My partner will try to humiliate me | 0 | 1 | 2 | 3 | 4 |
| My partner will try and break the rules of our relationship | 0 | 1 | 2 | 3 | 4 |
| My partner won't be happy if he/she leaves | 0 | 1 | 2 | 3 | 4 |
| My partner thinks they can keep secrets from me | 0 | 1 | 2 | 3 | 4 |
| My partner is always flirting with others behind my back | 0 | 1 | 2 | 3 | 4 |
| Someone is trying to take my partner away | 0 | 1 | 2 | 3 | 4 |
| Someone is trying to attract my partner to them | 0 | 1 | 2 | 3 | 4 |
| Others are always flirting with my partner | 0 | 1 | 2 | 3 | 4 |

APPENDIX 5

## Private Thoughts Questionnaire Part 2

This is the same list of assumptions you have just rated. Read through them again and indicate how emotionally distressing you find each of these thoughts using the 5 point scale provided.

| Not distressing at all | Somewhat distressing | Distressing | Very distressing | Devastating |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

My partner will leave me _____

My partner will go off with someone else _____

My partner will love someone else _____

My partner does not love me _____

My partner loves someone else _____

In marriage anything can happen while one thinks everything is okay _____

I will never be able to find another partner if my partner leaves _____

I suspect my partner is having an affair _____

I am not attractive _____

I am not a real man/woman _____

No other man/woman will want me if my partner leaves _____

Any man/woman will go with any other woman/man _____

A man/woman can get any partner he/she wants when he/she wants _____

My partner was unfaithful before, so he/she will do it again in the future _____

I was unfaithful to my previous partner so my partner will be unfaithful to me _____

My partner, like other men/women, will be unfaithful _____

My partner will try to fool me _____

My partner will try to humiliate me _____

My partner will try and break the rules of our relationship _____

My partner won't be happy if he/she leaves _____

My partner thinks they can keep secrets from me _____

My partner is always flirting with others behind my back _____

Someone is trying to take my partner away _____

Someone is trying to attract my partner to them _____

Others are always flirting with my partner _____

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**Forensic and Applied Psychology Research Group**

School of Psychology

## The Association Between Thoughts, Emotions, and Behaviour in Personal Life

***Participant Information Sheet***

This is an invitation to take part in an extensive research study being conducted at the University of South Australia. Your role in this project will be to provide anonymous information about the way you think, feel or express yourself mainly within the context of your interpersonal relationships. To participate in this research you **must** be either a) in a current heterosexual relationship, or b) separated from your long-term partner.

If you agree to participate, you will be required to complete a questionnaire by circling or choosing numbers from different scales. It will take approximately 15 minutes of your time. The questions relate to the way you think about the world, your partner (or ex-partner) and the way you express yourself. The aim of this study is **NOT** to assess you personally, but to assess the *general* relationship between thoughts, emotions and behaviour in personal situations.

The information you provide will be anonymous to prevent any participant from being identifiable in the final report. You are free to miss any particular question in the survey if you find it to be too sensitive and you are free to discontinue your participation at any time, no questions asked. All information will be securely stored in a locked room in the School of Psychology for a minimum of seven years.

This study has been approved by the Human Research Ethics Committee. If you have any general questions about the study please feel free to contact the Chair of the committee, Dr Brian Cheers on 8302 4811. Any specific questions or concerns about the nature of this study can be directed to Professor Kevin Howells on 8302 2404.

Thank you for your time and consideration.

**Hayley Whitford**
*PhD Candidate*

**Professor Kevin Howells**
*Professor in Forensic Psychology*

**Correlations**

| | | Total Chronic Jealousy | Total Relationship Jealousy | Jealous Emotions - Anger Experience | Jealous Emotions - Sadness Experience | Jealous Emotions - Excitement Experience | Jealous Emotions - Fear Experience | Jealousy Concerns - Desertion | Jealousy Concerns - Attention Loss | Jealousy Concerns - Time Loss |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Chronic Jealousy | Pearson Correlation | 1.000 | .833* | .574* | .378* | .134 | .549* | .489* | .483* | .455* |
| | Sig. (2-tailed) | . | .000 | .000 | .000 | .086 | .000 | .000 | .000 | .000 |
| | N | 165 | 162 | 165 | 165 | 165 | 165 | 165 | 165 | 165 |
| Total Relationship Jealousy | Pearson Correlation | .833* | 1.000 | .476* | .374* | .107 | .443* | .502* | .474* | .456* |
| | Sig. (2-tailed) | .000 | . | .000 | .000 | .177 | .000 | .000 | .000 | .000 |
| | N | 162 | 162 | 162 | 162 | 162 | 162 | 162 | 162 | 162 |
| Jealous Emotions - Anger Experience | Pearson Correlation | .574* | .476* | 1.000 | .341* | .124 | .378* | .339* | .416* | .322* |
| | Sig. (2-tailed) | .000 | .000 | . | .000 | .112 | .000 | .000 | .000 | .000 |
| | N | 165 | 162 | 165 | 165 | 165 | 165 | 165 | 165 | 165 |
| Jealous Emotions - Sadness Experience | Pearson Correlation | .378* | .374* | .341* | 1.000 | .072 | .293* | .302* | .275* | .324* |
| | Sig. (2-tailed) | .000 | .000 | .000 | . | .356 | .000 | .000 | .000 | .000 |
| | N | 165 | 162 | 165 | 165 | 165 | 165 | 165 | 165 | 165 |
| Jealous Emotions - Excitement Experience | Pearson Correlation | .134 | .107 | .124 | .072 | 1.000 | .189* | -.131 | -.007 | -.016 |
| | Sig. (2-tailed) | .086 | .177 | .112 | .356 | . | .015 | .094 | .933 | .843 |
| | N | 165 | 162 | 165 | 165 | 165 | 165 | 165 | 165 | 165 |
| Jealous Emotions - Fear Experience | Pearson Correlation | .549* | .443* | .378* | .293* | .189* | 1.000 | .363* | .345* | .363* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .015 | . | .000 | .000 | .000 |
| | N | 165 | 162 | 165 | 165 | 165 | 165 | 165 | 165 | 165 |
| Jealousy Concerns - Desertion | Pearson Correlation | .489* | .502* | .339* | .302* | -.131 | .363* | 1.000 | .650* | .602* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .094 | .000 | . | .000 | .000 |
| | N | 165 | 162 | 165 | 165 | 165 | 165 | 165 | 165 | 165 |

**Correlations**

| | | Total Chronic Jealousy | Total Relationship Jealousy | Jealous Emotions - Anger Experience | Jealous Emotions - Sadness Experience | Jealous Emotions - Excitement Experience | Jealous Emotions - Fear Experience | Jealousy Concerns - Desertion | Jealousy Concerns - Attention Loss | Jealousy Concerns - Time Loss |
|---|---|---|---|---|---|---|---|---|---|---|
| Jealousy Concerns - Attention Loss | Pearson Correlation | .483* | .474* | .416* | .275* | -.007 | .345* | .650* | 1.000 | .721* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .933 | .000 | .000 | . | .000 |
| | N | 165 | 162 | 165 | 165 | 165 | 165 | 165 | 165 | 165 |
| Jealousy Concerns - Time Loss | Pearson Correlation | .455* | .456* | .322* | .324* | -.016 | .363* | .602* | .721* | 1.000 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .843 | .000 | .000 | .000 | . |
| | N | 165 | 162 | 165 | 165 | 165 | 165 | 165 | 165 | 165 |
| Jealousy Concerns - Intimacy Loss | Pearson Correlation | .386* | .374* | .302* | .307* | .012 | .249* | .509* | .570* | .633* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .882 | .001 | .000 | .000 | .000 |
| | N | 165 | 162 | 165 | 165 | 165 | 165 | 165 | 165 | 165 |
| Jealousy Concerns - Shame or Humiliation | Pearson Correlation | .412* | .382* | .305* | .253* | .084 | .275* | .383* | .349* | .321* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .001 | .286 | .000 | .000 | .000 | .000 |
| | N | 165 | 162 | 165 | 165 | 165 | 165 | 165 | 165 | 165 |
| Jealousy Concerns - Sex Exclusivity Loss | Pearson Correlation | .373* | .344* | .388* | .172* | .122 | .230* | .400* | .457* | .330* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .028 | .117 | .003 | .000 | .000 | .000 |
| | N | 165 | 162 | 165 | 165 | 165 | 165 | 165 | 165 | 165 |
| Jealousy Concerns - Financial Loss | Pearson Correlation | .094 | -.006 | .173* | .120 | .284* | .193* | .012 | .121 | .068 |
| | Sig. (2-tailed) | .229 | .936 | .026 | .125 | .000 | .013 | .878 | .122 | .383 |
| | N | 165 | 162 | 165 | 165 | 165 | 165 | 165 | 165 | 165 |
| Social Desirability Responding Score | Pearson Correlation | -.335* | -.257* | -.388* | -.115 | -.135 | -.249* | -.232* | -.177* | -.124 |
| | Sig. (2-tailed) | .000 | .001 | .000 | .140 | .085 | .001 | .003 | .023 | .112 |
| | N | 165 | 162 | 165 | 165 | 165 | 165 | 165 | 165 | 165 |
| sex of participant | Pearson Correlation | .145 | .222* | .069 | .184* | .141 | .086 | .033 | .119 | .057 |
| | Sig. (2-tailed) | .064 | .005 | .380 | .018 | .071 | .272 | .672 | .128 | .470 |
| | N | 165 | 162 | 165 | 165 | 165 | 165 | 165 | 165 | 165 |

**Correlations**

| | | Total Chronic Jealousy | Total Relationship Jealousy | Jealous Emotions - Anger Experience | Jealous Emotions - Sadness Experience | Jealous Emotions - Excitement Experience | Jealous Emotions - Fear Experience | Jealousy Concerns - Desertion | Jealousy Concerns - Attention Loss | Jealousy Concerns - Time Loss |
|---|---|---|---|---|---|---|---|---|---|---|
| Age in Years | Pearson Correlation | -.326* | -.366* | -.301* | -.207* | .013 | -.159* | -.296* | -.181* | -.230* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .008 | .863 | .042 | .000 | .020 | .003 |
| | N | 165 | 162 | 165 | 165 | 165 | 165 | 165 | 165 | 165 |
| Income Range | Pearson Correlation | -.254* | -.299* | -.267* | -.133 | -.033 | -.124 | -.226* | -.200* | -.240* |
| | Sig. (2-tailed) | .001 | .000 | .001 | .094 | .682 | .121 | .004 | .012 | .002 |
| | N | 159 | 156 | 159 | 159 | 159 | 159 | 159 | 159 | 159 |
| Relationship Satisfaction Rating | Pearson Correlation | -.173* | -.112 | -.086 | -.093 | -.055 | -.066 | -.084 | -.137 | -.101 |
| | Sig. (2-tailed) | .026 | .158 | .270 | .235 | .481 | .400 | .285 | .080 | .198 |
| | N | 165 | 162 | 165 | 165 | 165 | 165 | 165 | 165 | 165 |
| Relationship Length - In Years | Pearson Correlation | -.312* | -.295* | -.301* | -.250* | .007 | -.195* | -.269* | -.195* | -.266* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .001 | .930 | .012 | .000 | .012 | .001 |
| | N | 165 | 162 | 165 | 165 | 165 | 165 | 165 | 165 | 165 |
| Anger In | Pearson Correlation | .259* | .266* | .258* | .170* | .063 | .206* | .299* | .319* | .395* |
| | Sig. (2-tailed) | .001 | .001 | .001 | .029 | .418 | .008 | .000 | .000 | .000 |
| | N | 165 | 162 | 165 | 165 | 165 | 165 | 165 | 165 | 165 |
| Anger Expression Out | Pearson Correlation | .436* | .375* | .445* | .208* | .136 | .155* | .195* | .242* | .183* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .007 | .083 | .046 | .012 | .002 | .018 |
| | N | 165 | 162 | 165 | 165 | 165 | 165 | 165 | 165 | 165 |
| Anger Expression Control | Pearson Correlation | -.468* | -.394* | -.437* | -.106 | -.046 | -.275* | -.237* | -.312* | -.140 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .177 | .560 | .000 | .002 | .000 | .072 |
| | N | 165 | 162 | 165 | 165 | 165 | 165 | 165 | 165 | 165 |
| TOTALAX | Pearson Correlation | .554* | .489* | .541* | .221* | .111 | .306* | .343* | .412* | .329* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .004 | .156 | .000 | .000 | .000 | .000 |
| | N | 165 | 162 | 165 | 165 | 165 | 165 | 165 | 165 | 165 |

**Correlations**

| | | Total Chronic Jealousy | Total Relationship Jealousy | Jealous Emotions - Anger Experience | Jealous Emotions - Sadness Experience | Jealous Emotions - Excitement Experience | Jealous Emotions - Fear Experience | Jealousy Concerns - Desertion | Jealousy Concerns - Attention Loss | Jealousy Concerns - Time Loss |
|---|---|---|---|---|---|---|---|---|---|---|
| Father- Supportive Scale of EMBU | Pearson Correlation | .074 | .118 | -.032 | .032 | -.014 | -.043 | .105 | -.100 | .031 |
| | Sig. (2-tailed) | .355 | .145 | .695 | .690 | .861 | .595 | .191 | .213 | .697 |
| | N | 157 | 154 | 157 | 157 | 157 | 157 | 157 | 157 | 157 |
| Mother - Supportive Scale of EMBU | Pearson Correlation | .029 | .046 | -.070 | -.050 | -.026 | -.054 | .048 | .003 | .045 |
| | Sig. (2-tailed) | .717 | .572 | .382 | .536 | .748 | .499 | .549 | .970 | .573 |
| | N | 158 | 155 | 158 | 158 | 158 | 158 | 158 | 158 | 158 |
| Father - Rejecting Scale of EMBU | Pearson Correlation | .070 | .104 | -.014 | .022 | .121 | .017 | -.037 | .080 | .074 |
| | Sig. (2-tailed) | .386 | .203 | .865 | .782 | .133 | .835 | .643 | .318 | .360 |
| | N | 156 | 153 | 156 | 156 | 156 | 156 | 156 | 156 | 156 |
| Mother - Rejecting Scale of EMBU | Pearson Correlation | .168* | .178* | .096 | .142 | .076 | .111 | .030 | .121 | .079 |
| | Sig. (2-tailed) | .036 | .027 | .232 | .076 | .343 | .169 | .712 | .133 | .328 |
| | N | 156 | 153 | 156 | 156 | 156 | 156 | 156 | 156 | 156 |
| Father - Overinvolved Scale of EMBU | Pearson Correlation | .009 | .040 | -.018 | .114 | -.054 | .074 | .022 | -.027 | .006 |
| | Sig. (2-tailed) | .912 | .620 | .821 | .154 | .500 | .355 | .783 | .739 | .939 |
| | N | 158 | 155 | 158 | 158 | 158 | 158 | 158 | 158 | 158 |
| Mother - Overinvolved Scale of EMBU | Pearson Correlation | .068 | .038 | .109 | .127 | -.093 | .055 | .024 | .070 | .014 |
| | Sig. (2-tailed) | .398 | .637 | .171 | .112 | .247 | .489 | .762 | .382 | .859 |
| | N | 158 | 155 | 158 | 158 | 158 | 158 | 158 | 158 | 158 |
| Total Trait Anger | Pearson Correlation | .476* | .412* | .390* | .115 | .043 | .174* | .208* | .272* | .217* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .142 | .584 | .026 | .008 | .000 | .005 |
| | N | 164 | 161 | 164 | 164 | 164 | 164 | 164 | 164 | 164 |
| Conflict Tactics - Reasoning | Pearson Correlation | .195* | .229* | .141 | .077 | .046 | .045 | .093 | .140 | .056 |
| | Sig. (2-tailed) | .012 | .004 | .071 | .325 | .557 | .568 | .234 | .073 | .480 |
| | N | 164 | 161 | 164 | 164 | 164 | 164 | 164 | 164 | 164 |

**Correlations**

| | | Total Chronic Jealousy | Total Relationship Jealousy | Jealous Emotions - Anger Experience | Jealous Emotions - Sadness Experience | Jealous Emotions - Excitement Experience | Jealous Emotions - Fear Experience | Jealousy Concerns - Desertion | Jealousy Concerns - Attention Loss | Jealousy Concerns - Time Loss |
|---|---|---|---|---|---|---|---|---|---|---|
| Conflict Tactics - Verbal Aggression | Pearson Correlation | .379* | .414* | .238* | .152 | -.022 | .082 | .254* | .274* | .218* |
| | Sig. (2-tailed) | .000 | .000 | .002 | .052 | .782 | .298 | .001 | .000 | .005 |
| | N | 164 | 161 | 164 | 164 | 164 | 164 | 164 | 164 | 164 |
| Conflict Tactics - Violence | Pearson Correlation | .243* | .251* | .224* | .032 | .090 | .068 | .178* | .099 | .097 |
| | Sig. (2-tailed) | .002 | .001 | .004 | .682 | .253 | .390 | .023 | .207 | .215 |
| | N | 164 | 161 | 164 | 164 | 164 | 164 | 164 | 164 | 164 |
| Trust-related Schema | Pearson Correlation | .403* | .353* | .286* | .224* | .112 | .136 | .238* | .270* | .183* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .004 | .152 | .082 | .002 | .000 | .018 |
| | N | 165 | 162 | 165 | 165 | 165 | 165 | 165 | 165 | 165 |
| Attractiveness Schema | Pearson Correlation | .274* | .255* | .148 | .193* | .067 | .214* | .306* | .266* | .249* |
| | Sig. (2-tailed) | .000 | .001 | .059 | .013 | .395 | .006 | .000 | .001 | .001 |
| | N | 164 | 161 | 164 | 164 | 164 | 164 | 164 | 164 | 164 |
| Abandonment Schema | Pearson Correlation | .505* | .526* | .269* | .361* | .069 | .294* | .546* | .445* | .385* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .382 | .000 | .000 | .000 | .000 |
| | N | 164 | 161 | 164 | 164 | 164 | 164 | 164 | 164 | 164 |
| Danger-related Schema | Pearson Correlation | .508* | .536* | .331* | .231* | .122 | .329* | .316* | .320* | .296* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .003 | .119 | .000 | .000 | .000 | .000 |
| | N | 165 | 162 | 165 | 165 | 165 | 165 | 165 | 165 | 165 |
| Sexual Behaviour Schema | Pearson Correlation | .271* | .229* | .195* | .116 | .122 | .102 | .131 | .240* | .144 |
| | Sig. (2-tailed) | .001 | .004 | .014 | .147 | .126 | .202 | .102 | .002 | .072 |
| | N | 158 | 155 | 158 | 158 | 158 | 158 | 158 | 158 | 158 |
| Projection | Pearson Correlation | .253* | .300* | .169* | .044 | .108 | .084 | .065 | .237* | .129 |
| | Sig. (2-tailed) | .001 | .000 | .031 | .573 | .168 | .282 | .407 | .002 | .101 |
| | N | 164 | 161 | 164 | 164 | 164 | 164 | 164 | 164 | 164 |

**Correlations**

| | | Total Chronic Jealousy | Total Relationship Jealousy | Jealous Emotions - Anger Experience | Jealous Emotions - Sadness Experience | Jealous Emotions - Excitement Experience | Jealous Emotions - Fear Experience | Jealousy Concerns - Desertion | Jealousy Concerns - Attention Loss | Jealousy Concerns - Time Loss |
|---|---|---|---|---|---|---|---|---|---|---|
| Trust-related Schema Distress | Pearson Correlation | .356* | .316* | .296* | .103 | .057 | .189* | .124 | .250* | .229* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .196 | .474 | .017 | .118 | .001 | .004 |
| | N | 159 | 156 | 159 | 159 | 159 | 159 | 159 | 159 | 159 |
| Attractiveness Schema Distress | Pearson Correlation | .160* | .121 | .137 | .092 | .024 | .159* | .144 | .241* | .261* |
| | Sig. (2-tailed) | .042 | .129 | .083 | .244 | .765 | .044 | .068 | .002 | .001 |
| | N | 161 | 158 | 161 | 161 | 161 | 161 | 161 | 161 | 161 |
| Abandonment Schema Distress | Pearson Correlation | .242* | .255* | .212* | .056 | .018 | .194* | .175* | .210* | .207* |
| | Sig. (2-tailed) | .002 | .001 | .007 | .480 | .822 | .013 | .026 | .007 | .008 |
| | N | 162 | 159 | 162 | 162 | 162 | 162 | 162 | 162 | 162 |
| Danger/Fear Schema Distress | Pearson Correlation | .475* | .504* | .312* | .174* | -.014 | .256* | .273* | .304* | .306* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .028 | .859 | .001 | .000 | .000 | .000 |
| | N | 160 | 157 | 160 | 160 | 160 | 160 | 160 | 160 | 160 |
| Sexual Behaviour Schema Distress | Pearson Correlation | .279* | .330* | .273* | .176* | .161* | .180* | .167* | .253* | .234* |
| | Sig. (2-tailed) | .000 | .000 | .001 | .031 | .048 | .027 | .040 | .002 | .004 |
| | N | 152 | 149 | 152 | 152 | 152 | 152 | 152 | 152 | 152 |
| Projection Distress | Pearson Correlation | .226* | .220* | .283* | .086 | .083 | .101 | .121 | .190* | .135 |
| | Sig. (2-tailed) | .004 | .006 | .000 | .282 | .303 | .209 | .131 | .017 | .093 |
| | N | 157 | 154 | 157 | 157 | 157 | 157 | 157 | 157 | 157 |
| Faulty Cognitions - Sum of Schema | Pearson Correlation | .553* | .544* | .342* | .312* | .140 | .303* | .427* | .443* | .365* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .074 | .000 | .000 | .000 | .000 |
| | N | 165 | 162 | 165 | 165 | 165 | 165 | 165 | 165 | 165 |
| Intrusiveness | Pearson Correlation | .460* | .430* | .333* | .266* | .190* | .230* | .242* | .355* | .229* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .001 | .015 | .003 | .002 | .000 | .003 |
| | N | 164 | 161 | 164 | 164 | 164 | 164 | 164 | 164 | 164 |

**Correlations**

| | | Total Chronic Jealousy | Total Relationship Jealousy | Jealous Emotions - Anger Experience | Jealous Emotions - Sadness Experience | Jealous Emotions - Excitement Experience | Jealous Emotions - Fear Experience | Jealousy Concerns - Desertion | Jealousy Concerns - Attention Loss | Jealousy Concerns - Time Loss |
|---|---|---|---|---|---|---|---|---|---|---|
| Curiosity | Pearson Correlation | .490* | .470* | .398* | .261* | .082 | .261* | .257* | .343* | .211* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .001 | .295 | .001 | .001 | .000 | .007 |
| | N | 164 | 161 | 164 | 164 | 164 | 164 | 164 | 164 | 164 |
| Snooping | Pearson Correlation | .301* | .218* | .220* | .122 | .260* | .181* | .103 | .188* | .065 |
| | Sig. (2-tailed) | .000 | .006 | .005 | .121 | .001 | .020 | .188 | .016 | .411 |
| | N | 164 | 161 | 164 | 164 | 164 | 164 | 164 | 164 | 164 |
| Active Surveillence | Pearson Correlation | .353* | .356* | .223* | .262* | .180* | .141 | .224* | .335* | .249* |
| | Sig. (2-tailed) | .000 | .000 | .004 | .001 | .021 | .072 | .004 | .000 | .001 |
| | N | 164 | 161 | 164 | 164 | 164 | 164 | 164 | 164 | 164 |

**Correlations**

| | | Jealousy Concerns - Intimacy Loss | Jealousy Concerns - Shame or Humiliation | Jealousy Concerns - Sex Exclusivity Loss | Jealousy Concerns - Financial Loss | Social Desirability Responding Score | sex of participant | Age in Years | Income Range | Relationship Satisfaction Rating |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Chronic Jealousy | Pearson Correlation | .386* | .412* | .373* | .094 | -.335* | .145 | -.326* | -.254* | -.173* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .229 | .000 | .064 | .000 | .001 | .026 |
| | N | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 159 | 165 |
| Total Relationship Jealousy | Pearson Correlation | .374* | .382* | .344* | -.006 | -.257* | .222* | -.366* | -.299* | -.112 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .936 | .001 | .005 | .000 | .000 | .158 |
| | N | 162 | 162 | 162 | 162 | 162 | 162 | 162 | 156 | 162 |
| Jealous Emotions - Anger Experience | Pearson Correlation | .302* | .305* | .388* | .173* | -.388* | .069 | -.301* | -.267* | -.086 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .026 | .000 | .380 | .000 | .001 | .270 |
| | N | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 159 | 165 |
| Jealous Emotions - Sadness Experience | Pearson Correlation | .307* | .253* | .172* | .120 | -.115 | .184* | -.207* | -.133 | -.093 |
| | Sig. (2-tailed) | .000 | .001 | .028 | .125 | .140 | .018 | .008 | .094 | .235 |
| | N | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 159 | 165 |
| Jealous Emotions - Excitement Experience | Pearson Correlation | .012 | .084 | .122 | .284* | -.135 | .141 | .013 | -.033 | -.055 |
| | Sig. (2-tailed) | .882 | .286 | .117 | .000 | .085 | .071 | .863 | .682 | .481 |
| | N | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 159 | 165 |
| Jealous Emotions - Fear Experience | Pearson Correlation | .249* | .275* | .230* | .193* | -.249* | .086 | -.159* | -.124 | -.066 |
| | Sig. (2-tailed) | .001 | .000 | .003 | .013 | .001 | .272 | .042 | .121 | .400 |
| | N | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 159 | 165 |
| Jealousy Concerns - Desertion | Pearson Correlation | .509* | .383* | .400* | .012 | -.232* | .033 | -.296* | -.226* | -.084 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .878 | .003 | .672 | .000 | .004 | .285 |
| | N | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 159 | 165 |

**Correlations**

| | | Jealousy Concerns - Intimacy Loss | Jealousy Concerns - Shame or Humiliation | Jealousy Concerns - Sex Exclusivity Loss | Jealousy Concerns - Financial Loss | Social Desirability Responding Score | sex of participant | Age in Years | Income Range | Relationship Satisfaction Rating |
|---|---|---|---|---|---|---|---|---|---|---|
| Jealousy Concerns - Attention Loss | Pearson Correlation | .570* | .349* | .457* | .121 | -.177* | .119 | -.181* | -.200* | -.137 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .122 | .023 | .128 | .020 | .012 | .080 |
| | N | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 159 | 165 |
| Jealousy Concerns - Time Loss | Pearson Correlation | .633* | .321* | .330* | .068 | -.124 | .057 | -.230* | -.240* | -.101 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .383 | .112 | .470 | .003 | .002 | .198 |
| | N | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 159 | 165 |
| Jealousy Concerns - Intimacy Loss | Pearson Correlation | 1.000 | .368* | .482* | .229* | -.138 | .017 | -.065 | -.062 | -.164* |
| | Sig. (2-tailed) | . | .000 | .000 | .003 | .077 | .833 | .406 | .441 | .035 |
| | N | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 159 | 165 |
| Jealousy Concerns - Shame or Humiliation | Pearson Correlation | .368* | 1.000 | .543* | .262* | -.281* | .061 | -.072 | -.197* | -.225* |
| | Sig. (2-tailed) | .000 | . | .000 | .001 | .000 | .438 | .357 | .013 | .004 |
| | N | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 159 | 165 |
| Jealousy Concerns - Sex Exclusivity Loss | Pearson Correlation | .482* | .543* | 1.000 | .247* | -.182* | -.070 | -.030 | -.081 | -.158* |
| | Sig. (2-tailed) | .000 | .000 | . | .001 | .019 | .374 | .707 | .310 | .042 |
| | N | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 159 | 165 |
| Jealousy Concerns - Financial Loss | Pearson Correlation | .229* | .262* | .247* | 1.000 | -.068 | -.006 | .254* | .089 | -.080 |
| | Sig. (2-tailed) | .003 | .001 | .001 | . | .388 | .942 | .001 | .263 | .309 |
| | N | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 159 | 165 |
| Social Desirability Responding Score | Pearson Correlation | -.138 | -.281* | -.182* | -.068 | 1.000 | -.118 | .255* | .210* | .085 |
| | Sig. (2-tailed) | .077 | .000 | .019 | .388 | . | .130 | .001 | .008 | .278 |
| | N | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 159 | 165 |
| sex of participant | Pearson Correlation | .017 | .061 | -.070 | -.006 | -.118 | 1.000 | -.198* | -.196* | -.068 |
| | Sig. (2-tailed) | .833 | .438 | .374 | .942 | .130 | . | .011 | .013 | .387 |
| | N | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 159 | 165 |

**Correlations**

| | | Jealousy Concerns - Intimacy Loss | Jealousy Concerns - Shame or Humiliation | Jealousy Concerns - Sex Exclusivity Loss | Jealousy Concerns - Financial Loss | Social Desirability Responding Score | sex of participant | Age in Years | Income Range | Relationship Satisfaction Rating |
|---|---|---|---|---|---|---|---|---|---|---|
| Age in Years | Pearson Correlation | -.065 | -.072 | -.030 | .254* | .255* | -.198* | 1.000 | .671* | -.111 |
| | Sig. (2-tailed) | .406 | .357 | .707 | .001 | .001 | .011 | . | .000 | .156 |
| | N | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 159 | 165 |
| Income Range | Pearson Correlation | -.062 | -.197* | -.081 | .089 | .210* | -.196* | .671* | 1.000 | .013 |
| | Sig. (2-tailed) | .441 | .013 | .310 | .263 | .008 | .013 | .000 | . | .872 |
| | N | 159 | 159 | 159 | 159 | 159 | 159 | 159 | 159 | 159 |
| Relationship Satisfaction Rating | Pearson Correlation | -.164* | -.225* | -.158* | -.080 | .085 | -.068 | -.111 | .013 | 1.000 |
| | Sig. (2-tailed) | .035 | .004 | .042 | .309 | .278 | .387 | .156 | .872 | . |
| | N | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 159 | 165 |
| Relationship Length - In Years | Pearson Correlation | -.099 | -.125 | -.096 | .179* | .220* | -.074 | .821* | .528* | -.060 |
| | Sig. (2-tailed) | .207 | .109 | .221 | .021 | .005 | .342 | .000 | .000 | .447 |
| | N | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 159 | 165 |
| Anger In | Pearson Correlation | .349* | .252* | .301* | .135 | -.271* | .059 | -.145 | -.178* | -.241* |
| | Sig. (2-tailed) | .000 | .001 | .000 | .084 | .000 | .455 | .062 | .025 | .002 |
| | N | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 159 | 165 |
| Anger Expression Out | Pearson Correlation | .216* | .374* | .208* | .114 | -.341* | .261* | -.232* | -.213* | -.118 |
| | Sig. (2-tailed) | .005 | .000 | .007 | .145 | .000 | .001 | .003 | .007 | .132 |
| | N | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 159 | 165 |
| Anger Expression Control | Pearson Correlation | -.208* | -.220* | -.143 | -.121 | .324* | -.226* | .174* | .204* | .138 |
| | Sig. (2-tailed) | .007 | .005 | .066 | .122 | .000 | .004 | .025 | .010 | .078 |
| | N | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 159 | 165 |
| TOTALAX | Pearson Correlation | .359* | .391* | .299* | .174* | -.441* | .260* | -.257* | -.278* | -.231* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .026 | .000 | .001 | .001 | .000 | .003 |
| | N | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 159 | 165 |

**Correlations**

| | | Jealousy Concerns - Intimacy Loss | Jealousy Concerns - Shame or Humiliation | Jealousy Concerns - Sex Exclusivity Loss | Jealousy Concerns - Financial Loss | Social Desirability Responding Score | sex of participant | Age in Years | Income Range | Relationship Satisfaction Rating |
|---|---|---|---|---|---|---|---|---|---|---|
| Father- Supportive Scale of EMBU | Pearson Correlation | -.016 | -.056 | -.168* | -.103 | .032 | .118 | -.238* | -.043 | -.023 |
| | Sig. (2-tailed) | .846 | .490 | .035 | .201 | .694 | .140 | .003 | .601 | .779 |
| | N | 157 | 157 | 157 | 157 | 157 | 157 | 157 | 152 | 157 |
| Mother - Supportive Scale of EMBU | Pearson Correlation | .009 | -.070 | -.143 | -.125 | .065 | -.003 | -.163* | -.087 | -.045 |
| | Sig. (2-tailed) | .913 | .383 | .073 | .118 | .420 | .967 | .041 | .285 | .577 |
| | N | 158 | 158 | 158 | 158 | 158 | 158 | 158 | 152 | 158 |
| Father - Rejecting Scale of EMBU | Pearson Correlation | .107 | .123 | .221* | .099 | -.015 | -.007 | .128 | -.109 | -.132 |
| | Sig. (2-tailed) | .184 | .126 | .005 | .217 | .850 | .930 | .112 | .181 | .100 |
| | N | 156 | 156 | 156 | 156 | 156 | 156 | 156 | 151 | 156 |
| Mother - Rejecting Scale of EMBU | Pearson Correlation | .077 | .137 | .167* | .062 | -.115 | .254* | -.003 | -.010 | -.050 |
| | Sig. (2-tailed) | .337 | .089 | .037 | .445 | .153 | .001 | .972 | .906 | .539 |
| | N | 156 | 156 | 156 | 156 | 156 | 156 | 156 | 150 | 156 |
| Father - Overinvolved Scale of EMBU | Pearson Correlation | -.014 | .002 | -.069 | .045 | -.181* | .105 | -.029 | -.064 | -.062 |
| | Sig. (2-tailed) | .862 | .983 | .386 | .577 | .023 | .188 | .716 | .433 | .440 |
| | N | 158 | 158 | 158 | 158 | 158 | 158 | 158 | 153 | 158 |
| Mother - Overinvolved Scale of EMBU | Pearson Correlation | .048 | .039 | -.023 | .042 | -.228* | .196* | -.097 | -.066 | -.104 |
| | Sig. (2-tailed) | .551 | .629 | .771 | .602 | .004 | .013 | .226 | .416 | .192 |
| | N | 158 | 158 | 158 | 158 | 158 | 158 | 158 | 152 | 158 |
| Total Trait Anger | Pearson Correlation | .215* | .301* | .202* | .083 | -.392* | .157* | -.222* | -.230* | -.037 |
| | Sig. (2-tailed) | .006 | .000 | .010 | .288 | .000 | .044 | .004 | .004 | .639 |
| | N | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 158 | 164 |
| Conflict Tactics - Reasoning | Pearson Correlation | .193* | .071 | .071 | .020 | -.076 | -.017 | -.141 | -.067 | .006 |
| | Sig. (2-tailed) | .013 | .369 | .366 | .795 | .332 | .832 | .073 | .400 | .935 |
| | N | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 158 | 164 |

**Correlations**

| | | Jealousy Concerns - Intimacy Loss | Jealousy Concerns - Shame or Humiliation | Jealousy Concerns - Sex Exclusivity Loss | Jealousy Concerns - Financial Loss | Social Desirability Responding Score | sex of participant | Age in Years | Income Range | Relationship Satisfaction Rating |
|---|---|---|---|---|---|---|---|---|---|---|
| Conflict Tactics - Verbal Aggression | Pearson Correlation | .335* | .166* | .201* | .003 | -.216* | .134 | -.082 | -.037 | -.095 |
| | Sig. (2-tailed) | .000 | .034 | .010 | .972 | .005 | .087 | .294 | .643 | .227 |
| | N | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 158 | 164 |
| Conflict Tactics - Violence | Pearson Correlation | .182* | .157* | .133 | .139 | -.201* | .044 | -.102 | -.172* | .025 |
| | Sig. (2-tailed) | .020 | .044 | .090 | .077 | .010 | .575 | .195 | .031 | .749 |
| | N | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 158 | 164 |
| Trust-related Schema | Pearson Correlation | .220* | .427* | .342* | .193* | -.248* | .117 | -.138 | -.145 | -.350* |
| | Sig. (2-tailed) | .005 | .000 | .000 | .013 | .001 | .136 | .077 | .067 | .000 |
| | N | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 159 | 165 |
| Attractiveness Schema | Pearson Correlation | .285* | .219* | .323* | .051 | -.182* | .073 | -.068 | -.180* | -.027 |
| | Sig. (2-tailed) | .000 | .005 | .000 | .520 | .020 | .356 | .389 | .024 | .736 |
| | N | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 158 | 164 |
| Abandonment Schema | Pearson Correlation | .424* | .461* | .460* | .158* | -.189* | .187* | -.227* | -.206* | -.200* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .044 | .016 | .016 | .004 | .009 | .010 |
| | N | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 158 | 164 |
| Danger-related Schema | Pearson Correlation | .146 | .346* | .312* | .082 | -.267* | .126 | -.306* | -.248* | -.257* |
| | Sig. (2-tailed) | .061 | .000 | .000 | .293 | .001 | .107 | .000 | .002 | .001 |
| | N | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 159 | 165 |
| Sexual Behaviour Schema | Pearson Correlation | .219* | .296* | .231* | .200* | -.142 | .066 | -.077 | -.067 | -.084 |
| | Sig. (2-tailed) | .006 | .000 | .004 | .012 | .076 | .411 | .333 | .408 | .295 |
| | N | 158 | 158 | 158 | 158 | 158 | 158 | 158 | 153 | 158 |
| Projection | Pearson Correlation | .178* | .173* | .225* | -.010 | -.245* | .015 | -.129 | -.122 | -.098 |
| | Sig. (2-tailed) | .023 | .026 | .004 | .896 | .002 | .851 | .101 | .127 | .210 |
| | N | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 158 | 164 |

**Correlations**

| | | Jealousy Concerns - Intimacy Loss | Jealousy Concerns - Shame or Humiliation | Jealousy Concerns - Sex Exclusivity Loss | Jealousy Concerns - Financial Loss | Social Desirability Responding Score | sex of participant | Age in Years | Income Range | Relationship Satisfaction Rating |
|---|---|---|---|---|---|---|---|---|---|---|
| Trust-related Schema Distress | Pearson Correlation | .169* | .243* | .269* | .021 | -.205* | -.016 | -.198* | -.208* | .064 |
| | Sig. (2-tailed) | .033 | .002 | .001 | .798 | .010 | .846 | .012 | .010 | .422 |
| | N | 159 | 159 | 159 | 159 | 159 | 159 | 159 | 153 | 159 |
| Attractiveness Schema Distress | Pearson Correlation | .133 | .173* | .157* | .005 | -.052 | -.055 | -.145 | -.151 | .128 |
| | Sig. (2-tailed) | .092 | .028 | .047 | .949 | .514 | .487 | .067 | .061 | .105 |
| | N | 161 | 161 | 161 | 161 | 161 | 161 | 161 | 155 | 161 |
| Abandonment Schema Distress | Pearson Correlation | .145 | .140 | .125 | -.049 | -.199* | -.029 | -.200* | -.131 | .284* |
| | Sig. (2-tailed) | .066 | .075 | .113 | .532 | .011 | .719 | .011 | .102 | .000 |
| | N | 162 | 162 | 162 | 162 | 162 | 162 | 162 | 156 | 162 |
| Danger/Fear Schema Distress | Pearson Correlation | .307* | .306* | .258* | .025 | -.258* | .066 | -.338* | -.315* | .092 |
| | Sig. (2-tailed) | .000 | .000 | .001 | .749 | .001 | .411 | .000 | .000 | .245 |
| | N | 160 | 160 | 160 | 160 | 160 | 160 | 160 | 154 | 160 |
| Sexual Behaviour Schema Distress | Pearson Correlation | .255* | .239* | .209* | .152 | -.207* | .025 | -.181* | -.254* | .060 |
| | Sig. (2-tailed) | .002 | .003 | .010 | .062 | .011 | .764 | .026 | .002 | .465 |
| | N | 152 | 152 | 152 | 152 | 152 | 152 | 152 | 147 | 152 |
| Projection Distress | Pearson Correlation | .161* | .117 | .197* | -.033 | -.138 | -.128 | -.195* | -.119 | .135 |
| | Sig. (2-tailed) | .044 | .146 | .014 | .684 | .084 | .111 | .014 | .146 | .091 |
| | N | 157 | 157 | 157 | 157 | 157 | 157 | 157 | 151 | 157 |
| Faulty Cognitions - Sum of Schema | Pearson Correlation | .369* | .480* | .469* | .176* | -.300* | .163* | -.236* | -.234* | -.259* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .023 | .000 | .037 | .002 | .003 | .001 |
| | N | 165 | 165 | 165 | 165 | 165 | 165 | 165 | 159 | 165 |
| Intrusiveness | Pearson Correlation | .288* | .397* | .411* | .249* | -.325* | .296* | -.127 | -.167* | -.124 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .001 | .000 | .000 | .105 | .035 | .113 |
| | N | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 159 | 164 |

**Correlations**

| | | Jealousy Concerns - Intimacy Loss | Jealousy Concerns - Shame or Humiliation | Jealousy Concerns - Sex Exclusivity Loss | Jealousy Concerns - Financial Loss | Social Desirability Responding Score | sex of participant | Age in Years | Income Range | Relationship Satisfaction Rating |
|---|---|---|---|---|---|---|---|---|---|---|
| Curiosity | Pearson Correlation | .245* | .391* | .385* | .082 | -.372* | .339* | -.227* | -.260* | -.113 |
| | Sig. (2-tailed) | .002 | .000 | .000 | .295 | .000 | .000 | .003 | .001 | .151 |
| | N | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 159 | 164 |
| Snooping | Pearson Correlation | .137 | .163* | .227* | .396* | -.163* | .161* | .056 | .012 | -.155* |
| | Sig. (2-tailed) | .081 | .036 | .003 | .000 | .037 | .040 | .479 | .881 | .048 |
| | N | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 159 | 164 |
| Active Surveillence | Pearson Correlation | .308* | .389* | .391* | .230* | -.259* | .229* | -.098 | -.124 | -.057 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .003 | .001 | .003 | .211 | .119 | .465 |
| | N | 164 | 164 | 164 | 164 | 164 | 164 | 164 | 159 | 164 |

**Correlations**

| | | Relationship Length - In Years | Anger In | Anger Expression Out | Anger Expression Control | TOTALAX | Father-Supportive Scale of EMBU | Mother - Supportive Scale of EMBU | Father - Rejecting Scale of EMBU | Mother - Rejecting Scale of EMBU |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Chronic Jealousy | Pearson Correlation | -.312* | .259* | .436* | -.468* | .554* | .074 | .029 | .070 | .168* |
| | Sig. (2-tailed) | .000 | .001 | .000 | .000 | .000 | .355 | .717 | .386 | .036 |
| | N | 165 | 165 | 165 | 165 | 165 | 157 | 158 | 156 | 156 |
| Total Relationship Jealousy | Pearson Correlation | -.295* | .266* | .375* | -.394* | .489* | .118 | .046 | .104 | .178* |
| | Sig. (2-tailed) | .000 | .001 | .000 | .000 | .000 | .145 | .572 | .203 | .027 |
| | N | 162 | 162 | 162 | 162 | 162 | 154 | 155 | 153 | 153 |
| Jealous Emotions - Anger Experience | Pearson Correlation | -.301* | .258* | .445* | -.437* | .541* | -.032 | -.070 | -.014 | .096 |
| | Sig. (2-tailed) | .000 | .001 | .000 | .000 | .000 | .695 | .382 | .865 | .232 |
| | N | 165 | 165 | 165 | 165 | 165 | 157 | 158 | 156 | 156 |
| Jealous Emotions - Sadness Experience | Pearson Correlation | -.250* | .170* | .208* | -.106 | .221* | .032 | -.050 | .022 | .142 |
| | Sig. (2-tailed) | .001 | .029 | .007 | .177 | .004 | .690 | .536 | .782 | .076 |
| | N | 165 | 165 | 165 | 165 | 165 | 157 | 158 | 156 | 156 |
| Jealous Emotions - Excitement Experience | Pearson Correlation | .007 | .063 | .136 | -.046 | .111 | -.014 | -.026 | .121 | .076 |
| | Sig. (2-tailed) | .930 | .418 | .083 | .560 | .156 | .861 | .748 | .133 | .343 |
| | N | 165 | 165 | 165 | 165 | 165 | 157 | 158 | 156 | 156 |
| Jealous Emotions - Fear Experience | Pearson Correlation | -.195* | .206* | .155* | -.275* | .306* | -.043 | -.054 | .017 | .111 |
| | Sig. (2-tailed) | .012 | .008 | .046 | .000 | .000 | .595 | .499 | .835 | .169 |
| | N | 165 | 165 | 165 | 165 | 165 | 157 | 158 | 156 | 156 |
| Jealousy Concerns - Desertion | Pearson Correlation | -.269* | .299* | .195* | -.237* | .343* | .105 | .048 | -.037 | .030 |
| | Sig. (2-tailed) | .000 | .000 | .012 | .002 | .000 | .191 | .549 | .643 | .712 |
| | N | 165 | 165 | 165 | 165 | 165 | 157 | 158 | 156 | 156 |

**Correlations**

| | | Relationship Length - In Years | Anger In | Anger Expression Out | Anger Expression Control | TOTALAX | Father-Supportive Scale of EMBU | Mother - Supportive Scale of EMBU | Father - Rejecting Scale of EMBU | Mother - Rejecting Scale of EMBU |
|---|---|---|---|---|---|---|---|---|---|---|
| Jealousy Concerns - Attention Loss | Pearson Correlation | -.195* | .319* | .242* | -.312* | .412* | -.100 | .003 | .080 | .121 |
| | Sig. (2-tailed) | .012 | .000 | .002 | .000 | .000 | .213 | .970 | .318 | .133 |
| | N | 165 | 165 | 165 | 165 | 165 | 157 | 158 | 156 | 156 |
| Jealousy Concerns - Time Loss | Pearson Correlation | -.266* | .395* | .183* | -.140 | .329* | .031 | .045 | .074 | .079 |
| | Sig. (2-tailed) | .001 | .000 | .018 | .072 | .000 | .697 | .573 | .360 | .328 |
| | N | 165 | 165 | 165 | 165 | 165 | 157 | 158 | 156 | 156 |
| Jealousy Concerns - Intimacy Loss | Pearson Correlation | -.099 | .349* | .216* | -.208* | .359* | -.016 | .009 | .107 | .077 |
| | Sig. (2-tailed) | .207 | .000 | .005 | .007 | .000 | .846 | .913 | .184 | .337 |
| | N | 165 | 165 | 165 | 165 | 165 | 157 | 158 | 156 | 156 |
| Jealousy Concerns - Shame or Humiliation | Pearson Correlation | -.125 | .252* | .374* | -.220* | .391* | -.056 | -.070 | .123 | .137 |
| | Sig. (2-tailed) | .109 | .001 | .000 | .005 | .000 | .490 | .383 | .126 | .089 |
| | N | 165 | 165 | 165 | 165 | 165 | 157 | 158 | 156 | 156 |
| Jealousy Concerns - Sex Exclusivity Loss | Pearson Correlation | -.096 | .301* | .208* | -.143 | .299* | -.168* | -.143 | .221* | .167* |
| | Sig. (2-tailed) | .221 | .000 | .007 | .066 | .000 | .035 | .073 | .005 | .037 |
| | N | 165 | 165 | 165 | 165 | 165 | 157 | 158 | 156 | 156 |
| Jealousy Concerns - Financial Loss | Pearson Correlation | .179* | .135 | .114 | -.121 | .174* | -.103 | -.125 | .099 | .062 |
| | Sig. (2-tailed) | .021 | .084 | .145 | .122 | .026 | .201 | .118 | .217 | .445 |
| | N | 165 | 165 | 165 | 165 | 165 | 157 | 158 | 156 | 156 |
| Social Desirability Responding Score | Pearson Correlation | .220* | -.271* | -.341* | .324* | -.441* | .032 | .065 | -.015 | -.115 |
| | Sig. (2-tailed) | .005 | .000 | .000 | .000 | .000 | .694 | .420 | .850 | .153 |
| | N | 165 | 165 | 165 | 165 | 165 | 157 | 158 | 156 | 156 |
| sex of participant | Pearson Correlation | -.074 | .059 | .261* | -.226* | .260* | .118 | -.003 | -.007 | .254* |
| | Sig. (2-tailed) | .342 | .455 | .001 | .004 | .001 | .140 | .967 | .930 | .001 |
| | N | 165 | 165 | 165 | 165 | 165 | 157 | 158 | 156 | 156 |

**Correlations**

| | | Relationship Length - In Years | Anger In | Anger Expression Out | Anger Expression Control | TOTALAX | Father-Supportive Scale of EMBU | Mother - Supportive Scale of EMBU | Father - Rejecting Scale of EMBU | Mother - Rejecting Scale of EMBU |
|---|---|---|---|---|---|---|---|---|---|---|
| Age in Years | Pearson Correlation | .821* | -.145 | -.232* | .174* | -.257* | -.238* | -.163* | .128 | -.003 |
| | Sig. (2-tailed) | .000 | .062 | .003 | .025 | .001 | .003 | .041 | .112 | .972 |
| | N | 165 | 165 | 165 | 165 | 165 | 157 | 158 | 156 | 156 |
| Income Range | Pearson Correlation | .528* | -.178* | -.213* | .204* | -.278* | -.043 | -.087 | -.109 | -.010 |
| | Sig. (2-tailed) | .000 | .025 | .007 | .010 | .000 | .601 | .285 | .181 | .906 |
| | N | 159 | 159 | 159 | 159 | 159 | 152 | 152 | 151 | 150 |
| Relationship Satisfaction Rating | Pearson Correlation | -.060 | -.241* | -.118 | .138 | -.231* | -.023 | -.045 | -.132 | -.050 |
| | Sig. (2-tailed) | .447 | .002 | .132 | .078 | .003 | .779 | .577 | .100 | .539 |
| | N | 165 | 165 | 165 | 165 | 165 | 157 | 158 | 156 | 156 |
| Relationship Length - In Years | Pearson Correlation | 1.000 | -.189* | -.154* | .078 | -.192* | -.125 | -.120 | .069 | .022 |
| | Sig. (2-tailed) | . | .015 | .048 | .317 | .014 | .118 | .132 | .392 | .784 |
| | N | 165 | 165 | 165 | 165 | 165 | 157 | 158 | 156 | 156 |
| Anger In | Pearson Correlation | -.189* | 1.000 | .072 | -.018 | .481* | -.152 | -.084 | .161* | .027 |
| | Sig. (2-tailed) | .015 | . | .361 | .816 | .000 | .058 | .295 | .044 | .741 |
| | N | 165 | 165 | 165 | 165 | 165 | 157 | 158 | 156 | 156 |
| Anger Expression Out | Pearson Correlation | -.154* | .072 | 1.000 | -.635* | .805* | .002 | -.010 | .084 | .209* |
| | Sig. (2-tailed) | .048 | .361 | . | .000 | .000 | .977 | .898 | .300 | .009 |
| | N | 165 | 165 | 165 | 165 | 165 | 157 | 158 | 156 | 156 |
| Anger Expression Control | Pearson Correlation | .078 | -.018 | -.635* | 1.000 | -.820* | -.015 | -.006 | -.073 | -.109 |
| | Sig. (2-tailed) | .317 | .816 | .000 | . | .000 | .848 | .938 | .364 | .176 |
| | N | 165 | 165 | 165 | 165 | 165 | 157 | 158 | 156 | 156 |
| TOTALAX | Pearson Correlation | -.192* | .481* | .805* | -.820* | 1.000 | -.056 | -.038 | .145 | .160* |
| | Sig. (2-tailed) | .014 | .000 | .000 | .000 | . | .486 | .635 | .072 | .045 |
| | N | 165 | 165 | 165 | 165 | 165 | 157 | 158 | 156 | 156 |

**Correlations**

| | | Relationship Length - In Years | Anger In | Anger Expression Out | Anger Expression Control | TOTALAX | Father-Supportive Scale of EMBU | Mother - Supportive Scale of EMBU | Father - Rejecting Scale of EMBU | Mother - Rejecting Scale of EMBU |
|---|---|---|---|---|---|---|---|---|---|---|
| Father- Supportive Scale of EMBU | Pearson Correlation | -.125 | -.152 | .002 | -.015 | -.056 | 1.000 | .727* | -.417* | -.323* |
| | Sig. (2-tailed) | .118 | .058 | .977 | .848 | .486 | . | .000 | .000 | .000 |
| | N | 157 | 157 | 157 | 157 | 157 | 157 | 151 | 154 | 148 |
| Mother - Supportive Scale of EMBU | Pearson Correlation | -.120 | -.084 | -.010 | -.006 | -.038 | .727* | 1.000 | -.275* | -.505* |
| | Sig. (2-tailed) | .132 | .295 | .898 | .938 | .635 | .000 | . | .001 | .000 |
| | N | 158 | 158 | 158 | 158 | 158 | 151 | 158 | 149 | 155 |
| Father - Rejecting Scale of EMBU | Pearson Correlation | .069 | .161* | .084 | -.073 | .145 | -.417* | -.275* | 1.000 | .426* |
| | Sig. (2-tailed) | .392 | .044 | .300 | .364 | .072 | .000 | .001 | . | .000 |
| | N | 156 | 156 | 156 | 156 | 156 | 154 | 149 | 156 | 150 |
| Mother - Rejecting Scale of EMBU | Pearson Correlation | .022 | .027 | .209* | -.109 | .160* | -.323* | -.505* | .426* | 1.000 |
| | Sig. (2-tailed) | .784 | .741 | .009 | .176 | .045 | .000 | .000 | .000 | . |
| | N | 156 | 156 | 156 | 156 | 156 | 148 | 155 | 150 | 156 |
| Father - Overinvolved Scale of EMBU | Pearson Correlation | -.059 | .164* | .020 | -.100 | .133 | -.115 | -.193* | .461* | .207* |
| | Sig. (2-tailed) | .463 | .039 | .802 | .213 | .095 | .151 | .018 | .000 | .011 |
| | N | 158 | 158 | 158 | 158 | 158 | 156 | 151 | 155 | 149 |
| Mother - Overinvolved Scale of EMBU | Pearson Correlation | -.083 | .059 | .142 | -.163* | .176* | -.153 | -.190* | .181* | .446* |
| | Sig. (2-tailed) | .300 | .458 | .075 | .040 | .027 | .061 | .017 | .027 | .000 |
| | N | 158 | 158 | 158 | 158 | 158 | 151 | 157 | 150 | 155 |
| Total Trait Anger | Pearson Correlation | -.153 | .220* | .675* | -.544* | .680* | -.008 | .019 | .212* | .206* |
| | Sig. (2-tailed) | .051 | .005 | .000 | .000 | .000 | .924 | .810 | .008 | .010 |
| | N | 164 | 164 | 164 | 164 | 164 | 156 | 157 | 155 | 155 |
| Conflict Tactics - Reasoning | Pearson Correlation | -.061 | -.018 | .152 | -.122 | .124 | .097 | .063 | -.003 | .172* |
| | Sig. (2-tailed) | .435 | .818 | .053 | .118 | .114 | .228 | .429 | .972 | .032 |
| | N | 164 | 164 | 164 | 164 | 164 | 156 | 158 | 155 | 156 |

**Correlations**

| | | Relationship Length - In Years | Anger In | Anger Expression Out | Anger Expression Control | TOTALAX | Father-Supportive Scale of EMBU | Mother - Supportive Scale of EMBU | Father - Rejecting Scale of EMBU | Mother - Rejecting Scale of EMBU |
|---|---|---|---|---|---|---|---|---|---|---|
| Conflict Tactics - Verbal Aggression | Pearson Correlation | .078 | .061 | .433* | -.417* | .440* | .048 | .033 | .087 | .245* |
| | Sig. (2-tailed) | .324 | .440 | .000 | .000 | .000 | .552 | .679 | .282 | .002 |
| | N | 164 | 164 | 164 | 164 | 164 | 156 | 158 | 155 | 156 |
| Conflict Tactics - Violence | Pearson Correlation | -.042 | .055 | .334* | -.303* | .333* | .035 | -.016 | .077 | .081 |
| | Sig. (2-tailed) | .592 | .483 | .000 | .000 | .000 | .668 | .840 | .341 | .313 |
| | N | 164 | 164 | 164 | 164 | 164 | 156 | 158 | 155 | 156 |
| Trust-related Schema | Pearson Correlation | -.112 | .224* | .286* | -.202* | .331* | .013 | -.015 | .238* | .226* |
| | Sig. (2-tailed) | .151 | .004 | .000 | .009 | .000 | .870 | .852 | .003 | .004 |
| | N | 165 | 165 | 165 | 165 | 165 | 157 | 158 | 156 | 156 |
| Attractiveness Schema | Pearson Correlation | -.023 | .269* | .124 | -.111 | .231* | -.098 | -.124 | .199* | .168* |
| | Sig. (2-tailed) | .771 | .000 | .113 | .157 | .003 | .222 | .121 | .013 | .037 |
| | N | 164 | 164 | 164 | 164 | 164 | 156 | 157 | 155 | 155 |
| Abandonment Schema | Pearson Correlation | -.201* | .378* | .222* | -.200* | .369* | -.016 | -.061 | .168* | .191* |
| | Sig. (2-tailed) | .010 | .000 | .004 | .010 | .000 | .842 | .446 | .036 | .017 |
| | N | 164 | 164 | 164 | 164 | 164 | 156 | 157 | 155 | 155 |
| Danger-related Schema | Pearson Correlation | -.222* | .217* | .276* | -.215* | .330* | .014 | .001 | .201* | .166* |
| | Sig. (2-tailed) | .004 | .005 | .000 | .006 | .000 | .861 | .988 | .012 | .038 |
| | N | 165 | 165 | 165 | 165 | 165 | 157 | 158 | 156 | 156 |
| Sexual Behaviour Schema | Pearson Correlation | -.105 | .154 | .382* | -.174* | .324* | -.188* | -.153 | .320* | .238* |
| | Sig. (2-tailed) | .188 | .054 | .000 | .029 | .000 | .021 | .061 | .000 | .004 |
| | N | 158 | 158 | 158 | 158 | 158 | 151 | 151 | 150 | 149 |
| Projection | Pearson Correlation | -.064 | .069 | .102 | -.169* | .166* | .011 | .072 | -.018 | .000 |
| | Sig. (2-tailed) | .415 | .377 | .194 | .030 | .034 | .888 | .369 | .823 | 1.000 |
| | N | 164 | 164 | 164 | 164 | 164 | 156 | 157 | 155 | 155 |

**Correlations**

| | | Relationship Length - In Years | Anger In | Anger Expression Out | Anger Expression Control | TOTALAX | Father-Supportive Scale of EMBU | Mother - Supportive Scale of EMBU | Father - Rejecting Scale of EMBU | Mother - Rejecting Scale of EMBU |
|---|---|---|---|---|---|---|---|---|---|---|
| Trust-related Schema Distress | Pearson Correlation | -.168* | .110 | .211* | -.182* | .239* | .000 | -.043 | .112 | .134 |
| | Sig. (2-tailed) | .034 | .167 | .007 | .021 | .002 | .999 | .596 | .172 | .103 |
| | N | 159 | 159 | 159 | 159 | 159 | 151 | 152 | 150 | 150 |
| Attractiveness Schema Distress | Pearson Correlation | -.071 | .198* | .141 | -.069 | .186* | .009 | -.016 | .040 | .015 |
| | Sig. (2-tailed) | .368 | .012 | .074 | .388 | .018 | .911 | .844 | .625 | .854 |
| | N | 161 | 161 | 161 | 161 | 161 | 153 | 154 | 152 | 152 |
| Abandonment Schema Distress | Pearson Correlation | -.155* | .010 | .174* | -.137 | .154 | -.002 | -.021 | -.047 | .033 |
| | Sig. (2-tailed) | .049 | .898 | .027 | .082 | .050 | .979 | .799 | .564 | .684 |
| | N | 162 | 162 | 162 | 162 | 162 | 154 | 155 | 153 | 153 |
| Danger/Fear Schema Distress | Pearson Correlation | -.279* | .173* | .308* | -.255* | .347* | .060 | .022 | .037 | .072 |
| | Sig. (2-tailed) | .000 | .029 | .000 | .001 | .000 | .463 | .789 | .653 | .378 |
| | N | 160 | 160 | 160 | 160 | 160 | 152 | 153 | 151 | 151 |
| Sexual Behaviour Schema Distress | Pearson Correlation | -.170* | .107 | .241* | -.111 | .214* | .060 | -.023 | .080 | .137 |
| | Sig. (2-tailed) | .037 | .189 | .003 | .175 | .008 | .477 | .781 | .343 | .101 |
| | N | 152 | 152 | 152 | 152 | 152 | 145 | 146 | 144 | 144 |
| Projection Distress | Pearson Correlation | -.180* | .111 | .155 | -.132 | .188* | .008 | .032 | .005 | -.048 |
| | Sig. (2-tailed) | .024 | .167 | .052 | .099 | .018 | .921 | .693 | .948 | .559 |
| | N | 157 | 157 | 157 | 157 | 157 | 149 | 151 | 148 | 149 |
| Faulty Cognitions - Sum of Schema | Pearson Correlation | -.182* | .335* | .337* | -.249* | .427* | -.053 | -.064 | .276* | .264* |
| | Sig. (2-tailed) | .019 | .000 | .000 | .001 | .000 | .506 | .424 | .000 | .001 |
| | N | 165 | 165 | 165 | 165 | 165 | 157 | 158 | 156 | 156 |
| Intrusiveness | Pearson Correlation | -.042 | .272* | .407* | -.344* | .480* | -.078 | -.060 | .221* | .231* |
| | Sig. (2-tailed) | .596 | .000 | .000 | .000 | .000 | .336 | .453 | .006 | .004 |
| | N | 164 | 164 | 164 | 164 | 164 | 156 | 157 | 155 | 155 |

**Correlations**

| | | Relationship Length - In Years | Anger In | Anger Expression Out | Anger Expression Control | TOTALAX | Father-Supportive Scale of EMBU | Mother - Supportive Scale of EMBU | Father - Rejecting Scale of EMBU | Mother - Rejecting Scale of EMBU |
|---|---|---|---|---|---|---|---|---|---|---|
| Curiosity | Pearson Correlation | -.092 | .257* | .431* | -.396* | .511* | -.044 | -.033 | .170* | .215* |
| | Sig. (2-tailed) | .243 | .001 | .000 | .000 | .000 | .585 | .683 | .035 | .007 |
| | N | 164 | 164 | 164 | 164 | 164 | 156 | 157 | 155 | 155 |
| Snooping | Pearson Correlation | .073 | .194* | .271* | -.266* | .345* | -.169* | -.066 | .138 | .088 |
| | Sig. (2-tailed) | .355 | .013 | .000 | .001 | .000 | .035 | .412 | .086 | .277 |
| | N | 164 | 164 | 164 | 164 | 164 | 156 | 157 | 155 | 155 |
| Active Surveillence | Pearson Correlation | -.047 | .223* | .333* | -.227* | .364* | -.034 | -.065 | .236* | .248* |
| | Sig. (2-tailed) | .553 | .004 | .000 | .003 | .000 | .674 | .417 | .003 | .002 |
| | N | 164 | 164 | 164 | 164 | 164 | 156 | 157 | 155 | 155 |

**Correlations**

| | | Father - Overinvolved Scale of EMBU | Mother - Overinvolved Scale of EMBU | Total Trait Anger | Conflict Tactics - Reasoning | Conflict Tactics - Verbal Aggression | Conflict Tactics - Violence | Trust-related Schema | Attractiveness Schema | Abandonment Schema |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Chronic Jealousy | Pearson Correlation | .009 | .068 | .476* | .195* | .379* | .243* | .403* | .274* | .505* |
| | Sig. (2-tailed) | .912 | .398 | .000 | .012 | .000 | .002 | .000 | .000 | .000 |
| | N | 158 | 158 | 164 | 164 | 164 | 164 | 165 | 164 | 164 |
| Total Relationship Jealousy | Pearson Correlation | .040 | .038 | .412* | .229* | .414* | .251* | .353* | .255* | .526* |
| | Sig. (2-tailed) | .620 | .637 | .000 | .004 | .000 | .001 | .000 | .001 | .000 |
| | N | 155 | 155 | 161 | 161 | 161 | 161 | 162 | 161 | 161 |
| Jealous Emotions - Anger Experience | Pearson Correlation | -.018 | .109 | .390* | .141 | .238* | .224* | .286* | .148 | .269* |
| | Sig. (2-tailed) | .821 | .171 | .000 | .071 | .002 | .004 | .000 | .059 | .000 |
| | N | 158 | 158 | 164 | 164 | 164 | 164 | 165 | 164 | 164 |
| Jealous Emotions - Sadness Experience | Pearson Correlation | .114 | .127 | .115 | .077 | .152 | .032 | .224* | .193* | .361* |
| | Sig. (2-tailed) | .154 | .112 | .142 | .325 | .052 | .682 | .004 | .013 | .000 |
| | N | 158 | 158 | 164 | 164 | 164 | 164 | 165 | 164 | 164 |
| Jealous Emotions - Excitement Experience | Pearson Correlation | -.054 | -.093 | .043 | .046 | -.022 | .090 | .112 | .067 | .069 |
| | Sig. (2-tailed) | .500 | .247 | .584 | .557 | .782 | .253 | .152 | .395 | .382 |
| | N | 158 | 158 | 164 | 164 | 164 | 164 | 165 | 164 | 164 |
| Jealous Emotions - Fear Experience | Pearson Correlation | .074 | .055 | .174* | .045 | .082 | .068 | .136 | .214* | .294* |
| | Sig. (2-tailed) | .355 | .489 | .026 | .568 | .298 | .390 | .082 | .006 | .000 |
| | N | 158 | 158 | 164 | 164 | 164 | 164 | 165 | 164 | 164 |
| Jealousy Concerns - Desertion | Pearson Correlation | .022 | .024 | .208* | .093 | .254* | .178* | .238* | .306* | .546* |
| | Sig. (2-tailed) | .783 | .762 | .008 | .234 | .001 | .023 | .002 | .000 | .000 |
| | N | 158 | 158 | 164 | 164 | 164 | 164 | 165 | 164 | 164 |

**Correlations**

| | | Father - Overinvolved Scale of EMBU | Mother - Overinvolved Scale of EMBU | Total Trait Anger | Conflict Tactics - Reasoning | Conflict Tactics - Verbal Aggression | Conflict Tactics - Violence | Trust-related Schema | Attractiveness Schema | Abandonment Schema |
|---|---|---|---|---|---|---|---|---|---|---|
| Jealousy Concerns - Attention Loss | Pearson Correlation | -.027 | .070 | .272* | .140 | .274* | .099 | .270* | .266* | .445* |
| | Sig. (2-tailed) | .739 | .382 | .000 | .073 | .000 | .207 | .000 | .001 | .000 |
| | N | 158 | 158 | 164 | 164 | 164 | 164 | 165 | 164 | 164 |
| Jealousy Concerns - Time Loss | Pearson Correlation | .006 | .014 | .217* | .056 | .218* | .097 | .183* | .249* | .385* |
| | Sig. (2-tailed) | .939 | .859 | .005 | .480 | .005 | .215 | .018 | .001 | .000 |
| | N | 158 | 158 | 164 | 164 | 164 | 164 | 165 | 164 | 164 |
| Jealousy Concerns - Intimacy Loss | Pearson Correlation | -.014 | .048 | .215* | .193* | .335* | .182* | .220* | .285* | .424* |
| | Sig. (2-tailed) | .862 | .551 | .006 | .013 | .000 | .020 | .005 | .000 | .000 |
| | N | 158 | 158 | 164 | 164 | 164 | 164 | 165 | 164 | 164 |
| Jealousy Concerns - Shame or Humiliation | Pearson Correlation | .002 | .039 | .301* | .071 | .166* | .157* | .427* | .219* | .461* |
| | Sig. (2-tailed) | .983 | .629 | .000 | .369 | .034 | .044 | .000 | .005 | .000 |
| | N | 158 | 158 | 164 | 164 | 164 | 164 | 165 | 164 | 164 |
| Jealousy Concerns - Sex Exclusivity Loss | Pearson Correlation | -.069 | -.023 | .202* | .071 | .201* | .133 | .342* | .323* | .460* |
| | Sig. (2-tailed) | .386 | .771 | .010 | .366 | .010 | .090 | .000 | .000 | .000 |
| | N | 158 | 158 | 164 | 164 | 164 | 164 | 165 | 164 | 164 |
| Jealousy Concerns - Financial Loss | Pearson Correlation | .045 | .042 | .083 | .020 | .003 | .139 | .193* | .051 | .158* |
| | Sig. (2-tailed) | .577 | .602 | .288 | .795 | .972 | .077 | .013 | .520 | .044 |
| | N | 158 | 158 | 164 | 164 | 164 | 164 | 165 | 164 | 164 |
| Social Desirability Responding Score | Pearson Correlation | -.181* | -.228* | -.392* | -.076 | -.216* | -.201* | -.248* | -.182* | -.189* |
| | Sig. (2-tailed) | .023 | .004 | .000 | .332 | .005 | .010 | .001 | .020 | .016 |
| | N | 158 | 158 | 164 | 164 | 164 | 164 | 165 | 164 | 164 |
| sex of participant | Pearson Correlation | .105 | .196* | .157* | -.017 | .134 | .044 | .117 | .073 | .187* |
| | Sig. (2-tailed) | .188 | .013 | .044 | .832 | .087 | .575 | .136 | .356 | .016 |
| | N | 158 | 158 | 164 | 164 | 164 | 164 | 165 | 164 | 164 |

**Correlations**

| | | Father - Overinvolved Scale of EMBU | Mother - Overinvolved Scale of EMBU | Total Trait Anger | Conflict Tactics - Reasoning | Conflict Tactics - Verbal Aggression | Conflict Tactics - Violence | Trust-related Schema | Attractiveness Schema | Abandonment Schema |
|---|---|---|---|---|---|---|---|---|---|---|
| Age in Years | Pearson Correlation | -.029 | -.097 | -.222* | -.141 | -.082 | -.102 | -.138 | -.068 | -.227* |
| | Sig. (2-tailed) | .716 | .226 | .004 | .073 | .294 | .195 | .077 | .389 | .004 |
| | N | 158 | 158 | 164 | 164 | 164 | 164 | 165 | 164 | 164 |
| Income Range | Pearson Correlation | -.064 | -.066 | -.230* | -.067 | -.037 | -.172* | -.145 | -.180* | -.206* |
| | Sig. (2-tailed) | .433 | .416 | .004 | .400 | .643 | .031 | .067 | .024 | .009 |
| | N | 153 | 152 | 158 | 158 | 158 | 158 | 159 | 158 | 158 |
| Relationship Satisfaction Rating | Pearson Correlation | -.062 | -.104 | -.037 | .006 | -.095 | .025 | -.350* | -.027 | -.200* |
| | Sig. (2-tailed) | .440 | .192 | .639 | .935 | .227 | .749 | .000 | .736 | .010 |
| | N | 158 | 158 | 164 | 164 | 164 | 164 | 165 | 164 | 164 |
| Relationship Length - In Years | Pearson Correlation | -.059 | -.083 | -.153 | -.061 | .078 | -.042 | -.112 | -.023 | -.201* |
| | Sig. (2-tailed) | .463 | .300 | .051 | .435 | .324 | .592 | .151 | .771 | .010 |
| | N | 158 | 158 | 164 | 164 | 164 | 164 | 165 | 164 | 164 |
| Anger In | Pearson Correlation | .164* | .059 | .220* | -.018 | .061 | .055 | .224* | .269* | .378* |
| | Sig. (2-tailed) | .039 | .458 | .005 | .818 | .440 | .483 | .004 | .000 | .000 |
| | N | 158 | 158 | 164 | 164 | 164 | 164 | 165 | 164 | 164 |
| Anger Expression Out | Pearson Correlation | .020 | .142 | .675* | .152 | .433* | .334* | .286* | .124 | .222* |
| | Sig. (2-tailed) | .802 | .075 | .000 | .053 | .000 | .000 | .000 | .113 | .004 |
| | N | 158 | 158 | 164 | 164 | 164 | 164 | 165 | 164 | 164 |
| Anger Expression Control | Pearson Correlation | -.100 | -.163* | -.544* | -.122 | -.417* | -.303* | -.202* | -.111 | -.200* |
| | Sig. (2-tailed) | .213 | .040 | .000 | .118 | .000 | .000 | .009 | .157 | .010 |
| | N | 158 | 158 | 164 | 164 | 164 | 164 | 165 | 164 | 164 |
| TOTALAX | Pearson Correlation | .133 | .176* | .680* | .124 | .440* | .333* | .331* | .231* | .369* |
| | Sig. (2-tailed) | .095 | .027 | .000 | .114 | .000 | .000 | .000 | .003 | .000 |
| | N | 158 | 158 | 164 | 164 | 164 | 164 | 165 | 164 | 164 |

**Correlations**

| | | Father - Overinvolved Scale of EMBU | Mother - Overinvolved Scale of EMBU | Total Trait Anger | Conflict Tactics - Reasoning | Conflict Tactics - Verbal Aggression | Conflict Tactics - Violence | Trust-related Schema | Attractiveness Schema | Abandonment Schema |
|---|---|---|---|---|---|---|---|---|---|---|
| Father- Supportive Scale of EMBU | Pearson Correlation | -.115 | -.153 | -.008 | .097 | .048 | .035 | .013 | -.098 | -.016 |
| | Sig. (2-tailed) | .151 | .061 | .924 | .228 | .552 | .668 | .870 | .222 | .842 |
| | N | 156 | 151 | 156 | 156 | 156 | 156 | 157 | 156 | 156 |
| Mother - Supportive Scale of EMBU | Pearson Correlation | -.193* | -.190* | .019 | .063 | .033 | -.016 | -.015 | -.124 | -.061 |
| | Sig. (2-tailed) | .018 | .017 | .810 | .429 | .679 | .840 | .852 | .121 | .446 |
| | N | 151 | 157 | 157 | 158 | 158 | 158 | 158 | 157 | 157 |
| Father - Rejecting Scale of EMBU | Pearson Correlation | .461* | .181* | .212* | -.003 | .087 | .077 | .238* | .199* | .168* |
| | Sig. (2-tailed) | .000 | .027 | .008 | .972 | .282 | .341 | .003 | .013 | .036 |
| | N | 155 | 150 | 155 | 155 | 155 | 155 | 156 | 155 | 155 |
| Mother - Rejecting Scale of EMBU | Pearson Correlation | .207* | .446* | .206* | .172* | .245* | .081 | .226* | .168* | .191* |
| | Sig. (2-tailed) | .011 | .000 | .010 | .032 | .002 | .313 | .004 | .037 | .017 |
| | N | 149 | 155 | 155 | 156 | 156 | 156 | 156 | 155 | 155 |
| Father - Overinvolved Scale of EMBU | Pearson Correlation | 1.000 | .636* | .136 | -.047 | -.034 | .111 | .096 | .150 | .099 |
| | Sig. (2-tailed) | . | .000 | .089 | .559 | .673 | .165 | .229 | .060 | .217 |
| | N | 158 | 152 | 157 | 157 | 157 | 157 | 158 | 157 | 157 |
| Mother - Overinvolved Scale of EMBU | Pearson Correlation | .636* | 1.000 | .169* | .066 | .080 | .109 | .148 | .243* | .097 |
| | Sig. (2-tailed) | .000 | . | .034 | .411 | .316 | .172 | .064 | .002 | .228 |
| | N | 152 | 158 | 157 | 158 | 158 | 158 | 158 | 157 | 157 |
| Total Trait Anger | Pearson Correlation | .136 | .169* | 1.000 | .186* | .457* | .297* | .320* | .237* | .250* |
| | Sig. (2-tailed) | .089 | .034 | . | .017 | .000 | .000 | .000 | .002 | .001 |
| | N | 157 | 157 | 164 | 163 | 163 | 163 | 164 | 163 | 163 |
| Conflict Tactics - Reasoning | Pearson Correlation | -.047 | .066 | .186* | 1.000 | .515* | .265* | .293* | .196* | .238* |
| | Sig. (2-tailed) | .559 | .411 | .017 | . | .000 | .001 | .000 | .012 | .002 |
| | N | 157 | 158 | 163 | 164 | 164 | 164 | 164 | 163 | 163 |

**Correlations**

| | | Father - Overinvolved Scale of EMBU | Mother - Overinvolved Scale of EMBU | Total Trait Anger | Conflict Tactics - Reasoning | Conflict Tactics - Verbal Aggression | Conflict Tactics - Violence | Trust-related Schema | Attractiveness Schema | Abandonment Schema |
|---|---|---|---|---|---|---|---|---|---|---|
| Conflict Tactics - Verbal Aggression | Pearson Correlation | -.034 | .080 | .457* | .515* | 1.000 | .522* | .382* | .165* | .270* |
| | Sig. (2-tailed) | .673 | .316 | .000 | .000 | . | .000 | .000 | .035 | .000 |
| | N | 157 | 158 | 163 | 164 | 164 | 164 | 164 | 163 | 163 |
| Conflict Tactics - Violence | Pearson Correlation | .111 | .109 | .297* | .265* | .522* | 1.000 | .284* | .174* | .227* |
| | Sig. (2-tailed) | .165 | .172 | .000 | .001 | .000 | . | .000 | .027 | .004 |
| | N | 157 | 158 | 163 | 164 | 164 | 164 | 164 | 163 | 163 |
| Trust-related Schema | Pearson Correlation | .096 | .148 | .320* | .293* | .382* | .284* | 1.000 | .370* | .598* |
| | Sig. (2-tailed) | .229 | .064 | .000 | .000 | .000 | .000 | . | .000 | .000 |
| | N | 158 | 158 | 164 | 164 | 164 | 164 | 166 | 164 | 164 |
| Attractiveness Schema | Pearson Correlation | .150 | .243* | .237* | .196* | .165* | .174* | .370* | 1.000 | .450* |
| | Sig. (2-tailed) | .060 | .002 | .002 | .012 | .035 | .027 | .000 | . | .000 |
| | N | 157 | 157 | 163 | 163 | 163 | 163 | 164 | 164 | 163 |
| Abandonment Schema | Pearson Correlation | .099 | .097 | .250* | .238* | .270* | .227* | .598* | .450* | 1.000 |
| | Sig. (2-tailed) | .217 | .228 | .001 | .002 | .000 | .004 | .000 | .000 | . |
| | N | 157 | 157 | 163 | 163 | 163 | 163 | 164 | 163 | 164 |
| Danger-related Schema | Pearson Correlation | .110 | .088 | .276* | .216* | .276* | .198* | .591* | .276* | .492* |
| | Sig. (2-tailed) | .168 | .272 | .000 | .006 | .000 | .011 | .000 | .000 | .000 |
| | N | 158 | 158 | 164 | 164 | 164 | 164 | 166 | 164 | 164 |
| Sexual Behaviour Schema | Pearson Correlation | .122 | .167* | .358* | .070 | .135 | .187* | .436* | .267* | .328* |
| | Sig. (2-tailed) | .132 | .040 | .000 | .381 | .092 | .019 | .000 | .001 | .000 |
| | N | 153 | 151 | 157 | 157 | 157 | 157 | 158 | 158 | 157 |
| Projection | Pearson Correlation | -.014 | .049 | .156* | .144 | .228* | .137 | .325* | .151 | .144 |
| | Sig. (2-tailed) | .866 | .542 | .047 | .067 | .003 | .081 | .000 | .055 | .067 |
| | N | 157 | 157 | 163 | 163 | 163 | 163 | 164 | 163 | 163 |

**Correlations**

| | | Father - Overinvolved Scale of EMBU | Mother - Overinvolved Scale of EMBU | Total Trait Anger | Conflict Tactics - Reasoning | Conflict Tactics - Verbal Aggression | Conflict Tactics - Violence | Trust-related Schema | Attractiveness Schema | Abandonment Schema |
|---|---|---|---|---|---|---|---|---|---|---|
| Trust-related Schema Distress | Pearson Correlation | -.053 | .051 | .223* | .114 | .169* | .142 | .183* | .235* | .146 |
| | Sig. (2-tailed) | .518 | .532 | .005 | .155 | .033 | .076 | .021 | .003 | .068 |
| | N | 152 | 152 | 159 | 158 | 158 | 158 | 160 | 158 | 158 |
| Attractiveness Schema Distress | Pearson Correlation | .059 | .062 | .226* | .024 | .036 | .103 | .074 | .374* | .139 |
| | Sig. (2-tailed) | .469 | .442 | .004 | .768 | .651 | .195 | .349 | .000 | .079 |
| | N | 154 | 154 | 161 | 160 | 160 | 160 | 161 | 160 | 160 |
| Abandonment Schema Distress | Pearson Correlation | -.021 | -.011 | .178* | .144 | .149 | .122 | -.001 | .187* | .118 |
| | Sig. (2-tailed) | .791 | .892 | .024 | .069 | .059 | .123 | .994 | .018 | .135 |
| | N | 155 | 155 | 162 | 161 | 161 | 161 | 162 | 161 | 161 |
| Danger/Fear Schema Distress | Pearson Correlation | .063 | .077 | .262* | .147 | .232* | .271* | .193* | .214* | .235* |
| | Sig. (2-tailed) | .436 | .343 | .001 | .065 | .003 | .001 | .014 | .007 | .003 |
| | N | 153 | 153 | 160 | 159 | 159 | 159 | 161 | 159 | 159 |
| Sexual Behaviour Schema Distress | Pearson Correlation | .005 | .019 | .261* | .104 | .083 | .260* | .189* | .226* | .212* |
| | Sig. (2-tailed) | .954 | .816 | .001 | .206 | .308 | .001 | .020 | .005 | .009 |
| | N | 147 | 146 | 152 | 151 | 151 | 151 | 152 | 151 | 151 |
| Projection Distress | Pearson Correlation | .008 | .053 | .238* | .081 | .043 | .125 | .045 | .259* | .100 |
| | Sig. (2-tailed) | .923 | .515 | .003 | .314 | .598 | .120 | .576 | .001 | .214 |
| | N | 150 | 151 | 157 | 156 | 156 | 156 | 157 | 156 | 156 |
| Faulty Cognitions - Sum of Schema | Pearson Correlation | .153 | .204* | .388* | .291* | .359* | .305* | .830* | .640* | .785* |
| | Sig. (2-tailed) | .055 | .010 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| | N | 158 | 158 | 164 | 164 | 164 | 164 | 165 | 164 | 164 |
| Intrusiveness | Pearson Correlation | .145 | .191* | .439* | .261* | .479* | .435* | .530* | .314* | .464* |
| | Sig. (2-tailed) | .071 | .017 | .000 | .001 | .000 | .000 | .000 | .000 | .000 |
| | N | 157 | 157 | 163 | 163 | 163 | 163 | 164 | 163 | 163 |

**Correlations**

| | | Father - Overinvolved Scale of EMBU | Mother - Overinvolved Scale of EMBU | Total Trait Anger | Conflict Tactics - Reasoning | Conflict Tactics - Verbal Aggression | Conflict Tactics - Violence | Trust-related Schema | Attractiveness Schema | Abandonment Schema |
|---|---|---|---|---|---|---|---|---|---|---|
| Curiosity | Pearson Correlation | .133 | .191* | .478* | .267* | .561* | .402* | .478* | .248* | .388* |
| | Sig. (2-tailed) | .096 | .017 | .000 | .001 | .000 | .000 | .000 | .001 | .000 |
| | N | 157 | 157 | 163 | 163 | 163 | 163 | 164 | 163 | 163 |
| Snooping | Pearson Correlation | .029 | .060 | .285* | .081 | .203* | .177* | .288* | .137 | .308* |
| | Sig. (2-tailed) | .719 | .456 | .000 | .306 | .010 | .023 | .000 | .082 | .000 |
| | N | 157 | 157 | 163 | 163 | 163 | 163 | 164 | 163 | 163 |
| Active Surveillence | Pearson Correlation | .170* | .199* | .349* | .264* | .398* | .474* | .526* | .373* | .459* |
| | Sig. (2-tailed) | .033 | .012 | .000 | .001 | .000 | .000 | .000 | .000 | .000 |
| | N | 157 | 157 | 163 | 163 | 163 | 163 | 164 | 163 | 163 |

**Correlations**

| | | Danger-related Schema | Sexual Behaviour Schema | Projection | Trust-related Schema Distress | Attractiveness Schema Distress | Abandonment Schema Distress | Danger/Fear Schema Distress | Sexual Behaviour Schema Distress | Projection Distress |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Chronic Jealousy | Pearson Correlation | .508* | .271* | .253* | .356* | .160* | .242* | .475* | .279* | .226* |
| | Sig. (2-tailed) | .000 | .001 | .001 | .000 | .042 | .002 | .000 | .000 | .004 |
| | N | 165 | 158 | 164 | 159 | 161 | 162 | 160 | 152 | 157 |
| Total Relationship Jealousy | Pearson Correlation | .536* | .229* | .300* | .316* | .121 | .255* | .504* | .330* | .220* |
| | Sig. (2-tailed) | .000 | .004 | .000 | .000 | .129 | .001 | .000 | .000 | .006 |
| | N | 162 | 155 | 161 | 156 | 158 | 159 | 157 | 149 | 154 |
| Jealous Emotions - Anger Experience | Pearson Correlation | .331* | .195* | .169* | .296* | .137 | .212* | .312* | .273* | .283* |
| | Sig. (2-tailed) | .000 | .014 | .031 | .000 | .083 | .007 | .000 | .001 | .000 |
| | N | 165 | 158 | 164 | 159 | 161 | 162 | 160 | 152 | 157 |
| Jealous Emotions - Sadness Experience | Pearson Correlation | .231* | .116 | .044 | .103 | .092 | .056 | .174* | .176* | .086 |
| | Sig. (2-tailed) | .003 | .147 | .573 | .196 | .244 | .480 | .028 | .031 | .282 |
| | N | 165 | 158 | 164 | 159 | 161 | 162 | 160 | 152 | 157 |
| Jealous Emotions - Excitement Experience | Pearson Correlation | .122 | .122 | .108 | .057 | .024 | .018 | -.014 | .161* | .083 |
| | Sig. (2-tailed) | .119 | .126 | .168 | .474 | .765 | .822 | .859 | .048 | .303 |
| | N | 165 | 158 | 164 | 159 | 161 | 162 | 160 | 152 | 157 |
| Jealous Emotions - Fear Experience | Pearson Correlation | .329* | .102 | .084 | .189* | .159* | .194* | .256* | .180* | .101 |
| | Sig. (2-tailed) | .000 | .202 | .282 | .017 | .044 | .013 | .001 | .027 | .209 |
| | N | 165 | 158 | 164 | 159 | 161 | 162 | 160 | 152 | 157 |
| Jealousy Concerns - Desertion | Pearson Correlation | .316* | .131 | .065 | .124 | .144 | .175* | .273* | .167* | .121 |
| | Sig. (2-tailed) | .000 | .102 | .407 | .118 | .068 | .026 | .000 | .040 | .131 |
| | N | 165 | 158 | 164 | 159 | 161 | 162 | 160 | 152 | 157 |

**Correlations**

| | | Danger-related Schema | Sexual Behaviour Schema | Projection | Trust-related Schema Distress | Attractiveness Schema Distress | Abandonment Schema Distress | Danger/Fear Schema Distress | Sexual Behaviour Schema Distress | Projection Distress |
|---|---|---|---|---|---|---|---|---|---|---|
| Jealousy Concerns - Attention Loss | Pearson Correlation | .320* | .240* | .237* | .250* | .241* | .210* | .304* | .253* | .190* |
| | Sig. (2-tailed) | .000 | .002 | .002 | .001 | .002 | .007 | .000 | .002 | .017 |
| | N | 165 | 158 | 164 | 159 | 161 | 162 | 160 | 152 | 157 |
| Jealousy Concerns - Time Loss | Pearson Correlation | .296* | .144 | .129 | .229* | .261* | .207* | .306* | .234* | .135 |
| | Sig. (2-tailed) | .000 | .072 | .101 | .004 | .001 | .008 | .000 | .004 | .093 |
| | N | 165 | 158 | 164 | 159 | 161 | 162 | 160 | 152 | 157 |
| Jealousy Concerns - Intimacy Loss | Pearson Correlation | .146 | .219* | .178* | .169* | .133 | .145 | .307* | .255* | .161* |
| | Sig. (2-tailed) | .061 | .006 | .023 | .033 | .092 | .066 | .000 | .002 | .044 |
| | N | 165 | 158 | 164 | 159 | 161 | 162 | 160 | 152 | 157 |
| Jealousy Concerns - Shame or Humiliation | Pearson Correlation | .346* | .296* | .173* | .243* | .173* | .140 | .306* | .239* | .117 |
| | Sig. (2-tailed) | .000 | .000 | .026 | .002 | .028 | .075 | .000 | .003 | .146 |
| | N | 165 | 158 | 164 | 159 | 161 | 162 | 160 | 152 | 157 |
| Jealousy Concerns - Sex Exclusivity Loss | Pearson Correlation | .312* | .231* | .225* | .269* | .157* | .125 | .258* | .209* | .197* |
| | Sig. (2-tailed) | .000 | .004 | .004 | .001 | .047 | .113 | .001 | .010 | .014 |
| | N | 165 | 158 | 164 | 159 | 161 | 162 | 160 | 152 | 157 |
| Jealousy Concerns - Financial Loss | Pearson Correlation | .082 | .200* | -.010 | .021 | .005 | -.049 | .025 | .152 | -.033 |
| | Sig. (2-tailed) | .293 | .012 | .896 | .798 | .949 | .532 | .749 | .062 | .684 |
| | N | 165 | 158 | 164 | 159 | 161 | 162 | 160 | 152 | 157 |
| Social Desirability Responding Score | Pearson Correlation | -.267* | -.142 | -.245* | -.205* | -.052 | -.199* | -.258* | -.207* | -.138 |
| | Sig. (2-tailed) | .001 | .076 | .002 | .010 | .514 | .011 | .001 | .011 | .084 |
| | N | 165 | 158 | 164 | 159 | 161 | 162 | 160 | 152 | 157 |
| sex of participant | Pearson Correlation | .126 | .066 | .015 | -.016 | -.055 | -.029 | .066 | .025 | -.128 |
| | Sig. (2-tailed) | .107 | .411 | .851 | .846 | .487 | .719 | .411 | .764 | .111 |
| | N | 165 | 158 | 164 | 159 | 161 | 162 | 160 | 152 | 157 |

**Correlations**

| | | Danger-related Schema | Sexual Behaviour Schema | Projection | Trust-related Schema Distress | Attractiveness Schema Distress | Abandonment Schema Distress | Danger/Fear Schema Distress | Sexual Behaviour Schema Distress | Projection Distress |
|---|---|---|---|---|---|---|---|---|---|---|
| Age in Years | Pearson Correlation | -.306* | -.077 | -.129 | -.198* | -.145 | -.200* | -.338* | -.181* | -.195* |
| | Sig. (2-tailed) | .000 | .333 | .101 | .012 | .067 | .011 | .000 | .026 | .014 |
| | N | 165 | 158 | 164 | 159 | 161 | 162 | 160 | 152 | 157 |
| Income Range | Pearson Correlation | -.248* | -.067 | -.122 | -.208* | -.151 | -.131 | -.315* | -.254* | -.119 |
| | Sig. (2-tailed) | .002 | .408 | .127 | .010 | .061 | .102 | .000 | .002 | .146 |
| | N | 159 | 153 | 158 | 153 | 155 | 156 | 154 | 147 | 151 |
| Relationship Satisfaction Rating | Pearson Correlation | -.257* | -.084 | -.098 | .064 | .128 | .284* | .092 | .060 | .135 |
| | Sig. (2-tailed) | .001 | .295 | .210 | .422 | .105 | .000 | .245 | .465 | .091 |
| | N | 165 | 158 | 164 | 159 | 161 | 162 | 160 | 152 | 157 |
| Relationship Length - In Years | Pearson Correlation | -.222* | -.105 | -.064 | -.168* | -.071 | -.155* | -.279* | -.170* | -.180* |
| | Sig. (2-tailed) | .004 | .188 | .415 | .034 | .368 | .049 | .000 | .037 | .024 |
| | N | 165 | 158 | 164 | 159 | 161 | 162 | 160 | 152 | 157 |
| Anger In | Pearson Correlation | .217* | .154 | .069 | .110 | .198* | .010 | .173* | .107 | .111 |
| | Sig. (2-tailed) | .005 | .054 | .377 | .167 | .012 | .898 | .029 | .189 | .167 |
| | N | 165 | 158 | 164 | 159 | 161 | 162 | 160 | 152 | 157 |
| Anger Expression Out | Pearson Correlation | .276* | .382* | .102 | .211* | .141 | .174* | .308* | .241* | .155 |
| | Sig. (2-tailed) | .000 | .000 | .194 | .007 | .074 | .027 | .000 | .003 | .052 |
| | N | 165 | 158 | 164 | 159 | 161 | 162 | 160 | 152 | 157 |
| Anger Expression Control | Pearson Correlation | -.215* | -.174* | -.169* | -.182* | -.069 | -.137 | -.255* | -.111 | -.132 |
| | Sig. (2-tailed) | .006 | .029 | .030 | .021 | .388 | .082 | .001 | .175 | .099 |
| | N | 165 | 158 | 164 | 159 | 161 | 162 | 160 | 152 | 157 |
| TOTALAX | Pearson Correlation | .330* | .324* | .166* | .239* | .186* | .154 | .347* | .214* | .188* |
| | Sig. (2-tailed) | .000 | .000 | .034 | .002 | .018 | .050 | .000 | .008 | .018 |
| | N | 165 | 158 | 164 | 159 | 161 | 162 | 160 | 152 | 157 |

**Correlations**

| | | Danger-related Schema | Sexual Behaviour Schema | Projection | Trust-related Schema Distress | Attractiveness Schema Distress | Abandonment Schema Distress | Danger/Fear Schema Distress | Sexual Behaviour Schema Distress | Projection Distress |
|---|---|---|---|---|---|---|---|---|---|---|
| Father- Supportive Scale of EMBU | Pearson Correlation | .014 | -.188* | .011 | .000 | .009 | -.002 | .060 | .060 | .008 |
| | Sig. (2-tailed) | .861 | .021 | .888 | .999 | .911 | .979 | .463 | .477 | .921 |
| | N | 157 | 151 | 156 | 151 | 153 | 154 | 152 | 145 | 149 |
| Mother - Supportive Scale of EMBU | Pearson Correlation | .001 | -.153 | .072 | -.043 | -.016 | -.021 | .022 | -.023 | .032 |
| | Sig. (2-tailed) | .988 | .061 | .369 | .596 | .844 | .799 | .789 | .781 | .693 |
| | N | 158 | 151 | 157 | 152 | 154 | 155 | 153 | 146 | 151 |
| Father - Rejecting Scale of EMBU | Pearson Correlation | .201* | .320* | -.018 | .112 | .040 | -.047 | .037 | .080 | .005 |
| | Sig. (2-tailed) | .012 | .000 | .823 | .172 | .625 | .564 | .653 | .343 | .948 |
| | N | 156 | 150 | 155 | 150 | 152 | 153 | 151 | 144 | 148 |
| Mother - Rejecting Scale of EMBU | Pearson Correlation | .166* | .238* | .000 | .134 | .015 | .033 | .072 | .137 | -.048 |
| | Sig. (2-tailed) | .038 | .004 | 1.000 | .103 | .854 | .684 | .378 | .101 | .559 |
| | N | 156 | 149 | 155 | 150 | 152 | 153 | 151 | 144 | 149 |
| Father - Overinvolved Scale of EMBU | Pearson Correlation | .110 | .122 | -.014 | -.053 | .059 | -.021 | .063 | .005 | .008 |
| | Sig. (2-tailed) | .168 | .132 | .866 | .518 | .469 | .791 | .436 | .954 | .923 |
| | N | 158 | 153 | 157 | 152 | 154 | 155 | 153 | 147 | 150 |
| Mother - Overinvolved Scale of EMBU | Pearson Correlation | .088 | .167* | .049 | .051 | .062 | -.011 | .077 | .019 | .053 |
| | Sig. (2-tailed) | .272 | .040 | .542 | .532 | .442 | .892 | .343 | .816 | .515 |
| | N | 158 | 151 | 157 | 152 | 154 | 155 | 153 | 146 | 151 |
| Total Trait Anger | Pearson Correlation | .276* | .358* | .156* | .223* | .226* | .178* | .262* | .261* | .238* |
| | Sig. (2-tailed) | .000 | .000 | .047 | .005 | .004 | .024 | .001 | .001 | .003 |
| | N | 164 | 157 | 163 | 159 | 161 | 162 | 160 | 152 | 157 |
| Conflict Tactics - Reasoning | Pearson Correlation | .216* | .070 | .144 | .114 | .024 | .144 | .147 | .104 | .081 |
| | Sig. (2-tailed) | .006 | .381 | .067 | .155 | .768 | .069 | .065 | .206 | .314 |
| | N | 164 | 157 | 163 | 158 | 160 | 161 | 159 | 151 | 156 |

**Correlations**

| | | Danger-related Schema | Sexual Behaviour Schema | Projection | Trust-related Schema Distress | Attractiveness Schema Distress | Abandonment Schema Distress | Danger/Fear Schema Distress | Sexual Behaviour Schema Distress | Projection Distress |
|---|---|---|---|---|---|---|---|---|---|---|
| Conflict Tactics - Verbal Aggression | Pearson Correlation | .276* | .135 | .228* | .169* | .036 | .149 | .232* | .083 | .043 |
| | Sig. (2-tailed) | .000 | .092 | .003 | .033 | .651 | .059 | .003 | .308 | .598 |
| | N | 164 | 157 | 163 | 158 | 160 | 161 | 159 | 151 | 156 |
| Conflict Tactics - Violence | Pearson Correlation | .198* | .187* | .137 | .142 | .103 | .122 | .271* | .260* | .125 |
| | Sig. (2-tailed) | .011 | .019 | .081 | .076 | .195 | .123 | .001 | .001 | .120 |
| | N | 164 | 157 | 163 | 158 | 160 | 161 | 159 | 151 | 156 |
| Trust-related Schema | Pearson Correlation | .591* | .436* | .325* | .183* | .074 | -.001 | .193* | .189* | .045 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .021 | .349 | .994 | .014 | .020 | .576 |
| | N | 166 | 158 | 164 | 160 | 161 | 162 | 161 | 152 | 157 |
| Attractiveness Schema | Pearson Correlation | .276* | .267* | .151 | .235* | .374* | .187* | .214* | .226* | .259* |
| | Sig. (2-tailed) | .000 | .001 | .055 | .003 | .000 | .018 | .007 | .005 | .001 |
| | N | 164 | 158 | 163 | 158 | 160 | 161 | 159 | 151 | 156 |
| Abandonment Schema | Pearson Correlation | .492* | .328* | .144 | .146 | .139 | .118 | .235* | .212* | .100 |
| | Sig. (2-tailed) | .000 | .000 | .067 | .068 | .079 | .135 | .003 | .009 | .214 |
| | N | 164 | 157 | 163 | 158 | 160 | 161 | 159 | 151 | 156 |
| Danger-related Schema | Pearson Correlation | 1.000 | .269* | .231* | .319* | .103 | .117 | .380* | .265* | .150 |
| | Sig. (2-tailed) | . | .001 | .003 | .000 | .194 | .137 | .000 | .001 | .060 |
| | N | 166 | 158 | 164 | 160 | 161 | 162 | 161 | 152 | 157 |
| Sexual Behaviour Schema | Pearson Correlation | .269* | 1.000 | .243* | .073 | .135 | -.037 | .144 | .364* | .154 |
| | Sig. (2-tailed) | .001 | . | .002 | .372 | .096 | .651 | .076 | .000 | .060 |
| | N | 158 | 158 | 157 | 152 | 154 | 155 | 153 | 148 | 150 |
| Projection | Pearson Correlation | .231* | .243* | 1.000 | .225* | .044 | .248* | .308* | .265* | .255* |
| | Sig. (2-tailed) | .003 | .002 | . | .004 | .577 | .001 | .000 | .001 | .001 |
| | N | 164 | 157 | 164 | 159 | 160 | 161 | 159 | 152 | 157 |

**Correlations**

| | | Danger-related Schema | Sexual Behaviour Schema | Projection | Trust-related Schema Distress | Attractiveness Schema Distress | Abandonment Schema Distress | Danger/Fear Schema Distress | Sexual Behaviour Schema Distress | Projection Distress |
|---|---|---|---|---|---|---|---|---|---|---|
| Trust-related Schema Distress | Pearson Correlation | .319* | .073 | .225* | 1.000 | .506* | .599* | .659* | .542* | .648* |
| | Sig. (2-tailed) | .000 | .372 | .004 | . | .000 | .000 | .000 | .000 | .000 |
| | N | 160 | 152 | 159 | 160 | 159 | 159 | 160 | 152 | 157 |
| Attractiveness Schema Distress | Pearson Correlation | .103 | .135 | .044 | .506* | 1.000 | .361* | .341* | .380* | .428* |
| | Sig. (2-tailed) | .194 | .096 | .577 | .000 | . | .000 | .000 | .000 | .000 |
| | N | 161 | 154 | 160 | 159 | 161 | 161 | 160 | 152 | 157 |
| Abandonment Schema Distress | Pearson Correlation | .117 | -.037 | .248* | .599* | .361* | 1.000 | .455* | .365* | .490* |
| | Sig. (2-tailed) | .137 | .651 | .001 | .000 | .000 | . | .000 | .000 | .000 |
| | N | 162 | 155 | 161 | 159 | 161 | 162 | 160 | 152 | 157 |
| Danger/Fear Schema Distress | Pearson Correlation | .380* | .144 | .308* | .659* | .341* | .455* | 1.000 | .458* | .481* |
| | Sig. (2-tailed) | .000 | .076 | .000 | .000 | .000 | .000 | . | .000 | .000 |
| | N | 161 | 153 | 159 | 160 | 160 | 160 | 161 | 152 | 157 |
| Sexual Behaviour Schema Distress | Pearson Correlation | .265* | .364* | .265* | .542* | .380* | .365* | .458* | 1.000 | .497* |
| | Sig. (2-tailed) | .001 | .000 | .001 | .000 | .000 | .000 | .000 | . | .000 |
| | N | 152 | 148 | 152 | 152 | 152 | 152 | 152 | 152 | 151 |
| Projection Distress | Pearson Correlation | .150 | .154 | .255* | .648* | .428* | .490* | .481* | .497* | 1.000 |
| | Sig. (2-tailed) | .060 | .060 | .001 | .000 | .000 | .000 | .000 | .000 | . |
| | N | 157 | 150 | 157 | 157 | 157 | 157 | 157 | 151 | 157 |
| Faulty Cognitions - Sum of Schema | Pearson Correlation | .749* | .579* | .395* | .283* | .228* | .142 | .350* | .349* | .206* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .004 | .072 | .000 | .000 | .010 |
| | N | 165 | 158 | 164 | 159 | 161 | 162 | 160 | 152 | 157 |
| Intrusiveness | Pearson Correlation | .502* | .316* | .273* | .213* | .155* | .126 | .376* | .284* | .201* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .007 | .050 | .113 | .000 | .000 | .012 |
| | N | 164 | 157 | 163 | 158 | 160 | 161 | 159 | 151 | 156 |

**Correlations**

| | | Danger-related Schema | Sexual Behaviour Schema | Projection | Trust-related Schema Distress | Attractiveness Schema Distress | Abandonment Schema Distress | Danger/Fear Schema Distress | Sexual Behaviour Schema Distress | Projection Distress |
|---|---|---|---|---|---|---|---|---|---|---|
| Curiosity | Pearson Correlation | .513* | .261* | .336* | .314* | .147 | .208* | .446* | .258* | .236* |
| | Sig. (2-tailed) | .000 | .001 | .000 | .000 | .063 | .008 | .000 | .001 | .003 |
| | N | 164 | 157 | 163 | 158 | 160 | 161 | 159 | 151 | 156 |
| Snooping | Pearson Correlation | .281* | .197* | .114 | -.007 | .012 | .023 | .115 | .127 | .042 |
| | Sig. (2-tailed) | .000 | .013 | .149 | .931 | .879 | .776 | .150 | .120 | .603 |
| | N | 164 | 157 | 163 | 158 | 160 | 161 | 159 | 151 | 156 |
| Active Surveillence | Pearson Correlation | .438* | .334* | .212* | .166* | .194* | .071 | .323* | .316* | .198* |
| | Sig. (2-tailed) | .000 | .000 | .007 | .037 | .014 | .369 | .000 | .000 | .013 |
| | N | 164 | 157 | 163 | 158 | 160 | 161 | 159 | 151 | 156 |

**Correlations**

| | | Faulty Cognitions - Sum of Schema | Intrusiveness | Curiosity | Snooping | Active Surveillence |
|---|---|---|---|---|---|---|
| Total Chronic Jealousy | Pearson Correlation | .553* | .460* | .490* | .301* | .353* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 |
| | N | 165 | 164 | 164 | 164 | 164 |
| Total Relationship Jealousy | Pearson Correlation | .544* | .430* | .470* | .218* | .356* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .006 | .000 |
| | N | 162 | 161 | 161 | 161 | 161 |
| Jealous Emotions - Anger Experience | Pearson Correlation | .342* | .333* | .398* | .220* | .223* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .005 | .004 |
| | N | 165 | 164 | 164 | 164 | 164 |
| Jealous Emotions - Sadness Experience | Pearson Correlation | .312* | .266* | .261* | .122 | .262* |
| | Sig. (2-tailed) | .000 | .001 | .001 | .121 | .001 |
| | N | 165 | 164 | 164 | 164 | 164 |
| Jealous Emotions - Excitement Experience | Pearson Correlation | .140 | .190* | .082 | .260* | .180* |
| | Sig. (2-tailed) | .074 | .015 | .295 | .001 | .021 |
| | N | 165 | 164 | 164 | 164 | 164 |
| Jealous Emotions - Fear Experience | Pearson Correlation | .303* | .230* | .261* | .181* | .141 |
| | Sig. (2-tailed) | .000 | .003 | .001 | .020 | .072 |
| | N | 165 | 164 | 164 | 164 | 164 |
| Jealousy Concerns - Desertion | Pearson Correlation | .427* | .242* | .257* | .103 | .224* |
| | Sig. (2-tailed) | .000 | .002 | .001 | .188 | .004 |
| | N | 165 | 164 | 164 | 164 | 164 |

**Correlations**

| | | Faulty Cognitions - Sum of Schema | Intrusiveness | Curiosity | Snooping | Active Surveillence |
|---|---|---|---|---|---|---|
| Jealousy Concerns - Attention Loss | Pearson Correlation | .443* | .355* | .343* | .188* | .335* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .016 | .000 |
| | N | 165 | 164 | 164 | 164 | 164 |
| Jealousy Concerns - Time Loss | Pearson Correlation | .365* | .229* | .211* | .065 | .249* |
| | Sig. (2-tailed) | .000 | .003 | .007 | .411 | .001 |
| | N | 165 | 164 | 164 | 164 | 164 |
| Jealousy Concerns - Intimacy Loss | Pearson Correlation | .369* | .288* | .245* | .137 | .308* |
| | Sig. (2-tailed) | .000 | .000 | .002 | .081 | .000 |
| | N | 165 | 164 | 164 | 164 | 164 |
| Jealousy Concerns - Shame or Humiliation | Pearson Correlation | .480* | .397* | .391* | .163* | .389* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .036 | .000 |
| | N | 165 | 164 | 164 | 164 | 164 |
| Jealousy Concerns - Sex Exclusivity Loss | Pearson Correlation | .469* | .411* | .385* | .227* | .391* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .003 | .000 |
| | N | 165 | 164 | 164 | 164 | 164 |
| Jealousy Concerns - Financial Loss | Pearson Correlation | .176* | .249* | .082 | .396* | .230* |
| | Sig. (2-tailed) | .023 | .001 | .295 | .000 | .003 |
| | N | 165 | 164 | 164 | 164 | 164 |
| Social Desirability Responding Score | Pearson Correlation | -.300* | -.325* | -.372* | -.163* | -.259* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .037 | .001 |
| | N | 165 | 164 | 164 | 164 | 164 |
| sex of participant | Pearson Correlation | .163* | .296* | .339* | .161* | .229* |
| | Sig. (2-tailed) | .037 | .000 | .000 | .040 | .003 |
| | N | 165 | 164 | 164 | 164 | 164 |

**Correlations**

| | | Faulty Cognitions - Sum of Schema | Intrusiveness | Curiosity | Snooping | Active Surveillence |
|---|---|---|---|---|---|---|
| Age in Years | Pearson Correlation | -.236* | -.127 | -.227* | .056 | -.098 |
| | Sig. (2-tailed) | .002 | .105 | .003 | .479 | .211 |
| | N | 165 | 164 | 164 | 164 | 164 |
| Income Range | Pearson Correlation | -.234* | -.167* | -.260* | .012 | -.124 |
| | Sig. (2-tailed) | .003 | .035 | .001 | .881 | .119 |
| | N | 159 | 159 | 159 | 159 | 159 |
| Relationship Satisfaction Rating | Pearson Correlation | -.259* | -.124 | -.113 | -.155* | -.057 |
| | Sig. (2-tailed) | .001 | .113 | .151 | .048 | .465 |
| | N | 165 | 164 | 164 | 164 | 164 |
| Relationship Length - In Years | Pearson Correlation | -.182* | -.042 | -.092 | .073 | -.047 |
| | Sig. (2-tailed) | .019 | .596 | .243 | .355 | .553 |
| | N | 165 | 164 | 164 | 164 | 164 |
| Anger In | Pearson Correlation | .335* | .272* | .257* | .194* | .223* |
| | Sig. (2-tailed) | .000 | .000 | .001 | .013 | .004 |
| | N | 165 | 164 | 164 | 164 | 164 |
| Anger Expression Out | Pearson Correlation | .337* | .407* | .431* | .271* | .333* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 |
| | N | 165 | 164 | 164 | 164 | 164 |
| Anger Expression Control | Pearson Correlation | -.249* | -.344* | -.396* | -.266* | -.227* |
| | Sig. (2-tailed) | .001 | .000 | .000 | .001 | .003 |
| | N | 165 | 164 | 164 | 164 | 164 |
| TOTALAX | Pearson Correlation | .427* | .480* | .511* | .345* | .364* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 |
| | N | 165 | 164 | 164 | 164 | 164 |

**Correlations**

| | | Faulty Cognitions - Sum of Schema | Intrusiveness | Curiosity | Snooping | Active Surveillence |
|---|---|---|---|---|---|---|
| Father- Supportive Scale of EMBU | Pearson Correlation | -.053 | -.078 | -.044 | -.169* | -.034 |
| | Sig. (2-tailed) | .506 | .336 | .585 | .035 | .674 |
| | N | 157 | 156 | 156 | 156 | 156 |
| Mother - Supportive Scale of EMBU | Pearson Correlation | -.064 | -.060 | -.033 | -.066 | -.065 |
| | Sig. (2-tailed) | .424 | .453 | .683 | .412 | .417 |
| | N | 158 | 157 | 157 | 157 | 157 |
| Father - Rejecting Scale of EMBU | Pearson Correlation | .276* | .221* | .170* | .138 | .236* |
| | Sig. (2-tailed) | .000 | .006 | .035 | .086 | .003 |
| | N | 156 | 155 | 155 | 155 | 155 |
| Mother - Rejecting Scale of EMBU | Pearson Correlation | .264* | .231* | .215* | .088 | .248* |
| | Sig. (2-tailed) | .001 | .004 | .007 | .277 | .002 |
| | N | 156 | 155 | 155 | 155 | 155 |
| Father - Overinvolved Scale of EMBU | Pearson Correlation | .153 | .145 | .133 | .029 | .170* |
| | Sig. (2-tailed) | .055 | .071 | .096 | .719 | .033 |
| | N | 158 | 157 | 157 | 157 | 157 |
| Mother - Overinvolved Scale of EMBU | Pearson Correlation | .204* | .191* | .191* | .060 | .199* |
| | Sig. (2-tailed) | .010 | .017 | .017 | .456 | .012 |
| | N | 158 | 157 | 157 | 157 | 157 |
| Total Trait Anger | Pearson Correlation | .388* | .439* | .478* | .285* | .349* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 |
| | N | 164 | 163 | 163 | 163 | 163 |
| Conflict Tactics - Reasoning | Pearson Correlation | .291* | .261* | .267* | .081 | .264* |
| | Sig. (2-tailed) | .000 | .001 | .001 | .306 | .001 |
| | N | 164 | 163 | 163 | 163 | 163 |

**Correlations**

| | | Faulty Cognitions - Sum of Schema | Intrusiveness | Curiosity | Snooping | Active Surveillence |
|---|---|---|---|---|---|---|
| Conflict Tactics - Verbal Aggression | Pearson Correlation | .359* | .479* | .561* | .203* | .398* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .010 | .000 |
| | N | 164 | 163 | 163 | 163 | 163 |
| Conflict Tactics - Violence | Pearson Correlation | .305* | .435* | .402* | .177* | .474* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .023 | .000 |
| | N | 164 | 163 | 163 | 163 | 163 |
| Trust-related Schema | Pearson Correlation | .830* | .530* | .478* | .288* | .526* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 |
| | N | 165 | 164 | 164 | 164 | 164 |
| Attractiveness Schema | Pearson Correlation | .640* | .314* | .248* | .137 | .373* |
| | Sig. (2-tailed) | .000 | .000 | .001 | .082 | .000 |
| | N | 164 | 163 | 163 | 163 | 163 |
| Abandonment Schema | Pearson Correlation | .785* | .464* | .388* | .308* | .459* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 |
| | N | 164 | 163 | 163 | 163 | 163 |
| Danger-related Schema | Pearson Correlation | .749* | .502* | .513* | .281* | .438* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 |
| | N | 165 | 164 | 164 | 164 | 164 |
| Sexual Behaviour Schema | Pearson Correlation | .579* | .316* | .261* | .197* | .334* |
| | Sig. (2-tailed) | .000 | .000 | .001 | .013 | .000 |
| | N | 158 | 157 | 157 | 157 | 157 |
| Projection | Pearson Correlation | .395* | .273* | .336* | .114 | .212* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .149 | .007 |
| | N | 164 | 163 | 163 | 163 | 163 |

**Correlations**

| | | Faulty Cognitions - Sum of Schema | Intrusiveness | Curiosity | Snooping | Active Surveillence |
|---|---|---|---|---|---|---|
| Trust-related Schema Distress | Pearson Correlation | .283* | .213* | .314* | -.007 | .166* |
| | Sig. (2-tailed) | .000 | .007 | .000 | .931 | .037 |
| | N | 159 | 158 | 158 | 158 | 158 |
| Attractiveness Schema Distress | Pearson Correlation | .228* | .155* | .147 | .012 | .194* |
| | Sig. (2-tailed) | .004 | .050 | .063 | .879 | .014 |
| | N | 161 | 160 | 160 | 160 | 160 |
| Abandonment Schema Distress | Pearson Correlation | .142 | .126 | .208* | .023 | .071 |
| | Sig. (2-tailed) | .072 | .113 | .008 | .776 | .369 |
| | N | 162 | 161 | 161 | 161 | 161 |
| Danger/Fear Schema Distress | Pearson Correlation | .350* | .376* | .446* | .115 | .323* |
| | Sig. (2-tailed) | .000 | .000 | .000 | .150 | .000 |
| | N | 160 | 159 | 159 | 159 | 159 |
| Sexual Behaviour Schema Distress | Pearson Correlation | .349* | .284* | .258* | .127 | .316* |
| | Sig. (2-tailed) | .000 | .000 | .001 | .120 | .000 |
| | N | 152 | 151 | 151 | 151 | 151 |
| Projection Distress | Pearson Correlation | .206* | .201* | .236* | .042 | .198* |
| | Sig. (2-tailed) | .010 | .012 | .003 | .603 | .013 |
| | N | 157 | 156 | 156 | 156 | 156 |
| Faulty Cognitions - Sum of Schema | Pearson Correlation | 1.000 | .606* | .546* | .346* | .599* |
| | Sig. (2-tailed) | . | .000 | .000 | .000 | .000 |
| | N | 165 | 164 | 164 | 164 | 164 |
| Intrusiveness | Pearson Correlation | .606* | 1.000 | .876* | .736* | .914* |
| | Sig. (2-tailed) | .000 | . | .000 | .000 | .000 |
| | N | 164 | 164 | 164 | 164 | 164 |

**Correlations**

| | | Faulty Cognitions - Sum of Schema | Intrusiveness | Curiosity | Snooping | Active Surveillence |
|---|---|---|---|---|---|---|
| Curiosity | Pearson Correlation | .546* | .876* | 1.000 | .476* | .689* |
| | Sig. (2-tailed) | .000 | .000 | . | .000 | .000 |
| | N | 164 | 164 | 164 | 164 | 164 |
| Snooping | Pearson Correlation | .346* | .736* | .476* | 1.000 | .566* |
| | Sig. (2-tailed) | .000 | .000 | .000 | . | .000 |
| | N | 164 | 164 | 164 | 164 | 164 |
| Active Surveillence | Pearson Correlation | .599* | .914* | .689* | .566* | 1.000 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | . |
| | N | 164 | 164 | 164 | 164 | 164 |

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

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

## Scenarios

*Please read each of the following scenarios and decide what YOU THINK is going on. Write down the first thing that comes into your head - do not think about it too much. Then indicate how you FEEL about the situation on the scales provided. Please do each one in the order they are presented.*

**Scenario 1**

You say goodbye to your partner, get in your car and drive out of your driveway and at the regular time you leave for work or study. You notice a car parked on the street near your house with a person in it watching you go past. What runs through your mind?

**Scenario 2**

When you go to answer you home telephone, someone hangs up. This has happened around 6 times in the last three weeks. What do you think about these phone calls?

**Scenario 3**

You get in your car to go out and realise that nearly half a tank of petrol has been used since you last drove it. You have no idea why this much petrol is missing. Where do you think it has gone?

**Scenario 4**

You call home to talk to your partner, who you know is there, and there is no reply. You try three times within half an hour and still there is no answer. What do you think?

**Scenario 5**

Your partner comes home and surprises you with a present (e.g., flowers, chocolates, tickets to an event, your favourite food, etc.). What do you think when this happens?

**Scenario 6**

You partner comes home unusually late from work or study - what's the first thing that comes into your mind about what may have happened to make them so late?

**Scenario 7**

Your partner is talking to someone on the telephone and he/she lowers his/her voice when you come close. Why do you think your partner does that?

**Scenario 8**

An attractive member of the opposite sex to your partner walks past you and your partner in a shopping centre. What runs through your mind?

**Scenario 9**

You are out in public and your partner approaches someone of the opposite sex that you do not recognise. Your partner acts excited to see them, kisses and hugs this person. What is the first thing you think when this happens?

**Scenario 10**

Your partner tells you that they ran into an old boyfriend/girlfriend and had lunch with them during the day. What is the first thing that comes to your mind when you hear this?

School of Psychology

Forensic and Applied Psychology
Research Group

City East

North Terrace
Adelaide
South Australia
5000

School of Psychology

**The Association Between Thoughts, Emotions, and Behaviour in Personal Life**

***Participant Information Sheet***

This is an invitation to take part in an extensive research study being conducted at the University of South Australia. Your role in this project will be to provide anonymous information about the way you think in response to a set of scenarios.

If you agree to participate, you will be required to complete a short questionnaire by writing down your initial thoughts in response to 10 different situations. It will take approximately 20 minutes of your time.

The information you provide will be anonymous and you are free to miss any particular question in the survey and you are free to discontinue your participation at any time, no questions asked. All information will be securely stored in a locked room in the School of Psychology for a minimum of seven years.

This study has been approved by the Chair of the Human Research Ethics Committee, Dr Brian Cheers. If you have any concerns about the general nature of the study please feel free to contact Dr Cheers on 8302 4811. Any specific questions can be directed to Professor Kevin Howells on 8302 2404.

Thank you for your time and consideration.

**Hayley Whitford**
*Masters Candidate*

**Professor Kevin Howells**
*Professor in Forensic Psychology*

## *Hypothetical Situations*

***Please read the following scenarios and rate the likelihood of having <u>EACH</u> of the listed thoughts in relation to each of the situations described.***

### Scenario 1

You say goodbye to your partner, get in your car and drive out of your driveway at the regular time you leave for work or study. You notice a car parked on the street near your house with a person in it watching you go past. Rate how likely it is that each of these thoughts runs through your mind....

| | Not at all Likely | Not Likely | Somewhat Likely | Likely | Very Likely |
|---|---|---|---|---|---|
| Maybe someone is waiting to break in? | 0 | 1 | 2 | 3 | 4 |
| Maybe someone is waiting for a neighbour? | 0 | 1 | 2 | 3 | 4 |
| Maybe that person is having an affair with my partner? | 0 | 1 | 2 | 3 | 4 |
| Maybe that person is stalking me? | 0 | 1 | 2 | 3 | 4 |

### Scenario 2

When you go to answer your home telephone, someone hangs up. This has happened around 6 times in the last three weeks. Rate how likely it is that each of these thoughts runs through your mind...

| | Not at all Likely | Not Likely | Somewhat Likely | Likely | Very Likely |
|---|---|---|---|---|---|
| Maybe a prank caller is trying to frighten me? | 0 | 1 | 2 | 3 | 4 |
| Maybe someone is having a relationship with my partner? | 0 | 1 | 2 | 3 | 4 |
| Maybe a bunch of kids are playing around? | 0 | 1 | 2 | 3 | 4 |
| Perhaps burglars are seeing if anyone is home? | 0 | 1 | 2 | 3 | 4 |

**Scenario 3**

Your partner comes home and surprises you with a present (e.g., flowers, chocolates, tickets to an event, etc.). Rate how likely it is that each of these thoughts runs through your mind...

| | Not at all Likely | Not Likely | Somewhat Likely | Likely | Very Likely |
|---|---|---|---|---|---|
| My partner is being thoughtful and nice. | 0 | 1 | 2 | 3 | 4 |
| Maybe my partner has some good news to tell me? | 0 | 1 | 2 | 3 | 4 |
| Maybe my partner has cheated on me? | 0 | 1 | 2 | 3 | 4 |
| Maybe my partner has some bad news to tell me? | 0 | 1 | 2 | 3 | 4 |

**Scenario 4**

Your partner is talking to someone on the telephone and he/she lowers his/her voice when you come close. Rate how likely it is that each of these thoughts runs through your mind...

| | Not at all Likely | Not Likely | Somewhat Likely | Likely | Very Likely |
|---|---|---|---|---|---|
| Maybe my partner is having a secret relationship with the caller? | 0 | 1 | 2 | 3 | 4 |
| Perhaps my partner is organising a surprise for me? | 0 | 1 | 2 | 3 | 4 |
| Maybe my partner is having a private conversation that is none of my business? | 0 | 1 | 2 | 3 | 4 |
| Perhaps my partner is embarrassed and doesn't want me to hear? | 0 | 1 | 2 | 3 | 4 |

**Scenario 5**

Your partner tells you that they ran into an old boyfriend/girlfriend and had lunch with them during the day. Rate how likely it is that each of these thoughts runs through your mind...

| | Not at all Likely | Not Likely | Somewhat Likely | Likely | Very Likely |
|---|---|---|---|---|---|
| It is good that my partner tells me these things and doesn't hide them from me. | 0 | 1 | 2 | 3 | 4 |
| Maybe there is something going on between them? | 0 | 1 | 2 | 3 | 4 |
| It is good that they still get along. | 0 | 1 | 2 | 3 | 4 |
| I hope they had a good lunch. | 0 | 1 | 2 | 3 | 4 |

University of South Australia

**School of Psychology**

***Expressions of Jealousy***

# DO YOU SUFFER FROM JEALOUSY?

## Would you be willing to talk about your experience of jealousy in a confidential research interview with a clinical psychologist?

**Anyone with concerns about jealousy is free to participate**

If you are interested in making an appointment or want to know more about this research please feel free to contact

**Hayley Whitford on 8302 0242**

hayley.whitford@unisa.edu.au.

This research has been approved by the Human Research Ethics Committee
contact Dr Lynley Hartmann on 8302 0327

External Advertisement

# Do You Suffer From JEALOUSY?

**Are you willing to talk about your experience of jealousy in a confidential research interview with a clinical psychologist?**

Call Hayley on 0403 02 3443

hayley.whitford@unisa.edu.au

Approved by the University of SA Human Research Ethics Committee

# Expressions of Jealousy - Clinical Research Interview

## Agenda

- Meet client at pre-arranged time
- Introductions
- Describe process/agenda...

You are about to take part in a Clinical Research Interview about Jealousy. You will be asked a series of questions to help us collect confidential information about the way you think, feel and act within the context of your interpersonal relationship. It will take approximately 1 hour of your time after which you will be asked to fill in a 15 minute questionnaire. You are free to miss any particular question in the survey if you find it to be too sensitive and you are free to discontinue your participation at any time, no questions asked. The information you provide will be confidential and your identity will be masked to prevent any participant from being identifiable in the final report. The interview will be taped using audio tape and transcribed into written form where it will be securely stored in a locked room in the School of Psychology for a minimum of seven years. The original tapes will then be destroyed. This study has been approved by the Human Research Ethics Committee.

Feedback will be provided at the end of the session. Do you have any questions?

- Ask client to read and sign confidentiality agreement
  (a copy must be given to the client before their departure)

START AUDIO TAPE

Part 1 - Real Life Experiences with Jealousy

IDENTIFY

1 Identify a strong and important jealousy-provoking situation that has been encountered (exploratory counselling skills)

EMOTIONS

2 Identify and explore the particular emotion(s) experienced

a) Distinguish between emotional and behavioural consequences

b) Help client identify emotion (anxious, angry, depressed)

c) Establish the intensity of the emotion on a scale from 0 to 100

d) Establish physiological sensations and reactions

Notes

- Break vague Cs down into emotional, physiological and behavioural components
- Make sure presented Cs are not really Bs

3 Enter emotion(s) in C column (Emotional Consequences) on the REAL LIFE EXPERIENCES form

BEHAVIOUR

4 Identify and explore any behavioural consequences

5 Enter behaviour(s) in C column (Behavioural Consequences) on the REAL LIFE EXPERIENCES form

ACTIVATING EVENT

6 Identify A (activating event)

What happened to make you feel this way?

What lead to this behaviour?

Notes

- Should be objective facts
- Can be external events, thoughts, feelings or behaviour

7 Enter event in A column (Activating Event) on REAL LIFE EXPERIENCES form

Show form to client and take them through it

You felt.....because.....had happened

BELIEFS

8 Identify B (Beliefs)

What thoughts were going through your head about A?

Why did you feel so ..... about A?

9 Write Beliefs in B column on the REAL LIFE EXPERIENCES form and show client

10 Chain from each inference to produce an inference chain

Describe inference chain on form

11 Show client ABC form to check it is accurate

Part 2 - Hypothetical Situations

IDENTIFY SCENARIO

1 Read the following scenario...

You say goodbye to your partner, get in your car and drive out of your driveway at the regular time you leave for work or study. You notice a car parked on the street near your house with a person in it watching you go past.

Show the client the appropriate ABC form that describes the selected scenario.

EMOTIONS

2 Identify and explore the particular emotion(s) the client thinks they would experience under the described circumstances.

e) Distinguish between emotional and behavioural consequences

f) Help client identify emotion (anxious, angry, depressed)

g) Establish the intensity of the emotion on a scale from 0 to 100

h) Establish physiological sensations and reactions (if possible)

3 Enter emotion(s) in C column (Emotional Consequences) on the appropriate SCENARIO form

BEHAVIOUR

4 Identify and explore any behavioural consequences the client believes they may engage in under the described circumstances.

5 Enter behaviour(s) in C column (Behavioural Consequences) on the appropriate SCENARIO form.

6 Show form to client and take them through it

You imagine you would feel.....and act
like.....because.....had happened

BELIEFS

8 Identify B (Beliefs)

What thoughts would go through your head about A?

Why would you feel so ..... about A?

9 Write Beliefs in B column on the appropriate SCENARIO form and show client

10 Chain from each inference to produce an inference chain

Describe inference chain on form

11 Show client ABC form to check it is accurate

<u>On Completion</u>

- Give the client some feedback/ a referral if necessary
- Ask the client to fill in the attached questionnaire

Expressions of Jealousy - Clinical Research Interview

SCENARIO 1 - Car on the Street

Name _____

| A<br>Activating Event | B<br>Beliefs | C<br>Emotional Consequences | C<br>Behavioural Consequences |
|---|---|---|---|
| You notice a car parked on the street near your house with a person in it watching you go past | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
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Expressions of Jealousy - Clinical Research Interview

REAL LIFE EXPERIENCE

Name _____

| A<br>Activating Event | B<br>Beliefs | C<br>Emotional Consequences | C<br>Behavioural Consequences |
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School of Psychology

**Forensic and Applied Psychology Research Group**

City East

North Terrace
Adelaide
South Australia
5000

Dear

This is a letter to acknowledge that you have expressed interest in taking part in an extensive research study being conducted at the University of South Australia about jealousy. Your role in this project will be to attend a personal interview with a registered clinical psychologist (Professor Kevin Howells) to provide confidential information about the way you think within the context of your interpersonal relationships.

If you decide that you are still interested in participating, you will be required to attend a private and confidential interview session at the University of South Australia Psychology Clinic. It will take approximately 1 hour of your time after which you will be asked to fill in a 15 minute questionnaire. All questions relate to the way you think about situations you may encounter in your personal life.

The information you provide will be confidential and your identity will be masked to prevent any participant from being identifiable in the final report. You are free to miss any particular question in the survey if you find it to be too sensitive and you are free to discontinue your participation at any time, no questions asked. The interview will be taped using audio tape and transcribed into written form where it will be securely stored in a locked room in the School of Psychology for a minimum of seven years. The original tapes will then be destroyed.

This study has been approved by the Human Research Ethics Committee. If you have any general questions about the study please feel free to contact the Chair of the committee, Linley Hartmann on 8302 0327. As discussed with you in person, your interview will be held at 0pm on Friday 0th October 1999 at the University of SA Psychology Clinic, City East Campus, Gate 4, Frome Road. Any specific questions or concerns about the nature of this study can be directed to Professor Kevin Howells on 8302 2404.

We look forward to seeing you and thank you in advance for your participation.

Hayley Whitford
*PhD Candidate*
*8302 0242*

Professor Kevin Howells
*Professor in Forensic Psychology*

APPENDIX 15

# CONSENT FORM

| | |
|---|---|
| **Project Title** | **Expressions of Jealousy** |
| **Researcher's name** | **Hayley Whitford** |
| **Supervisor's name** | **Professor Kevin Howells** |

- I have read the Information Sheet, and the nature and the purpose of the research project has been explained to me. I understand and agree to take part.
- I understand that I may not directly benefit from taking part in the trial/study.
- I understand that while information gained during the study may be published, I will not be identified and my personal results will remain confidential.
- I understand that I can withdraw from the study at any stage and that this will not affect my status now or in the future.
- I understand that I will be audiotaped during the interview
- I confirm that I am over 18 years of age.

**Name** .....

**Signed** .....

**Dated** .....

I have explained the study to the above mentioned person and consider that he/she understands what is involved.

**Supervisor's/Researcher's signature** .....

**Date** .....