Fire and Ice: Partner Aggression and Withdrawal

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STATEMENT OF ORIGINALITY

This thesis is the original work of the author. The research design, literature review, data collection, and statistical analyses are the author’s own work. This research has not previously been submitted for a degree or diploma in any tertiary institution. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis. Data collection was carried out with the approval of the Griffith University Ethics Committee. The original data is archived and available for inspection.

Patricia O’Rourke
ABSTRACT

Family-of-origin aggression (FOOA) is an established risk factor for adult partner aggression. The research presented in this thesis tested a model proposing that (FOOA) is mediated through attachment and attributions to influence male and female partner aggression and withdrawal in early stage couple relationships. Study 1 tested the influence of FOOA, attachment, and attributions on partner aggression in a sample of 73 newlywed couples. FOOA was associated with male-to-female aggression, but not female-to-male aggression. Therefore the hypothesis that the influence of FOOA on partner aggression was mediated through attachment and attributions was tested only for men. Attachment was significantly associated with attributions, but there was no association between FOOA and attachment or between attributions and male partner aggression. Study 2 tested the influence of FOOA, attachment, and attributions on partner aggression and withdrawal in a sample of 101 dating couples. Structural equation model analyses found different results for men and women. For male partner aggression, the influence of FOOA was partially mediated through attachment and attributions. For male withdrawal, the influence of FOOA on withdrawal was fully mediated through attachment and attributions. The association between FOOA and withdrawal was also mediated through attachment independent of attributions, and through attributions independent of attachment. For female partner aggression and female withdrawal, the predicted associations were found for the attachment anxiety models but not for the attachment avoidance models. The current findings suggest that attachment and attributions should be intervention targets for improving relationship outcomes. The gender differences in model fit emphasise the importance of investigating risk factors for partner aggression and withdrawal separately for men and women.
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CHAPTER ONE

Aggression in Intimate Relationships

Some say the world will end in fire,
Some say in ice.
From what I’ve tasted of desire
I hold with those who favour fire.
But if it had to perish twice, I think I know enough of hate
To say that for destruction ice
Is also great
And would suffice. (Robert Lee Frost)

It is an intriguing paradox that many people enter a committed intimate relationship with the hope that it will be a positive, emotionally close, and supportive experience, yet find the relationship deteriorates into the destructive fires of aggression and/or the iciness of emotional withdrawal. Family-of-origin experiences have been suggested to be a key influence on people’s adult relationships. However, many people whose parents were involved in fiery violence or icy withdrawal transcend these early experiences and develop a positive healthy adult relationship with an intimate partner.

In this thesis I examine possible mediators of the association of family-of-origin experiences with subsequent adult intimate relationships. Specifically, I conducted two studies evaluating the role of attachment style and attributions for partner behaviour as potential mediators of the long-term effects of parental aggression. The thesis has five chapters. The current chapter reviews the prevalence and significance of partner aggression in couple relationships. Chapter 2 focuses on withdrawal in couple relationships and the association between aggression and withdrawal in couple relationships. Chapter 3 reviews attachment and attributions
and develops the case for how these variables might mediate the association between family-of-origin aggression and adult partner aggression and withdrawal. Study One, which examined the association of family-of-origin aggression with current partner aggression in newlywed couples, is presented in chapter 4. Study Two, which examined the association of family-of-origin aggression with current partner aggression and withdrawal in dating couples, is presented in chapter 5.

**Significance of Partner Aggression**

Numerous, variously defined terms are used in the literature to describe aggression between intimate partners. Terms such as violence, assault, abuse, coercion, aggression, and conflict are used, often interchangeably, to represent a wide range of aggressive behaviours differing in nature (psychological, sexual, and physical) and severity (Archer, 1994; Johnson & Ferraro, 2000). Terms such as domestic violence and partner abuse have been used to refer to one incident of reciprocal low-level aggression (e.g., shoving and pushing) during an argument, and to chronic and pervasive patterns of severe physical assaults used by one partner against another. Yet, there is growing recognition that the etiology and consequences of occasional low-level aggression and repeated severe assaults may differ (Holtzworth-Munroe, Meehan, Herron, Rehman, & Stuart, 2000).

The meaning of terms such as domestic violence can change across cultures and over time. Community surveys in Australia showed that many more people classified verbal and economic abuse as forms of domestic violence in 1995 than in 1988. For example, 77% of respondents in the 1995 survey, compared with 48% in 1988, classified “yelling abuse” as domestic violence, and 62% in 1995 compared with 25% in 1988 classified “denying money or income” as domestic violence (Office of Status of Women, 1995). Furthermore, at any given time the
understanding of domestic violence varies within society. The 1995 survey found that women included a much wider range of actions as domestic violence than men. Furthermore, results indicated that women who work, have tertiary education, and are less than 55 years of age included a much wider range of actions as domestic violence than older, less educated women, and women from non-English speaking backgrounds (Office of the Status of Women, 1995). Thus, the meaning of domestic violence is affected by the gender, education, age and culture of the individual.

Problems with defining aggression in intimate relationships are reflected in the varying concepts sometimes included in definitions. The intention of the perpetrator of aggression, the actual behaviour, and the consequence of aggression, are included in some, but not all, definitions of aggression. Some definitions include each of these constructs; others include only one or two constructs. For example, Wolfe et al. (1996) defined relationship violence as any attempt to control or dominate another person physically, sexually, or psychologically, causing some level of harm. Thus, their term 'relationship violence' includes intention ("attempt to control or dominate"), behaviour, and consequence ("causing some level of harm"). In contrast, Straus and Gelles (1986) referred to violence as an "act carried out with the intention or perceived intention of causing physical pain or injury" (p.467). Thus, they focused on the intention and behaviour. Definitions of violence that include the concept of intention require interpretation of motive. The need for interpretation can compromise the operational utility of the definition, as it is very difficult to develop a psychometrically sound measure of intention (Hamberger, 2005). Consequently, most recent research does not include a perpetrator’s intention in definitions of partner aggression.
Archer (1994) proposed a distinction between violence and aggression, in which aggression is the behaviour, while violence incorporates both the aggressive behaviour and the consequences of the behaviour, such as injury. Using this distinction, the majority of domestic violence research measures aggression (that is, aggressive acts). Few researchers, however, clearly define the focus of their studies in this way (e.g., Riggs & O'Leary, 1996; Cascardi & Vivian, 1995; Breslin, Riggs, O'Leary, & Arias, 1990; Burke, Stets, & Pirog-Good, 1988; Gwartney-Gibbs, Stockard, & Bohmer, 1987).

The most widely used measure of aggression in couples is the Conflict Tactics Scale (CTS) developed by Straus (1979) and the recent revision called the CTS2 (Straus, Hamby, Boney-McCoy, & Sugarman, 1996). Straus (1979) developed the CTS to measure conflict strategies within the context of a disagreement between intimate partners. There is extensive data on the reliability and validity of the CTS. It has been used in large epidemiological studies, provided data for more than 400 journal articles and many books, and has been used in about 20 countries (Straus, 2001).

The CTS is focused on assessment of observable behaviour and ignores the concepts of intention and consequence. For example, "insulted or swore at him/her", "pushed, grabbed or shoved him/her", and "threatened him/her with a knife or gun" are items from the CTS. The focus on specific acts is a strength of the CTS; it has allowed operationalisable definition and measurement of partner aggression.

The original CTS (CTS1) was widely criticised for failing to evaluate the meaning and consequences of the aggressive acts, for the omission of certain acts that are more commonly perpetrated by men than women (e.g., pinning or holding down, shaking, spanking) (Marshall, 1994), and for excluding violence that occurs
outside the context of an argument. Further, some items such as "threatened him/her with a knife or gun" have less operational clarity than acts of physical aggression, due to the potentially varied interpretations of "threatened". A revised CTS (CTS2; Straus et al., 1996) was developed in an attempt to address criticisms of the CTS. The CTS2 differs from the CTS in that it broadens the range of behaviours that are included to more comprehensively assess partner aggression. For the CTS2, additional items were included in some existing scales, and a new subscale assessing sexual coercion was added. In addition, the CTS2 includes an injury subscale aimed at assessing the consequences of physical aggression. Finally, the wording and format of CTS items were revised for the CTS2 and the item "threatened him/her with a knife or gun" was removed due to concerns about differences in interpretations of "threaten".

While there are limitations to both the CTS1 and CTS2, they are the most widely used measures in current partner aggression research because they assess specific observable aggressive acts. Measurement of consequences of aggression is problematic. The measurement of injury is added to the CTS2, but injuries should be measured separately from acts that produce those injuries because most partner aggression does not result in injury requiring medical attention (Straus, 1990). Psychological consequences such as depression and anxiety occur even when there is no physical injury resulting from aggression (O’Leary, 1999; O’Leary & Jouriles, 1994). However, the potential range of psychological consequences of aggression is diverse and hard to measure comprehensively. Moreover, it is difficult to attribute psychological states in victims directly to partner aggression. A large range of factors can be associated with states like depression or anxiety, and partner aggression might or might not be central to that state.
In summary, varying and inconsistently used terms have been applied to a wide range of partner aggressive behaviours. While some researchers used definitions that include intention and consequences of aggression, these aspects of partner aggression are difficult to measure reliably. In this thesis, consistent with the increasingly widely used approach, I investigate partner aggression defined as aggressive acts by one partner towards the other partner in a romantic relationship.

*Forms of Partner Aggression*

There are many forms of partner aggression in intimate relationships ranging from frequent severe physical assaults to occasional verbal aggression such as yelling and insults. From the early 1970’s to the mid 1980’s a large body of literature on ‘domestic violence’ focused on the use of physical aggression by husbands to dominate and control their wives, and assessed the effects of this aggression on battered wives (e.g., Dobash & Dobash, 1978, 1979; Gelles, 1976; Straus & Hotaling, 1980; Walker, 1979). Since the mid 1980’s there has been growing recognition that a wide diversity of aggression occurs (physical, psychological, and sexual), and such partner aggression occurs in many types of relationships including marital, cohabitating, and dating relationships of same-sex and opposite sex couples.

While much earlier research on partner aggression focused only on male-to-female aggression, there is now a large body of evidence showing that both men and women engage in partner aggression (Archer, 2000; 2002). In fact, bidirectional (i.e., male-to-female and female-to-male) psychological and less severe physical aggression is by far the most prevalent form of partner aggression in couples in the general population (Johnson & Ferraro, 2000; Stets, 1990; Straus & Gelles, 1990).
Research over the last 15 years has begun to identify different general types of partner aggression. For example, numerous researchers have identified couples in which there is severe male-to-female physical aggression referred to by Johnson (1995) as “intimate terrorism” (Johnson, 1995, 2000; O’Leary, 1999). Intimate terrorism (IT), according to Johnson, has high per-couple frequency of violent incidents, is likely to escalate over time and to involve serious injury, is unlikely to be reciprocated by the woman, and is intended by the male perpetrator to exert general control over his partner (Johnson & Ferraro, 2000).

Severe physical aggression by men to their female partners has many adverse consequences for female victims (Brush, 1990; Browne & Williams, 1993; Cascardi & O’Leary, 1992; Dobash & Dobash, 1992). However, fortunately it is relatively rare - at least compared to less severe but more common reciprocal partner aggression (Johnson & Ferraro, 2000; Nicholls & Dutton, 2001, Stets & Straus, 1990). Psychological aggression and less severe physical aggression also have a range of negative public health consequences (Cascardi & Vivian, 1995; Cercone, Beach, & Arias, 2005; O’Leary, 1999). Until very recently, the study of female partner aggression and its similarities and differences to male partner aggression has not been studied (Holtzworth-Munroe, 2005). In this thesis, I investigated women’s and men’s use of psychological and less severe physical aggression in early stage couple relationships.

*Physical Aggression*

In the United States, about 28% of married couples experience physical aggression at some time during the course of their marriage (Straus, Gelles, & Steinmetz, 1980). Annual prevalence rates of physical aggression are about 16% for couples in the general population (Straus, 2001) and about 30% to 35% for young
couples (McLaughlin, Leonard, & Senchak, 1992; O’Leary, Malone, & Tyree, 1994). The annual occurrence of physical aggression in dating relationships is estimated at 20% to 65% for dating couples (Arias & Johnson, 1989; O’Keefe, 1997; Pedersen & Thomas, 1992; Straus, 2004; Sugarman & Hotaling, 1989). The physical aggression reported in these samples is predominately less severe forms of aggression, such as pushing, shoving, or slapping a partner. More severe forms of physical aggression (such as choking, beating up, and use of a weapon) occur in about 4% to 8% of married and cohabiting couples (Kessler, Molnar, Feurer, & Appelbaum, 2001; O’Leary et al., 1994; Straus, 2001; Straus & Gelles, 1990). Feld and Straus (1989) found that less severe aggression predicted subsequent severe assaults by husbands. The researchers argued that conceptions of the process of partner aggression, such as the idea that lower level aggression is irrelevant to severe repetitive assault, are simplistic, and that steps to reduce severe physical aggression should recognise the role of lower level aggression in increasing the risk of occurrence of more severe aggression.

Research on national domestic violence figures in Australia is limited compared with research in the United States; however, the figures that are available reflect patterns similar to those of the United States. The Australian Bureau of Statistics’ (1996) Women’s Safety in Australia national survey found that 23% of women respondents who had ever been married or in a de facto relationship reported experiencing physical aggression from a male partner at some point in the relationship, and eight percent of respondents reported experiencing at least one physically aggressive incident in the previous 12 months. Further, 42% of women who reported partner aggression had experienced physical aggression while pregnant (Australian Bureau of Statistics, 1996).
Severe partner aggression resulting in death or injury is believed to be mainly perpetrated by men against their women partners (e.g., Frieze & Brown, 1989; Morse, 1995; O'Leary, 2000). Feminist researchers and activists worked hard to have male violence towards intimate partners legally recognised as criminal behaviour, and to have protection and resources made available to women victims and their children. To this end, most of the early research in the field of partner aggression focused on husband-to-wife violence, and exploration of women’s aggression was strongly discouraged (Holtzworth-Munroe, 2005; Straus, 1999).

This early focus on husband-to-wife aggression does not mean that women are not also aggressive to intimate partners. More recently researchers have extended their interest to self- and partner-reports of aggression in married, cohabiting, and dating relationships. Results indicate that both men and women engage in severe and less severe aggression towards partners. However, results also indicate that, at least among clinical and criminal justice samples, men engage in more frequent and severe acts of aggression compared to women (Johnson, 1995; Johnson & Ferraro, 2000; Saunders, 1986; Straus, 1990), and that women are more likely than men to be killed or injured by an intimate partner (Browne & Williams, 1993; Mouzos & Rushforth, 2003; Rand, 1997). Archer (2000) examined differences in the use of physically aggressive acts between heterosexual partners. In a meta-analytic review of 58 independent studies that provided data on individual acts of aggression as measured by the CTS, Archer (2000) compared rates of specific acts perpetrated by men and women against a heterosexual partner. Results indicate that “throw something”, “slap”, “kick, bite, punch”, and “hit with an object” were more frequently used by women than by men. In contrast, “push, grab, shove”, “choke or strangle”, and “beat up” were acts more likely to be used by men. Partner
reports indicated slightly greater use of a weapon by men, and of slightly more threats to do so by women, when odds ratios were used.

Gender differences are also evident in the consequences of partner aggression. Physical aggression is far more likely to result in injury or death for women than for men. For example, medical emergency data in the United States revealed that 204,000 women, compared with 39,000 men, were treated in emergency rooms for injuries related to partner aggression (Rand, 1997). The gender differences in emergency room treatment data for injuries associated with partner aggression could be due to differential attention to the detection of female versus male victims. Until recently, community education and much of the research on domestic violence has focused on women as the victims of male-to-female partner aggression. Emergency room screening for domestic violence injuries initially screened for injuries to women only. For example, in the mid-1990s, the Centre for Disease Control and Prevention in the United States provided pilot funding for data collection on domestic violence from hospital emergency departments. One of the largest programs, Women Abuse Tracking in Clinics and Hospitals (WATCH), was the first to use universal surveillance, which consisted of screening all females over 12 years of age who presented at hospital emergency rooms. Males presenting to emergency department are increasingly included in screening for domestic violence victimisation, but the historical focus on women’s injuries may mean women are more routinely screened for injuries than men. However, research results that are not based on medical emergency department records also find greater partner aggression injuries for women than for men (Cantos, Neidig, & O’Leary, 1993, 1994; Cascardi & O’Leary, 1992; Cascardi & Vivian, 1995; Langhinrichsen-Rohling, Neidig, & Thorn, 1995).
Gender differences are also evident in domestic violence homicide rates. In 1995, 1,214 women and 458 men in the United States were killed by an intimate partner (Federal Bureau of Investigation, 1996). A woman in the United States is more likely to be murdered by a male partner than by any other assailant (Browne & Williams, 1993). Similarly, homicide statistics in Australia revealed that over a 13 year period from 1989 to 2002 75% of intimate partner homicides involved males killing female intimate partners (Mouzos & Rushforth, 2003). Further, in the United Kingdom and the United States intimate partner violence has emerged as a notable cause of maternal mortality (death during pregnancy or shortly after delivery) (Campbell, Garcia-Moreno, Sharps, 2004). A study of abuse during pregnancy and femicide in 10 United States cities concluded that women abused during pregnancy had a three-fold risk of becoming an attempted or completed femicide victim, compared with abused women who were not abused during pregnancy (McFalane, Campbell, Sharps, & Watson, 2002). The severity of impact of male-to-female aggression in terms of fear and injury for women has been attributed to men’s greater physical size and strength (Felson, 1996; Jacobson et al., 1994; Straus & Gelles, 1986).

While it is vitally important to understand and prevent the severe male-to-female aggression and its devastating consequences described above, it has a much lower prevalence than less intense and less severe acts of aggression that arise in the context of relationship conflict. The more prevalent and generally less intense aggression, that is not typically part of a pervasive pattern of control of the partner, has been called “common couple violence (CCV)” (Johnson, 1995). Johnson (1995, 2000) argued that CCV is more likely to be mutual, is not as likely to involve severe aggression, and is less likely to escalate over time.
Consistent with Johnson’s (1995, 2000) argument that CCV involves mutual aggression, research shows that women are as likely as men to be aggressive towards an intimate partner (Archer, 2000; Straus et al., 1980). For example, in a probability sub-sample of 3,537 participants (derived from the U.S. National Comorbidity Survey of 8098 people), Kessler et al. (2001) found that 17.7% of men and 15.4% of women reported perpetrating “minor domestic violence”. Cantos et al. (1993) found a predominately bidirectional pattern of physical aggression in 139 military couples seeking domestic violence counselling. Further, O’Leary et al. (1989) followed a sample (N=272) of young couples from 1 month prior to marriage to 30 months post-marriage. The researchers found that 57% of the couples reported physical aggression by either partner at pre-marriage and 41% reported aggression 30 months later. More women (44%) than men (31%) reported physical aggression towards their partner at pre-marriage, and at 18 months post-marriage (36% of women compared with 27% of men). However, at 30 months post-marriage, men and women did not report significantly different rates. Modal forms of physical aggression for both men and women in this sample were pushing, shoving, and slapping.

This bidirectional, less severe physical aggression has a range of negative consequences for those involved and for public health. At the individual level, psychological aggression and less severe physical aggression are associated with psychological distress. In a study of women’s psychological adjustment to dating aggression, women who had experienced at least one incident of physical aggression in a dating relationship anytime after the age of 16 years reported significantly greater levels of psychological distress, compared to women who reported never experiencing dating aggression (Coffey, Leitenberg, Henning, Bennett, &
Psychological symptomology was assessed using the Brief Symptom Inventory (Derogatis & Spence, 1982). The difference in results remained after controlling for differences between the groups in histories of sexual aggression in dating relationships, and childhood experiences of physical and sexual abuse and of witnessing parental aggression (Coffey et al., 1996). Consistent with these findings for women, a study of psychological distress in men experiencing physical and psychological aggression in dating relationships also found negative outcomes (Simonelli & Ingram, 1998). Participants were 70 male university undergraduate students who reported receiving predominately psychological aggression and less severe physical aggression. Psychological distress was assessed using a 30-item version of the General Health Questionnaire (Goldberg, Rickels, Downing, & Hesbacher, 1976). Men who reported receiving more psychological and physical aggression in their dating relationships also reported greater levels of overall psychological distress and depression (Simonelli & Ingram, 1998).

Women in mutually aggressive marital relationships experience more negative physical and mental health consequences than women in nonviolent relationships (Anderson, 2002; Brush, 1990; Cascardi, Langhinrichsen, & Vivian, 1992). For example, Cascardi et al. (1992) examined the consequences of marital aggression in a sample of 93 maritally discordant couples seeking psychological treatment. Sixty-five of the couples reported marital aggression. Although 86% of these couples reported bidirectional aggression, wives were more likely than husbands to be negatively emotionally and physically impacted (e.g., to sustain broken bones, broken teeth, or injury to sensory organs, and to report clinical levels of depressive symptomology) (Cascardi et al., 1992). Other studies of mutually aggressive couples reported both men and women sustained injuries, but that women
sustained significantly more injuries and more severe injuries compared to men (Cantos et al., 1993, 1994; Vivian & Langhinrichsen-Rohling, 1994), even among couples using primarily less severe forms of aggression (Cascardi & Vivian, 1995). In addition, a number of studies have found that women, compared to men, experience greater fear of their partner’s aggression (Langhinrichsen-Rohling et al., 1995; Hamberger & Guse, 2002; Holtzworth-Munroe, Smuttzler, & Bates 1997).

At the relationship level, negative marital outcomes are associated with aggression. For example, in the O’Leary et al. (1989) study, about one third of the men and one quarter of the women married to stably aggressive partners were maritally distressed. These results are consistent with Quigley and Leonard’s (1996) findings that the presence of chronic physical aggression in marriage was associated with declines in marital satisfaction. Further, in a sample of 56 newlywed couples, Rogge and Bradbury (1999) found that aggression predicted separation or divorce, whereas communication predicted marital satisfaction, but not separation, across the first 4 years of marriage.

Children also are negatively affected by aggression between their parents. Forty to 80% of children in domestic violence situations are exposed to aggression either directly (e.g., witnessing verbal and physical aggression or being hit while trying to protect a parent), or indirectly (e.g., having to leave their home; witnessing consequences such as physical injury, psychological distress, and damaged property) (Jaffe, Wolfe, & Wilson, 1990). In Australia, the Queensland Domestic Violence Task Force (1988) found that 90% of children present in violent homes witnessed aggression toward their mother. Exposure to parental aggression is linked to the development of significant emotional and behavioural symptoms in children including elevated rates of anxiety, depression, fear, guilt, somatic complaints,
aggression, and conduct disorder (Grych & Fincham, 1990; Jaffe, Wilson, & Wolfe, 1986; Alessi & Hearn, 1984), and impaired functioning in social competence, social problem solving, and school performance (Jaffe, Wolfe, Wilson, & Zak, 1985; Walker, 1979). In addition, research indicates that about 50% of children exposed to parental aggression are also victims of parent-to-child physical aggression (Jouriles & LeCompte, 1991; Straus & Gelles, 1990; Jouriles, Barling, and O'Leary, 1987; Fitch & Papantonio, 1983).

In summary, the most prevalent physical aggression in intimate relationships is of low severity, bidirectional, and occurs most often in early stage relationships. Both men and women are physically aggressive in intimate relationships, though women are more likely than men to be injured or to report feeling fearful of their partner. A less prevalent but highly impactful pattern of partner aggression is primarily husband-to-wife severe aggression. The common bidirectional physical aggression in intimate relationships has a range of negative public health consequences.

Psychological Aggression

Psychological aggression is correlated with physical aggression. For example, Capaldi & Crosby (1997) found that psychological and physical aggression were correlated at $r = 0.60$ for males and $r = 0.55$ for females in a sample of young, mostly unmarried couples. Further, psychological aggression early in relationships is a strong predictor of later physical aggression (Murphy & O'Leary, 1989; O’Leary et al., 1994).

Psychological aggression has received considerably less research attention than physical aggression, and the prevalence, causes, and consequences of psychological aggression are less well known than those of physical aggression. This
might be due to difficulty with the conceptualisation and definition of psychological aggression in couple relationships. Some researchers use the term “verbal aggression” which has been defined as a verbal act (or nonverbal act such as throwing or kicking something) that symbolically hurts another or threatens to hurt another (Straus, 1979; Stets, 1990). O’Leary (1999) defined psychological aggression as: “acts of recurring criticism and/or verbal aggression toward a partner, and/or acts of isolation and domination of a partner” (p.19). However, many relationship researchers highlight that conflict and disagreement exist in all couple relationships (Christensen, 1988; Christensen & Heavey, 1990; Christensen & Shenk, 1991; Gottman, 1993; Straus, 1979), and defining when justified criticism or disagreement becomes aggression is not clear-cut (O’Leary, 1999; Schumacher, Smith-Slep, & Heyman, 2001). For example, there are substantial cultural differences in the way in which disagreement and criticism are expressed and how they relate to couple relationship satisfaction (Halford, Hahlweg, & Dunne, 1990).

Various terms are used interchangeably with psychological aggression, including psychological abuse, psychological maltreatment, emotional abuse, verbal abuse and verbal aggression. Different conceptualisations of psychological aggression can be seen in two commonly used measures, the Psychological Maltreatment of Women Inventory (PMWI; Tolman, 1989, 1999) and the CTS (Straus, 1979). The CTS has a six-item verbal aggression scale that assesses behaviours occurring in the context of conflict (e.g., insulting, swearing, threatening). In the CTS2 (Straus et al., 1996), new items were added and some removed, resulting in an eight-item psychological aggression scale. The scale name was changed from verbal to psychological aggression because some of the acts, such as “destroyed something belonging to my partner”, are nonverbal acts of aggression.
Psychological aggression is conceptualised more broadly in the PMWI. The PMWI is divided into Emotional Abuse (28 items) and Dominance-Isolation (20 items) subscales. This measure assesses non-physical behaviours intended to, or perceived as intended to, humiliate, control, or severely emotionally hurt the partner (Tolman 1999) without specifying the context of conflict. The Emotional Abuse scale measures verbal attacks, attempts to demean the partner, and withholding emotional resources (e.g., name-calling, belittling, and shaming in front of others), and the Dominance-Isolation scale assesses behaviours related to isolation from resources, demands for subservience, and rigid observances of traditional sex roles (e.g., limiting activities and social contacts, denying access to money, work, family).

The few studies that have investigated verbal aggression found high prevalence rates, and that both women and men are verbally aggressive towards romantic partners. Using four verbal aggression items from the CTS, Shook, Gerrity, Jurich, and Segrist (2000) found that 82% of a sample of 572 young men and women reported engaging in verbally aggressive behaviour. There were no significant gender differences in use of verbal aggression, with 80% of the men and 83% of the women using verbal aggression towards a dating partner in the past year. Cercone et al. (2005) also found no significant gender differences and similar rates of psychological aggression in the dating relationships of 450 American undergraduate students. Using the minor and severe psychological aggression subscales of the CTS2, they found 86% of men and 89% of women reported perpetrating minor psychological aggression (such as swearing, shouting, yelling at partner). Further, 30% of men and 27% of women reported perpetrating severe psychological aggression (such as destroying something belonging to the partner).
Stets (1990) examined the relationship between verbal and physical aggression in marriage, using data from a nationally representative sample in America (National Family Violence Survey, 1985). Using CTS scores, Stets found that both male and female participants reported a high rate of verbal aggression (75% for men and 80% for women), and that physical aggression rarely occurs without verbal aggression (from 0.2% to 0.4%). A somewhat separate but overlapping area of investigation is observational studies of communication and conflict behaviour in marital interactions. Findings from observational studies suggest that, in general, women are more likely to pressure their partner with demands, criticisms, and complaints and men are more likely to withdraw during conflictual discussions (Christensen & Shenk, 1991; Heavey, Layne, & Christensen, 1993). However, observational studies with violent couples have shown that physically aggressive couples, compared to nonviolent couples, display more hostile communication behaviours and negative reciprocity during conflict (Margolin, John, & Gleberman, 1988; Burman, Margolin, & John, 1993). Further, Babcock, Waltz, Jabobson, and Gottman (1993) found that violent couples, compared to nonviolent couples, were more likely to engage in husband-demand/wife-withdraw patterns of communication and that husband-demand/wife-withdraw interactions correlated significantly with increases in psychological and physical aggression.

While findings on verbal aggression indicate that men and women are both verbally aggressive in intimate relationships, some researchers suggest that men’s psychological aggression is sometimes part of a systematic pattern of domination and control of female partners (Schumacher et al., 2001; Walker, 1979). For example, Follingstad, Rutledge, Berg, Hause, and Polek (1990) examined “emotional abuse”, measured with six items assessing threats, ridicule, jealousy,
restriction, and damage to property, in a sample of 234 women who had been physically abused by an intimate partner. The researchers found that 72% of the women endorsed four or more of the items, and that about half of the women reported a high frequency (once a week or more) of the emotionally abusive behaviours. Similarly, a number of studies examining typologies of violent men have found that men who engaged in frequent severe physical aggression towards their partner also engaged in the most psychological abuse (Gottman et al., 1995; Holtzworth-Munroe & Stuart, 1994; Saunders, 1992).

Psychological aggression often developmentally precedes physical aggression (Dutton, 1995; Murphy & O’Leary, 1989; O’Leary et al., 1994). In a longitudinal study of the etiology of partner aggression, psychological aggression predicted physical aggression in a sample of 272 engaged couples. Couples who had not been physically aggressive to their partner were selected for the study and their psychological aggression scores were used to predict physical aggression at 6, 18, and 30 months from initial assessment (Murphy & O’Leary, 1989; O’Leary et al., 1994). Results showed that psychological aggression longitudinally predicted first instances of physical aggression by both the respondent and the spouse. Similarly, Schumacher and Leonard (2005) found that psychological aggression predicted physical aggression in a sample of 634 couples recruited through marriage licence applications. Physical aggression was assessed using the CTS2 Physical Aggression scale. Psychological aggression was assessed using the 18-item Test of Negative Social Exchange (Ruehlman & Karoly, 1991) containing items such as “made fun of me” and “yelled at me”. Respondents rated the frequency with which spouses engaged in the behaviours over the past month. Respondents were assessed at the time of their marriage and at their first and second anniversaries. Results support
Murphy and O’Leary’s (1989) findings that, for both husbands and wives, verbal aggression longitudinally predicts physical aggression in early marriage. In addition, wives’ verbal aggression predicted husbands’ physical aggression, but husbands’ verbal aggression did not predict wives’ physical aggression.

Reviews of psychological aggression highlight that antecedents and consequences of psychological aggression have received rather less research attention than has been the case for physical aggression. The small body of research that has examined the effects of severe psychological aggression indicate it can be very detrimental to victims (Follingstad et al., 1990; O’Leary, 1999; Walker, 1979). For example, the women who were severely psychologically and physically abused in the Follingstad et al. (1990) study rated “emotional abuse” as having a more severe impact on them than physical aggression. Forty-six percent of the sample rated emotional ridicule as the worst type of abuse, 15% rated threats of abuse as the worst type of abuse, and 14% rated jealousy as the worst type of abuse. Total negative impact was determined by the presence of 15 behavioural (e.g., passivity, social isolation), emotional (e.g., fear of men, shame, depression), and attitudinal characteristics. Attitudinal characteristics included loss of self-esteem and acceptance of responsibility for the incidents. Women who reported emotional abuse as worse than physical aggression were significantly more likely to report that emotional abuse increased over time, and that the negative effects of the emotional abuse were purely a result of the emotional abuse and not of the related threat of physical aggression or injury. There was no significant difference in these results whether physical aggression increased or decreased in the context of high emotional abuse high (Follingstad et al., 1990). Other studies have reported the negative
impact of psychological aggression on abused women’s self-esteem (Aguilar & Nightingale, 1994) and fear (Cercone et al., 2005; Sackett & Saunders, 1999).

Vivian and Langhinrichsen-Rohling (1994) assessed the psychological impact of psychological and physical aggression in a sample of 57 couples seeking marital therapy. Both spouses reported bidirectional aggression. The mean ratings of impact of psychological aggression for men and women were very similar and indicated a “quite negative” impact. Both male and female victims of psychological aggression reported experiencing depression symptoms. Other studies found that psychological aggression predicted marital deterioration for husbands (Lawrence & Bradbury, 1995) and for wives (Jacobson, Gottman, Gortner, Berns, & Shortt, 1996). Psychological aggression also predicted dropout rates from a treatment program for marital aggression for husbands and wives (Brown, O’Leary, & Feldblau, 1997).

To summarise, compared with physical aggression, psychological aggression has only recently been recognised as a phenomena worthy of investigation in its own right. Less severe psychological aggression occurs in at least 75% of intimate heterosexual relationships and therefore could be considered normative in the general population (Stets, 1990). Physical aggression almost never occurs without psychological aggression. Psychological aggression predicts the onset of physical aggression in early stage relationships (Murphy & O’Leary, 1989). The few studies that have examined the effects of psychological aggression have found substantial negative effects.

**Sexual Aggression**

Sexual coercion, sexual aggression, and sexual assault are terms used interchangeably in the literature to refer to unwanted sexual behaviours by one partner towards the other. Sexually coercive behaviours range from unwanted
kissing and genital fondling to anal penetration and forced intercourse. Russo (2000) stated that normalisation of sexual coercion in dating relationships has resulted in date rape not being recognised as a serious problem, and that sexual coercion in romantic relationships tends to be seen as acceptable behaviour. Physically violent coercion may clearly meet legal definitions of sexual assault or rape. However, verbal or emotional coercion, and even the use of drugs and alcohol, that result in unwanted sex might not receive legal attention, but can be traumatic for the person being coerced and damaging to the relationship.

Sexual coercion differs from physical and psychological aggression in two ways. Firstly, compared with the relatively equal prevalence rates of less severe physical and psychological aggression for men and women, many of the prevalence rates reported for sexual coercion are asymmetrical with higher perpetration scores for men than women. Secondly, sexual coercion has a much lower correlation with physical and psychological aggression than the moderate to high correlations between the two latter types of partner aggression.

Early studies of sexual coercion mostly focused on women victims and male perpetrators. It is only recently that attention has also been given to the prevalence of female perpetrated sexual coercion. Prevalence rates for experiencing sexual coercion in dating samples range from about 12% (Koss, Gidycz, & Wisniewski, 1987) in a nationally representative sample of American college women reporting on sexually coercive experiences since age 14, to about 42% annual prevalence for women in a survey of 433 Canadian college students (O’Sullivan, Byers, & Finkleman, 1998). In contrast, 24% of the male college students in O’Sullivan et al’s (1998) study reported being pressured or forced into sexual contact in a dating context in the past year. Research with American college students’ has found similar
disparities in reports of men and women’s sexual aggression perpetration. Struckman-Johnson, Struckman-Johnson, and Anderson (2003) found 26% of the women and 43% of the men in their sample (N=656) reported sexually coercive tactics since 16 years of age, and Ryan (1998) found 2% of the women and 10% of the men in her sample of college students (N=656) reported sexual aggression perpetration since 14 years of age. Similarly, Straus et al. (1996) found an annual prevalence of sexually coercive behaviours in his sample of college students (N=317) of 18% for women and 37% for men. While each of these studies used different measures, rates for sexual aggression perpetration were consistently found to be higher for college men than for college women.

Other studies have examined sexual coercion and rape by a partner in adult community samples. Rape seems to occur primarily in couples where the man is generally physically violent. Rates of reported marital rape range from 34% to 57% in samples of women in domestic violence shelters (Frieze, 1983; Shields & Hanneke, 1983; Synder & Fruchtman, 1981). In contrast, Frieze (1983) found 3% of women in a comparison group (N=137) who had never been physically assaulted by their partner reported being raped by their partner or forced to have sex with the partner. Studies with community samples of women have reported rates of 10% (Finklehor & Yllo; 1985) to 14% (Russell, 1990) for husband-to-wife rape or threat of force to engage in sex. However, many men who are violent to their partner do not rape them; some women experience physical aggression only, others experience both physical and sexual aggression, and a much smaller proportion experience sexual aggression in the absence of physical aggression (Hanneke, Shields, & McCall, 1986; Russell, 1982).
Official statistics of sexual aggression in dating relationships in Australia suggest prevalence rates similar to those in the United States. For example, the Women's Safety Survey (Australian Bureau of Statistics, 1996) found that sexual assault by a dating partner represented 17% of all sexual assaults in the previous year and 28% of all sexual assaults since age 15 years. Similarly a national survey conducted by Easteal (1993) found that 13% of sexual assaults were committed by a boyfriend or male dating partner. In a nationally representative Australian sample of 10,173 men and 9,134 women aged 16 to 59 years, 4.8% of the men and 21.1% of the women had experienced sexual coercion (being forced or frightened into unwanted sexual activity (de Visser, Smith, Rissel, Richters, & Grulich, 2003).

Examination of correlations between the physical, psychological, and sexual coercion scales of the CTS2 suggest gender differences in the correlates of sexual coercion. There are similar correlations between physical and psychological aggression for women ($r = 0.67$) and for men ($r = 0.71$). However, sexual coercion is significantly ($p < .01$) more highly correlated with physical and psychological aggression for men (physical = 0.90; psychological = 0.66) than for women (physical = 0.26; psychological = 0.25) (Straus et al, 1996). Moreover, men are more likely than women to use coercion and physical force to obtain sex (Straus et al, 1996). Meyer, Vivian, and O’Leary (1998) found that husband psychological aggression predicted husband sexual coercion, whereas husband severe physical aggression predicted husband use of physical force to obtain sex. In other words, men who are psychologically, but not physically, aggressive to their partner are more likely to use non-physical coercion for sexual activity (e.g., pressure or insistence to have sex), whereas physically aggressive men are more likely to force sexual activity through threats and physical aggression. Marshall and Holtzworth-Munroe (2002) found
similar results in a community sample of 164 couples; the most severely generally aggressive men engaged in the most threatened/forced sex (Marshall & Holtzworth-Munroe, 2002). A further shared finding in the Meyer et al. (1998) and Marshall and Holtzworth-Munroe (2002) studies was that, relative to wives’ reports, husbands under-reported husband-perpetrated sexual aggression. For example, in Meyer et al.’s sample, 5% of wives compared with 0.46% of husbands reported that the husband had used threats or physical force to obtain sex.

In summary, prevalence rates for perpetration of sexual aggression are higher for males than females. The results of several studies indicate that psychological aggression and physical aggression predict sexual aggression in intimate relationships and that severely physically aggressive men are more likely to engage in forced sexual activity than non-physically aggressive men. These results suggest that in community samples of less aggressive couples in stable relationships, sexual coercion tactics are more likely to be non-physical than physical.

The focus in the current study was on the most prevalent forms of aggression in couple relationships and the types of aggression that are perpetrated by both men and women in the context of relationship conflict. Sexual aggression has a lower prevalence than psychological and physical aggression and is more commonly perpetrated by males than by females. Further, sexual aggression appears to be a different phenomenon for males and females, and is less likely than physical and psychological aggression to occur in the heat of conflict. In addition, as noted previously, following the early research on husband-to-wife aggression and the experience of battered women, there is growing recognition that women are also aggressive in relationships, and that there is a need for theoretical models of female aggression and examination of the similarities and differences in the predictors of
men’s and women’s partner aggression. Due to the differences between sexual, physical, and psychological aggression noted above, and the need for attention to women’s aggression, I decided to investigate psychological and physical aggression, and not sexual aggression. Further, the current research recognises the importance of clearly distinguishing not only the form of aggression (psychological, physical, sexual), but also the type of aggression, to be investigated.

Types of Partner Aggression

There is growing consensus among researchers that at least two types of partner aggression exist. Severe intense physical aggression is mainly perpetrated by a male partner towards a female partner and is often associated with systematic psychological intimidation, verbal and sexual aggression, and high rates of injury and psychological distress for the female partner. Different researchers use different terms to refer to this type of male-to-female violence and intimidation, including “severe husband violence” (Holtzworth-Munroe & Stuart, 1994), “patriarchial or intimate terrorism” (Johnson, 1995), and “battering” (Babcock et al., 1993; Coan, Gottman, Babcock, & Jacobson, 1997; Gottman, 1993; Gottman et al., 1995). Holtzworth-Munroe's (Holtzworth-Munroe et al., 2000; Holtzworth-Munroe & Meehan, 2004; Holtzworth-Munroe & Stuart, 1994) research shows major differences in the correlates of male aggression of different severity. However, it is not clear from the cluster analysis method used in her work that these differences necessarily reflect clear categories; a taxonomic analysis would directly test the possibility of clear categories of violence (Heyman & Slep, 2006).

Some researchers (e.g., Dutton & Nicholls, 2005; Johnson, 1995) suggest that the often heated debate between feminist researchers and family violence researchers
about whether partner aggression was exclusively male-to-female arose because the researchers were examining two distinct types of partner aggression. One type was partner aggression reported in large-scale national family violence surveys, which is perpetrated at relatively equal rates by men and women. The second type was aggression reported in feminist research with domestic violence shelter populations, or criminal justice and divorce court data, that found predominately male use of systematic violence and psychological intimidation of female partners. For example, Straus (2001) reported annual rates of partner aggression obtained from the National Family Violence Surveys (NFVS); that is, CTS scores of nationally representative samples of households in the United States of America surveyed in 1975, 1985, 1992, and 1995. The annual rate for “severe violence” (defined as severe acts such as kicking, punching, choking, and use of objects and weapons) was 3% for male-to-female aggression and 5% for female-to-male aggression. In contrast to the NFVS results, United States Bureau of Justice statistics show that, in 1999, women were the victims in 84% of intimate partner violent crimes. This figure, representing 900,000 women, was down from 1.1 million women in 1993 (Adams & Reynolds, 2002). Johnson (1995) noted that the annual prevalence of violent incidents against women reported on the CTS in samples in domestic violence shelters was 65 to 68 per woman (Giles-Sims, 1983; Okun, 1986), compared with 6 per woman in the National Family Violence Surveys.

Relative to severe violence, CCV (Johnson, 1995) has a higher prevalence, lower frequency, is less likely to involve severe assaults or to escalate over time, and is more likely to occur at equal rates for women and men. Further evidence indicating there are at least two types of partner aggression comes from studies showing that severely violent men differ from less violent men on a number of
variables including personality features, family-of-origin violence, attachment, generality of aggression, heart rate reactivity, and substance use (Dutton, 1995; Gottman et al., 1995; Holtzworth-Munroe & Stuart, 1994; Johnson, 1995).

The effectiveness of existing interventions for violent men is less than impressive (Babcock, Green, & Robie, 2004), and it has been suggested that treatment outcomes might be improved by matching treatment to different types of aggression (Saunders, 1996). Research that attends to the distinction between severe unilateral aggression and the more prevalent bidirectional partner aggression could guide development of more effective interventions targeting specific types of partner aggression.

The current program of research investigated bidirectional psychological and less severe physical partner aggression. I use the term partner aggression in my research, instead of Johnson’s (1995) “common couple violence”, because I investigated a mediation model of partner aggression separately for men and women. The term common couple violence suggests the focus of interest is the couple or dyad, whereas my aim was to investigate similarities and differences in predictors of partner aggression for each gender. I examined partner aggression in two samples of couples in early stage relationships that were intended to be generally representative of heterosexual couples at similar stages of their relationship.

Risk for Aggression in Early Stage Relationships

Many variables have been found to be associated with risk for partner aggression. Variations across studies in the variables examined, and the measures, sampling procedures, and statistical analyses used, have resulted in findings that are often contradictory. However, there is little doubt that multiple factors contribute to both inflicting and receiving partner aggression.
Since the identification of domestic violence as an area of research interest in the 1970’s, theoretical models explaining partner aggression have predominately focused on husband-to-wife aggression. Over that time, theoretical models have moved from reductionist explanations, such as aggression caused by neural mechanisms (Elliot, 1977) or by the female victim (Snell, Rosenwald, & Robey, 1964), to broader explanations such as sociological/feminist models (Dobash & Dobash, 1978; Walker, 1979) and social learning theory (Bandura, 1973), and more recently, to individual difference studies comparing characteristics of violent and nonviolent men (Holtzworth-Munroe & Stuart, 1994; Holtzworth-Munroe et al., 2000; Tweed & Dutton, 1998; Gottman et al., 1995). While these theoretical approaches have contributed greatly to our understanding of male aggression, they do not present an integrated developmental model that offers an explanation for both male-to-female and female-to-male partner aggression. The following section provides a brief general overview of the risk factors associated with dating and marital aggression perpetration and victimisation, followed by a more detailed review of the research evidence for family-of-origin aggression as a robust predictor of partner aggression.

Perpetration

Riggs and O'Leary (1989) proposed a causal model of partner aggression, largely derived from social learning theory. The model separates variables into background factors and situational factors. Background or contextual factors are distal factors (e.g., family-of-origin aggression, prior use of aggression) predictive of who will behave aggressively towards a romantic partner, while situational or proximal factors (e.g., alcohol use, relationship distress) are more immediate factors that predict when, or in what situations, the risk of aggression increases. The
distinction between distal and proximal factors can be used as a framework for summarising the variables identified in the literature as associated with partner aggression.

Prior experience of aggression is a robust distal factor associated with inflicting partner aggression. Witnessing interparental aggression (Bernard & Bernard, 1983; Kalmuss, 1984; Lorber & O’Leary, 2004; Sugarman & Hotaling, 1989), parental aggression towards the individual (Dutton, Starzomski, & Ryan, 1996; O’Leary et al., 1994; Riggs, O’Leary, & Breslin, 1990), previous partner aggression (Lane & Gwartney-Gibbs, 1985; Lorber & O’Leary, 2004; Stith, Smith, Penn, Ward, & Tritt, 2004), prior general aggression (Lorber & O’Leary, 2004; Riggs et al., 1990), and acceptance of aggression as a response to conflict (Cate, Henton, Koval, Christopher, & Lloyd, 1982; Stets & Pirog-Good, 1987) have all been found to be associated with current partner aggression.

Proximal factors that have been found to be associated with inflicting partner aggression include receiving partner aggression (O'Keefe, 1997; Feld & Straus, 1989), negative attributions for partner behaviour (Holtzworth-Munroe & Hutchinson, 1993; Byrne & Arias, 1997), alcohol abuse (O'Keefe, 1997; Shook et al., 2000; Stets & Henderson, 1991), anger/hostility (Dutton et al., 1996; Eckhardt, Barbour, & Stuart, 1997; Leonard & Senchak, 1993), stress (Makepeace, 1983; Riggs et al., 1990), and jealousy (Makepeace, 1981; Stets & Pirog-Good, 1987). Relationship variables such as perceived commitment (Hanley & O'Neill, 1997), level of conflict (O'Keefe, 1997; Murphy & O'Leary, 1994), and length of relationship (Stets & Pirog-Good, 1987) are also associated with perpetration of partner aggression.
Recent research has found that attachment security is associated with male partner aggression in adolescent (Wekerle & Wolfe, 1998; Wolfe, Wekerle, Reitzel-Jaffe, & Lefebvre, 1998) and adult (Dutton, 1995; Holtzworth-Munroe et al., 2000; Kesner & McKenry, 1998) samples. Low self-esteem has also been identified as a correlate of inflicting partner aggression (O'Keefe, 1998; Stets & Pirog-Good, 1987; Comins, 1984).

Victimisation

Recent studies have examined risk markers for receiving (or sustaining) partner aggression, however victimisation data is sparse (O'Keefe, 1998; Riggs, Caulfield, & Street, 2000). The lack of research on risk factors for victimisation may be due to the idea of determinants of victimhood being controversial, as it can be perceived as shifting the focus from perpetrators' responsibility for their aggressive acts to an emphasis on deficits in the victim. This concern is understandable given the initial emphasis on the hypothesised personality deficits of women victims of marital violence. For example, women who entered or continued in marriages where their partner was physically aggressive were considered to be masochistic, passive, and dependant (see Bograd, 1984; Stark & Flitcraft, 1988; Walker, 1979).

During the 1970s, feminist writers and therapists challenged the perception that female victims of partner violence had personality defects arguing that the observed functioning of women victims was an effect, rather than an antecedent, of partner aggression (Bograd, 1984; Walker, 1979). These same authors suggested patriarchal attitudes and social disadvantage were major barriers to women wanting to leave violent relationships. For example, lack of safe alternative accommodation, financial hardship, social stigma, and fear of the partner’s retaliatory behaviour effectively reduced the options for women in violent marriages (Dobash & Dobash,
Moreover, many women are at greatest physical risk from their partner in the initial period after leaving a violent relationship (Jacobson & Gottman, 1998). It is only in recent times that legal and community services have provided more effective responses to women and children in domestic violence situations, including recognition of the potential escalation of aggressive behaviour by a partner for a woman escaping a violent home. While it is understandable that determinants of domestic violence victimisation is a sensitive issue, it is important to investigate risk factors for sustaining partner aggression. Identification of such risk factors in the early stages of committed relationships could provide opportunities for early intervention to facilitate healthy couple relationships.

There is considerable overlap between variables associated with perpetration of aggression and victimisation experiences in dating and marital relationships. Distal variables associated with sustaining partner aggression include family-of-origin aggression (O'Keefe, 1998; Maker, Kemmelmeier, & Peterson, 1998; Wolfe et al., 1998; Marshall & Rose, 1988), insecure attachment (Wekerle & Wolfe, 1998; Wolfe et al., 1998), low self-esteem (O'Keefe & Treister, 1998; Deal & Wampler, 1986; Burke et al., 1988), and approval of violence (O'Keefe & Treister, 1998; O'Keefe, 1998). Further, low socio-economic status and poor school performance (O'Keefe, 1998) are correlated with dating violence victimisation.

Inflicting partner aggression (Bookwala, Frieze, Smith, & Ryan, 1992; Gwartney-Gibbs et al., 1987; Sagrestano, Heavey, & Christensen, 1999) is a strong proximal risk factor for sustaining partner aggression. Other proximal variables associated with sustaining partner aggression include alcohol use (Malik, Sorenson, & Aneshensel, 1997), and partner jealousy and anger (Stets & Pirog-Good, 1987; O'Keefe & Treister, 1998). Length and seriousness of the relationship, allowing
partners' controlling behaviours and a tendency to romanticise relationships were found to be associated with ongoing victimisation for women in dating relationships (Follingstad, Rutledge, Polek, & McNeill-Hawkins, 1988).

Given the evidence for continuity in couple aggression, inflicting aggression and receiving aggression from a current partner should be seen as a strong risk marker for future aggression. As noted previously, fear is often a consequence of physical aggression for women. Experiencing ongoing or severe aggression in a current relationship may heighten perceptions of danger and increase an individual's ability to evaluate the potential risk of sustaining further aggression in their relationship. Recent research by Weisz, Tolman, and Saunders (2000) with a sample of women whose partners faced domestic violence charges compared the predictive power of a large number of risk factors identified in the literature, to the participant's own rating that their partner would be aggressive again in the future. These researchers found that the women's ratings were a more effective predictor of severe violence over the next 4 months than was the set of risk markers drawn from the literature. In addition, 54% (N = 123) of the severely abused women in Follingstad et al.'s (1990) study reported being able to predict their partner's physical aggression from incidents of psychological aggression (threats, restriction, and damage to property).

Finally, a number of psychological problems have been found to be associated with marital aggression. Psychological disorders identified as risk markers for men's perpetration of marital aggression include depression, borderline and antisocial personality disorders, and posttraumatic stress disorder (PTSD) (Holtzworth-Munroe et al., 2000; Riggs et al., 2000). As yet, these variables have received little research attention with regard to dating aggression. One American
study that followed 543 children for 20 years found that conduct disorder in adolescence was a strong predictor of partner aggression (Ehrensaft et al., 2003). Psychological disorders associated with marital aggression victimisation include mood, anxiety, and eating disorders, and PTSD (Riggs et al., 2000; Carden, 1994). However, the majority of the victimisation research uses cross-sectional data from samples of battered women, providing little evidence that these psychological variables are risk markers for an initial experience of victimisation in an intimate relationship. The role of psychopathology in partner aggression is an area for further research attention, but is not the focus of the current study.

Of all the correlates of inflicting and sustaining partner aggression, possibly the strongest predictor of future aggression is having acted aggressively towards the same partner previously (O'Leary et al., 1989; Stith et al., 2004; Sugarman & Hotaling, 1989). An aggressive act towards an intimate partner rarely occurs in isolation. Instead, aggression occurs in relationships that are typically more distressed, more conflictual, and characterised by more negative interactions than are nonviolent relationships (Riggs et al., 2000). In couples in both early-stage and more established relationships, men who have previously acted aggressively towards their partner are significantly more likely to perpetrate further aggression towards that partner, compared with men with no history of couple aggression (O'Leary et al., 1989; Feld & Straus, 1989; Leonard & Senchak, 1996). Further, use of psychological aggression towards a partner has been identified as a significant risk marker for future perpetration of physical aggression (Pan, Neidig, & O'Leary, 1994; Sugarman, Aldarondo, & Boney-McCoy, 1996). The other most robustly supported correlate of partner aggression is exposure to aggression in the family of origin.
Research evidence for the role of family-of-origin aggression in risk for perpetration of partner aggression will now be reviewed in more detail.

**Family-of-Origin Aggression (FOOA)**

Narrative and meta-analytic reviews of the research on partner aggression indicate FOOA is a robust and well-replicated predictor of partner aggression perpetration. Tolman and Bennett’s (1990) narrative review of 16 studies examining the effects of FOOA on adult male-to-female partner aggression found that FOOA differentiated maritally violent men from maritally discordant men and from nonviolent men in therapy. Some researchers have found that having witnessed interparental aggression is a more reliable predictor of perpetration than having experienced parent-to-child aggression, particularly for males (Hotaling & Sugarman, 1986; Aldarondo & Sugarman, 1996; Kalmuss, 1984), yet others have not (Cappell & Heiner, 1990; Stith et al., 2000). While narrative reviews have sometimes reached inconsistent conclusions (e.g. Hotaling & Sugarman, 1986; Hotaling & Sugarman, 1990), the results of meta-analytic reviews have been more consistent.

A recent review of male-to-female partner physical aggression (Schumacher, Feldbau-Kohn, Slep, & Heyman, 2001) revealed that in five out of the six studies reviewed, court-involved physically aggressive (CPA) men, compared with relationship dissatisfied and satisfied men who were not physically aggressive, were significantly more likely to report a history of child physical abuse (i.e., parent-to-child aggression). Effect sizes ranged from small to medium ($r = 0.20$ to $0.32$). Effects for the association between any male-to-female physical aggression in non-clinical samples and a history of child abuse were significant in three of the four studies reviewed and ranged in size from $r = 0.14$ to $0.23$. Studies (e.g., Barnett &
Fagan, 1993; Dutton et al., 1996) included in Schumacher et al.’s (2001) review also found that parent-to-child verbal and psychological aggression differentiated CPA men from control groups ($r = 0.17$ to $0.33$). It is often assumed that childhood physical abuse has a more lasting and deleterious impact on victims than other types of abuse. These results, however, indicate that parent-to-child psychological aggression also has lasting negative effects for victims. Like intimate partner psychological aggression, the impact of parent-to-child psychological aggression warrants further investigation. Schumacher et al.’s (2001) results also suggest that future investigations of risk for intimate partner aggression should include parent-to-child psychological aggression as well as physical aggression.

Five of the studies in Schumacher et al.’s (2001) review examined the ability of self-reported childhood exposure to interparental aggression to distinguish between CPA men and non-physically aggressive relationship satisfied and dissatisfied men. CPA men, compared to the two groups of non-physically aggressive men, were more likely to report having witnessed interparental aggression ($r = 0.24$ to $0.36$). A slightly weaker, but nevertheless significant, association was also found in community samples for any male-to-female physical aggression and witnessing interparental aggression ($r = 0.14$ to $0.21$). Like investigations of the effects of parent-to-child aggression, assessments of interparental aggression often include only measures of physical aggression. Beasley and Stoltenberg (1992) assessed interparental verbal and physical aggression. They found that CPA men in support groups differed from non-physically aggressive relationship distressed men in marital therapy on both types of aggression. Moderate effects were found for verbal aggression ($r = 0.44$) and physical aggression ($r = 0.36$).
Stith et al. (2000) performed a meta-analysis of 39 studies investigating the association between witnessing and/or experiencing FOOA in childhood and perpetrating aggression in an adult heterosexual marital relationship. The overall mean effect for the impact of FOOA on perpetration of physical partner aggression was significant but small ($r = 0.18$, $p < .001$). No significant differences were found between the effect-size estimate for witnessing interparental aggression, and the effect-size estimate for experiencing parent-to-child aggression, and perpetrating physical partner aggression (Stith et al., 2000). The gender of the respondent and the setting from which the sample was derived were significantly ($p < .001$) related to FOOA and later perpetration of partner aggression (men: mean $r = 0.21$, women: mean $r = 0.11$; community: mean $r = 0.12$, clinical: mean $r = 0.30$). That is, males exposed to FOOA were much more likely to become perpetrators of physical partner aggression than were females, and the association between FOOA and later perpetration of partner aggression was stronger in clinical samples compared with community samples.

Overall, Schumacher et al.’s (2001) and Stith et al.’s (2000) analysis of the research on the intergenerational transmission of partner aggression strongly support FOOA as a predictor of male–to-female partner aggression. The relationship between FOOA and female-to-male partner aggression was also significant, though weaker than the association for male-to-female partner aggression. The results of two recent prospective studies on the role of family factors in partner aggression in young samples support these findings. Capaldi and Clark (1998) examined the intergenerational transmission of aggression in a group of at-risk males ($N = 119$) aged 17 to 20 years who entered the Oregon Youth Study in Grade 4. The researchers found that family-of-origin factors (parental antisocial behaviour,
interparental aggression, and harsh, inconsistent parenting) were related to later partner aggression through the development of antisocial behaviour by adolescence. Ehrensaft et al. (2003) followed an unselected sample of 543 children (females = 298; males = 243) over 20 years to test the independent effects of family-of-origin factors, conduct problems, and substance abuse on the risk of partner aggression perpetration. The researchers found that conduct disorder (CD) mediated the effect of child abuse (physical and/or sexual), but that exposure to interparental aggression and power assertive parenting (e.g., excessively physical and inconsistent) remained strong predictors of partner aggression even after the introduction of CD into the regression model. In other words, although CD mediates the effect of incidents of child abuse, it appears that it is not necessary to develop CD in order for early experiences of aggression in intimate relationships to increase the risk of adult partner aggression for both genders.

In summary, FOOA is an established risk factor for adult partner aggression, particularly for males. However, exposure to FOOA is neither necessary nor sufficient for adult perpetration of partner aggression. That is, not all individuals with violent family histories are aggressive to their partners, and some aggressors do not come from violent homes. The pathway between FOOA and aggression in adult intimate relationships is neither direct nor inevitable (Capaldi & Clark, 1998; Ehrensaft et al., 2003; Sugarman & Hotaling, 1989).

Drawing on developmental and cognitive theory, the current research proposed and tested an integrated model of partner aggression in early stage relationships. Given the need for a greater understanding of the factors associated with women’s aggression and the similarities and differences to men’s aggression, the model was tested for both male and female partners. Early stage relationships
were targeted due to the higher prevalence of aggression in dating and newlywed samples compared with prevalence in the general population. Identification of modifiable risk factors enables the development of prevention and intervention strategies relevant to the target population.

The current research argues that FOOA, attachment, and attributions for partner behaviour are developmentally related and that together they predict current partner aggression and withdrawal. From early childhood, the parent-child relationship influences the development of cognitive models of interpersonal relationships and the capacity for self-regulation of emotions and behaviour (Bowlby, 1969; Carlson & Stroufe, 1995; Siegel, 1999). Children who have experienced parental rejection and aggression tend to have hostile attribution biases and social problem-solving difficulties (Dodge, Bates, & Petit, 1990). They learn to anticipate abandonment and anxiously avoid rejection, and to generalise this anticipation to interpersonal relationships beyond the relationship with the maltreating parent. Partner aggression and withdrawal may, therefore, be maladaptive responses to anticipated rejection and abandonment, and to attribution biases in adult intimate relationships. Attachment and attribution theory and research are discussed in greater detail in Chapter Three. First, the literature on withdrawal in intimate relationships will be reviewed.
CHAPTER TWO
Withdrawal in Intimate Relationships

The previous chapter presented research on the prevalence of partner aggression and the destructive effects of the fire of aggression in intimate relationships. The ice of withdrawal has also been suggested to be detrimental in intimate relationships (Christensen & Heavey 1990; Christensen & Shenk, 1991; Gottman & Krokoff, 1989; Roberts & Krokoff, 1990). The current chapter reviews the literature on withdrawal in intimate couple relationships, presents a conceptualisation and operationalisation of partner withdrawal that encompasses three distinct types of withdrawal, and argues for identification of the predictors of partner withdrawal.

Marital research over the past two decades has established that negative marital interaction patterns are robust correlates of marital dissatisfaction. Dissatisfied couples are more likely to engage in hostile, blaming, attacking and distancing behaviours and are more likely to reciprocate these behaviours than satisfied couples. Marital research investigating differences in distressed and non-distressed couples communication and conflict patterns identified a negative interaction pattern where one partner tries to engage the other partner through emotional demands, criticism, and complaints, while the other partner attempts to avoid or withdraw through defensiveness or passive inaction. This pattern has been given a variety of labels including pursuer-distancer (Fogarty, 1976), rejection-intrusion (Napier, 1978), and demand-withdraw (Christensen, 1987, 1988; Sullaway & Christensen, 1983).
Some marital researchers and clinicians argue that a common conflict for couples involves partners’ different preferences for closeness and autonomy (or psychological distance) (Christensen, 1988; Greenberg & Johnson, 1986; Jacobson, 1989), and that gender differences in desire for closeness lead to gender differences in the roles spouses take in the demand-withdraw interaction pattern (Christensen, 1988; Jacobson, 1989). Napier (1978) suggested that due to sex-role conditioning, women are socialised to be affiliative and are thus more likely to seek closeness and to fear rejection and abandonment by an intimate partner. In contrast, men are socialised to be independent and are more likely to seek distance and to fear intrusion and engulfment by their partner.

The results of some studies examining couples’ conflict behaviours support the proposition that women are more likely than men to be demanding and men are more likely than women to withdraw (Gottman & Levenson, 1988; Christensen, 1987; Sullaway & Christensen, 1983). However, other findings strongly suggest that conflict structure (who wants change) also predicts which behaviour (demand or withdraw) each spouse is likely to display during problem-solving or conflict interactions. For example, Christensen and Heavey (1990) found that the woman-demand/man-withdraw pattern was significantly more likely to occur than the reverse pattern in a cross-sectional study of 31 couples. However, husbands and wives both were more demanding when discussing a change they wanted, and more withdrawing when discussing a change their partner wanted. Overall, men were withdrawn more than women, but women did not demand more than men.

Klinetob and Smith (1996) argued that Christensen and Heavey’s (1990) choice of a parenting topic for discussion by the couples could bias the findings towards a gender difference in the use of demand-withdraw because the women may
be more involved in parenting and therefore more invested in seeking parenting behaviour change. Klinetob and Smith (1996) allowed the 50 married couples in their study to choose their own discussion topics. Both observational and self-report results showed that the demand-withdraw pattern depended on whose topic was being discussed, rather than on gender. That is, when the husband’s chosen topic was being discussed, the husband was more likely to be demanding and the wife was withdrawn, whereas the roles were reversed when the wife’s chosen topic was being discussed.

Withdrawal and Marital Satisfaction

A recent review of almost 200 studies of marital interaction research concluded that distressed couples, compared with nondistressed couples, are more likely to display demand-withdraw interactions (Heyman, 2001). There is considerable research showing that withdrawal is associated with marital quality concurrently (Christensen & Heavey, 1990; Gottman & Krokoff, 1989; Margolin et al., 1988; Roberts, 2000). For example, Christensen and Shenk’s (1991) cross-sectional study compared the communication and conflict patterns of nondistressed couples (n = 25), couples seeking marital therapy (n = 15), and divorcing couples (n = 22). Using the Communication Patterns Questionnaire (CPQ; Christensen & Sullaway, 1984; Christensen, 1987), they found that the two distressed groups, compared with nondistressed couples, had less mutual constructive communication, more avoidance of communication, and more demand-withdraw interactions.

Two other studies (Gottman & Krokoff, 1989; Christensen & Heavey, 1990) found significant associations between withdrawal and concurrent marital satisfaction, but only for one spouse’s withdrawal behaviour. For example, Gottman and Krokoff (1989) found that wife withdrawal was associated with both spouses’
marital satisfaction (husband $r = -0.66, p < .001$ and wife $r = -0.49, p < .01$), whereas Christensen and Heavey (1990) found that husband withdrawal, but not wife withdrawal, was significantly correlated ($r = -0.42, p < .05$) with marital satisfaction (spouses’ average Dyadic Adjustment Scale scores). Conversely, no relationship was found between withdrawal and concurrent marital satisfaction in Roberts and Krokoef’s (1990) study. Using time-series analyses, Roberts and Krokoef (1990) examined the relationship of withdrawal and hostility during marital conflict in a small sample ($N = 22$) of satisfied and dissatisfied American couples. No mean differences were found in the amount of withdrawal exhibited by men and women or by satisfied and dissatisfied couples. However, among dissatisfied couples, husbands’ withdrawal was predictive of their wives becoming hostile. No evidence was found for predictability in the opposite direction (wives’ withdrawal predicting husbands’ hostility) regardless of marital satisfaction group (Roberts & Krokoef, 1990).

More compelling evidence for the role of withdrawal in marital satisfaction has been found using longitudinal designs. On the basis of previous research indicating that the wife-demand/husband-withdraw interaction pattern is potentially destructive to relationship functioning (Christensen & Heavey, 1993; Christensen & Shenk, 1991; Heavey et al., 1993), Heavey, Christensen, and Malamuth (1995) examined the longitudinal impact of demanding and withdrawing behaviour during problem-solving interactions on marital satisfaction in a sample of Canadian couples ($N = 48$). Declines in wives’ satisfaction over a 30-month period were predicted by husband withdrawal and the wife-demand/husband-withdraw dynamic during discussions of problems identified by wives. These results are consistent with previous research suggesting an association between women’s demanding and men’s
withdrawal and relationship satisfaction (Christensen & Heavey, 1993; Gottman & Krokoff, 1989; Heavey et al., 1993). Neither withdrawal nor demand during discussions of problems identified by the men predicted later relationship satisfaction for either partner.

Kurdek (1995) predicted change in marital satisfaction from couples’ conflict resolution styles (conflict engagement, withdrawal, and compliance) over a 2-year period. The most consistent finding for concurrent marital satisfaction was that frequent use of conflict engagement (demand) by the wife and frequent use of withdrawal by the husband were associated with low marital satisfaction for both wives and husbands. Further, withdrawal appeared to operate differently for husbands and for wives. The negative effect of withdrawal behaviour on husbands’ marital satisfaction depended on wives’ level of compliance, conflict engagement, and withdrawal. In contrast, wives’ use of withdrawal was negatively related to their own marital satisfaction independently of their husbands’ conflict resolution styles. Examination of longitudinal relations between spouses’ conflict resolution styles and marital satisfaction revealed that decreases in marital satisfaction from Time 1 to Time 3 were related to increases in the interaction between wife conflict engagement and husband withdrawal, and that this interaction was more important to decline in both spouses’ marital satisfaction than other interaction combinations involving spouses’ conflict engagement, withdrawal, and compliance.

Overall, the research indicates that demand-withdraw in the context of problem solving is associated with marital satisfaction concurrently and longitudinally, but that the relationship is not simple. Conflict structure, gender of the demander and the withdrawer, and which spouse’s marital satisfaction is being predicted, moderate demand-withdraw behaviours’ prediction of marital satisfaction.
Overall, withdrawal is fairly consistently associated with decline in marital satisfaction. However, Caughlin and Huston (2002) argued that the association between demand-withdraw and dissatisfaction might merely reflect the abundant findings that negativity is associated with relationship dissatisfaction. Furthermore, given evidence that affectional expression can buffer the effects of negativity on marital satisfaction (Huston & Chorost, 1994), the association between demand-withdraw and spouses’ marital satisfaction may depend on their partners’ affectional expression. Caughlin and Houston (2002) found demand-withdraw was robustly and inversely related to both wives’ and husbands’ marital satisfaction. Moreover they found that the demand-withdraw pattern was distinguishable from negativity (e.g., anger, impatience, criticism, and complaints) and affectional expression (e.g., showing approval, giving compliments, and physical affection). Finally, they found that affectional expression buffered the association between demand-withdraw and marital satisfaction (Caughlin and Huston, 2002).

Caughlin and Huston’s (2002) results are consistent with the findings of Johnson et al.’s (2005) observational study of the ability of problem-solving skills and affective expression to predict change in marital satisfaction in newlywed couples (N=172) over a 4-year period. Low levels of positive affect (e.g., humour, interest, affection) and poor problem-solving skills (e.g., demands, disagreement, denial of responsibility, and devaluation of the partner) predicted rapid declines in marital satisfaction. Further, high levels of positive affect buffered the effects of high levels of poor problem-solving behaviour. Unlike Caughlin and Huston’s (2002) results, but consistent with findings described previously, effects varied as a function of whether husbands’ versus wives’ topics were under discussion and whether husbands’ versus wives’ satisfaction was predicted. The results of Caughlin
and Huston’s (2002) and Johnson et al.’s (2005) studies and other research investigating the interaction of positive and negative behaviour on marital satisfaction suggest the importance of the lack of positive behaviours, as well as the presence of negative behaviours, in predicting relationship satisfaction and stability. Moreover, Caughlin and Huston’s (2002) results support investigation of withdrawal as a separate construct from negativity in marital satisfaction.

Withdrawal and Partner Aggression

Demand and withdraw behaviours have also been linked to partner aggression (Babcock et al., 1993; Holtzworth-Munroe, Smutzler, & Stuart, 1998; Ridley & Feldman, 2003; Roberts & Noller, 1998; Smith, Vivian, & O’Leary, 1991). The man-demand/woman-withdraw pattern is correlated with male physical aggression (Babcock et al., 1993; Holtzworth-Munroe et al., 1998) and female physical aggression (Ridley & Feldman, 2003). Babcock et al. (1993) compared husband-violent and nonviolent couples’ (N = 95) reports of demand-withdraw interactions around relationship problems. Wife-demand/husband-withdraw was higher among both violent and nonviolent-distressed couples than among nonviolent-satisfied couples. Wife-demand/husband-withdraw interactions did not differentiate the violent and nonviolent-distressed groups, whereas husband-demand/wife-withdraw did differentiate the two groups. Consistent with much of the partner aggression literature, Babcock et al.’s (1993) results suggest it is the husbands’, rather than the wives’, behaviour that differentiates husband-violent-distressed from nonviolent-distressed marriages.

Similar results were found in Berns, Jacobson, and Gottman’s (1999) observational study of 47 couples with a violent husband, 28 distressed nonviolent couples, and 16 satisfied nonviolent couples. The researchers investigated demand
and withdraw behaviour separately and found that violent husbands, compared to nonviolent-distressed and nonviolent-nondistressed husbands, displayed significantly higher levels of both demanding and withdrawing behaviour. Husband and wife demand was higher in the male-violent (MV) couples, compared with nonviolent couples. Additionally, violent husbands withdrew more than their nonviolent counterparts and more than their wives.

Holtzworth-Munroe et al.’s (1998) study found that husband-violent-distressed (VD) couples, compared with husband-violent-nondistressed, nonviolent-distressed, and nonviolent-nondistressed couples, displayed uniquely high levels of husband-demand/wife-withdraw when discussing a topic raised by the husband. When discussing a topic raised by the wife, the dynamic was reversed with wife-demand/husband-withdraw behaviours higher in the VD couples compared with the other three groups (Holtzworth-Munroe et al., 1998). Holtzworth-Munroe et al.’s (1998) results are consistent with Berns et al.’s (1999) and Babcock et al.’s (1993) results and also support findings indicating conflict structure has a greater influence than gender on the roles (demand or withdraw) partners take during problem-solving interactions.

Partner aggression has been linked to ambivalence about closeness with a partner (Bowlby, 1988; Dutton, Saunders, Starzomski, & Bartholomew, 1994). That is, violent men have been found to be more likely than nonviolent men to report jealousy and high dependence on their wives, and to report discomfort with, and fear of, closeness (Holtzworth-Munroe, Stuart, & Hutchinson, 1997; Dutton et al., 1994). For example, Holtzworth-Munroe et al. (1997) found that, whereas nonviolent-distressed men desired less intimacy with their wives, both violent-distressed and nonviolent-nondistressed husbands desired high levels of closeness with a spouse.
However, unlike the violent-distressed men, nonviolent-nondistressed men did not report ambivalence about closeness, suggesting they were comfortable with closeness. Further, Dutton and Browning (1988) found that violent men were particularly angered by, and likely to respond aggressively to, situations involving potential wife abandonment. Perhaps for violent men, demands from a wife for closeness or change (such as more affection, support, or involvement from the husband) are perceived as threatening and may be responded to with withdrawal (to maintain the status quo), or perceived as threats of rejection, separation or abandonment, and responded to with aggression (to maintain control over the partner and reduce the threat of abandonment). Thus, withdrawal may be analogous to aggression in enabling the person to avoid intimacy in their relationship.

While the evidence described above provides some support for links between intimacy ambivalence and withdrawal for violent husbands, little is known about associations between intimacy ambivalence, demand-withdraw behaviours, and female-to-male aggression. Ridley and Feldman’s (2003) study of conflict responses and outcomes in women’s partner aggression in a sample of 153 female volunteers recruited from public health clinics found that women in the extremely violent group (i.e., high frequency of both mild and severe acts of aggression) were in relationships with significantly more male-demand/female-withdraw than any of the other groups (nonviolent, mildly aggressive, and moderately aggressive). Based on Ridley and Feldman’s (2003) results, it could be hypothesised that, similar to the findings on violent men, violent women may be more likely than nonviolent women to experience ambivalence regarding intimacy and to respond to partner’s demands for change (e.g., affection, emotional closeness) with both withdrawal and aggression. On the other hand, Sagrestano et al. (1999) found that husband-demand/wife-
withdraw was significantly correlated with female aggression but did not predict female aggression once marital adjustment was controlled.

Inconsistent findings on the relationship of demand-withdraw interactions and partner aggression may be due to complex relationships between withdrawal and aggression. For example, Gottman (1994) proposed that males may withdraw as a means to avoid conflict, but may resort to aggression when withdrawal becomes difficult or is no longer available. In a prospective study of husband marital aggression in newlywed couples (N = 541), Leonard and Senchak (1996) found that, in the context of high hostility, conflict style (a composite variable comprising verbal aggression, problem solving, and withdrawal scores) prospectively predicted marital aggression at 1 year post-marriage. Specifically, a composite of high husband and wife verbal aggression, high husband problem solving, and low husband withdrawal (e.g., “keep distant till you both cool down”; “give in to avoid an argument”) was significantly predictive of marital aggression. However, husband problem solving and husband withdrawal were predictive of husband marital aggression only after husband and wife verbal aggression were entered into the model, suggesting that the experience of problem solving and withdrawal may be different when verbal aggression is present.

Perhaps high conflict engagement and low withdrawal by the husband when discussing problems in the relationship is experienced differently in nonviolent and violent couples. In verbally aggressive couples, high husband conflict engagement and low withdrawal may escalate conflict and increase the risk of subsequent physical aggression. The proposal that high husband conflict engagement and low withdrawal is experienced differently in nonviolent couples is supported by findings in the marital satisfaction literature indicating that low husband withdrawal is related
to marital satisfaction, rather than aggression and distress, particularly for wives. Further, for issues raised by the woman in nonviolent satisfied couples, man-demand may be associated with increases in wife satisfaction (Heavey et al., 1995).

Violent men may use withdrawal more often than nonviolent men as a means to avoid engaging constructively with a partner, thus avoiding intimacy and maintaining the status quo (Holtzworth-Munroe et al., 1997; Dutton et al., 1994). When verbal aggression is present, withdrawal may become more difficult and less effective at maintaining distance thus increasing the risk of conflict escalation and physical aggression (Gottman, 1994). Moreover, the deleterious effect of withdrawal on intimacy and affection in the relationship and the likelihood that relationship problems will not be constructively resolved is likely to increase the risk of marital conflict, dissatisfaction, and distress longitudinally (Smith, Vivian, & O’Leary, 1990).

Support for the proposition that the association of withdrawal to partner aggression may be related to closeness-distance struggles can be found in results of studies investigating associations between early experiences, adult withdrawal, and partner aggression. Halford, Sanders, and Behrens (2000) examined the role of exposure to interparental aggression in childhood on engaged couples’ (N = 71) conflict management. Using observational and self-report measures, the researchers found higher rates of invalidation, negative nonverbal behaviour, conflict, and withdrawal (not responding, turning away, not wanting to discuss problem) in male-exposed couples (that is, couples in which the male partner reported observing interparental aggression), compared with unexposed couples. No significant associations were found between witnessing interparental aggression and withdrawal in the current relationship for women. Further, in a similar study of dating couples
Skuja and Halford (2004) found that male-exposed couples showed more negative nonverbal behaviour and invalidation compared to unexposed couples, but no differences were found for conflict or withdrawal. The authors suggest that one possible explanation for the discrepancy in findings in the two studies is that poor conflict management escalates over time in committed relationships. That is, that low-level invalidation and nonverbal expression of negativity at the dating stage of intimate relationships may develop into more overt verbal conflict and withdrawal as was observed in the engaged couples (Halford et al., 2000). Longitudinal studies have shown that psychological aggression predicts physical aggression (Murphy & O’Leary, 1989; O’Leary et al., 1994; Schumacher & Leonard, 2005). Therefore, escalation in negative nonverbal and verbal behaviours in exposed couples over time is likely to increase the risk of partner physical aggression.

Halford et al. (2000) note that the association of witnessing parent-to-parent aggression with negative behaviour during adult couple conflict is consistent with social learning theory (that is, that parental modelling of poor conflict management would lead to similar conflict behaviours in their children). However, other variables, such as attachment, may mediate the association between exposure to parental aggression and poor conflict management. Childhood exposure to parental aggression is associated with development of an insecure attachment style in the child, and insecure attachment style in adults is predictive of partner aggression (Kesner, Julian, & McKenry, 1997). Further, Roberts and Noller (1998) found that a demand-withdraw interaction pattern mediated adult attachment and partner aggression in student and community couples (N=181). They found that a destructive communication process (comprised of blame, demand-withdraw,
criticise-defend, and pressure-resist pattern) mediated the association between attachment insecurity and male and female partner aggression. Roberts and Noller (1998) argued that their finding was consistent with a situation in which one partner’s abandonment anxiety leads to destructive patterns of communication within a relationship, such as one partner making demands while the other withdraws, which in turn fosters an environment in which partner aggression is more likely to occur. Roberts and Noller’s (1998) conclusions are consistent with the findings that violent men are ambivalent about intimacy (Holtzworth-Munroe et al., 1997; Dutton et al, 1994). Further, Roberts and Noller’s (1998) conclusions are consistent with the proposal that, for individuals who are anxiously attached to a partner, demands for change from the partner may be perceived as threats of separation or abandonment, which may be responded to with withdrawal or aggression.

**Conceptualisation and Measurement of Withdrawal**

Inconsistencies in findings for the effect of withdrawal on marital satisfaction and partner aggression may be due, at least in part, to varying conceptualisations of withdrawal in the literature. For example, researchers have operationalised conflict withdrawal with such disparate behaviours as expressions of displeasure, disapproval, and disgust (Gottman & Krokoff, 1989; Gottman & Levenson, 1992), and avoidant behaviours such as silence, jokes, and changing the subject (Sillars & Wilmot, 1994). The Communication Patterns Questionnaire (CPQ; Christensen, 1987; Christensen & Sullaway, 1984) is a commonly used measure of couples’ problem-solving interactions. Demand-Withdraw subscale scores are derived from couples’ self-report of the following behaviours: one partner’s attempts to discuss a problem while the other attempts to avoid discussion, one partner’s
withdrawal/silence/refusal in response to the other partner’s nagging and demands, and one partner’s defensiveness in response to the other partner’s criticism.

According to Roberts (2000), current understanding of withdrawal in intimate relationships is limited in a number of ways. Firstly, both self-report and observational investigations of withdrawal behaviours have mostly been constrained to problem-solving contexts. Secondly, instructions for the standard problem-solving or conflict task in observational studies artificially constrains common conflict responses (such as ceasing the interaction or angrily leaving the room) and therefore, these withdrawal behaviours are less likely to occur in the laboratory setting or in the context of a brief observational task. Gottman (1979) found that couples’ interaction at home without an observer present had much more negative affect and negative affect reciprocity than their interaction in the laboratory, which lends some support to Roberts’ (2000) argument. Thirdly, many of the operationalisations of withdrawal (such as nonverbal expressions of displeasure, disapproval, disgust; Gottman & Levenson, 1992) fail to distinguish between hostility, negativity, and withdrawal. Moreover most definitions of withdrawal fail to address whether there are multiple forms of withdrawal with different functions, or a single form of withdrawal across diverse interactional contexts (Roberts, 2000). Finally, assessment of withdrawal behaviours that have been identified in the clinical and theoretical literature as important to marital satisfaction, such as failure to respond to a partner’s personal disclosure or care-seeking behaviour or avoidance of sharing intimate or difficult feelings, is unlikely to be observed in the widely used problem-solving discussion (Roberts, 2000).

Roberts (2000) argued that withdrawal serves a variety of functions and occurs in different relationship situations. For example, withdrawal may avoid or
reduce relationship conflict, or resist the partner’s request for change. Alternatively, it may avoid relationship intimacy. Intimacy has been conceptualised broadly as a sense of self-disclosure, sharing of one’s inner self, and feeling close to one’s partner (Drigotas & Rusbult, 1992; McAdams, 1989; Reis & Shaver, 1988). Drigotas and Rusbult (1992) found that unmet intimacy needs were associated with decisions to terminate a romantic relationship in a sample of college students. Recent research by Fruzzetti and Rubio-Kuhnert (1998) found that intimacy, assessed as a disclosure-validation behavioural sequence, was significantly associated with relationship satisfaction and individual well-being both concurrently and longitudinally.

Using a broader conceptualisation of withdrawal than demand-withdraw interactions in a conflict setting, Roberts (2000) developed the Interaction Response Patterns Questionnaire (IRPQ). The IRPQ assesses partners’ perceptions of the behavioural response patterns characterising their interactions with their spouses. The IRPQ consists of four six-item scales: partner hostile reciprocity and three distinct types of withdrawing responses: 1) intimacy avoidance, 2) conflict avoidance and 3) angry withdrawal. Roberts (2000) investigated the relationship between the four behavioural responses patterns on the IRPQ and both concurrent and prospective marital satisfaction in a community sample of young (M = 25 years) recently married couples (N = 97). Partners’ response behaviours were assessed by presenting a respondent antecedent behaviour (e.g., “I let my partner know my innermost feelings” on the Intimacy Avoidance scale) followed by a list of possible behavioural responses the partner may engage in (e.g., “tune out, not really listen to me”). Respondents rated, on a seven-point scale from likely to unlikely, the likelihood that their partner would engage in each of the possible behavioural...
responses. Couples were assessed at approximately 1 year post-marriage (T1) and re-contacted around their third wedding anniversary (T2).

Heirarchical regression revealed that hostile reciprocity was strongly related to both husband and wife concurrent marital satisfaction. The withdrawal block was significant only for husbands’, and not wives’, concurrent marital satisfaction. Partner intimacy avoidance was the only unique predictor within the withdrawal block ($\beta = -.31^{***}$) suggesting that husbands with low marital satisfaction scores perceived their wives to be avoidant of intimacy (Roberts, 2000). For wives’ concurrent satisfaction, the interaction between hostile reciprocity and conflict avoidance was significant, indicating that in the context of high hostile reciprocity, husband conflict avoidance is associated with higher wife satisfaction than is husband conflict engagement, whereas the reverse is true in the context of low hostile reciprocity. Thus, wife concurrent satisfaction is higher if she perceives her husband as engaging in, rather than avoiding, conflict with her when she also perceives him as unlikely to respond with hostility (Roberts, 2000). A similar pattern was evident in prospective analyses. Husband hostile reciprocity, but not his withdrawing responses, predicted decline in wives’ T2 marital adjustment. Wife withdrawing behaviours, but not her hostile reciprocity, were a predictor of decline in husband T2 marital adjustment. Although problem solving is commonly viewed as beneficial and withdrawal as detrimental to marital functioning (Leonard & Senchak, 1996), Roberts’ (2000) results are consistent with previous findings (Leonard & Senchak, 1996; O’Leary et al., 1994) that, in the context of verbal hostility, high husband conflict engagement and low withdrawal are related to marital distress and dysfunction.
Roberts’ (2000) inclusion of intimacy avoidance in the IRPQ broadens previous conceptualisations of withdrawal and builds significantly on previous withdrawal research. The finding that wife withdrawal contributed to the prediction of husband marital distress beyond wife hostility, whereas husband withdrawal did not contribute to wife marital distress beyond husband hostility, seems contrary to cultural notions of gendered communication styles and marital conflict. Popular stereotypes of the different communication styles of husbands and wives continue to portray the distressed husband as having a hostile nagging wife, and the distressed wife as having an emotionally withdrawn husband (e.g., Gray, 1992). Woman-demand/man-withdraw tends to be the primary focus in the marital research, while female withdrawal receives much less attention (e.g., Christensen, 1988; Gottman, 1994, Jacobson, 1989), yet Robert’s (2000) findings suggest female withdrawal is important to relationship satisfaction.

Roberts’ (2000) findings indicating wife withdrawal is important are not unique. Gottman and Krokoff (1989) found that wife, but not husband, withdrawal from conflict predicted declines in partner marital satisfaction. Further, in the context of a behavioural marital therapy outcome study (Sayers, Baucom, Sher, Weiss, & Heyman, 1991), decreases in wife withdrawal behaviour were associated with increases in husband marital satisfaction in both the treatment and control groups. Findings such as these suggest that the potential contribution of women’s withdrawal in intimate relationships deserves increased attention. Women may not typically engage in withdrawal behaviours, but it may be that when they do withdraw it is particularly detrimental to relationship satisfaction and stability. Men’s withdrawal, on the other hand, might be excused by their female partner, as “typical
male behaviour” and therefore be less detrimental to the relationship bond (Roberts, 2000).

In summary, research on the role of withdrawal in relationship functioning has produced complex findings. The effect of gender and divergent conceptualisations and operationalisations of the withdrawal construct have produced inconsistent results. However, there is substantial evidence that partner withdrawal is significantly associated with relationship distress and partner aggression. Prospective studies also indicate that partner withdrawal predicts declines in relationship satisfaction.

Recent research on withdrawal raise a number of important areas for further investigation including the importance of intimacy avoidance in the conceptualisation and operationalisation of withdrawal, the need to assess withdrawal behaviours separately from other negative interactional responses, and the need for increased attention to the effect of women’s as well as men’s withdrawal on their own and their partner’s relationship adjustment. In addition, an important gap in the existing research is investigations of the predictors of partner withdrawal. As noted in the previous chapter, the importance of identifying the predictors of partner aggression is clearly recognised. In contrast, investigations of the predictors of withdrawal are conspicuously absent.

Associations have been found between attachment and withdrawal (Roberts & Noller, 1998), and between withdrawal and partner aggression (Babcock et al., 1993; Halford et al., 2000; Holtzworth-Munroe et al., 1998; Ridley & Feldman, 2003; Roberts & Noller, 1998). There is much less evidence for an effect of FOOA on adult partner withdrawal, but there is evidence that withdrawal does occur in violent relationships (Babcock et al., 1993; Halford et al., 2000; Holtzworth-Munroe
et al., 1998; Ridley & Feldman, 2003; Roberts & Noller, 1998). It is likely that where there is partner aggression there is increased likelihood of withdrawal. However, parents’ withdrawal may well be a less obvious behaviour to children than parents’ aggression. Retrospective reports of observing a parent threaten, smash things, or hit the other parent are fairly reliable. Children’s exposure to parent’s intimacy avoidance and emotional withdrawal may be less impactful and less reliably reported than parent’s aggression. Further, observing your father fail to listen to or respond to your mother might be less salient, and not have the same modelling effect, as observing aggression. However, it is plausible that there could be an effect of FOOA on withdrawal. Research on associations between FOOA and attachment, and attachment and withdrawal, suggests that FOOA may influence partner withdrawal through attachment. Therefore, I chose to initially test the most parsimonious withdrawal model; that is, that FOOA would influence partner withdrawal through attachment.

In the previous chapter, I argued that attachment was associated with partner aggression and that the association was mediated by attributions for partner behaviour. To the best of my knowledge there are no studies directly assessing the association of attributions to withdrawal. However attribution research indicates that when an individual attributes negative intent to a partner’s behaviour, they are likely to also attribute responsibility and blame to the partner (Bradbury & Fincham, 1987; 1990). Thus, the individual may think their partner is deliberately engaging in those behaviours because the partner does not care about them, is uninterested in them, and that the situation is unchangeable. The subsequent emotional burden and sense of powerlessness may lead the individual to angrily withdraw from their partner and/or to avoid intimacy with the partner. Thus, the current research proposed that FOOA
would influence withdrawal and that the relationship would be fully mediated by attachment and attributions for partner behaviour. The following chapter reviews the existing research on attachment and attributions.
CHAPTER THREE

Mediators: Attachment and Attributions

Chapter 1 provided an overview of the partner aggression literature and proposed that attachment and attributions would partially mediate the association between FOOA and partner aggression. Chapter 2 reviewed the literature on withdrawal, and proposed that FOOA was associated with withdrawal in couple relationships and that the association was mediated by attachment and attributions. The current chapter reviews the literature on attachment and attributions, and further elaborates the rationale for the research hypotheses. The current chapter concludes with an introduction to the first empirical chapter. The first part of the attachment section reviews attachment theory as conceptualised by Bowlby (1969, 1973, 1980) and the development of attachment in childhood through the child-parent bond. The second part of the attachment section traces the methods of attachment assessment over time and presents findings on gender differences in adult attachment. The last part of the attachment section reviews research on the relationship of attachment to partner aggression and withdrawal.

Attachment

Attachment: Theory and Function

John Bowlby (1969, 1973, 1980), the founder of attachment theory, conceptualised attachment as a framework for the development of intrapersonal and interpersonal functioning with implications for functioning across the life span. Attachment theory emphasises the significance of child-parent bonding, focusing on the processes by which affectional bonds between infants and caregivers are formed and the subsequent impact of these bonds on later emotional security. Bowlby (1969) assumed that humans have an innate attachment instinct that serves as an
alarm system for threats to security. The theory proposes that infants form mental representations (or schemas) of relationships based on their experiences of caregiving in primary attachment relationships (Bowlby, 1969, 1973, 1980). According to Bowlby, these schemas of relationships develop as a result of repeated behavioural transactions between the major caregiver(s) and the child, shaping beliefs and expectations about the behaviour of others in social interactions, and perceptions of one’s self worth and ability to achieve relational goals. These schemas act as prototypes for evaluating relationships providing the basis on which individuals predict future relationship experiences. In other words, attachment is argued to shape the individual's cognitive, emotional, and behavioural responses to others (Collins & Read, 1994).

Bowlby (1973) proposed that individual differences in early attachment experiences influence the development of attachment security. Securely attached individuals operate from a secure base (Bowlby, 1973). That is, securely attached individuals have mental models of relationships that reflect a basic trust in self and others derived from early experiences of responsive and reliable caregiving (Bowlby, 1973). Securely attached individuals report higher levels of self-confidence and self-esteem, and a more trusting attitude towards others, than insecurely attached individuals (Hazan & Shaver, 1987; Feeney & Noller, 1990). Securely attached adults experience comfort with closeness and experience less anxiety over potential abandonment (Stroufe, Carlson, Levy, & Egeland, 1999).

Insecure attachment develops from attachment disruptions such as prolonged separation from a primary caregiver, or from unresponsive or erratic behaviour on the part of the attachment figure. Attachment theory asserts that such attachment disruptions arouse intense anger, anxiety, sorrow, and grief in the child, and thwart
the development of the child's capacity to establish and maintain relationships of mutuality and trust (Bowlby, 1977). Individuals who receive insensitive and unreliable caregiving during early childhood may develop low levels of self worth (Collins & Read, 1990) and a sense that they are unworthy of love and nurturing (Bretherton, 1987). When the attachment figure uses the child as a source rather than a recipient of care, the child becomes anxious and ambivalent about caregiving and careseeking behaviours (Bowlby, 1977). Thus, insecurely attached individuals are more likely than securely attached individuals to experience intimacy as distressing, to attribute hostile intent in ambiguous social situations, to interpret relationship events as rejecting, and to be vigilant for threats of abandonment. Moreover, individuals with insecure attachment are more likely to form relationships that are unsupportive and are easily disrupted (Carlson & Stroufe, 1995).

As proposed in attachment theory, observations of parent-child interactions reveal that differences in primary caregiver behaviour are associated with different styles of attachment (Ainsworth, Blehar, Waters, & Wall, 1978). Harsh and rejecting caregiver behaviours are associated with development of avoidant attachment style (Ainsworth et al., 1978; Bartholomew, 1990; Hazan & Shaver, 1987). Inconsistent or erratic caregiving behaviours, where the caregiver is at times intrusive and interfering, and at other times unavailable and unresponsive, are associated with development of anxious attachment style (Ainsworth et al., 1978; Hazan & Shaver, 1987; Feeney & Noller, 1990).

Specifically, individuals with an avoidant attachment style are likely to fear intimacy and closeness and to have a view of self as isolated and unworthy of care. They may be unable to cope with frustration and may experience a pervasive presence of negative affect. When distressed, they may fail to seek comfort from
others, perpetuating a view of relationships as hostile or rejecting (Stroufe et al., 1999; Kobak & Sceery, 1988; Hazan & Shaver, 1987). According to Bartholomew (1990), avoidant individuals can be either dismissing or fearful depending on their level of dependence on others' acceptance. That is, dismissing types deny attachment needs and emphasise the importance of achievement and self-reliance, and may maintain a positive model of self at the expense of intimacy. In contrast, individuals with fearful avoidant attachment desire intimacy but experience lack of trust and fear of rejection, and therefore avoid close relationships to reduce the risk of loss or rejection (Bartholomew, 1990; Bartholomew & Horowitz, 1991).

Anxiously attached individuals are likely to have a needy desire for intimacy in romantic relationships, combined with insecurity about their own worthiness of love and acceptance, and an easily activated fear of abandonment by their loved one. They tend to experience emotional extremes, intense sexual attraction, and jealousy. They are likely to be hypervigilant and reactive to separation cues, to be compliant with their partners' wishes in relationship conflict situations, and to report low relationship satisfaction (Hazan & Shaver, 1987; Pistotle, 1989; Feeney & Noller, 1990).

Attachment Stability

Attachment is considered to be a mechanism for stability in relationship behaviour from childhood to adulthood; however, the notion of stability in attachment behaviour from "the cradle to the grave" (Bowlby, 1979:129) is somewhat controversial. Longitudinal research with children indicates that infant attachment is a predictor of childhood social behaviour in the early school years (see Bretherton, 1985, for a review). In addition, some investigations of adult romantic attachment have provided moderate support for stability of attachment styles. For
example, adults' recollections of past attachment relationships was found to predict current attachment with an intimate partner (Alexander et al., 1998). Collins and Read (1990) found support for correspondence between dating couples’ (N = 71) recollections of parents’ caregiving style, particularly opposite-sex parents, and partner’s attachment style. These findings are consistent with Bowlby's view that individuals select and create their social environments in ways that confirm their working models, and thus promote continuity in attachment patterns across developmental stages.

On the other hand, research findings suggest that attachment is malleable and that attachment security is both an individual and a relational process (Davila, Burge, & Hammen, 1997; Kirkpatrick & Hazan, 1994). Significant alternative relationship experiences can lead to revision rather than confirmation of an individual's current internal working models. For example, a secure person in a romantic relationship with an avoidant partner may become increasingly anxious about the relationship. Longitudinal studies provide support for both the stability of adult attachment and the impact of relationship events. Relationship events, such as a breakup, have been found to moderate attachment style (Feeney & Noller, 1992; Kirkpatrick & Hazan, 1994), but stability of attachment style has been estimated to occur in 65% to 80% of individuals in samples of dating and married couples across time periods ranging from 4 months (Keelan, Dion & Dion, 1994), to 2 years (Fuller & Fincham, 1995), and even 4 years (Kirkpatrick & Hazan, 1994).

**Assessment of Adult Attachment**

Two approaches to the assessment of adult attachment have evolved over the past 20 years: interview and self-report inventories. The interview approach developed out of classification of parent-infant interactions in the controlled Strange
Situation (SS) experimental procedure (Ainsworth et al., 1978). The 20-minute SS procedure involved observations of infants’ separation and reunion behaviours with their mothers. In a laboratory playroom, the infant was separated from the mother, a stranger entered the room briefly, and the child was reunited with the mother. While the mother was out of the room, a majority of infants responded by crying and sought contact and reassurance from her when reunited. Once comforted, they easily returned to exploration and play. Ainsworth et al. (1978) classified these children as securely attached. However, some children ignored the mother when she returned or refused to interact if she tried to engage them in play. A third group protested loudly when the mother left the room; however, on her return, they were difficult to calm, pushed away from the mother, and angrily brushed away toys she offered (Ainsworth et al., 1978). These attachment behaviours were termed insecure-avoidant and insecure-anxious respectively, and were found to be associated with the degree of availability, sensitivity, and responsiveness of mothers’ early interactions with their infants (Ainsworth et al., 1978).

Assessment of adult attachment evolved from the classification of children’s attachment behaviours and their experiences with caregivers. The Adult Attachment Interview (AAI; George, Kaplan, & Main, 1985) infers adult attachment organisation from an individual’s process and coherence of reporting on memories of early attachment experiences with parents. The AAI is scored from interview transcript using scales that characterise childhood experience with each parent (loving, rejecting, neglecting, involving, and pressuring) and scales to assess response coherence and style (Crowell & Treboux, 1995). Scale scores are used to assign the individual to three main classifications similar to those identified by Ainsworth et al., (1978): secure/autonomous, insecure/dismissing, insecure/preoccupied (Crowell
The AAI was originally designed to predict a child’s quality of attachment to his or her parent based on the parent’s “state of mind with respect to attachment” (Shaver, Belsky, & Brennan, 2000). A disadvantage of the AAI is that it requires lengthy individual administration and the administration and scoring require specialised training.

The second approach uses self-report measures to assess adult romantic attachment style. The self-report measures are primarily used to predict features of intimate couple relationships (Shaver et al., 2000). Two broad types of self-report measures were developed: categorical and dimensional. The initial self-report measure of romantic attachment developed by Hazan and Shaver (1987) reflected Ainsworth et al.’s (1978) child attachment typology. Each attachment style was represented by a brief paragraph conceptually derived from the three infant attachment patterns (secure, anxious, and avoidant). Subsequently, Bartholomew and Horowitz (1991) extended the three-category model to four categories of adult attachment. Their four-category model reflected the theoretical notion of models of self and others in relationship: secure (positive models of self and others); anxious/ambivalent or preoccupied (negative models of self and positive models of others); and two avoidant styles - dismissing (positive models of self and negative models of others), and fearful (negative models of both self and others).

Attachment dimensions developed as a continuous reflection of Bartholomew and Horowitz’s (1991) concept of adult attachment. A number of self-report measures with varying content were developed during the 1990s. In an effort to consolidate the work of many researchers, Brennan, Clark, and Shaver (1998) generated a large pool of items from the array of available self-report attachment measures. Factor analysis of these items revealed two dimensions, Anxiety and
Avoidance, analogous to the attachment types first classified by Ainsworth and her colleagues (Ainsworth et al., 1978). The two relatively independent dimensions have become widely accepted as the current mode of conceptualising and measuring adult romantic attachment. The Avoidance dimension reflects self-reliance, discomfort with closeness, and avoidance of intimacy. Scale items measuring the Avoidance dimension include “I don’t feel comfortable opening up to romantic partners”, “I prefer not to show a partner how I feel deep down”, and “I find it difficult to allow myself to depend on romantic partners” (Fraley, Waller, & Brennan, 2000). The Anxiety dimension reflects preoccupation with romantic relationships, jealousy, and fear of rejection and abandonment. Scale items measuring the Anxiety dimension include “I’m afraid that I will lose my partner’s love”, “I worry a lot about my relationships”, and “When my partner is out of sight, I worry that he or she may become interested in someone else” (Fraley et al., 2000).

**Gender Differences in Attachment**

Gender differences in attachment patterns have been found in studies using the four-category model and also in some studies using multi-item scales. Males are more likely to endorse a dismissing-avoidant style whereas females are more likely to endorse a fearful-avoidant style (Brennan, Shaver, & Tobey, 1991) or a preoccupied-anxious style (Bartholomew & Horowitz, 1991). Relating these findings to the Avoidance and Anxiety dimensions described previously, both fearful and dismissing individuals report high discomfort with closeness, but the fearful group are more likely to also report higher levels of anxiety over abandonment (Feeney, 1995). Consistent with the findings of males’ higher mean scores of dismissing attachment, males were also found to be more likely than females to see relationships as secondary to achievement (Feeney, Noller, & Hanrahan, 1994).
A number of studies have not found strong or consistent gender differences in attachment styles. Collins and Read (1990) found there were no reliable differences between men and women (N = 71 dating couples), although there was a tendency for women to be somewhat higher on anxiety than were men. The International Sexuality Description Project - a survey study of 17,804 people across 62 cultural regions – found that the magnitude of gender difference in dismissing attachment ranged from small (around $d = 0.20$) to moderate (around $d = 0.43$) in the male direction (Schmitt et al., 2003). Other studies have noted that attachment scales were differentially related to the dependent measures for wives and husbands (Feeney, 1994; Feeney, Noller, & Callan, 1994; Feeney et al., 1994). For example, Feeney (1994) found that husbands and wives (N = 361 couples) marital satisfaction was associated with both comfort with closeness and anxiety over abandonment. Satisfaction was related to own anxiety for both husbands and wives, and to own comfort for wives only. The strongest partner effect was the negative influence of wives’ anxiety on husbands’ satisfaction (Feeney, 1994).

In summary, current measurement of adult romantic attachment on two largely independent dimensions of Anxiety and Avoidance reflects the attachment types first classified by Ainsworth et al. (1978) in her research with mothers and infants. Some studies of gender differences in attachment style have found males are more likely to endorse an avoidant dismissing style whereas females are more likely to report an anxious preoccupied style, however other studies did not find reliable gender differences in attachment style. The next section reviews research findings on associations between attachment and men’s and women’s partner aggression and withdrawal in adult romantic relationships.
Attachment, Aggression, and Withdrawal

Association of Attachment to Partner Aggression

Exposure to parent-to-parent and parent-to-child aggression commonly affects the attachment process and places exposed children at increased risk for a range of interpersonal difficulties. Maltreated toddlers (Beeghly & Cicchetti, 1994) and school-aged children (Shields, Cicchetti, & Ryan, 1994) show emotional regulation difficulties as well as limited ability to verbalise their internal emotional states. Childhood maltreatment also contributes to difficulty in accurately inferring emotional reactions in others (Rogosch, Cicchetti, & Aber, 1995). In addition, exposure to FOOA is likely to include witnessing or experiencing parental hostility. The experience of parental hostility contributes to hypervigilance for conflict cues and subsequent reactivity to distress-relevant cues, and to an increased probability of a matched conflictual, hostile response (Katz & Gottman, 1991).

Exposure to FOOA in childhood may result in attachment models constructed along dominance-subordination and victim-victimiser dimensions (Cicchetti & Howes, 1991; Crittenden & Ainsworth, 1989; Dodge, Pettit, & Bates, 1994). Children who experience physical, sexual, and emotional trauma in the context of significant close relationships are exposed to attachment models that incorporate both the offender and victim roles. Thus, attachment theory suggests that males and females with histories of maltreatment are at risk for both inflicting and receiving partner aggression.

Pistotle (1994) used attachment theory to explain how exposure to FOOA might increase the risk of aggression in adult couple relationships. Pistotle (1994) argued that FOOA is often associated with inconsistent, unresponsive, or rejecting caregiving, which in turn is associated with the development of insecure attachment
in the exposed child. Insecure attachment often is associated with anger and frustration by the child toward the caregiver in childhood. Thus, anger and frustration becomes a common response to disappointments and dissatisfaction with attachment figures. Consequently, in adult intimate relationships the insecure adult may become aggressive or angrily withdraw from their partner. In other words, a pattern of feeling threatened and insecure in close relationships, and responding with anger and aggression to that insecurity, is argued to persist from early parent-child relationships through to adult intimate relationships.

Hazan and Shaver (1987) advanced a similar argument to that of Pistotle (1994), proposing that during adolescence, attachment needs gradually shift from parental caregivers to peers, but that attachment style remains relatively stable. Moreover, Hazan & Shaver (1987) argued that this stable attachment style is likely to influence the selection of dating partners. Adolescents and young adults tend to choose dating partners and situations that are consistent with their existing attachment models, including expectations about self and romantic partners (Wekerle & Wolfe, 1999). For example, individuals with secure attachment are likely to perceive potential partners who are negative, inattentive, or unreliable, as inconsistent with their expectation of a caring relationship and to seek other partners. In contrast, those who are insecure are likely to perceive a partner’s negativity, inattention, or unreliability as consistent with their expectations of close relationships, and be more likely to accept and continue such partnerships.

Wekerle and Wolfe (1998) investigated childhood maltreatment (as measured by 13 child abuse items on the 1991 Ontario Health Supplement Questionnaire) and attachment as predictors of adolescent partner aggression in a sample of 321 male and female high school students (mean age = 15.23 years). The attachment measure
reflected three main attachment patterns (secure, anxious/ambivalent, and avoidant). Maltreatment emerged as the most consistent predictor of males’ self-reported male-to-female aggression and negative communication. In contrast, maltreatment was not highly predictive of females’ self-reported aggressive behaviour. Maltreatment was predictive of both male and female self-reported victimisation experiences. Attachment failed to add substantially to the prediction of partner aggression beyond maltreatment; however the interaction between maltreatment and avoidant attachment added a unique 12% of variance to the prediction of male-to-female partner aggression beyond the single contributions of maltreatment (13%) and avoidant attachment style (1%) (Wekerle & Wolfe, 1998).

Investigations of adult attachment and partner aggression have tended to focus on violent men (Dutton & Browning, 1988; Dutton et al., 1994; Pistotle & Tarrant, 1993; Kesner & McKenry, 1998; Holtzworth-Munroe et al., 2000). In general, research findings support a relationship between FOAA, insecure attachment, and partner aggression for men. For example, Kesner and McKenry (1998) examined the role of attachment in predicting male-to-female partner aggression in a community sample of 149 married and cohabitating couples. Childhood maltreatment (combined scores for witnessing interparental aggression and receiving mother and/or father aggression) was associated with male-to-female partner aggression and the association was mediated by attachment. Scores for childhood attachment history (Attachment History Questionnaire (AHQ), Pottharst & Kessler, 1990) and adult attachment patterns (Adult Attachment Style Questionnaire (AAS), Bartholomew & Horowitz, 1991) were significantly correlated, which is consistent with the proposition that adult attachment evolves from early childhood attachment experiences. However, retrospective reports of
child attachment might be influenced by current adult attachment. Violent males were more likely to endorse a fearful attachment style, consistent with the possibility that their aggressive behaviour could be a product of their insecurity. In addition, female partners of violent male respondents scored lower on secure attachment style, and reported higher dismissing style and lower preoccupied style, suggesting that women with a dismissing-avoidant attachment style may be at increased risk for aggression from an insecurely attached partner.

Bartholomew (1990) argued that both preoccupied and fearful attachment styles are associated with high levels of intimacy anger (defined as anger towards an intimate partner when relevant attachment cues are perceived as threats of separation or abandonment). Consistent with this argument, Dutton and Browning (1988) found that violent men reported heightened anger and more aggression than nonviolent men in response to viewing videotaped conflict interactions of a woman behaving in ways that distanced her from her partner. Dutton (1994, 1999) proposed a trauma-response framework for understanding the functioning of maritally violent men. He argued that men who are violent to intimate partners often are suffering from trauma and that the source of the trauma is a triad of FOOA, shaming behaviour by a parent, and insecure attachment. In a series of studies with maritally violent men, Dutton and his colleagues (Dutton, 1994; Dutton et al., 1994; Dutton et al., 1996) found that high male scores on a constellation of Borderline Personality traits (BPT), anger, trauma symptoms, and jealousy were found to significantly correlate with both verbal and physical male-to-female partner aggression. All the variables in the constellation were significantly positively associated with fearful attachment, and to a lesser extent with preoccupied attachment (Dutton et al., 1994). Further, composite attachment scores of anxiety and avoidance had strong and
significant correlations with BPT, anger, trauma symptoms, and jealousy (Dutton et al., 1994).

Building on previous work on batterer typologies (e.g., Gondolf, 1988; Hamberger & Hastings, 1985, 1986; Stith, Jester, & Bird, 1992), Holtzworth-Munroe and Stuart (1994) used three descriptive dimensions (psychopathology, severity of violence, and generality of violence) to propose a typology consisting of three types of maritally violent men: family only, borderline-dysphoric, and generally violent/antisocial. Family-only batterers (FO) would engage in the least severe marital violence, violence outside the home, and criminal behaviour, but may be overly dependent on their partners and show evidence of a preoccupied attachment style. Borderline-dysphoric (BD) batterers would engage in moderate to severe violence primarily towards the wife although some extrafamilial violence might be evident. This group would be psychologically distressed with Borderline Personality traits and possibly some substance abuse. Like the BD group, generally violent-antisocial (GVA) batterers would engage in moderate to severe marital violence but would have the highest level of extrafamilial violence and related criminal behaviour. They would be most likely to have substance abuse problems and Antisocial Personality traits (Holtzworth-Munroe & Stuart, 1994). The researchers argued that, in addition to other risk factors, childhood exposure to FOOA, insecure attachment, and failure to develop mechanisms for regulating anger (impulsivity) increase risk for behaving aggressively towards peers and/or intimate partners, and that the three types of violent men differed on these variables.

Holtzworth-Munroe et al. (2000) found evidence for Holtzworth-Munroe and Stuart’s (1994) proposed associations of FOOA, insecure attachment, impulsivity, and types of violent men. In a sample of maritally violent men (N = 102) and their
wives, and two comparison groups of nonviolent couples, they identified four batterer types: the three proposed by Holtzworth-Munroe and Stuart (1994) and a fourth group labelled low-level antisocial (LLA). This group were less aggressive than the BD and GVA groups but fell intermediate to the BD and GVA groups on antisociality. The FO group had the lowest level of aggression and resembled the least violent men found in community or newlywed samples (Holtsworth-Munroe et al., 2000). The BD and GVA men engaged in more severe violence than the FO and LLA groups. As expected, the BD and GVA groups also reported high levels of childhood maltreatment and evidenced greater insecure attachment than other groups, with BD men tending to have the highest levels of preoccupied and fearful attachment, and the GVA group scoring highest on dismissing attachment style.

Few studies have investigated links between FOOA, attachment, and female-perpetrated partner aggression. Orcutt, Garcia, and Pickett (2005) found a relationship between female-perpetrated aggression and high female attachment anxiety in a college student sample (N = 457). Roberts and Noller (1998) investigated both partners’ attachment and aggression in student (N = 87) and community (N = 94) couple relationships. They found a relationship between self-reported anxiety over abandonment and own aggression in both women and men. The partners’ anxiety over abandonment scores significantly added to the prediction of aggression beyond that accounted for by own attachment in women but not men. In contrast, discomfort with closeness was unrelated to the use of partner aggression by either gender. However, the combination of own anxiety over abandonment and partner discomfort with closeness predicted both male and female aggression (Roberts & Noller, 1998).
Overall, the research indicates that FOOA and insecure attachment increase the risk for partner aggression. Moreover, that the dependence on one’s partner, fear of rejection and abandonment, and ambivalence about intimacy associated with preoccupied and fearful attachment styles may be a risk factor for partner aggression in men who engage in little or no violence outside intimate relationships. Little research is available on relationships between FOOA, insecure attachment, and women’s partner aggression. However, early indications are that attachment anxiety is also related to female-perpetrated partner aggression (Orcutt et al., 2005; Roberts & Noller, 1998).

Association of Attachment to Partner Withdrawal

Insecure attachment is associated with withdrawal as well as aggression in couple relationships. Couples consisting of two securely attached individuals report less partner withdrawal (Feeney, 1994; Feeney & Noller, 1990; Senchak & Leonard, 1992) than couples in which the wife is insecure (Senchak & Leonard, 1992). A number of studies by Feeney, Noller, and colleagues (Feeney, 1994; Feeney et al., 1994; Roberts & Noller, 1998) found associations between insecure attachment and destructive demand-withdraw communication patterns. For example, Feeney (1994) found that both attachment anxiety and avoidance were associated with demand-withdraw communication patterns for both husbands and wives (N = 361 married couples). Similarly, Feeney et al. (1994) found in a sample of newlywed couples that anxiously attached wives reported high levels of conflict, coercion, and demand-withdraw, and less mutual discussion during conflict discussions. Anxious husbands reported high coercion, and demand-withdraw, and low mutual discussion.

Further, Feeney (1995) also found an association between attachment anxiety and reports of withdrawal in a study of dating couples (N = 72). Attachment anxiety
was related to indirect (e.g., “I let my actions and lack of communication convey my feelings”) and avoidant (e.g., “I go somewhere where s/he won’t be”) reactions to feeling anger in relation to their current dating partner. Feeney (1995) argued that the results were consistent with attachment theory in that individuals who are high in Anxiety crave closeness in their relationships, but they see themselves as unworthy of love, and fear being abandoned by their partner. Individuals with high Anxiety scores are, therefore, likely to perceive feeling angry with their partner as threatening to their relationship and are more likely to respond to their anger in ways that are indirect and non-confronting. However, indirect behavioural responses may lead to failure to resolve relationship problems, and to growing resentment and relationship dissatisfaction (Feeney, 1995). Eventually withdrawal may not be possible and the unresolved problems may lead to relationship dissatisfaction and increased risk for partner aggression.

In summary, attachment experiences with primary caregivers in early childhood are believed to influence the development of internal working models of relationships. These working models shape an individual’s cognitive, emotional and behavioural responses to others and influence the quality of later intimate relationships. Recent research suggests that childhood exposure to FOOA, if not moderated by other positive caregiving experiences, produces insecure attachment (Beeghly & Cicchetti, 1994; Dodge et al., 1994; Shields et al., 1994; Stroufe et al., 1999). Further, research suggests that insecure attachment, particularly in the context of childhood abuse experiences, increases an individual’s risk for perpetration of partner aggression (Holtzworth-Munroe et al., 2000; Kesner & McKenry, 1998; Wekerle & Wolfe, 1998). Research examining links between FOOA, attachment, and partner aggression have predominately focused on male-
perpetrated aggression. However, recent studies have also found associations between FOOA, insecure attachment, and female-perpetrated aggression. Research findings also suggest an association between insecure attachment and partner withdrawal. These findings support the current thesis that insecure attachment mediates the relationship between FOOA and adult partner aggression, and between FOOA and adult partner withdrawal.

Attachment schemas develop from experiences in primary relationships. These mental models of relationships become the template for evaluating relationships and provide the basis on which individuals predict future relationship experiences. Given that working models centre round the regulation and fulfilment of attachment needs, they are most likely to be activated automatically when attachment-relevant stressful events occur (Collins & Read, 1994). Activation of a particular model (e.g., “others cannot be trusted”), affects what is noticed and how events are explained, but it is less clear how schemas are expressed in moment-to-moment couple interactions. One possibility is that attachment schemas influence the attributions that an individual makes for a partner’s behaviour in specific relationship situations, and that these attributions influence the individual’s response. Associations have been found between attributions and negative behaviour (Bradbury & Fincham, 1992; Halford & Sanders, 1990) including partner aggression (Holtzworth-Munroe & Hutchinson, 1993). Thus, attributions could mediate the relationship between attachment and partner aggression in adults exposed to FOOA.

**Attributions**

*The Concept of Attributions*

In the context of relationships, attributions are the explanations people generate for events that occur, including their own and their partner's behaviour
Negative attributions for partner behaviour are associated with, and longitudinally predict, relationship dissatisfaction and dysfunction (Bradbury & Fincham, 1990; Fincham & Bradbury, 1993; Miller & Bradbury, 1995). Historically, attributional research in intimate relationships has roots in the early work of Heider (1958) and Kelley (1967, 1979). Kelley (1979) noted the frequency with which one member of a couple described stable, general properties of the other partner when describing relationship problems. Kelley’s observation led to investigation of the role of attributions in conflict between partners and the proposition that relationship satisfaction may covary with attributions.

Assessment of Attributions for Partner Behaviour

Bradbury and Fincham (1987; 1990) developed a framework for describing the relationships between spouse behaviour, attributions for partner behaviour, and subsequent impact on relationship satisfaction. In Bradbury and Fincham's (1987, 1990) model, when an individual perceives their partner's behaviour to be negative, unexpected, and self-relevant, they are likely to engage in secondary processing involving an attributional search to identify a cause for the behaviour, and to assign responsibility and possibly blame (Bradbury & Fincham, 1987, 1990). Causal attributions and responsibility attributions are the two most frequently investigated constructs in the attribution domain. Causal attributions are explanations an individual makes for the occurrence of a relationship event. Responsibility attributions relate to accountability for the event and provide the basis for the assignment of blame (Fincham & Bradbury, 1992). The Relationship Attribution Measure (RAM) is a commonly used brief two-factor measure of attributions for partner behaviour (Fincham & Bradbury, 1992). Using hypothetical but common
relationship events, the causal construct is assessed on the dimensions of locus, stability, and globality. The responsibility-blame construct is assessed on the dimensions of intention, motivation, and blame. Fincham and Bradbury (1992) also examined the correlations between attributions for real and hypothetical partner behaviour and found they were highly related.

Much of the research on couples’ attributions has focused on marital satisfaction and negative communication behaviours. A more modest amount of research has investigated the relationship of attributions to the variables of interest in the current thesis; that is, partner aggression and withdrawal. However, evidence from these somewhat separate bodies of research indicates that relationship quality, communication behaviour, and partner aggression and withdrawal form a cluster of relationship variables that are associated with each other. Low relationship satisfaction and negative communication are associated with higher rates of partner aggression and withdrawal, but the nature of a relationship between aggression and withdrawal is not yet clear. The associations between attributions, relationship satisfaction, and negative communication behaviours will be reviewed first, followed by a review of the research on attributions and partner aggression.

*Attributions and Relationship Satisfaction*

The vast majority of research examining attributions in marriage has investigated the association between attributions and marital satisfaction. Results suggest a robust association between negative attributions for relationship events and marital dissatisfaction and dysfunction (Bradbury & Fincham, 1990; Fincham & Bradbury, 1993; Holtzworth-Munroe & Hutchinson, 1993; Holtzworth-Munroe, Jacobson, Fehrenbach, & Fruzzetti, 1992; Bradbury, Beach, Fincham, & Nelson, 1996). For example, Fincham and Bradbury (1987a) assessed marriages at two
points separated by a 12-month period and found that wives’ initial causal and responsibility attributions predicted later satisfaction. In addition, responsibility attributions have been found to predict later marital satisfaction in a sample of newlywed couples (Fincham, Bradbury, Arias, Byrne, & Karney, 1997), and causal attributions influence, and are influenced by, marital satisfaction (Fincham & Bradbury, 1993; Fincham, Harold, & Gano-Phillips, 2000). Further, Fincham and Bradbury's (1993) longitudinal study of 130 couples over 12 months found that attributions predicted later marital satisfaction, and that the attribution-satisfaction link was not an artefact of depression or self-esteem. Senchak and Leonard (1993) provided further evidence for the attribution-marital satisfaction association by showing that attributions accounted for unique variance in marital satisfaction when negative affect (anger and depression) of self and partner were controlled.

Attributions and Behaviour

Attributions for partner behaviour predict behaviour in marital interactions. For example, in two separate studies, Bradbury and Fincham (1992) showed that participants’ negative attributions were related to less effective problem-solving behaviour, higher rates of negative behaviour and, for distressed wives particularly, an increased tendency to reciprocate negative partner behaviour. An association between attributions and behaviour was also found in two experimental studies. Dissatisfied spouses exhibited higher rates of negative behaviour when they were led to believe their partner was responsible for writing a negative description of them, compared with dissatisfied spouses who believed their partner was not responsible for writing the negative description (Fincham & Bradbury, 1988). Further, the manipulated attributions influenced subsequent observed behaviour in dissatisfied but not satisfied spouses (Fincham & Bradbury, 1988).
Halford and Sanders (1990) showed that cognitions naturally elicited through partner interaction are associated with subsequent behaviour. They used a video-mediated recall procedure with maritally distressed and nondistressed couples and found that distressed couples, relative to nondistressed couples, engaged in more partner-referent negative cognitions and fewer partner-referent positive cognitions during problem-solving discussion. Results also showed that negative behaviour tended to follow negative cognitions and positive behaviour followed positive cognitions. Further, negative verbal and nonverbal behaviour was better predicted by combining past behaviour and cognitions than by past behaviour alone. These results are consistent with the findings of other studies (Fincham, Beach, & Baucom, 1987; Fincham, Beach, & Nelson, 1987; Fincham & Bradbury, 1987b, 1988; Sillars, 1985; Noller & Ruzzene, 1991) indicating that attributions predict behaviour and reported relationship satisfaction, and that maladaptive attributions may contribute to conflict and relationship dysfunction.

**Attributions and Partner Aggression**

When individuals make critical, blaming, or hostile attributions for interpersonal events they may be more likely to respond aggressively. For example, Dodge and colleagues (Dodge & Coie, 1987; Dodge, 1991; Lochman & Dodge, 1994) demonstrated that aggressive boys, relative to nonaggressive boys, more frequently evidence a hostile attributional bias when judging social interactions involving peers. Drawing on the work of Dodge and colleagues, Holtzworth-Munroe and Hutchinson (1993) proposed that a social information processing bias might exist in aggressive men. Holtzworth-Munroe and Hutchinson (1993) compared attributions for negative wife behaviour (depicted in hypothetical problematic marital situation vignettes) across three groups of men: maritally violent and
distressed, nonviolent and maritally distressed, and nonviolent and nondistressed. Violent husbands, relative to nondistressed husbands, were more likely to attribute negative intentions and selfish motivation to the wife, and to see her behaviour as blameworthy. Relative to nonviolent distressed and nondistressed men, violent men were significantly more likely to attribute negative intent to the wife, particularly for situations involving issues of jealousy, rejection, and potential public embarrassment from the wife, but not for situations in which the wife wanted something from the husband (Holtzworth-Munroe & Hutchinson, 1993). Although investigations of the attributions-partner aggression association have primarily focused on violent men, negative attributions for partner behaviour also correlate with wife-to-husband aggression (Byrne & Arias, 1997).

Attachment, Attributions, and Aggression

Of particular relevance to the current research was Holtzworth-Munroe and Hutchinson’s (1993) finding that hypothetical situations involving potential abandonment or rejection by a wife elicited more attributions of negative intent from violent men than nonviolent men. Previous research has demonstrated that violent husbands, relative to nonviolent husbands, experience more anger and generate incompetent behavioural responses to situations portraying a wife's rejection or abandonment of a husband (e.g., wife will not listen to husband; wife wants to spend more time with her friends). In contrast, violent men do not differ from other men in their anger or responses to abandonment neutral disagreements (e.g., where to go on holiday), or for situations in which the wife wanted something from the husband (e.g., wife wants husband to talk to her more) (Holtzworth-Munroe & Anglin, 1991; Dutton & Browning, 1988).
As described previously in the attachment section, attachment theory proposes that insecurely attached individuals are likely to be hypersensitive to perceived abandonment or enmeshment threats. This hypersensitivity may precipitate defensive attack behaviours designed to re-establish the degree of closeness and intimacy that feels safe for the individual. It would seem that, although Holtzworth-Munroe and Hutchinson (1993) study did not present an attachment orientation, the vignettes used in the research were presenting some situations with attachment-relevant stimuli. That is, some vignettes portrayed situations in which the wife could be perceived as potentially rejecting or abandoning the husband (e.g., wife talking to another man). While scenarios depicting the wife wanting something from the husband did not elicit significantly more negative hostile attributions from violent men than nonviolent men, the abandonment and rejection threats did.

The findings on attributions for hypothetical partner behaviour made by violent men lend support to the current study's proposal that the link between attachment and partner aggression may be through the attributions made in attachment-relevant relationship situations. Results suggest that, at least for men, there is a link between anxiety over abandonment, negative attributions for partner behaviour, and increased risk of an aggressive response. Vignettes that could be hypothesised to tap the Avoidance attachment dimension (e.g., wife wants husband to talk to her) did not significantly differentiate violent and nonviolent husbands’ attribution scores (Holtzworth-Munroe & Anglin, 1991), suggesting that anxious attachment is more likely than avoidant attachment to produce negative attributions and aggressive responses. However, the studies described above were not investigating links between attachment and aggression, and it would seem premature
to rule out an effect for avoidant attachment. Individuals who have a fearful avoidant attachment style (that is, individuals who desire intimacy but experience a lack of trust and fear of rejection) may be equally at risk for partner negative attributions and aggressive responding in attachment relevant relationship situations. Alternatively, given their avoidance of closeness and intimacy, they may be more likely use withdrawal as a behavioural response to such situations.

Research testing the ability of attachment, mediated by attributions, to predict relationship functioning is scarce. The results of two recent studies provide some initial support for the current hypothesis that adult attachment and attributions for partner behaviour mediate FOOA and current partner aggression and withdrawal. Gallo and Smith (2001) examined the associations between attachment, negative attributions, and perceived marital support and conflict in 57 young married couples recruited through the University of Utah. Husbands’ and wives’ anxious attachment, and husbands’ avoidant attachment, were associated with negative attributions for partner behaviour. Regression analyses revealed that husbands’ and wives’ negative attributions for partner behaviour mediated the effect of anxious attachment on perceived marital conflict and support. In contrast, avoidant attachment was weakly associated with perceptions of support only. Gallo and Smith (2001) suggested that the lack of relationship between avoidant attachment and perceptions of marital conflict may reflect the tendency of avoidant individuals to disengage from relationship stress by adopting distancing and withdrawal strategies.

Gallo & Smith’s (2001) results are consistent with Sumer and Cozzarelli’s (2004) findings in their study of attachment, attributions, and relationship quality in a sample of university students (N = 352) reporting on their current romantic relationship. Attachment was assessed using the four-category model based on
positive and negative models of self and others (Bartholomew & Horowitz, 1991). Structural Equation Modelling (SEM) indicated that working model of others had a significant direct effect on relationship quality, but did not have a significant direct effect on attributions or an indirect effect on relationship quality. Working model of self had a direct and indirect effect (via attributions) on relationship quality. Given that the negative model of self largely overlaps with the dimension of attachment anxiety (Brennan et al., 1998), these results are consistent with the finding that the association between attachment anxiety and relationship functioning is mediated through attributions (Gallo & Smith, 2001).

In summary, negative attributions for partner behaviour predict marital distress (Fincham & Bradbury, 1993; Fincham et al., 1997), higher rates of negative behaviour, and less effective problem solving (Bradbury & Fincham, 1992; Halford & Sanders, 1990). Violent men, compared with nonviolent men, make more hostile attributions for partner behaviour, particularly regarding situations involving potential rejection or abandonment by the partner (Holtzworth-Munroe & Hutchinson, 1993). Situations involving potential distance, rejection, or abandonment by a romantic partner may be particularly salient for anxiously attached individuals. In contrast, violent men do not differ from nonviolent men in their anger or behavioural responses to abandonment-neutral disagreements (Holtzworth-Munroe & Anglin, 1991; Dutton & Browning, 1988). These results suggest that anxiously attached men make more negative attributions for partner behaviour and subsequently respond with maladaptive behaviour including partner aggression. However, none of the available studies included a measure of adult attachment, or directly tested a mediational model of attachment, attributions, and partner aggression.
Overview of the Research Program

An established body of research has shown that the fire of aggressive behaviour between intimate partners is often destructive to the partners involved, to any children exposed to the aggression, as well as to the couple relationship. The research on the effects of icy withdrawal is less consistent though results generally indicate that withdrawal is associated with hostility and aggression and that it negatively impacts on couple relationships.

FOOA is an established risk factor for adult partner aggression, but not all individuals with violent family histories are aggressive to their partners. The impact of FOOA on partner withdrawal is less well researched but FOOA may be a risk factor for withdrawal. The mechanism by which FOOA impacts on behaviour in adult intimate relationships appears to be complex and multidimensional.

Research on attachment indicates that FOOA, unless moderated by other positive caregiving experiences, often produces insecure attachment, and that insecure attachment increases the risk of male-perpetrated partner aggression. Little research is available on FOOA, attachment, and female-perpetrated aggression, though a few recent studies have also found associations between these variables. The finding that insecure attachment is a risk factor for partner aggression does not explain how insecure attachment is expressed in specific couple interactions. Attribution research suggests one explanation for how insecure attachment translates to partner aggression. Negative attributions for partner behaviour are related to less effective problem solving in couples, higher rates of negative behaviour, and marital distress. Maritally violent men, compared with non-violent men, make more hostile attributions for partner behaviour, particularly regarding situations involving potential rejection, embarrassment, or abandonment by the wife.
While much research attention has been given to identifying the predictors of male-perpetrated partner aggression, and more recently female-perpetrated partner aggression, investigations of predictors of partner withdrawal are lacking. Withdrawal has primarily been investigated as a demand-withdraw communication pattern in couples’ problem-solving communication. Research investigations of a relationship between FOOA and withdrawal are limited and inconclusive. Withdrawal has been shown to predict marital adjustment and associations have been found between attachment, partner aggression and withdrawal. The nature of the association between partner aggression and withdrawal is not yet clear. I suggest that withdrawal and aggression are both possible responses to fear of intimacy or fear of rejection and abandonment.

Figure 1 presents heuristic models of the proposed relationships between FOOA, attachment, attributions, and aggression, and between FOOA, attachment, attributions, and withdrawal in couple relationships. Drawing on the research findings to date, the current research proposed that the antecedents of withdrawal are analogous to the antecedents of aggression. Research findings across the areas of FOOA, adult attachment, and attributions for partner behaviour were integrated in the models predicting partner aggression and partner withdrawal. Given the consistent findings for an association between FOOA and partner aggression a partial mediation model was proposed with a direct path from FOOA to partner aggression as well as a path through attachment and attributions. For withdrawal, a fully mediated model was proposed in which the association of FOOA to withdrawal was through attachment and attributions and there was no direct path from FOOA to withdrawal. It was decided to test the most parsimonious model predicting
withdrawal initially as there is scant research available on the prediction of withdrawal.

Although much less research is available on female-perpetrated partner aggression than on male-perpetrated partner aggression, male and female partner aggression have been argued to serve different functions and to have different antecedents. Similarly, arguments have been advanced that men and women differ in withdrawal either due to differences in sex-role conditioning (Napier, 1978), different preferences for closeness and autonomy (Greenberg & Johnson, 1986; Jacobson, 1989), or because of power differences (Christensen, 1987). Men and women may also differ in attachment style. For example, some research indicates that men are more likely to be dismissing (avoidant) and women are more likely to be preoccupied or anxious (Bartholomew & Horowitz, 1991; Brennan et al., 1991). Moreover, relationships between the variables in the proposed model may differ by gender. For example, gender differences have been found in the association between FOOA and partner aggression (Stith et al., 2000). A recent study found that the correlation between attachment style and attributions differed by gender (Gallo & Smith, 2001). Further, research on marital satisfaction found that women’s attributions for partner behaviour are a better predictor of marital satisfaction than men’s attributions (Fincham & Bradbury, 1987a). Therefore, in the current research, the models were tested separately for men and women to test for possible gender differences.
Figure 1. Hypothesised models predicting partner aggression and withdrawal.

Note: FOOA = Family-of-origin aggression; M = male; F = female
Two empirical studies were conducted. Study One tested the heuristic model for female-perpetrated and male-perpetrated partner aggression in a sample of newlyweds. Building on Study One, Study Two tested the model for male and female partner aggression, and the model for male and female partner withdrawal, in a large sample of couples in early-stage relationships.
CHAPTER FOUR: STUDY ONE

Predictors of Aggression in Newlywed Couples

Study One investigated associations between family-of-origin aggression (FOOA), attachment, attributions, and partner aggression in newlywed couples. Specifically, it was hypothesised that 1) FOOA would be associated with current partner aggression, and 2) the association would be partially mediated through adult attachment and attributions for partner behaviour. Previous research has predominantly investigated predictors of male-perpetrated partner aggression. The current study aimed to expand on previous research by investigating the influence of FOOA, attachment, and attributions on both female-perpetrated and male-perpetrated partner aggression. Therefore, the predicted associations were investigated separately for males and females to evaluate the generalisability of findings across gender.

The current study was conducted as part of an ongoing longitudinal study of a large sample of newlywed couples. I had the opportunity to collect measures of partner aggression, attachment, and attributions for a sample of couples being reassessed one year after marriage. Data on the partners’ exposure to FOOA had been collected previously in the first wave of data collection, which was conducted approximately 6 weeks after the couple married.

Method

Participants

Participants were 73 recently married couples who were recruited for a longitudinal study of the trajectory of relationship satisfaction in the early years of marriage. Newlywed couples for the longitudinal study were recruited with the assistance of the Queensland Registrar of Marriages. Couples in the current study
were recruited through the 2001 follow-up of couples married the previous year (2000).

Mean age for females was 31.86 years ($SD = 7.33$). Male participants mean age was 34.15 years ($SD = 9.08$). Most of the participants were employed full-time (47% of females and 86% of males). The mean annual income for couples was $71,000. Couples in the current study were from a wide range of socioeconomic backgrounds but were generally of higher socioeconomic status than the average couple in Australia. Couples reported high marital satisfaction with a mean score on the Dyadic Adjustment Scale (Spanier, 1976) of 123.99 ($SD=9.36$) for wives and 122.69 ($SD=10.87$) for husbands.

Measures

Questionnaire booklets assessing socio-demographic, individual, and relationship variables were mailed to husbands and wives to complete separately. Only the measures relevant to the current study are reported here. Marital satisfaction was assessed with the Dyadic Adjustment Scale (DAS; Spanier, 1976). The DAS is a well-established 32-item measure assessing self-reported overall relationship satisfaction. The total scale score, which is highly reliable (Cronbach’s $\alpha = 0.96$), represents overall dyadic adjustment.

A shortened version of the Conflict Tactics Scale (CTS; Straus, 1979) was developed to reduce participant burden in completing the questionnaire package. Partner aggression was assessed using the 5-item Conflict Tactics Scale – Short Version (CTS-SV). Participants reported on their own (5 questions) and their partner’s (5 questions) psychological and physical aggression in their marriage during the past 6 months. Two of the five items measured psychological aggression (e.g., “Did you threaten to hit your partner?”) and two items measured physical
aggression (e.g., “Did you punch your partner?”). One item referred to calm discussion of a problem and was not included in the aggression score. Respondents rated their own and their partner’s conflict behaviour on a 4-point scale: 0 = Never, 1 = Once, 2 = Twice, and 3 = More Than Twice.

The short version Parent Conflict Tactics Scale (PCTS-SV) was used to assess each participant’s retrospective reports of observed aggression between their mother and father. The same items used in the CTS-SV to measure partner aggression were reworded to assess psychological and physical mother-to-father aggression and father-to-mother aggression (e.g., “Did you ever see your Mother threaten to hit your Father? Did you ever see your Father punch your Mother?”). Respondents rated each item on the 4-point scale from Never to More Than Twice used in the CTS-SV. The same 5 items (10 questions) were reworded to assess participants' retrospective reports of parental psychological and physical aggression to them in childhood. The short version Parent Child Behaviour Scale (PCBS-SV) assesses mother-to-child and father-to-child aggression separately as described above for parental aggression. Respondents rated each item on the same 4-point scale (Never to More Than Twice). The derived scores are the sum of the aggression ratings on the mother-to-father, father-to-mother, mother-to-child, and father-to-child scales.

Attachment was assessed using a 15-item measure of the two attachment dimensions of Comfort with Closeness and Anxiety over Abandonment (Feeney et al., 1994). For each of the 15 items, participants rated their agreement on a 4-point scale from 1 (Strongly Disagree) to 4 (Strongly Agree). High scores represent high levels of comfort with closeness (low avoidance) or high anxiety over abandonment.
The two scales (Closeness and Anxiety) have been shown to have moderate to high reliability (Feeney et al., 1994; Strahan, 1991).

Attributions were assessed using the RAM (Fincham & Bradbury, 1992). Scores on the RAM can be calculated to provide separate causal and responsibility attribution scores or a full-scale score. Higher scores indicate more negative attributions. The RAM subscales are internally consistent (average $\alpha = 0.89$ for causal and responsibility composites) and valid (Fincham & Bradbury, 1992). The total scale score also exhibits acceptable reliability (Cronbach’s $\alpha = 0.82$ and 0.77 for males and females respectively; Charker, 2003). Further, the RAM displays adequate test-retest reliability over a 3-week interval (average $\alpha = 0.75$) (Fincham & Bradbury, 1992).

The RAM presents respondents with four hypothetical scenarios that commonly occur in marriage (e.g., “Your partner ignores what you are saying”). For each of the four scenarios participants rated their agreement on a 6-point scale ranging from 1 (Disagree Strongly) to 6 (Agree Strongly) with six statements that reflect causal (stability, globality and locus) and responsibility (blame, motivation and intention) attributions. In the current study, the RAM total scale score was used to assess partner-negative attributions. Scores were derived separately for males and females.

Procedure

Couples married in Queensland, Australia in June 2000 were recruited through the State Registry of Births, Deaths, and Marriages. The Registry mailed a package containing a covering letter from the Registrar, an information brochure, and a reply-paid envelope. The covering letter stated that the couples’ personal details had not been released to Griffith University or anyone else, and that
participation in the research was voluntary. The information brochure described the project and the researchers involved, and included a detachable contact information slip. Couples interested in participating in the project were asked to return the completed slip in the reply-paid envelope provided. Couples interested in the project were then contacted by telephone and a detailed description of the study was provided. For couples that agreed to participate, each partner was sent a booklet of questionnaires and a reply-paid envelope. Participants were asked to complete and return the booklets within seven days. Those who had not returned their booklets in seven days were recontacted on up to two occasions to prompt booklet return. Ninety-seven couples completed and returned the questionnaire booklets representing 81% of the initial volunteers and 4.5% of the couples who received the initial information package.

One year later (2001), the first follow-up data were collected in the same procedure as that described above. Data were collected from 73 of the original 97 couples. Of the 24 couples who did not complete the follow-up assessment, I could not contact 10 of the couples, one couple refused due to separation, and 13 couples refused to participate, 12 of these reporting they were too busy to participate.

Results

Data Screening

Data were analysed with SPSS 11.5 statistical program (SPSS Inc., 2002). Prior to hierarchical regression analysis, the data were screened for multicollinearity among variables and to ensure normality, linearity, and homoscedasticity of residuals. Four couples were omitted as one partner in each of the couples had been raised in a single parent family, leaving a sample of 69 couples.
Composite variables. Reducing variables to the minimum number of reliable predictors reduces the risk of error and possible multicollinearity. Due to the high number of potential independent variables (IVs) relative to cases, and the generally high correlations between some IVs, composite variables were created. Specifically, correlations among male and female reports of female aggression \((r = 0.70)\) indicated sufficient agreement between partners for the scores to be summed to form a composite index of female aggression. Male and female reports of male aggression \((r = 0.61)\) were summed to form a composite index of male aggression. Father-to-mother aggression was highly correlated with mother-to-father aggression in females’ family-of-origin \((r = 0.74)\) and moderately correlated in males’ family-of-origin \((r = 0.64)\). Composite parent-to-parent aggression variables were created separately for the wives’ reports on interparental aggression and the husbands’ reports on interparental aggression. Wives’ mother-to-child and father-to-child aggression scores \((r = 0.50)\) were combined, and husbands’ mother-to-child and father-to-child aggression scores \((r = 0.68)\) were also combined, creating separate female and male parent-to-child aggression variables.

Normality. Three variables were moderately skewed (female aggression, female parent-to-parent aggression, and male parent-to-parent aggression). Skewed data is common when measuring aggression in community samples, with the majority of participants scoring at the lower end of the distribution and few participants scoring at the extreme high end (more intense and/or severe aggression). These variables were corrected with square root transformations. However, the pattern of results was the same for analyses using the transformed data and the raw data. Given the inherent difficulty in interpretation of transformed data, analyses of the untransformed data are presented. Four univariate outliers (three on female
aggression and one on male aggression) were censored to be one unit higher than the next most extreme score in the distribution (Tabachnick & Fidell, 2001). No multivariate outliers were identified during regression analyses.

**Scale Reliability.** Internal consistency for each scale used in regression analyses was calculated using Cronbach’s alpha (α). Results are shown in Table 1.

Table 1.

**Means, Standard Deviations (in parenthesis), and Cronbach’s Alpha Coefficients of Key Measures**

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<thead>
<tr>
<th></th>
<th>Female</th>
<th>Male</th>
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<tr>
<td></td>
<td>M (SD)</td>
<td>Cronbach’s Alpha</td>
<td>M (SD)</td>
<td>Cronbach’s Alpha</td>
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<tr>
<td>CTS - SV</td>
<td>2.76(3.09)</td>
<td>.77</td>
<td>2.21(2.44)</td>
<td>.60</td>
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<tr>
<td>PCTS - SV</td>
<td>7.35(7.10)</td>
<td>.85</td>
<td>5.17(5.22)</td>
<td>.77</td>
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<tr>
<td>PCBS - SV</td>
<td>11.65(6.96)</td>
<td>.83</td>
<td>14.15(7.76)</td>
<td>.88</td>
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<tr>
<td>Attachment - Anxiety</td>
<td>10.35(2.74)</td>
<td>.76</td>
<td>8.92(2.30)</td>
<td>.64</td>
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<tr>
<td>Attachment – Closeness</td>
<td>25.15(3.71)</td>
<td>.77</td>
<td>25.79(3.79)</td>
<td>.75</td>
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<tr>
<td>RAM</td>
<td>63.38(20.39)</td>
<td>.93</td>
<td>56.67(16.16)</td>
<td>.90</td>
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</table>

*Note.* CTS-SV = Conflict Tactics Scale – Short Version; PCTS = Parent Conflict Tactics Scale; PCBS = Parent Child Behaviour Scale; Anxiety = Anxiety over Abandonment; Closeness = Comfort with Closeness; RAM = Relationship Attribution Measure.

Consistent with Feeney et al.’s (1994) findings, deletion of Item 14 on the attachment Anxiety Over Abandonment scale improved the internal reliability of the measure (from α = 0.51 to 0.64 for males and from α = 0.73 to 0.76 for females). For males, items three and five on the CTS-SV had zero variance. That is, husbands...
reported that they had not threatened to hit and had not punched their partner in the past 6 months. These items were deleted and Cronbach’s alpha was recalculated. This action improved the reliability of the male aggression measure from $\alpha = 0.57$ to 0.60. All scales were considered to have acceptable internal reliability.

**Descriptive Information**

Aggression was defined as either partner reporting an act of verbal or physical aggression. Fifty-eight percent of couples reported at least one occurrence of male aggression, and 69% of couples reported at least one occurrence of female aggression, in the last six months. Possible scores on the CTS-SV range from 0 to 32, thus the means shown in Table 1 are very low and indicate that a significant minority of couples reported no aggression. Most of the couples that did report aggression reported just one or two instances of yelling. Only 4% of the sample reported male physical aggression and 14% reported female physical aggression. Physical aggression consisted of pushing, hitting, or slapping a partner. No husbands and two wives reported punching their partner. While the preponderance of pushing, hitting, and slapping compared with more severe acts of aggression is consistent with other studies of aggression in community samples (Rogge & Bradbury, 1999, O’Leary et al., 1989), the prevalence of physical aggression in this sample, particularly male physical aggression, is lower than that found in other studies of aggression in early-stage relationships (Schumacher & Leonard, 2005; Skuja & Halford, 2004; Lawrence & Bradbury, 2001; Rogge & Bradbury, 1999; O’Leary et al., 1989).

Eighty-four percent of the wives and 79% of the husbands in the current sample reported witnessing at least one incident of parent-to-parent aggression. Eighty-two percent of the sample reported witnessing parent’s verbal aggression, and
24% reported witnessing parent’s physical aggression. Participants’ reports of the prevalence of parent physical aggression is consistent with research findings that between 13% and 42% of adults report having witnessed at least one incident of marital violence as children (Fergusson, 1998; Straus, 1992; Henning, Leitenberg, Coffey, Turner, & Bennett, 1996; Kalmus, 1984). Most of the sample (97%) reported experiencing at least one incident of parent-to-child aggression. Ninety-seven percent of the women and 94% of the men reported experiencing psychological aggression from a parent. Consistent with other findings on parent-to-child aggression (Straus, 2001; Wekerle & Wolfe, 1998), 76% of the women and 73% of the men reported experiencing some physical aggression.

Similar to Feeney et al.’s (1994) findings with a community sample of newlywed couples, scores on the two attachment scales indicated that participants generally saw themselves as secure in attachment (that is, comfortable with closeness and not anxious over abandonment). In the current sample, scores on the Close scale varied from 17 to 36, with a mean score of 25.15 ($SD = 3.71$) for females and 25.79 ($SD = 3.79$) for males. Women’s scores on the Anxiety scale ranged from 5 to 17 with a mean of 10.35 ($SD = 2.74$), while men’s scores ranged from 5 to 14 with a mean of 8.92 ($SD = 2.30$).

Total scale mean scores on the RAM were similar to those reported by Fincham et al. (2000) in a study of newlyweds’ attributions and marital satisfaction. Participants’ mean score (2.5) on the six-point response scale for each scenario indicated that the majority of participants did not strongly endorse partner-negative attributions.

**Correlations.** Bivariate correlations among FOOA and current partner aggression are presented in Table 2. As found in other studies of early-stage
relationships, male aggression was associated with female aggression. Husbands’ exposure to parent-to-parent aggression in the family of origin was associated with male-perpetrated and female-perpetrated current partner aggression, whereas wives’ childhood exposure to FOOA was not. Witnessing parent-to-parent aggression was correlated with being a victim of parent-to-child aggression for both men and women.

Table 2.

*Correlations amongst Male and Female Partner Aggression and Family-of-Origin Aggression*

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<tr>
<td>2. M</td>
<td>.76*</td>
<td>1.00</td>
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<tr>
<td>3. F</td>
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<td>1.00</td>
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<td>.33**</td>
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<td>.17</td>
<td>.53**</td>
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<td>6. M</td>
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<td>.20</td>
<td>-.22</td>
<td>.46**</td>
<td>-.02</td>
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</table>

*Note.* F = female; M = male; *p < .05  **p < .01.

Correlations between current partner aggression, parent-to-parent aggression, parent-to-child aggression, attachment, and attributions are reported separately for males and females in Table 3. For females, parent-to-parent aggression was positively related to attachment anxiety, and partner-negative attributions were positively related to current aggression. There were no significant associations between women’s FOOA and current partner aggression, or between attachment
anxiety and attributions. Therefore, the hypothesis that attachment and attributions mediated the impact of FOOA on current partner aggression was not supported for women.

Table 3

Correlations amongst Male and Female Partner Aggression, Family-of-Origin Aggression, Attachment, and Attributions

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<tbody>
<tr>
<td>1. Current Aggression</td>
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<td>2. Parent-to-Parent Aggression</td>
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<td>.53**</td>
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<td>-.07</td>
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<tr>
<td>3. Parent-to-Child Aggression</td>
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<td>.46**</td>
<td>1</td>
<td>.09</td>
<td>-.22</td>
<td>.03</td>
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<tr>
<td>4. Attachment Anxiety</td>
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<td>.00</td>
<td>.11</td>
<td>1</td>
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<td>.07</td>
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<tr>
<td>5. Attachment Closeness</td>
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<td>.10</td>
<td>.04</td>
<td>-.39**</td>
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<td>-.30*</td>
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<td>6. RAM</td>
<td>.21</td>
<td>-.04</td>
<td>.18</td>
<td>.27*</td>
<td>-.31**</td>
<td>1</td>
</tr>
</tbody>
</table>

*Note.* Data for wives appear above the diagonal; data for husbands appear below the diagonal. RAM = Relationship Attribution Measure; *p < .05 **p < .01

For males, attachment anxiety was positively related to attributions, and comfort with closeness was negatively related to attributions. However, attachment was not related to FOOA or current partner aggression. As noted previously, parental aggression was positively associated with partner aggression and the positive association between attributions and partner aggression approached
significance. However, as there was no association between witnessing parent-to-parent aggression and partner-negative attributions, the hypothesised mediating role of attributions could not be tested.

The low rate of aggression in the current sample raised the question of whether aggressive couples that participated at Time 1 (approximately 6 weeks after the couple married) were more likely to drop out from the second wave of data collection (1 year later). Independent-samples t-tests were conducted to compare male and female aggression at Time 1 with participation at Time 2. There was no significant difference in aggression at Time 1 between those who dropped out and those who did not for both men (t (95) = 0.66, ns) and women (t (95) = 0.57, ns).

Discussion

The aim of the current study was to establish if the relationship of FOOA with partner aggression was mediated by attachment and attributions for partner behaviour. The hypothesised associations were examined separately for husbands and wives. Hypothesis one was partially supported. That is, parent-to-parent aggression was associated with current partner aggression for husbands but not for wives. Therefore, the second hypothesis, that the association between FOOA and partner aggression was mediated by attachment and attributions, was examined only for men. Attachment was significantly associated with attributions, but there was no association between FOOA and attachment, or between attributions and partner aggression. Therefore, the second hypothesis was not supported.

The gender difference in findings for an association between parent-to-parent aggression and current partner aggression might reflect low power. In Chapter One I reviewed research indicating that the association of FOOA to female-perpetrated
partner aggression is weaker than for male-perpetrated partner aggression. The modest sample size in the current study might have provided enough power to detect the male FOOA to aggression association but not enough to detect a relationship between female FOOA and aggression.

The lack of support for the proposed mediation model could be due to the low rate of partner aggression found in the current sample. One reason for the low aggression rate could be the brevity of the measure used to assess partner aggression. The four most commonly occurring conflict behaviours on the CTS were used for the brief aggression measure in the current study. There are many behavioural forms of aggression in intimate relationships and the small number of items used may have been inadequate for assessing the true prevalence of aggression. In addition, aggressive acts reported on the CTS-SV were capped at “2 or more”. Capping the score at 2 could have limited the variability that might otherwise have been found, given that the occurrence rates of verbal aggression were high.

Straus et al. (1996) recognised that in attempting to find a balance between a brief test and including enough items to adequately and reliably assess relationship aggression, the 19-item CTS may have erred on the side of brevity. As a result, they developed the 39-item CTS2. The interspersed order of the CTS2 items, compared with the hierarchical order of items in the CTS, may reduce response sets and result in higher prevalence rates (see Straus, 1996). The additional items and random order of the CTS2 may have captured more aggression in the current sample than was possible with the CTS-SV.

However, the same four items were used to assess parent-to-parent aggression, and the prevalence of parent-to-parent aggression in the current sample is consistent with previous research on witnessing parent aggression. One explanation
for the difference in the rate of current marital aggression and parents’ marital aggression is that participants may have found it less psychologically threatening to report physical assault in their parents’ relationship than in their own relationship, particularly as they are recently married couples. That is, the acknowledgement that one is recently married and involved in partner assault may create cognitive dissonance that is too threatening for some respondents.

Alternatively, the low rate of reported aggression in the current sample might result from the recruitment method used in the current study. Participants in the current study were recruited through the Queensland Registrar of Marriages for a larger longitudinal study of marital satisfaction. Karney et al. (1995) investigated the effects of sampling procedures on sample composition in longitudinal research on marriage. By examining demographic data for responders and nonresponders to mailed invitations to participate in a longitudinal research project, Karney et al (1995) found that responders differed from nonresponders on almost every variable examined. Responders had received more education, were employed in higher status occupations, and included older wives. Responding couples also appeared less traditional in that they were more likely to have cohabited premaritally and wives were less likely to be housewives. In contrast, couples recruited through newspaper advertisements were more neurotic and at greater risk for marital discord than couples recruited through marriage licenses. DAS scores for couples in the current study indicated that the couples were highly satisfied with their relationship. High relationship satisfaction does not preclude conflict and aggression but it is consistent with the argument that the recruitment method may have resulted in a sample biased towards higher functioning. While the marriage licence method used in the current study was a good way of accessing couples in the early stage relationships the low
response rate may have limited the generalisability of the sample. Other sampling methods that might provide more nationally representative samples include random digit dialling and contacting people on the electoral roll, however a very large number of people would need to be contacted in order to get a sample of newlyweds.

Aggressive participants had a second opportunity for self-selection when couples where recontacted 1 year after initial recruitment. However, t-tests comparing aggressive couples participation at Time 1 and Time 2 showed no difference in the participation rate, suggesting that attrition due to aggression is an unlikely explanation for the low aggression rates in the current sample. The most likely explanations are the brevity of the aggression measure and the modest sample size.

While the predicted mediation model was not supported in the current study, a number of expected but small associations between the variables were found. It would therefore be useful to test the model using a larger sample, earlier in their relationships, recruited though general advertising, and using improved measures that might more adequately assess the behaviours of interest.
CHAPTER FIVE: STUDY TWO

Fire and Ice in Early-Stage Couple Relationships

The aim of the current study was to investigate the association of family–of-origin-aggression (FOOA) with current aggression and withdrawal in early-stage couple relationships. In Study One, family-of-origin parent-to-parent aggression was associated with current marital aggression for men but not for women in newlywed couples. Contrary to predictions, the FOOA to current aggression association was not mediated by adult attachment or attributions for partner behaviour. However, the findings of the previous study were limited by several factors. First there was a low prevalence of aggression in the sample, which might have been due to insensitivity to detecting aggression by the relatively brief couple aggression measure used. In addition, within the newlywed sample 25% of the women and 21% of the men were remarrying, and previous relationship experiences might have obscured the effects of FOOA. The current study sought to retest the hypothesis that FOOA is associated with current partner aggression, and that this association is partially mediated by adult attachment and attributions for partner behaviour. The current study was an attempt to improve on Study One by: (a) using more extensive measures of partner aggression and FOOA, and (b) recruiting a sample of young adults who had not been previously married and who were in the early stage of a committed relationship. In addition, an improved measure of attachment was used in the current study.

In addition to improving the methodology employed in Study One, a second objective of the current study was to investigate whether FOOA was associated with withdrawal in couple relationships. Withdrawal has received increasing interest from marital researchers as a potential influence on couple relationship satisfaction, however some studies have found an association of withdrawal with satisfaction,
while others have not (Christensen & Heavey, 1990; Roberts & Krokoff, 1990; Smith et al., 1990; Heavey et al., 1995). Roberts (2000) suggested that a lack of uniform conceptualisation and measurement of withdrawal has contributed to inconsistent results. While acknowledging the inconsistency in findings, there does seem some evidence that withdrawal is associated with low couple satisfaction.

A further limitation of existing research on withdrawal is the focus on assessing withdrawal when couples are discussing conflict topics (Roberts, 2000). While successful conflict resolution is an important aspect of satisfying couple relationships, intimacy developed through emotional responsiveness also is fundamental to healthy relationship functioning (Bowby, 1988; Senchak & Leonard, 1992; Feeney et al., 1994; Furman & Flanagan, 1997). Roberts (2000) has proposed that withdrawal from intimacy is likely to be associated with low relationship satisfaction.

Roberts (L.J. Roberts, personal communication, June 26, 2002) developed a self-report measure that assesses partners’ perceptions of withdrawal during relationship interactions. The interactions assessed are broader than just conflict discussions. Specifically, the Dyadic Withdrawal Scale (DWS) assesses intimacy avoidance and emotional withdrawal, as well as conflict avoidance and angry withdrawal. Consistent with previous assessments of withdrawal like Christensen’s Communication Patterns Questionnaire (Christensen, 1987; Christensen & Sullaway, 1984), the DWS assesses withdrawal behaviours in particular relationship interactions. The current study used Robert’s DWS to assess withdrawal, and tested the prediction that FOOA was associated with withdrawal, and that attachment and attribution mediated that association.
As discussed in chapter 2, there is as yet little research showing an effect of FOOA on withdrawal in couple relationships. However, there is evidence that withdrawal does occur in violent relationships (Babcock et al., 1993; Halford et al., 2000; Holtzworth-Munroe et al., 1998; Ridley & Feldman, 2003; Roberts & Noller, 1998), and as noted repeatedly in this thesis, FOOA is associated with aggression in couple relationships. Given the covariation of aggression and withdrawal, people witnessing parental aggression in their family of origin also are likely to have witnessed parents’ withdrawal. However, if parental emotional intimacy is often private, children might be exposed to parents’ angry withdrawal during conflict, but not be exposed as much to parents’ intimacy avoidance and emotional withdrawal. Further, observing one parent fail to listen or respond emotionally to the other parent might be less salient, and have less impact on offspring’s later relationship behaviour, than observing interparental aggression. In other words, it is plausible that there could be an effect of FOOA on withdrawal, but this effect might not be as strong as it seems to be for partner aggression. Research on associations between FOOA and attachment, and attachment and withdrawal, suggests that FOOA may influence partner withdrawal through attachment. Therefore, I tested a parsimonious withdrawal model predicting that FOOA would be associated with withdrawal, and that this association would be entirely mediated through adult attachment and attributions for partner behaviour.

In summary, the first aim of the current study was to test the aggression models proposed in study 1 using improved measures and methodology. The hypothesised aggression model was tested four times: separately for anxious and avoidant attachment, and separately for male and female aggression. It was predicted that FOOA would be associated with current aggression toward the
partner, and that this association would be partially mediated through anxious attachment and attributions (Hypothesis 1) and through avoidant attachment and attributions (Hypothesis 2). The second aim of the current study was to test the association of FOOA, attachment, and attributions with withdrawal. The hypothesised withdrawal model was also tested four times: separately for anxious and avoidant attachment, and separately for male and female withdrawal. It was predicted that the influence of FOOA on withdrawal would be fully mediated through anxious attachment and attributions (Hypothesis 3) and through avoidant attachment and attributions (Hypothesis 4).

Method

Participants

One hundred and one couples were recruited from University campuses in the Brisbane area through advertising seeking volunteers for a study of early-stage committed relationships. Inclusion criteria required that couples were aged between 18 and 28 years, were in a committed relationship for more than 6 months and less than 5 years, and that both members of the couple were willing to participate.

Mean age for female participants was 20.8 years ($SD = 2.35$) and for male participants was 21.8 years ($SD = 2.66$). Eighty-five percent of participants were Caucasian. Seventy-seven percent of participants were employed (casual work = 40%, full-time = 21%, and part-time = 16%), and 23% were not in paid employment. The majority of participants (69% of males and 54% of females) had an income of less than $26,000. The remaining participants had incomes ranging from $26,000 to $50,000. One female participant had an income in the $51,000 to $80,000 range.

Most of the couples (63%) were in a dating relationship. Thirty-eight percent of couples lived together and/or were engaged. Most of the couples (87%) had been
in their relationship for more than 6 months and less than 3 years. The remaining 13% reported the length of their relationship to be between 3 and 5 years, and two of these couples had a young child.

**Measures**

Each participant completed a battery of self-report measures in the form of a questionnaire booklet.

*Conflict Tactic Scales (CTS).* The Revised Conflict Tactics Scale (CTS2) (Straus et al., 1996) is a 78-item measure of conflict behaviours in intimate relationships. The CTS2 has five scales: Negotiation, Psychological Aggression, Physical Assault, Sexual Coercion, and Injury. Thirty-nine items are self-reports of the respondent’s conflict behaviour. The 39 items are repeated for the respondent’s report on their partner’s conflict behaviour. Respondents indicated occurrence of each behaviour on a 7-point scale from 1 (*Once in the past 6 months*) to 6 (*More than 20 times in the past 6 months*). Point 7 on the scale indicated *This has never happened*. The CTS2 was scored by adding the midpoints on each of the response categories chosen by the respondent to indicate how often the behaviour occurred during the past 6 months (Straus et al., 1996). The midpoints are the same as the response category numbers for 0, 1, and 2. For category 3 (3-5 times) the midpoint is 4, for category 4 (6 – 10 times) the midpoint in 8, for category 5 (11 – 20 times) the midpoint is 15, and for category 6 (More than 20 times) a midpoint of 25 is used. Response category 7 is scored as 0 (Straus et al., 1996).

The CTS2 is similar to the original CTS (CTS1) but with added sexual coercion and injury scales. There is extensive evidence of the validity of the CTS (Straus et al., 1996; Straus, 1990). Preliminary psychometric data support the reliability and validity of the CTS2. Internal consistency for the CTS2 scales ranged
from 0.79 to 0.95 for a college student sample (Straus et al., 1996). Even though the focus of the current study was the more common form of partner aggression (that is, bidirectional psychological and less severe physical aggression), the full CTS2 was administered to enable assessment of the prevalence of sexual aggression and injury in this sample. Based on the aggression literature, it was expected that the prevalence of injury and sexual aggression would be low, and that sexual aggression would be primarily a male-perpetrated behaviour.

The CTS1 (Straus, 1979) was used to assess conflict in respondents’ parents’ relationships. The measure consists of three subscales: Reasoning (3 items), Verbal Aggression (6 items), and Physical Aggression (9 items). The CTS1 was used for brevity (38 items). In addition, respondents were considered to be unable to report reliably on their parents’ sexual behaviours and therefore the sexual coercion items included in the CTS2 were inappropriate. Respondents were asked to report on “a year when things were at their worst between your parents”. CTS1 item wording was modified to assess for respondents’ retrospective reports of mother-to-father and father-to-mother conflict strategies. Instructions were changed from "no matter how well a couple get along ---" to " No matter how well one's parents get along---", and the items were reworded to "My Mother" (19 items) and "My Father" (19 items), rather than “My partner” and “I”. Respondents indicated the occurrence of each type of conflict behaviour on a 7-point scale from 1 (Once in the past year) to 6 (More than 20 times in the past year). Point 7 on the scale indicated This never happened. The CTS1 was scored by adding the midpoints on each of the response categories endorsed by the respondent to indicate how often the behaviour occurred. The midpoints were the same as those described previously for the CTS2.
The CTS1 has also been used to measure child maltreatment, however some items were not applicable to children. A Parent-Child version of the Conflict Tactic Scales (CTSPC) was developed by Straus, Hamby, Finkelhor, Moore, and Runyan (1998). The wording of the CTSPC items makes them more appropriate indicators of parent-child interactions than CTS1 items. The CTSPC measures both psychological (5 items) and physical aggression (13 items), as well as nonviolent discipline (4 items). The same scoring system described for the CTS was applied to the CTSPC.

The CTSPC can be administered to: a) parents, to report on their own and their partner’s behaviour toward their children, b) older children, to report on their parents’ behaviour toward them, and c) adult children, to obtain retrospective reports on parent’s behaviour toward them in childhood. The referent time period can be modified to suit the particular application. Respondents in this study were asked to report on a year in childhood “when things were at there worst between you and your parents”. Each question is asked separately for mother and father. Internal consistency of the scales in a sample of 1000 American parents was moderate: Physical Assault scale = 0.55, Psychological Aggression scale = 0.60, and Nonviolent scale = 0.70 (Straus et al., 1998).

**Dyadic Withdrawal Scale (DWS).** The DWS is a recently developed measure derived from the Interaction Response Patterns Questionnaire (IRPQ; Roberts, 2000). The DWS assesses withdrawal in couple relationships. Respondents are asked to report on their own (12 items) and their partner’s (12 items) interaction behaviour on a scale of 1 (Never or almost never) to 5 (All or almost all of the time). The items are the same for self- and partner-report with wording changed from “I” to “my partner”. For example, “When I am troubled about something, I hold back from
telling my partner how I am really feeling” is changed to “When my partner is troubled about something, she/he holds back from telling me how she/he is really feeling”. With a sample of married couples (N = 282), Roberts (L.J. Roberts, personal communication, June 26, 2002) found that confirmatory factor analyses (CFA) supported her proposed multifactorial model of withdrawal with four distinct types of withdrawal: Angry Withdrawal, Conflict Avoidance, Avoiding Confiding, and Emotional Withdrawal. Reliabilities ranged from 0.76 to 0.89. A second-order CFA supported a latent variable, Withdrawal, underlying the four subtypes, indicating that the DWS total scale score for self and partner can be used to assess withdrawal in couple interactions (L.J. Roberts, personal communication, June 26, 2002). The total scale score was used to assess self and partner withdrawal in the current study.

*Experiences in Close Relationships Questionnaire-Revised (ECR-R).* The ECR-R is a 36-item measure of adult attachment (Fraley et al., 2000). The ECR-R was developed using item response theory (IRT) analysis of four commonly used self-report attachment inventories. The measure consists of two scales, Avoidance (18 items) and Anxiety (18 items). These IRT-derived scales have improved measurement precision and good reliability. Alphas tend to exceed 0.90 for each scale and test-retest reliability of a subset of five of the items exceeded 0.70 over a period of 8 weeks (Fraley et al, 2000; Fraley, 2003, FAQ section, p2).

*Relationship Attribution Measure (RAM).* Attributions for partner behaviour were assessed using the RAM (Fincham & Bradbury, 1992). The RAM presents respondents with four hypothetical scenarios that have been found to occur in virtually all marriages (e.g., “Your partner is cool and distant”). Respondents rate their agreement with each of six statements about the scenarios on a 6-point scale.
ranging from 1 (Disagree strongly) to 6 (Agree strongly). Three of the six statements relate to causal attributions (stability, globality, and locus) and three relate to responsibility-blame attributions (blame, motivation, and intent). Internal reliability of the RAM is high (0.90; average 2-week test-retest reliability = 0.76), and both cause and responsibility/blame attributions correlate with observed behaviours (Fincham & Bradbury, 1992). Karney, Bradbury, Fincham, and Sullivan (1994) found no significant difference in the effect of attributions on marital satisfaction when attributions where considered as separate factors (Causal and Responsibility) or a single factor (total scale score). The more parsimonious total scale score was used in the current study in order to minimise the number of paths in the proposed model.

Abbreviated Dyadic Adjustment Scale (ADAS). Relationship satisfaction was measured using the 7-item ADAS derived from the well-established 32-item Dyadic Adjustment Scale (Spanier, 1976). Sharpley and Rogers (1984) validated the ADAS in an Australian sample of married, cohabiting, separated, and divorced adults. The ADAS was moderately reliable (α = 0.76) and could differentiate satisfied and dissatisfied relationships. The ADAS has a possible range of 0 to 36. Couples in the current study reported high relationship satisfaction with a mean score of 24.92 (SD = 4.65) for women and 25.95 (SD = 4.21) for men.

Procedure

Interested couples were screened in a brief telephone interview to ensure they met the age (18 to 28 years) and relationship (committed relationship of more than 6 months and less than 2 years) criteria. Couples who met the criteria were assessed at the Griffith University Psychology Clinic. Participants were provided with information about the purpose of the study and the assessment requirements.
Written informed consent was obtained from both partners in each couple. Instructions on how to complete the assessment were provided and the confidentiality of each individual’s responses was assured. To ensure confidentiality, partners completed the booklets separately. The author checked with participants twice during completion of the booklet to answer any questions or concerns that may arise. Couples completed the assessment in 60 to 90 minutes. Each couple was debriefed on their experience and any remaining questions regarding the research were answered.

Results

Descriptive Results

The data were screened for accuracy and suitability for multivariate analyses. Two women and one man did not complete the parent-to-parent and parent-to-child CTS and these cases were omitted from the analyses. For males, four univariate outliers were identified on the parent-to-parent and parent-to-child aggression variables, and seven univariate outliers were identified on the partner aggression variables. For females, three univariate outliers were identified on the parent-to-parent and parent-to-child aggression variables, and eight univariate outliers were identified on the partner aggression variables. For both males and females one univariate outlier was identified on the partner withdrawal variable. As recommended by Tabachnick and Fidell (2001), univariate outliers were censored to one unit larger than the next most extreme score in the distribution to reduce the influence of these extreme scores.

As Structural Equation Modelling (SEM) is particularly sensitive to multivariate nonnormality, the data were also screened for multivariate normality.
Using a $p < .001$ criterion for Mahalanobis distance, one multivariate outlier was identified in the male sample for models assessing attachment anxiety as a mediator of FOOA and current partner aggression and withdrawal. This outlier was excluded from analyses of the male data for models with attachment anxiety. Aggression scores for both males and females were moderately positively skewed. Males’ and females’ parent-to-parent and parent-to-child aggression were slightly positively skewed. Consequently square-root transformations were performed on these variables. SEM analyses were then performed using transformed and untransformed data to assess the difference these variables might make to model fit. There was no substantial difference in results using the transformed or untransformed data, therefore SEM analyses are reported with untransformed data.

Variable means and standard deviations (in parentheses) are reported in Table 4. Forty-six percent of males and females reported at least one act of physical aggression towards their partner and 92.5% of males and females reported at least one act of psychological aggression towards their partner. This prevalence of aggression is similar to that reported in other studies with young student populations reporting on their relationships (Straus, 2004; Stets & Straus, 1989; O’Keefe, 1998). The most common type of physical aggression reported by the participants was less severe physical aggression, such as pushing, shoving, grabbing. More severe acts of physical aggression were rare; for example, no one reported use of a weapon (knife or gun) on their partner. Furthermore, almost all couples reporting an act of physical aggression reported it had occurred just once or twice in the past 6 months. The predominance of reports of one or two acts of less severe physical aggression is consistent with previous research with Australian student samples showing physical aggression is common, with the vast majority of reported aggression in the form of
infrequent pushing, slapping, and shoving (Skuja & Halford, 2004; Roberts & Noller, 1998). The low frequency of aggression, plus that psychological aggression is known to covary strongly with physical aggression (Capaldi & Crosby, 1997; O’Leary et al., 1994), reinforce the point made in chapter 1 that focusing on overall aggression in couple relationships is important. For self- and partner-reports, the physical and psychological aggression scores were summed to form four aggression scores: male report on self, male report on partner, female report on self, and female report on partner. Internal consistency of these four scales was adequate ($\alpha = 0.73, 0.77, 0.77, \text{ and } 0.78$ respectively). As expected, mean scores on the sexual coercion and injury scales were very low, with zero variance on many items. Given the very low rate of occurrence of these events, I could not do meaningful analyses on these scales.

Internal consistency for the attachment ECR-R scales was high with alphas ranging from 0.90 to 0.93. Males mean scores on the Attachment Anxiety and Avoidance scales, and females mean score on the Avoidance scale, were lower than the mean scores reported by Fraley (2003). Fraley recruited a community sample of men and women (mean age = 24; 78% female) through a website. Mean scores for men in Fraley’s sample were 65.52 for Anxiety and 51.84 for Avoidance and women’s Avoidance mean score was 53.10. The mean Anxiety score for women in the current sample was similar to the women in Fraley’s sample ($M = 65.52$).
Table 4

Means and Standard Deviations (in parenthesis) of Key Measures

<table>
<thead>
<tr>
<th>Measure</th>
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<th>Men</th>
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<tr>
<td>CTS2 (Physical + Psychological)</td>
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<tr>
<td>Self</td>
<td>26.44 (29.59)</td>
<td>19.32 (23.51)</td>
</tr>
<tr>
<td>Partner</td>
<td>21.51 (26.49)</td>
<td>21.50 (25.94)</td>
</tr>
<tr>
<td>CTS Parent-Parent Aggression</td>
<td>58.83 (59.84)</td>
<td>60.88 (76.77)</td>
</tr>
<tr>
<td>Parent-Child Aggression</td>
<td>68.29 (63.81)</td>
<td>80.05 (74.67)</td>
</tr>
<tr>
<td>ECR-R Anxiety</td>
<td>60.55 (22.23)</td>
<td>55.81 (18.37)</td>
</tr>
<tr>
<td>ECR-R Avoidance</td>
<td>45.31 (15.48)</td>
<td>40.41 (13.94)</td>
</tr>
<tr>
<td>RAM</td>
<td>72.79 (17.24)</td>
<td>68.05 (16.90)</td>
</tr>
<tr>
<td>DWS Self</td>
<td>19.97 ( 5.36)</td>
<td>20.18 ( 6.40)</td>
</tr>
<tr>
<td>DWS Partner</td>
<td>20.10 ( 6.02)</td>
<td>23.66 ( 8.64)</td>
</tr>
</tbody>
</table>

Note: CTS = Conflict Tactics Scale; ECR-R = Experiences in Close Relationships – Revised; RAM = Relationship Attribution Measure; DWS = Dyadic Withdrawal Scale

Correlations Amongst Key Variables

Although estimation of structural equation models is based on covariance rather than correlation matrices, examination of the correlation table allows for identification of patterns of significant bivariate relationships among the variables in the proposed models (Hoyle & Panter, 1995). Bivariate correlations amongst male and female variables are presented in Table 5. Given the large number of correlations presented, I adjusted the critical alpha to \( p < .01 \) to manage type 1 error rates. Even with this correction, my observations focus on the patterns of associations rather than individual correlations. As is evident, the majority of associations were either not significant or of small magnitude.

There were largely nonsignificant correlations between partner self-reports on the same constructs, except current self- and partner-aggression showed small
magnitude but significant \( p < .01 \) associations. It is noteworthy that there was a high correlation between reports by the man of his own and his partner’s aggression, and similarly a high correlation between reports by the woman of her own and her partner’s aggression. In contrast, the partners showed only low correlations with each other’s report about occurrence of aggression. This suggests that reporting biases are influencing reports, and that each partner has an individual perspective on the level of relationship aggression.

Parent-to-parent aggression and parent-to-child aggression within the family of origin was moderately correlated for men and for women. FOOA showed non-significant or low correlations with other variables. Self-reports of attachment showed some association with both withdrawal and attributions, and withdrawal and attachment were moderately associated with each other, for men and women.
Table 5
*Correlations amongst Male and Female Aggression and Withdrawal, Family-of-Origin Aggression, Attachment, and Attributions*

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<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CTS2 Self</td>
<td></td>
<td>(.29)*</td>
<td>.85*</td>
<td>.21</td>
<td>.42*</td>
<td>.25</td>
<td>.36*</td>
<td>.25*</td>
<td>.03</td>
</tr>
<tr>
<td>2. CTS2 Partner</td>
<td>.82*</td>
<td></td>
<td>(.38)*</td>
<td>.14</td>
<td>.37*</td>
<td>.16</td>
<td>.18</td>
<td>.22</td>
<td>-.05</td>
</tr>
<tr>
<td>3. DWS Self</td>
<td>.36*</td>
<td>.46*</td>
<td></td>
<td>(.10)</td>
<td>.37*</td>
<td>.02</td>
<td>.08</td>
<td>.29</td>
<td>.44*</td>
</tr>
<tr>
<td>4. DWS Partner</td>
<td>.37*</td>
<td>.50*</td>
<td>.53*</td>
<td></td>
<td>(.15)</td>
<td>.08</td>
<td>.27</td>
<td>.44*</td>
<td>.24</td>
</tr>
<tr>
<td>5. CTS Parent to Parent</td>
<td>.25</td>
<td>.19</td>
<td>.18</td>
<td>.16</td>
<td>(.04)</td>
<td>.57*</td>
<td>.19</td>
<td>.13</td>
<td>.04</td>
</tr>
<tr>
<td>6. CTS Parent to Child</td>
<td>.21</td>
<td>.07</td>
<td>.27*</td>
<td>.18</td>
<td>.42*</td>
<td>(-.07)</td>
<td>.23</td>
<td>.21</td>
<td>.20</td>
</tr>
<tr>
<td>7. ECR-R Anxiety</td>
<td>.21</td>
<td>.22</td>
<td>.43*</td>
<td>.30*</td>
<td>.26*</td>
<td>.36*</td>
<td>(.17)</td>
<td>.36*</td>
<td>.46*</td>
</tr>
<tr>
<td>8. ECR-R Avoidance</td>
<td>.19</td>
<td>.31*</td>
<td>.53*</td>
<td>.30*</td>
<td>.15</td>
<td>.23</td>
<td>.31*</td>
<td>(.18)</td>
<td>.26*</td>
</tr>
<tr>
<td>9. RAM</td>
<td>.30*</td>
<td>.41*</td>
<td>.35*</td>
<td>.50*</td>
<td>.18</td>
<td>.08</td>
<td>.29*</td>
<td>.28*</td>
<td>(.16)</td>
</tr>
</tbody>
</table>

*Note: * $p < .01$. Numbers on the diagonal refer to correlations between male and female reports on the same variable. Numbers below the diagonal are correlations between male reports and numbers above the diagonal are correlations between female reports. CTS = Conflict Tactics Scale; DWS = Dyadic Withdrawal Scale; ECR-R = Experiences in Close Relationships Revised; RAM = Relationship Attribution Measure
Hypothesised Models

The hypothesis that the impact of childhood experiences of FOOA on aggression and withdrawal in early stage romantic relationships was mediated through adult attachment and attributions for partner behaviour, were tested using the Analysis of Moment Structures (AMOS) software package, version 5.0 (Arbuckle & Wothke, 1999). On the basis of previous research indicating gender differences in the effects of FOOA on partner aggression (Halford et al., 2000; Heyman & Slep, 2002), separate models were run for males and females to assess for gender differences in model fit. The hypothesised models showing the predicted pathways to aggression and withdrawal are re-presented in Figure 2.
Figure 2. Hypothesised models predicting partner aggression and withdrawal.

Note: FOOA = Family-of-origin aggression; M = male; F = female
Model Estimation

SEM is considered an elegant and parsimonious way to test complex, interactive, and multidimensional psychological theories (MacCullum & Austin, 2000) with output routinely providing numerical indices that summarise the overall fit of the model being tested (Tomarken & Waller, 2003). Maximum likelihood (ML) estimation was used to test the hypothesised models predicting male and female aggression and male and female withdrawal (see Figure 2). Each model was run firstly with attachment anxiety and then with attachment avoidance separately for men and women. Thus, eight models were tested: four aggression models and four withdrawal models. ML was employed because this widely researched estimation method is considered to perform reasonably well under a variety of less-than-optimal analytic conditions including small sample size and violations of normality (Hoyle & Panter, 1995; McDonald & Ho, 2002). The chi-square statistic (the test of difference between the theorised and estimated model) is a generally accepted index of overall model fit (Hoyle & Panter, 1995) with well-fitting models generally producing a nonsignificant chi-square ($\chi^2$) result. Due to recognised limitations of $\chi^2$ such as sensitivity to sample size, researchers recommend supplementing the statistic with a number of goodness-of-fit indexes (Hu & Bentler, 1995; Hoyle and Panter, 1995). The Root Mean Square Error of Approximation (RMSEA; estimates lack of fit), and the Standardised Root Mean Square Residual (SRMR; average discrepancy between the sample observed and hypothesised correlation matrices) are low ($< .05$) in well-fitting models with $< .08$ indicative of reasonable fit (McDonald & Ho, 2002; Hu & Bentler, 1999). The Goodness of Fit Index (GFI) specifies the relative amount of the observed variances and covariances accounted for in a specified model, just as $\chi^2$ is an index of absolute fit. The
Comparative Fit Index (CFI) and the Incremental Fit Index (IFI) are indexes of comparative fit (that is, based on a comparison of the hypothesised model against some standard, usually the independence model). The CFI and the IFI take sample size into account and are therefore preferred for this study compared to the commonly used Normed Fit Index (NFI) and Tucker Lewis Index (TLI), which tend to underestimate fit in small samples (Hoyle & Panter, 1995, Byrne, 2001). Both the CFI and IFI can range from 0 to 1 with values > 0.90 indicative of acceptable model fit, and > 0.95 indicative of good model fit (Hoyle & Panter, 1995; Byrne, 2001).

**Aggression Models**

Table 6 presents the fit indices for the male and female aggression models. Results for the hypothesised models predicting male aggression fit the data very well, as indicated by a nonsignificant $\chi^2$ and acceptable fit indices, for both attachment anxiety and attachment avoidance (see Table 6). Likewise for female aggression, the hypothesised model had good fit for both attachment anxiety and attachment avoidance. All fit indices were within the recommended ranges (see Table 6). There were no standardised residuals greater than an absolute value of 2.58 for any of the aggression models and no modifications were indicated.
Table 6

*Model Fit Statistics for ML Estimation Predicting Male and Female Partner Aggression*

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>$p$</th>
<th>GFI</th>
<th>CFI</th>
<th>IFI</th>
<th>RSMEA</th>
<th>SRMR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Male Aggression:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attachment Anxiety Model</td>
<td>8.12</td>
<td>7</td>
<td>.32</td>
<td>.97</td>
<td>.98</td>
<td>.99</td>
<td>.04</td>
<td>.06</td>
</tr>
<tr>
<td>Attachment Avoidance Model</td>
<td>8.87</td>
<td>7</td>
<td>.26</td>
<td>.97</td>
<td>.98</td>
<td>.98</td>
<td>.05</td>
<td>.05</td>
</tr>
<tr>
<td><strong>Female Aggression:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attachment Anxiety Model</td>
<td>8.78</td>
<td>7</td>
<td>.27</td>
<td>.97</td>
<td>.98</td>
<td>.98</td>
<td>.05</td>
<td>.03</td>
</tr>
<tr>
<td>Attachment Avoidance Model</td>
<td>8.68</td>
<td>7</td>
<td>.28</td>
<td>.97</td>
<td>.98</td>
<td>.98</td>
<td>.05</td>
<td>.04</td>
</tr>
</tbody>
</table>
Figures 3 and 4 present the standardised loadings for the male aggression models. As predicted, for the anxious attachment model and the avoidant attachment model there were direct paths from FOOA to partner aggression, and indirect paths through attachment and attributions. Thus, the association of FOOA with male aggression was partially mediated by attachment and attributions.

![Male Attachment Anxiety Model]

*Figure 3. Standardised coefficients (significant to $p < .05$) for the attachment anxiety model predicting male aggression.*

*Note: FOOA = Family-of-origin aggression; M = male; F = female*
Figure 4. Standardised coefficients (significant to $p < .05$) for the attachment avoidance model predicting male aggression

*Note: FOOA = Family-of-origin aggression; M = male; F = female*

Figures 5 and 6 present the standardised loadings for the female aggression models. As predicted, there was a direct path from FOOA to partner aggression, and an indirect path through attachment anxiety and attributions (see Figure 5). Like male aggression, the association of female aggression with FOOA was partially mediated by attachment anxiety and attributions. Also as predicted for the female aggression model incorporating avoidant attachment, there was a direct path from FOOA to female aggression, and the path from attachment avoidance through attributions to current aggression was significant. However, there was no significant pathway from FOOA to attachment avoidance (see Figure 6). Thus, although the
overall model fit was good, the result differs from the previous models. Like the other models, attachment avoidance has a pathway through attributions to female aggression, but this is independent of females’ FOOA.

Figure 5. Standardised coefficients (significant to \( p < .05 \)) for the attachment anxiety model predicting female aggression.

*Note:* FOOA = Family-of-origin aggression; M = male; F = female
Figure 6. Standardised coefficients for the attachment avoidance model predicting female aggression.

Note: All paths significant to \( p < .05 \) except FOOA to Attachment Avoidance; FOOA = Family-of-origin aggression; M = male; F = female

Withdrawal Models

The hypothesised models predicting withdrawal did not adequately fit the male or female data. For the men the chi-square values were significant for both the models incorporating either anxious or avoidant attachment, \( p = .013 \) and \( .005 \), respectively. Furthermore, the RMSEA were unacceptably high (>0.08), and the IFI and CFI for both male models were < 0.9, indicating a considerable degree of misfit.

For the male attachment anxiety model, there were no nonsignificant path coefficients and the standardised residual covariances were not greater than 2.58,
suggesting all proposed pathways should be retained. However the modification indices indicated the addition of two extra paths, a direct path from FOOA to attributions and a direct path from attachment anxiety to withdrawal, would enhance model fit. It is generally accepted that a few modifications of an initial model are acceptable, provided that a clear theoretical justification and history of the decision steps is given (McDonald & Ho, 2002). The two extra pathways do seem conceptually sound. First, it is possible FOOA could directly influence relationship attributions without the effect being mediated by attachment. Second, insecure attachment is a strong predictor of couple communication including use of the demand-withdraw pattern (Feeney et al., 1994). FOOA could influence withdrawal through attachment without the effect being mediated by attributions. For example, insecure attachment could elicit anxiety and prompt withdrawal without necessarily involving attributions for partner behaviour. Based on these considerations, a second modified model (Model 2, see Figure 7) was tested.

Model 2 demonstrated good fit in predicting male withdrawal, and provided significantly better fit than the hypothesised model (Model 1) ($\chi^2_{\text{difference}} = 7.30$, $p < .01$). The chi-square value was no longer significant, the RMSEA and the SRMR were low (.03 and .05 respectively), the GFI, IFI, and CFI indicated good model fit ($>0.95$), and no further modifications were indicated. All paths in the model were significant to $p < 0.05$. Table 7 presents the fit indices for the modified male withdrawal models.
Table 7.

Model Fit Statistics for ML Estimation Predicting Male and Female Withdrawal

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>$p$</th>
<th>GFI</th>
<th>CFI</th>
<th>IFI</th>
<th>RSMEA</th>
<th>SRMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male Withdrawal:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attachment Anxiety</td>
<td>6.55</td>
<td>6</td>
<td>.36</td>
<td>.98</td>
<td>.99</td>
<td>.99</td>
<td>.03</td>
<td>.05</td>
</tr>
<tr>
<td>Model 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attachment Avoidance</td>
<td>6.93</td>
<td>6</td>
<td>.33</td>
<td>.98</td>
<td>.99</td>
<td>.99</td>
<td>.04</td>
<td>.04</td>
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<tr>
<td>Model 2 rejected</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female Withdrawal:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attachment Anxiety</td>
<td>8.9</td>
<td>8</td>
<td>.35</td>
<td>.97</td>
<td>.99</td>
<td>.99</td>
<td>.03</td>
<td>.05</td>
</tr>
<tr>
<td>Model 1 rejected</td>
<td></td>
<td></td>
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<tr>
<td>Attachment Avoidance</td>
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<td></td>
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<tr>
<td>(Model 1 and Model 2 rejected)</td>
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</table>
For the male attachment avoidance model, examination of the path coefficients revealed a nonsignificant path from attributions to withdrawal (standardised coefficient = 0.17, ns). There were no residual values greater than 2.58, however the modification indices indicated the same modifications as the male attachment anxiety model, therefore Model 2 (with attachment avoidance – see Figure 8) was tested. Again Model 2 demonstrated adequate fit in predicting male withdrawal, providing significantly better fit than Model 1 ($\chi^2$ difference = 13.79, $p < .001$). The chi-square value was no longer significant, and all paths in the model were significant ($p < .05$), with the exception of the avoidance to attributions path (standardised coefficient = 0.21, $p = .057$) and the FOOA to attributions path (standardised coefficient = 0.29, $p = .06$), which both approached significance. The RMSEA and the SRMR were low (.03 and .05 respectively), the GFI, IFI, and CFI indicated good model fit (> 0.95) as shown in Table 7. No further modifications were indicated. Thus, the association of FOOA with male withdrawal was mediated in three ways: a) from FOOA through attachment to withdrawal, b) from FOOA through attributions to withdrawal, and c) from FOOA through attachment and attributions to withdrawal.
Figure 7. Standardised coefficients (significant to $p < .05$) for the attachment anxiety model predicting male withdrawal.

Note: FOOA = Family-of-origin aggression; M = male; F = female
Figure 8. Standardised coefficients of the attachment avoidance model predicting male withdrawal.

Note: FOOA = Family-of-origin aggression; M = male; F = female
The hypothesised model of female withdrawal incorporating anxious attachment fitted the data well (see Figure 9) as indicated by a nonsignificant \( \chi^2 \), GFI, IFI, and CFI statistics less than 0.95, and low RMSEA and SRMR (0.03 and 0.05 respectively). There were no standardised residuals greater than an absolute value of 2.58, and no modifications were indicated. As predicted, the effect of FOOA on female withdrawal was fully mediated through attachment anxiety and attributions.

**Female Attachment Anxiety Model**

Figure 9. Standardised coefficients (significant to \( p < .05 \)) of the attachment anxiety model predicting female withdrawal

*Note:* FOOA = Family-of-origin aggression; M = male; F = female
For the female attachment avoidance model, the hypothesised model (Model 1) did not fit the data well. The chi-square value was significant \((p = .01)\), and three of the paths in the model were not significant. The IFI and CFI were less than 0.9, and the RMSEA and SRMR were unacceptably high \((0.12 \text{ and } .09 \text{ respectively})\). Given that Model 2 (that is, the hypothesised model with an additional path from FOOA to attributions, and an additional path from attachment to withdrawal) had fitted the data well for male withdrawal (see Figures 7 and 8), it was decided to test Model 2 for attachment avoidance and female withdrawal.

Model 2 was not a sufficient improvement on Model 1. While the chi-square value was no longer significant \((\chi^2 = 2.1, p = 0.91)\), three paths remained non-significant, and the majority of the fit indices were outside the accepted range. Therefore, both the hypothesised model (Model 1) and the modified model (Model 2) with attachment avoidance were rejected as adequate explanations of female withdrawal. I could have attempted further modifications of the model in order to obtain a better fit, but extensive modifications tend not to be replicable across samples (McDonald & Ho, 2002). I concluded that the hypothesized avoidant attachment model of female withdrawal just did not fit the data.
Discussion

The aim of study 2 was to test the association of FOOA, attachment, and attributions with partner aggression and withdrawal in couple relationships. The proposed models of these relationships were tested for both men’s and women’s aggression and withdrawal.

Aggression Models

The aggression models were tested with attachment anxiety and attachment avoidance separately. Hypothesis 1 was supported; FOOA was associated with current aggression and this association was partially mediated though anxious attachment and attributions for both men and women. Hypothesis 2 was partially supported. As predicted the association of FOOA with male aggression was partially mediated though avoidant attachment and attributions. However, the female avoidant attachment model was not supported. Specifically, as predicted the direct path from FOOA to female aggression was significant, however FOOA was not significantly associated with female attachment avoidance. Consistent with the hypothesised model, females’ attachment avoidance was associated with female aggression, and the association was mediated through attributions.

Withdrawal Models

The withdrawal models also were tested with attachment anxiety and attachment avoidance separately. The hypothesis that the effect of FOOA on withdrawal would be mediated by anxious attachment and attributions (Hypothesis 3) was supported for both men and women, though extra pathways had to be added to the model to provide adequate fit for male withdrawal. Given such modifications can be unreliable, FOOA having an association with withdrawal mediated through
attributions independent of attachment anxiety, and through attachment anxiety independent of attributions, needs to be replicated in future research. Hypothesis 4 was not supported. Specifically, for men, the association of FOOA with withdrawal was mediated through attachment avoidance but not through attributions. For women, attachment avoidance and attributions were associated with withdrawal, but FOOA was not associated with either attachment avoidance or attributions.

Intergenerational Transmission of Relationship Interactions

FOOA and Partner Aggression

The current research extended prior research by integrating FOOA, attachment, and attributions into a single model of aggression in couple relationships. Previous research has shown that FOOA (Aldarondo & Sugarman, 1996; Heyman & Slep, 2002; O’Leary et al., 1994; Skuja & Halford, 2004), attachment (Dutton et al., 1994; Dutton, 1995; Holtzworth-Munroe et al., 1997, 2000; Roberts & Noller, 1998), and attributions (Holtzworth-Munroe & Hutchinson, 1993) each are associated with partner aggression. However, what has been missing is a model of the mechanism by which the intergenerational transmission of aggression occurs. The current findings show that the association between FOOA and current aggression is partially mediated by insecure attachment (both anxious and avoidant attachment) and attributions. Thus, FOOA could be leading to insecure attachment which prompts negative attributions, with attributions being a situation-specific mechanism by which the distal influence of FOOA is expressed in relationship interactions. The current pattern of associations is correlational and cannot prove this proposed causal pathway, but the pattern of findings is consistent with this possibility.
Study 2 replicated the well-established association of FOOA with male partner aggression (Schumacher et al., 2001; Stith et al., 2000), and extends that work by showing FOOA also is associated with female aggression. As noted previously, examination of the risk factors for female aggression toward male partners has received much less research attention than the risk factors for male aggression. Given the high prevalence of female aggression, and the interdependence of male and female aggression within couple relationships (Archer, 2000), it is important to address influences on female as well as male aggression. The SEM results in the current study show there are many similarities and possibly some important differences in risk factors for male- and female-perpetrated aggression.

An important methodological strength of the current research was that both partners reported on their own and their partner’s aggression. Much of the previous research on partner aggression has relied on the report of one partner (Holtzworth-Munroe et al., 1997; Hotaling & Sugarman, 1990; Pan et al., 1994; Riggs & O’Leary, 1996), or has only focused on male aggression (Dutton, 1995; Dutton et al., 1994; Holtzworth-Munroe et al., 1997; Holtzworth-Munroe & Meehan, 2004; Pan et al., 1994; Pistotle & Tarrant, 1993; Riggs & Caulfield, 1997).

The predicted association between FOOA and partner aggression was found for men but not women in study 1, whereas the association was found for both men and women in study 2. This discrepancy is likely due to several factors. First, the brief aggression measure used in study 1 likely underdetected aggression. The prevalence of aggression in study 1 was lower than aggression reported in other studies with newlywed samples (Leonard & Senchak, 1996; O’Leary et al., 1989; Schumacher & Leonard, 2005), whereas when using a full length measure of
aggression in study 2 the prevalence of aggression was similar to that reported in other studies with young couple samples (Straus et al., 1996; Stets & Straus, 1989; O’Keefe, 1998). Second, the sample size was substantially larger in study 2 than study 1, giving more power to detect associations. Third, there were important differences in the sample of couples in studies 1 and 2. Almost one quarter of the newlywed couples in study 1 were remarrying and were, on average, 10 years older than the dating couples in study 2. Previous relationship experiences might have obscured the effects of FOOA on current aggression in the couples in study 1. Furthermore, the failure to support the models of intergeneration transmission of FOOA to current partner aggression in study 1 likely reflects some aspects of these methodological limitations.

Direct Effect of FOOA on Partner Aggression

The finding in study 2 that FOOA is associated with partner aggression independent of attachment or attributions raises the question – what might be the processes underlying this other pathway? One possibility is a modelling of ineffective conflict management. The developmental social learning model (Holtzworth-Munroe, 1992; O’Leary, 1988) suggests that exposure to FOOA combines modelling of aggressive behaviours and deficits in modelling of positive communication, affect regulation, and effective conflict management. Consistent with this proposed modelling effect, Halford et al. (2000) and Skuja and Halford (2004) found men exposed to FOOA were more negative during conflict with their female partner than unexposed men. Combining this finding with the substantial evidence that maritally violent men lack effective conflict management skills (Anglin & Holtzworth-Munroe, 1997; Jacobsen et al., 1994) suggests that modelling
effects might well be the mechanism of a direct effect of FOOA and subsequent aggression.

In addition to modelling of interpartner adult aggression, FOOA also is associated with coercive parenting in the family of origin. Coercive parenting is associated with development of childhood behaviour problems (Capaldi & Clark, 1998; Dodge et al., 1990) and conduct disorder in adolescence (Ehrensaft et al., 2003). Moreover, conduct problems in adolescence predict antisocial behaviours and alcohol and drug abuse in young adulthood (Ehrensaft et al., 2003). Alcohol abuse and antisocial behaviours also are associated with both FOOA and adult aggression toward the partner, particularly in men (Riggs et al., 2000; Stith et al., 2004). All of this evidence converges on the possibility that FOOA is part of a cluster of coercive and aggressive family and parenting practices that increase the risk that young people will follow a developmental trajectory of aggressive and antisocial behaviour.

Application of Findings to Severe Aggression

The aggression reported in the two studies was primarily psychological aggression and less severe physical aggression. It is possible that attachment and attributions may not mediate FOOA and severe physical partner aggression. However, research on typologies of violent men found that borderline-dysphoric (BD) and generally violent-antisocial (GVA) men (i.e., men at risk for perpetration of moderate to severe partner aggression) evidenced greater insecure attachment than other less violent groups (Holtzworth-Munroe et al., 2000). Further, violent men, relative to nonviolent men, are significantly more likely to make partner-negative attributions, particularly for situations potentially involving rejection or embarrassment. Therefore, while the results of the current study apply to
psychological and less severe physical aggression, it is quite possible that the models could fit for severe partner aggression also.

On the other hand, other factors could covary with severe aggression and might be related to severe aggression differently for men and women. For example, males have been found to use severe aggression more than women (Johnson, 1995; Johnson & Ferraro, 2000; Straus, 1990), although there is some debate about these findings (Dutton & Nicholls, 2005; Straus, 2001). Males may use severe aggression to control a female partner. Women generally are smaller, have less strength, are more likely to be injured, and experience more fear than men, making control through severe aggression less likely for women. In FOOA it is likely that father aggression would be observed to control mother behaviour, but that mother aggression would be unlikely to control father behaviour. Similarly in personal relationship experiences, males using severe aggression would be more likely to control their partners than women using severe aggression. Thus, the contingencies observed via modelling and experienced through one’s own behaviour are likely to be quite different for male versus female severe aggression.

Gender differences have also been found in the relationship between alcohol use and severe aggression. Longitudinal research has shown a relationship between a husband’s drinking early in marriage and husband-to-wife aggression later in the marriage (Leonard & Senchak, 1996) and that a husband’s heavy premarital drinking also was predictive of severe violence in high-conflict relationships, but not in low-conflict relationships (Quigley & Leonard, 1999). Further, alcohol was found to be involved in 57% of men’s marital violence offending, compared with 27% of women’s marital violence offending (Roizen, 1997). Longitudinal research is needed
to evaluate how these different influences might impact upon the trajectory toward severe violence to an intimate partner.

*FOOA and Partner Withdrawal*

Study 2 extends previous research by finding that FOQA not only increases the risk of adult partner aggression but also increases the risk of withdrawal in intimate relationship interactions. Prior to the current study, evidence for an effect of FOQA on withdrawal was limited, but there was evidence that withdrawal occurred in violent relationships (Babcock et al., 1993; Halford et al., 2000; Holtzworth-Munroe et al., 1998; Ridley & Feldman, 2003; Roberts & Noller, 1998). The current research argued that parents who are aggressive are also likely to withdraw, but that parents’ withdrawal may be less obvious and less salient to exposed children than parents’ aggression. It is possible that aggressive parents may also withdraw from their children. It was therefore argued that the effect of FOQA on withdrawal in current intimate relationships would be mediated through attachment.

The withdrawal models for males and females, at least for attachment anxiety, support this argument. If children in violent families experience both aggression and withdrawal, they are likely to be exposed to inconsistent, erratic caregiver behaviours, where the caregiver is at times intrusive and interfering and at other times unavailable and unresponsive, associated with development of anxious attachment. Attachment theory asserts that these experiences would negatively influence the exposed individual’s view of self and of others in future relationships and that such individuals are likely to find intimacy distressing, to interpret relationship events as rejecting, to be vigilant for threats of abandonment, and to form relationships that are unsupportive and easily disrupted (Carlson & Stroufe,
Thus, individuals exposed to FO0A may be more likely to withdraw to avoid intimacy and withdraw to avoid conflict for fear of abandonment.

The Nature of Withdrawal and Association with Aggression

The current study used a new measure of withdrawal (the DWS) developed by Roberts (L.J. Roberts, personal communication, June 26, 2002). As noted previously, investigations of the role of withdrawal in relationship functioning have produced inconsistent results. These inconsistent findings may be partly due to a lack of clear operationalisation of the withdrawal construct and also to the focus on withdrawal behaviours in the context of problem solving or conflict (e.g., Halford et al., 2000; Leonard & Senchak, 1996; Christensen & Shenk, 1991; Gottman & Krokoff, 1989; Margolin et al., 1988; Christensen & Sullaway, 1984). The DWS expands previous methods of measuring withdrawal by assessing intimacy avoidance, conflict avoidance, and emotional withdrawal, as well as the more commonly measured angry withdrawal.

Avoidance of intimate emotional interaction (that is, intimacy avoidance and emotional withdrawal) and angry withdrawal from conflict are associated with marital satisfaction for men and women (L.J. Roberts, personal communication, June 26, 2002). Associations between angry withdrawal in a problem-solving context and partner aggression have also been found (Skuja & Halford, 2004; Halford et al., 2000; Margolin et al., 1988; Leonard & Senchak, 1996). Given these findings the current research considered identifying predictors of the broader construct of withdrawal to be an important contribution to relationship research. Withdrawal, as measured by the DWS, was associated with aggression. Significant ($p < .01$) but small correlations were found for men’s report of their own and their partner’s withdrawal with their own and their partner’s aggression. For women, significant ($p$
but small correlations were found for their own and their partner’s aggression with their partner’s withdrawal, but not with their own withdrawal. One explanation for the lack of association between women’s aggression and withdrawal is that men’s aggression and withdrawal may serve different relationship needs from women’s aggression and withdrawal. Men’s aggression and withdrawal may be maladaptive efforts to maintain the relationship while resisting change, maintaining independence, and avoiding emotional closeness. Women’s aggression may be frustrated attempts to create change such as greater closeness and collaboration, whereas their withdrawal may be a giving up of effort for change and a withdrawal of engagement with the partner in an effort to have him seek contact and closeness with her. Further, research shows women, compared with men, experience more fear and are at greater risk of injury from physical aggression. Therefore, once aggression has occurred in the relationship women may withdraw from escalating conflict in an effort to avoid physical aggression.

Similar explanations could apply to differences in model fit. Overall the models were a better fit for males than females. The attachment anxiety models were a good fit for male and female aggression and withdrawal, whereas the attachment avoidance models were a good fit for male aggression and withdrawal but not for female aggression and withdrawal. Differences in gender role socialisation may be one explanation for differences in model fit. Females have tended to be socialised to be intimacy seeking, nurturing, and interdependent. Males have tended to be socialised to be achievement-oriented and independent. Maybe men seek less support and intimacy from their partners and are more able to tolerate an avoidant partner’s need for distance and autonomy, thus reducing the female partner’s need for emotional withdrawal and avoidance of intimacy. Women, on the
other hand, may be more likely to seek intimacy and emotional involvement from a partner, thus increasing the avoidant male partner’s need to withdraw. Moreover, women’s socialisation to value intimacy, nurturing, and interdependence may override their avoidant attachment in relationship interactions, thereby reducing the influence of avoidant attachment on withdrawal behaviours in relationship interactions for avoidant women.

Research Limitations

There are a number of limitations to the current program of research. First, both studies were cross-sectional and correlational and consequently cannot demonstrate causality. Second, measures used in the present research were all self-reports, and shared method variance may have inflated associations. For example, depressed mood or couple conflict prior to completing self-report inventories could lead to negative reports. The use of both partners’ reports of aggression and withdrawal partially circumvents the exclusive reliance on self-report measures (Heyman & Schlee, 1997). It can be argued that observational data would increase the veracity of the results, however, the difficulty of accessing couples’ patterns of escalating aggression in a laboratory setting is well known. One possibility would be to do longer observations in the home setting; however, this type of large-scale data collection was beyond the scope of the current program of research.

Measuring an individual’s emotional withdrawal through observation has been done in a number of studies, though it was not necessarily labelled as withdrawal. For example, spouses’ skills in social support seeking and support giving have been assessed when one partner is seeking support from the other about a personal issue (Bradbury & Pasch, 1998). Further, in a recent study couples were observed discussing their reactions soon after the woman was diagnosed with breast
or gynaecological cancer (Scott, Halford, & Ward, 2004), and one of the measures assessed the extent to which partners joined together to cope (called “couple coping”) or withdrew from the interactions. Another investigation had couples undertake a positive reminiscence task about positive moments in their relationship history, and assessed the extent of positive emotional expression and sharing of emotional intimacy (labelled “meshing” in the study) (Osgarby, 1998). Interestingly, some unique responses were displayed in the positive reminiscence task that were not evident in the same couples during a problem-solving task, reinforcing the view that withdrawal during problem solving is only one aspect of withdrawal. The couples who show less positive affect, couple coping, and shared intimacy, and more negative affect during emotional disclosure and support-seeking interactions, might well be the couples showing high emotional avoidance as assessed on the DWS (e.g., “When I need emotional comforting or support, my partner makes himself completely available to me.”). Future research should use these observational methods of assessing partners’ emotional withdrawal to complement the self-report of withdrawal on the DWS.

The sample size in study 2 was larger than in many other studies that assessed risk factors for couple aggression. However, samples of 200 or more participants are recommended for small to medium models (Byrne, 2001), therefore the findings should be considered tentative. Further, recruiting a substantially larger sample would allow estimates of more parameters to be integrated into a single model. For example, a larger sample would enable the male and female data to be entered into the same model so that interactions between partners’ distal and proximal influences on the dependant variables could be tested. Specifically, the combination of one partner’s attachment anxiety and the other partner’s attachment
avoidance may increase the risk of partner aggression (Kesner & McKenry, 1998; Roberts & Noller, 1998). Further, couples with two securely attached partners report less withdrawal than couples in which the wife is insecure (Feeney, 1994; Feeney & Noller, 1990; Senchak & Leonard, 1992).

In addition, withdrawal and aggression could be tested within the same model. Leonard & Senchak (1996) found that high husband verbal aggression, high problem solving, and low withdrawal during conflict predicted marital aggression. Withdrawal was assessed with such items as “keep distant til you both cool down” and “give in to avoid an argument”. It is possible that the attributions each partner makes for the other partner’s behaviour could influence whether they withdraw to “cool down” and “avoid an argument” during conflict or use physical aggression towards the partner. Therefore, withdrawal could mediate the influence of attributions on aggression.

Clinical Implications

The findings of the current study have potentially important clinical and public health implications. Perhaps one of the most useful findings of the current research is the importance of attachment and attributions as intervention targets. In the current study, insecure attachment and partner-negative attributions contributed to the prediction of partner aggression and withdrawal in early stage relationships. These findings suggest that dysfunctional mental models of relationships and the associated beliefs about intimate partners are relevant targets for primary and secondary intervention.

Insecurely attached individuals are likely to experience hypervigilance for threat of negative emotional experiences (such as the pain of abandonment) in close relationships. Trust is a core issue for insecurely attached individuals (Collins &
Anger has been identified as an expected response to betrayal of trust, rebuff, and unwarranted criticism in a sample of 124 college men and women (Fehr, Baldwin, Collins, Patterson, & Benditt, 1999). Fehr et al.’s (1999) findings are consistent with the assertion that “intimacy anger” associated with insecure attachment is a trigger for violence in spouse-abusing men (Dutton et al., 1995, p. 1369). Results of the current study suggest that ambiguous relationship situations could be perceived as threatening to insecurely attached individuals. The insecurely attached individual may respond to the perceived threat by making negative partner attributions that, in turn, increase the risk of partner aggression or withdrawal.

Attachment security is both an individual and a relationship process and individuals have the potential to become more secure in their relationships. Therefore interventions aimed at increasing attachment security at the level of the individual and the relationship is not an unreasonable notion. Opportunities for intervention and the promotion of healthy relationship templates range from the broad educational level to clinical interventions with abused children and distressed couples. At the broad level, education campaigns designed for young people before they enter romantic relationships is a strategy for early intervention. For example, school-based education programs designed to increase mindfulness, knowledge of healthy relationship interaction patterns, and relationship choices and skills could be broadly introduced. To ensure relevance to young people, the programs could be applied to friendships with peers thus providing opportunity for participants to develop and practise healthy relationship cognitions and behaviours.

Another attachment-relevant opportunity for broad intervention is the transition to parenthood. The transition to parenthood provides opportunity for
intervention in three ways. Firstly, couples that might not otherwise seek relationship intervention may access parent education programs. Secondly, it provides an opportunity to assess and educate the couple on attachment-relevant beliefs and behaviours within their own relationship. Thirdly, information on the impact of parenting behaviours and the couple’s relationship behaviours on the child’s cognitive, affective, and behavioural functioning could be introduced. The importance of empathy, availability, responsiveness, and consistency in the development of secure attachment could be included in existing parent education programs with little additional public health cost. At the level of clinical intervention, children exposed to FOOA often come to the attention of various private and public mental health services. Educating service providers in the importance of attachment for current adjustment and future relationships and attending to attachment-relevant issues in service provision would facilitate early intervention with abused children. There is some evidence for the effectiveness of attachment-focused interventions in childhood (Bakermans-Kranenburg, Ijzendoorn, & Juffer, 2003; Cicchetti, Toth, & Rogosch, 1999). A meta-analysis of 70 studies that provided various types of interventions for enhancing parental sensitivity and infant attachment security found that interventions focusing on sensitive maternal behaviour appear successful in improving insensitive parenting as well as infant attachment insecurity (Bakermans-Kranenburg et al., 2003).

Finally, two opportunities for intervening directly at the level of the couple relationship are couple relationship education programs and couple therapy. Core content areas of the currently available relationship education programs include self-regulation, positive communication, expressions of affection, and conflict management skills (see Halford, Markman, Kline, & Stanley, 2003). Skills-based
relationship education programs produce improvements in relationship skills and relationship functioning that are maintained for a number of years (Halford et al., 2003). The addition of attachment-focused content to current relationship education programs could help to ameliorate earlier attachment injuries before the cognitive, affective, and behavioural effects are transmitted to committed romantic relationships.

The other opportunity for intervention at the level of the couple relationship is when couples present for couple therapy. Over the past 30 years research has guided clinical practice of couples therapy towards a focus on the partners’ behaviours and cognitions. For example, key components of cognitive-behavioural couples therapy are communication and problem-solving skills training, and the development of strategies to modify negative cognitions (Halford, 1998). More recently, research attention has been given to increasing self-directed personal change efforts (Halford, 1998; Wilson, Halford, Lizzio, Kimlin, & Islen, 2002). Couples therapy designed specifically to reduce physical aggression has also been developed. For example, Physical Aggression Couples Treatment (PACT; Heyman & Neidig, 1997) is based on the assumption that violence is a self-defeating attempt to effect relationship change. The treatment promotes cognitive and behavioural change aimed at taking responsibility for one’s own behaviour and violence abatement.

Compared to the emphasis in past decades on behavioural skills training, emotion and attachment have only recently begun to receive recognition in couples therapy research and practice. Symptoms of marital distress can be conceptualised as threatened attachment signals (Johnson, Makinen, & Millikin, 2001; Kobak, Ruckdeschel, & Hazan, 1994). Emotion focused therapy (EFT) is an integration of
the affective/experiential approach of Gestalt therapy and attachment theory (Dessaulles, Johnson, Denton, 2003). EFCT is a structured approach to couples therapy that aims to expand and reorganise key emotional responses, create a shift in partners interactional positions, and foster the creation of a secure emotional bond between partners (Johnson & Greenberg, 1987; Johnson, 1996). Johnson and Greenberg (1985) found that EFCT was more effective than couples behavioural problem solving and communication training interventions. EFCT has been shown to increase intimacy in the couple relationships and to improve relationship satisfaction (Denton, Burleson, Clark, Rodriguez, & Hobbs, 2000; Johnson & Greenberg, 1985). A 2-year follow-up study of the effectiveness of EFT for couples with chronically ill children provided preliminary evidence of longer-term benefits of EFCT on marital functioning (Cloutier, Manion, Walker, & Johnson, 2002). A recent review of meta-analyses examining the effectiveness of different couple therapy approaches found that EFCT was superior to wait-list control group, was as effective as integrated systemic couple therapy (ISCT), and was slightly more effective than behavioural couple therapy (BCT) (Synder & Castellani, 2006). However, while EFT comes from an attachment perspective, aims to foster a secure emotional bond, and has been shown to increase intimacy and relationship satisfaction, it has not as yet been shown the changes in attachment mediate the benefits of EFT.

**Conclusion**

This program of research was concerned with partner aggression and withdrawal in intimate relationships. Specifically, this thesis developed and tested models predicting male and female partner aggression and withdrawal. Results showed that family-of-origin aggression has a direct and indirect effect on male and
female partner aggression and that the indirect effect is mediated through attachment and attributions for partner behaviour. Further, the influence of family-of-origin aggression on partner withdrawal was fully mediated through attachment and attributions for male and female withdrawal, with the exception of attachment avoidance and female withdrawal.

This research makes an important contribution to the literature on partner aggression by integrating existing knowledge on factors associated with male partner aggression into an integrated model predicting both male and female partner aggression. The findings of the current research also address a gap in the existing literature on withdrawal in intimate relationships by developing and testing a model predicting male and female withdrawal, and by including intimacy avoidance and emotional withdrawal in the assessment of withdrawal. The results raise interesting questions regarding the relationship between partner aggression and withdrawal. The results also have important clinical and public health implications. Once experienced, family-of-origin aggression is a static risk factor for relationship problems, but attachment and attributions are dynamic risk factors, and are therefore promising intervention targets for improving relationship outcomes. Early identification of those at risk for relationship problems provides opportunities for primary and secondary intervention. Supporting children, adult individuals, and couples to acquire knowledge and experiences that impact positively on attachment security and attributions could significantly reduce personal distress and public health burden.
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APPENDIX A

Dyadic Withdrawal Scale

(L.J. Roberts, 2002)
**INSTRUCTIONS:** We are interested in how you and your partner respond to each other in different relationships situations. Using the *scale* below, please indicate how much you agree or disagree with each of the following statements. Please indicate your responses by placing a cross in *one* circle beside *each* statement.

<table>
<thead>
<tr>
<th>Scale:</th>
<th>Never or Almost never (1)</th>
<th>Some of the time (2)</th>
<th>About half of the time (3)</th>
<th>Most of the time (4)</th>
<th>All or almost all of the time (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>When <em>my partner</em> is troubled about something, she/he holds back from telling me how she/he is really feeling</td>
<td>O O O O O</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>When we are discussing something we disagree about, <em>my partner</em> gets angry &amp; refuses to talk to me</td>
<td>O O O O O</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>When we are faced with a problem that could lead to conflict between us, <em>my partner</em> tries to sweep it under the rug</td>
<td>O O O O O</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>When I share my personal troubles or worries with <em>my partner</em>, she/he doesn’t seem to really listen to me</td>
<td>O O O O O</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>When <em>my partner</em> is troubled, she/he talks openly with me about her/his worries, fears, or insecurities</td>
<td>O O O O O</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>When we are having a disagreement, <em>my partner</em> ends up walking away or leaving the room in anger</td>
<td>O O O O O</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td><em>My partner</em> avoids talking to me about things that could cause tension between us</td>
<td>O O O O O</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>When I need emotional comforting or support, <em>my partner</em> makes herself/himself completely available to me</td>
<td>O O O O O</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>When <em>my partner</em> and I talk, she/he holds back from sharing her/his innermost thoughts and feelings with me</td>
<td>O O O O O</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>When <em>my partner</em> and I are having an argument, she/he gets angry and gives me the “silent treatment”</td>
<td>O O O O O</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>When we are discussing something we disagree about, <em>my partner</em> tries to keep the conversation short or get us off the topic</td>
<td>O O O O O</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td><em>My partner</em> gives me her/his full, undivided attention and really listens to me when I need someone to talk to</td>
<td>O O O O O</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Please indicate your responses by placing a cross in one circle beside each statement.

### Scale:

<table>
<thead>
<tr>
<th>Never or Almost never</th>
<th>Some of the time</th>
<th>About half of the time</th>
<th>Most of the time</th>
<th>All or almost all of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1. When I am troubled about something, I hold back from telling my partner how I am really feeling  
   
2. When we are discussing something we disagree about, I get angry and refuse to talk to my partner  
   
3. When we are faced with a problem that could lead to conflict between us, I try to sweep it under the rug  
   
4. When my partner shares her/his personal troubles or worries with me, I don’t really listen to her/him  
   
5. When I am troubled, I talk openly with my partner about my worries, fears, or insecurities  
   
6. When we are having a disagreement, I end up walking away or leaving the room in anger  
   
7. I avoid talking to my partner about things that could cause tension between us  
   
8. When my partner needs emotional comforting or support, I make myself completely available to her/him  
   
9. When my partner and I talk, I hold back from sharing my innermost thoughts and feelings with her/him  
   
10. When my partner and I are having an argument, I get angry and give my partner the “silent treatment”  
    
11. When we are discussing something we disagree about, I try to keep the conversation short or get us off the topic  
    
12. I give my partner my full, undivided attention and really listen to her/him when she/he needs someone to talk to