

Investigating sex differences in, and predictors of, violent and nonviolent offending behaviour

By

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Abstract

This thesis investigated the generalist or specialist theories of offending by examining the overlap of, sex differences in, and predictors of intimate partner violence (IPV), general violence and nonviolent offending. IPV is typically studied separately from other types of crime as it is perceived to be a specialist type of crime warranting its own research and theories (e.g. Dobash & Dobash, 1992; Hotaling, Straus & Lincoln, 1990; Giles-Sims, 1983). However, generalist theories (e.g. Gottfredson & Hirschi, 1990; Felson, 2002) suggest that crimes stem from the same etiology and share some commonalities: therefore perpetrators are likely to be generalists who perpetrate a variety of crimes rather than specialising solely in one type of crime. Investigating all three offences in one population will inform whether (or not) IPV is a specialist type of crime distinct from other violent and nonviolent crime.

Study 1 assessed women's violent and nonviolent offending, using data from two online student samples (men and women: $n = 344$), reporting on being (1) a perpetrator and witness (women), or (2) being a victim and witness (men). A comprehensive measure of general violence, IPV and nonviolent offending was developed. The results provided broad support for the generalist perspective of crime as women were found to be involved in a variety of offences. A similar pattern of offending was supported across data sources.

Study 2 developed the Nonviolent and Violent Offending Behaviour Scale (NVOBS): a psychometrically sound measure of violent and nonviolent offending suitable for use with both male and female participants (using the combined sample from studies 3 and 4). Results suggested five separate subscales (general violence, IPV, drug-related offences, criminal damage, and theft). The results provided support for previous research into sex differences as men were found to perpetrate higher levels of general violence and

nonviolent offences than women (supporting evolutionary theories of crime), and women perpetrated significantly more IPV than men (supporting the family conflict theory and not the feminist theory). The interrelatedness of the offence categories in men and women provided broad support for generalist theories of offending.

Studies 3 (116 men; 181 women) and 4 (184 men; 171 women) explored potential predictors of offending behaviour using the NVOBS to examine whether the different forms of offending shared the same underlying correlates. Measures included: personality traits and disorder traits, attachment, anger, self-control and psychopathic traits. The same pattern of results was observed across both studies. Despite the sex differences in general violence and nonviolent offending (Study 2), there were similarities in the predictors of general violence and nonviolent offending for men and women. This supports Campbell's (1995) theory that women's offending may just be a muted version of men's offending and also suggests that there are commonalities between different types of offending: supporting the generalist perspective of crime. The main difference was for IPV, where the predictors for men's IPV were different to other types of crime and to the predictors for women's IPV. This indicates that men's and women's risk factors for IPV may be different (providing some support for men's IPV being specialist).

In summary, three key themes can be taken from the research findings: (1) sex differences in offending, and mutuality of IPV, (2) the overlap between offences, and (3) the pattern of correlates and predictors of offending. Conclusions from the thesis are that men and women offenders perpetrate a variety of offences, which is consistent with the theory that criminals tend not to specialise. Limitations, ideas for future research, and original contributions to knowledge are discussed.

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CHAPTER 1

GENERAL INTRODUCTION

Reviewing the literature on the interrelatedness of offending has highlighted a number of research problems. The separate investigation of IPV and other forms of offending has resulted in theories of IPV being developed in isolation to theories of crime. According to the General Theory of Crime (Gottfredson & Hirschi, 1990) and Felson's general theory of violence (2002) IPV may share commonalities with other types of offending, violent and nonviolent. Similarly, Campbell (1995) proposes that although women commit less offences than men, the pattern of offending is the same for men and women. Therefore women's offending may be a muted version of men's offending, motivated by similar causes.

There are theoretical benefits of investigating IPV, general violence and nonviolent offending together in a mixed-sex sample: the results of such research would inform whether offenders are generalists or whether they specialise in specific types of crime. The research would also indicate whether men's offending was similar or different to women's. This would inform general theories of crime as well as feminist theories relating to men's coercive and women's defensive offending.

The limited research that has investigated the association between IPV and other crime has focussed only on the overlap of the offences. However in order to fully understand whether or not IPV is distinct from other types of offending, it is also necessary to investigate the correlates/predictors of offending. These complementary approaches will elucidate whether the people who are violent in their relationships are the same as the

people who perpetrate other violent and nonviolent offences. Therefore this thesis investigated the generalist and specialist theories of offending and the main research questions that cut across all the studies are: (1) sex differences in each type of offending, (2) overlap in offending, and (3) predictors of violent and nonviolent offending.

1.1. Introduction

There is a longstanding belief that intimate partner violence (IPV) is a unique and specialist type of crime warranting its own research and theories (Dobash & Dobash, 1992; Hotaling et al., 1990; Gelles & Straus, 1979; Giles-Sims, 1983). As a result, research into IPV has been conducted in parallel to research into other crime, and therefore the theories for IPV have largely developed in isolation to theories for other types of crime. This divide between theories and research on IPV and other crime may be derived from feminist (Dobash & Dobash, 1992) or family conflict (Gelles & Straus, 1979) conceptualisations that IPV is unique. However there is some literature on the overlap of IPV, general violence and nonviolent offending (Felson, 2002; Gottfredson & Hirschi, 1990; Holtzworth-Munroe & Stuart, 1994), which suggests that perpetrators are likely to be generalists who engage in a variety of crimes rather than specialising solely in one type of crime. This thesis will explore the extent to which IPV is distinct from other types of crime and will explore the data in terms of sociological, psychological and criminological theories.

1.2. IPV

1.2.1. Definitions

Intimate violence is defined by the Home Office as “the collective term used for partner abuse, family abuse, sexual assault and stalking, reflecting either the intimate nature

of the victim-offender relationship or of the violence or abuse” (Smith, Flatley, Coleman, Osborne, Kaiza & Roe, 2010). The terms intimate violence, domestic violence, IPV and partner abuse are often used interchangeably. Intimate violence and domestic violence can be used to refer to violence within the home towards any family member including partners, whereas IPV and partner abuse refer only to violence towards partners or ex-partners, excluding violence towards all other family members. The word “abuse” implied that partner violence is always wrong; however it may be perpetrated in self-defence. However, IPV is a neutral term. Therefore for the purposes of this research the term IPV will be used throughout as the thesis explores only violence between partners and not towards other family members. The term „general violence“ will be used when referring to violence towards someone other than a partner. There are three levels of violence: physical (which includes sexual violence), verbal, and psychological. The current thesis focuses on physical aggression.

1.2.2. IPV theories

Research on IPV began during the 1970s, and the most central and contentious issue regards female perpetrators of IPV (Straus, 2005; 2009). Since the 1970s, two schools of thought have developed regarding the psychology of IPV: (1) the view that IPV primarily involves male perpetrators and female victims, and (2) the gender-neutral view, which proposes that both partners are equally likely to be physically aggressive to the other (and therefore both partners can be both perpetrator *and* victim). The view that IPV largely involves mutual combat is one pattern of IPV that is associated with family conflict researchers (e.g. Straus & Gelles, 1988). The conflicting viewpoint, that the majority of partner violence involves men as the aggressors and women as their victims, is associated with feminist and evolutionary researchers (e.g. Dobash, Dobash, Wilson & Daly, 1992;

Dobash & Dobash, 1980, 1998, 2004) (see section 1.7 for a discussion of evolutionary theory). Both feminist and family conflict researchers see IPV as separate from other offences, but for different reasons. Each viewpoint will be discussed.

1.2.2.1. Feminist theory

Feminists propose that we live in a patriarchal society, and that IPV is a consequence of this societal structure (Dobash & Dobash, 1979; Yllo & Bograd, 1988). Therefore society supports the use of violence against women by men. Feminist theory proposes that IPV, unlike other violent and nonviolent crime, is uniquely the consequence of gender inequality and patriarchy. The feminist theory therefore introduces a sex-specific explanation for IPV, in that it is solely (or largely) men aggressing against women, to achieve dominance and exert power and control over them (e.g. Dobash & Dobash, 1980, 1998, 2004; Dobash et al., 1992; Dobash et al., 1998; Henning et al., 2003; Loseke & Kurz, 2005). Therefore men's IPV is coercive whereas women's IPV is defensive (Dobash & Dobash, 2004). Feminists do not seek to explain individual differences in behaviour. Instead, they examine "why men in general use physical force against their partners" (Yllo & Bograd, 1988, p. 13).

Feminist researchers tend to conduct qualitative research and typically use selected samples, for example from shelters, hospitals, police reports, and court records. Results from these samples suggest that women are overwhelmingly the victims of IPV (Dobash & Dobash, 1979; 1992; Dobash et al., 1992; Kurz, 1993; Bourgois, 1995; Nazroo, 1995; Dobash & Dobash, 2004). The feminist perspective sets men's IPV towards women in a framework of power and control, where men use a variety of tactics to intentionally control and dominate their partner. These control tactics include: intimidation, emotional abuse, economic abuse, isolation, coercion and threats, the children, using male privilege and

minimising, blaming or denying what happened (Pence & Paymar, 1993). Therefore IPV is one part of this general pattern of control. According to the feminist theory, men are misogynists who specialise in aggressing against women.

Like feminists, evolutionary researchers also tend to attribute IPV to male coercion (e.g. Wilson & Daly, 1992), however their emphasis is instead related to men's control over women's reproductive capacity. According to evolutionary theories men's IPV is the consequence of mate-guarding arising from paternity uncertainty (e.g., Wilson & Daly, 1992, 1996), and so men are coercively violent towards their female partner due to sexual jealousy. Unlike women, men cannot be sure that they are biologically related to any offspring. Therefore if men are to invest their resources in bringing up a child then they will be motivated to ensure that the child is theirs, and hence avoid being "cuckold". To this end, they may employ whatever strategies are necessary to ensure their paternity (e.g. discourage infidelity), and this includes using violence to control their wives. This serves to increase the chances of men's paternity.

From both the feminist and evolutionary perspectives it is claimed that IPV is distinct from other types of aggression due to victim choice, as the victims are female and in an intimate relationship with the male perpetrator. According to the feminist theory, we would not expect to find overlap between IPV, general violence and nonviolent offending due to the assertion that IPV is a unique and specialist type of crime. Also, if IPV is unique we would expect to find that different predictors would be associated with IPV than with other types of crime. Furthermore both the feminist and evolutionary theories would predict that women's IPV has different causes and motivations to men's (i.e. self-defence), and hence we would not expect the predictors of male IPV to also apply to female perpetrators of IPV. For example, we would not expect women's defensive IPV to be predicted by

personality disorder traits such as getting pleasure from inflicting suffering on others, extreme jealousy or irrational suspicion of infidelity.

1.2.2.2. Family conflict theory

The family conflict perspective suggests that IPV is distinct from other offences because it is a product of intrafamilial interactions, and unlike other crime it occurs in an intimate context (Gelles & Straus, 1979). Conflict is an unavoidable aspect of familial interactions, and the methods used to resolve conflict range from rational discussion to the use of severe physical force (Straus, 1979). Accordingly, IPV is a tactic that is as likely to be employed by men as women in response to conflict within a relationship. Straus (1979) developed the Conflict Tactics Scale (CTS) which is an act-based measure and allows the quantitative measurement of physical aggression between partners (and other family members). As it is quantitative it can be used in comparison analysis, and can therefore be used to compare violence prevalence between men and women and between samples. Unlike feminist researchers, family conflict researchers use samples unselected for violence (such as student or community samples of dating/ married couples) and the research has indicated that women can be as aggressive as men within relationships, if not more so. For example, the National Family Violence Surveys (1975 and 1985) used the CTS and found equal numbers of male and female victims of IPV.

Since then, a large body of evidence has amassed that reflect gender symmetry in the perpetration of IPV from research that has used the CTS (Straus, 2007). Studies using unselected samples, from the US and other western nations, have found that women can be as physically aggressive as men, if not more so, within intimate relationships (Archer, 2000, 2002, 2006; Cercone, Beach & Arias, 2005; Graham-Kevan & Archer, 2003; Felson, 2002; Straus, 2004). This is true of “minor” violence (e.g., pushing, slapping, hitting) as

well as more “severe” („kick, bite, punch“, „hit with an object“) types of violence (Archer, 2002; Ehrensaft, Moffitt & Caspi, 2004; Straus, 2008; Lussier, Farrington & Moffitt, 2009). An exception may be for the items “beat up” and “choke” where although the effect sizes were small Archer (2002) found these to be in the male direction, and women were the perpetrators in only about a third of cases. Therefore this suggests that both men and women can be the perpetrators of both minor and severe acts of aggression, which supports the family conflict theory of IPV. These findings conflict with the feminist theory of IPV, as they suggest that IPV is not specialist only to men. The sex symmetry in IPV also conflicts with the pattern of men being more physically aggressive than women in other contexts (Archer, 2009).

Archer (2000) conducted a comprehensive meta-analysis to examine sex differences in heterosexual IPV perpetration. Using 82 studies, predominantly from the United States and predominantly from student or community samples, Archer (2000) reported that women were significantly more likely to be physically aggressive towards their partners than men were, however the effect size was very small ($d = -.05$). This indicates symmetry in the perpetration of IPV, and is therefore consistent with the family conflict theory. The results also suggested that men were more likely than women to injure their partner ($d = .15$), but this effect size was also small. Therefore although women can be as aggressive as men within relationships, they tend to receive more injuries than men. Therefore the physical consequences of IPV may be more severe for women. Finding that women are more likely to be injured by their partners than men provides broad support for the feminist theory of IPV that women are the primary victims and suffer more severe consequences. However, there remain a substantial number of men who are injured by their female partner which is inconsistent with the feminist theory.

Consistent with the family conflict theory are the findings from longitudinal research. Moffitt et al. (2001) compared IPV perpetration in their birth cohort from New Zealand of men and women at age 21. The results indicated sex differences in IPV in the female direction when examining both self-reports or partner reports from 360 couples: women reported perpetrating significantly more violence towards their partner than men did, and men reported receiving significantly more violence from their partner than women did. Furthermore, there were no sex differences in IPV perpetration among men and women in 30 couples who had experienced clinical levels of abuse, i.e. where IPV resulted in injury, medical treatment, police intervention, convictions or help-seeking (p. 60). This suggests that severe violence was perpetrated to an equal extent by men and women, but less severe (non-clinical) violence was perpetrated more by women than by men. These findings are more consistent with the family conflict theory than with the feminist theory of IPV.

In a follow-up study, Ehrensaft, Moffitt and Caspi (2004) examined IPV in the same birth cohort between ages 24 and 26 and replicated the earlier findings. However, the findings did suggest that in clinically abusive relationships women sustained more injuries that required medical treatment than men. This is not an isolated finding; similar results have been reported in other longitudinal research (e.g. Giordano, Millhoin, Cernokovich, Pugh & Rudolph, 1999). This provides further support for the family conflict theory of IPV in that both sexes are perpetrating IPV, but also supports the feminist theory in that women sustain greater injuries.

Similar conclusions can be drawn from British Crime Surveys, which indicate equal proportions of men and women being “assaulted” by a partner in the last year (Coleman, Jansson, Kaiza & Reed, 2007; Mirrlees-Black, Budd, Partridge & Mayhew, 1998). The

BCS includes crimes that have not necessarily been reported to the police, and so may provide more representative statistics regarding the prevalence of victims, particularly for men. Surveys from other western countries also suggest that men and women can be equally victimised within relationships: for example, Statistics Canada (Pottie Bunge & Locke, 2000) found that 4% of men and 4% of women were victims of IPV. The finding that men are victimised within their relationships to a similar extent as women does not fit with the feminist theory of IPV, but is consistent with the family conflict perspective.

Data from forensic samples also supports the family conflict rather than the feminist perspective of IPV. For example, Busch and Rosenberg (2004) used a sample comprising 45 men and 45 women who had been assigned to a treatment program between 1996 and 1998 after being arrested for perpetrating IPV in the US. They found that the women were equally as violent as the men, equal in their use of severe violence and just as likely as men to cause severe injuries to their partner.

Studies using undergraduate student samples (that were published after Archer's meta-analyses) have also found no sex differences in reports of IPV perpetration (e.g. Harned, 2001; Katz, Washington-Kuffel & Coblenz, 2002; Straus, 2008). The research using non-selected samples consistently find that women are either equally or more physically aggressive than men within relationships in western nations (Archer, 2006), and therefore provides support for the family conflict theory of IPV, and not the feminist theory.

1.2.2.3. Reconciling the feminist and family conflict perspectives

Johnson (1995) tried to resolve the debate between the feminist and family conflict perspectives, by suggesting that the two differing viewpoints are the product of investigating non-overlapping populations using different methodologies. He proposed that

there are two distinct types of IPV that are qualitatively different from each other and which vary on the level of control used. He named these categories: common couple violence and patriarchal terrorism. Common couple violence was described as “the dynamic is one in which conflict occasionally gets “out of hand,” leading to “minor” forms of violence, and more rarely escalating into serious, sometimes even life-threatening, forms of violence” (Johnson, 1995, p. 285). It therefore refers to violence that is low-level and low-frequency, where both partners are equally violent. The violence is not used as an instrument by one partner to gain control over the other, instead it is used in „everyday“ conflicts. Patriarchal terrorism was described as “a product of patriarchal traditions of men’s right to control “their” women, is a form of terroristic control of wives by their husbands that involves the systematic use of not only violence, but economic subordination, threats, isolation, and other control tactics” (p. 284). Therefore it refers to frequent and severe violence used by a man to control his female partner, with the violence and controlling behaviour being unilateral. Johnson proposed that this pattern of violence would be severe and would escalate.

Family conflict researchers typically use samples representative of common couple violence (such as student or community samples of dating/ married couples), and these samples are believed by Johnson to be unlikely to include severely victimised women. Whereas feminist researchers typically sample female victims of patriarchal terrorists (such as from shelters or hospital records), therefore their samples focus on severely victimised women and are therefore unlikely to include common couple violence or indeed severely victimised men. So, according to Johnson (1995) the two IPV perspectives are investigating two distinct phenomena.

The term „patriarchal terrorism“ was renamed „intimate terrorism“ following analysis by Johnson and Ferraro (2000) that found that women can also be responsible for violence and high levels of control within relationships, although this was only expected to be in a minority of cases. The new name acknowledges that IPV can be used by one partner to gain control over all aspects of their partners“ life, irrespective of the gender of the perpetrator/victim. This revision is inconsistent with the feminist theory of IPV because it suggests that women are using violence coercively rather than defensively. However, Johnson (1995, 2006) and Johnson and Ferraro (2000) maintained that intimate terrorism was almost always a consequence of patriarchy and predominantly perpetrated by men. Johnson argued that the few male victims of female intimate terrorists did not contradict his assertion that intimate terrorism is the result of patriarchy. However in concluding this he did not consider the experiences of male victims of severe IPV, or that women use IPV and controlling behaviours within intimate relationships as much as men (see discussion of control, section 1.2.2.6.).

As well as common couple violence and intimate terrorism, Johnson (2006), also proposed two other categories of IPV: violent resistance and mutual violent control. Violent resistance refers to when a victim of intimate terrorism fights back in self-defence or retaliation, using non-controlling aggression: therefore, opposite to intimate terrorism, violent resistance is thought to be predominantly used by women. Mutual violent control refers to situations where there are two intimate terrorists using severe violence trying to gain control of the relationship: it is therefore thought to be a rare occurrence. Like common couple violence, it is proposed that there is gender symmetry in mutual violent control. This suggests that both men and women can perpetrate severe controlling aggression within relationships (Johnson, 2006).

There is some literature which has examined men as victims of women intimate terrorists, which provides evidence that women can perpetrate violence that is not defensive within their relationship. For example, using a sample of 302 help-seeking men, Hines and Douglas (2010) found that men can be victims of women's IPV. Although the men in the sample were also violent, their female partners used physical aggression and controlling behaviours approximately five times more frequently than men did, and the men were injured twice as much as the women. These findings are inconsistent with the feminist theory of men's coercive and women's defensive IPV, and suggest that patriarchy is not the cause of all IPV. Instead, they provide support for the family conflict perspective that women as well as men can use severe violence as a conflict tactic.

The data from an earlier study by Stets and Straus (1992) also suggested that both males and females could be classed as intimate terrorists, and that female intimate terrorists were about three times more prevalent than male intimate terrorists (Dutton & Nicholls, 2005). These results do not fit with Johnson's (1995, 2006) assertion that intimate terrorism is mainly the domain of men and can be explained solely by patriarchy. Therefore research suggests that both men and women can be responsible for severe one-sided acts of aggression towards their partners, and both men and women can be responsible for mutual violence within relationships. This is inconsistent with feminist patriarchal theory as women can perpetrate severe non-defensive violence, as can men. Therefore there may be similarities in men's and women's perpetration of IPV, which supports the family conflict argument that IPV is not specialist only to men.

1.2.2.4. Types of IPV: Mutual and unilateral violence.

Mutual violence is the most common form of IPV, typically accounting for over half of violent couples (e.g., Archer, Fernandez-Fuertes & Thanzami, 2010; Cascardi,

Langhinrichsen & Vivian, 1992; Kessler, Molnar, Feurer & Applebaum, 2001; Stets & Straus, 1990; Straus, 2008), and also has the highest injury rates for both men and women (Straus, 2008; Ehrensaft et al., 2004). Both men and women reported that mutual violence was predominant for both minor and severe forms of violence (Straus, 2008), and there is more likely to be severe violence in relationships where both partners are violent than when the violence is unilateral (e.g. Ehrensaft et al., 2004).

Stith, Smith, Penn, Ward and Tritt (2004) reported from their meta-analysis of 85 studies that there was a moderate association ($r = 0.41$) between women's IPV victimisation and her use of physical aggression towards her partner. This suggests that an important risk factor for women's victimisation is her use of physical violence. The use of physical violence may indicate self-defence depending on who initiated the physical aggression, but this could apply to men as well as women. Indeed, research suggests that women initiate half of all relationship violence (Straus & Gelles, 1988). So in 50% of cases men and women are not perpetrating IPV in self-defence as they initiated the conflict. This is consistent with the family conflict theory and not the feminist theory of IPV.

It is important to recognise that the majority of IPV is mutual and to investigate mutuality of violence within intimate relationships because this may have important implications for theory and treatment. Some perpetrators may also be victims and likewise some victims may also be perpetrators and therefore their treatment needs may be different to that of a pure perpetrator or a pure victim. However, one limitation of mutuality data is that mutuality may mean one or two acts perpetrated by one partner and repeated aggression by the other. Therefore mutuality does not necessarily mean equality as one partner may be victimised more than the other. With respect to the current research

mutuality refers to an individual reporting at least one act of IPV perpetration and victimisation at some point within the past year.

There is support for the existence of mutual and unilateral violence from the bullying literature, where it has been found that there are pure bullies, pure victims and bully/victims (those that are bullied and also bully others). Again it is the mutual bully/victim category that is the most prevalent type (e.g. Ireland & Ireland, 2008), which is consistent with the findings of mutuality within the IPV literature. However, the bully/victim category may include those who perpetrate one or two acts of aggression but receive repeated aggression in return. Therefore some individuals may be a victim to a greater extent than they are a bully, but would still be classified within the bully/victim category. This could impact the conclusions that can be drawn from such studies.

There is also evidence for mutuality within the ex-partner stalking literature. Using a sample of male and female university students, Wigman, Graham-Kevan and Archer (2008) found a significant positive relationship between ex-partner stalking perpetration and stalking victimisation ($r = .49$), but it was those who were classed as severe harassers who reported the most victimisation from their former partner, which also implies that there is some mutuality of offending in stalking situations. However, it must be recognised that the victim may be responding defensively to the severe harassment they are receiving.

As a whole, the literature suggests that the perpetrator and victim groups are frequently not mutually exclusive and therefore it may be incorrect to subscribe to a false dichotomy where the categories of victim and offender are treated separately (as it is in the feminist literature). Indeed, Deadman and MacDonald (2004) have noted that the literature on victims “overwhelmingly portrays victims and offenders as separate groups” (p. 53), although it may be more appropriate to consider victims who are also offenders and

offenders who are also victims. Further evidence that victims and offenders are alike comes from Daly and Wilson (1988, p. 170) and their consideration of intermale homicide. They state that “The high proportion of altercations among these [male on male] homicides is largely responsible for this similarity between killers and victims ... the hostilities are reciprocal, and it is often an open question which party will end up dead”. Therefore who ends up as „victim“ and who ends up charged with homicide is often down to chance factors.

Wolfgang (1958) stated that victims and offenders often share similar characteristics: therefore it may not be appropriate to separate them. Indeed, the IPV literature suggests that childhood risk factors (such as conduct disorder) predict IPV perpetration and victimisation at age 21 (Moffitt et al., 2001). Therefore the divide between offender and victim may not be quite so apparent. So considering women as victims only and men as perpetrators only (as advocated by feminist theory) may be inherently flawed.

1.2.2.5. Criticisms of the feminist perspective: Patriarchy

The argument that patriarchy is responsible for IPV may not be supported in the UK. Dutton (1994a) looked across cultures at several direct tests of patriarchy, and found little support for a patriarchal society in the UK or US (although not necessarily in other countries). He also found that the majority of men believed that violence against women was not acceptable, and the majority of men were not violent for the duration of their relationship. In countries where gender equality and individualism are both high (such as the UK, USA and Canada), female victimisation is lower and male victimisation higher (Archer, 2006, 2009). Higher levels of gender empowerment across nations were associated with a sex difference in IPV perpetration in the female direction (Archer, 2006). So it would seem that in our society there is relative gender equality. Feminist researchers (e.g.

Dobash et al., 1992; Kurz, 1993) posit that IPV stems from patriarchy and gender inequality. Therefore Archer's (2006) data suggests that the patriarchal society theory does not seem to be applicable to our country or other western societies.

Archer (2006) also assessed approval of IPV and found that men's approval of male IPV was higher in countries where gender equality was low. He suggested this may indicate a link between attitude and behaviour. Therefore countries with more gender equality will have a stronger disapproval of IPV, and this is likely to inhibit men from aggressing against their female partner even when she hits him. Indeed, the reluctance of men to hit a woman may actually facilitate women's aggression towards men (Archer, 2006). Research that has explored women's expectations of their partner's response to their partner's aggression finds support for this explanation (e.g. Fiebert & Gonzalez, 1997). Women's violence occurring due to a perception that men will not fight back, cannot be explained by the feminist proposition that women are only violent defensively.

Essentially, Western society's protection of women can be understood as evidence for a norm of male chivalry. Chivalry is a traditional social norm which involves the reluctance to aggress against women and to instead protect them from harm (Felson, 2002). In accordance with the chivalry norm, third parties view those who are violent towards women more negatively than they do those who are violent towards men (Felson, 2002). Furthermore, third party involvement is more likely to occur on behalf of female victims of violence than male victims. In fact, the presence of others has been found to inhibit male-to-female violence but to increase intermale conflict (Felson, 1982). This may be related to reputation and needing to save face in an intermale conflict, but loss of reputation by being seen to be violent towards a woman and violating a social norm (chivalry). Chivalry and

third party intervention would serve to reduce male violence towards women in intimate relationships.

Support for the chivalry norm is evident from research into perceptions of IPV, which are very different for men and women. Acts of IPV are deemed less serious when perpetrated by a female (Coontz, Lidz & Mulvey, 1994; Harris & Cook, 1994; Follingstad, DeHart, & Green, 2004; Worthern & Sullivan, 2005), and female perpetrators are viewed less negatively and with less disapproval (O'Leary, 1993; Gerber, 1991). Contrastingly, male victims are perceived to be more responsible for their abuse, and their victimisation taken less seriously (Harris & Cook, 1994; Follingstad et al., 2004; Worthern & Sullivan, 2005). These negative perceptions of male victims and stronger disapproval of male perpetrators may inadvertently serve to encourage female violence towards intimate partners (George, 1994). This may help explain why women's IPV increases where men's IPV decreases.

1.2.2.6. Criticisms of the feminist perspective: Power and control

The idea that IPV is the product of men's power and control has been contradicted because there is research evidence which suggests that control is as related to IPV for women as it is for men. Therefore control over a partner is a correlate common to men's and women's use of IPV which is not consistent with the feminist theory which proposes that the motives for IPV are different for men (coercive) and women (defensive). For example, research using large scale national survey data (e.g. Statistics Canada: Pottie Bunge & Locke, 2000; American National Violence Against Women Survey: Felson & Outlaw, 2007) has found no sex differences in controlling behaviours. Therefore controlling men were as likely as controlling women to perpetrate violence towards their partner.

Furthermore, inconsistent with feminist theories, some research has found that the control tactics feminist researchers have proposed that men use to control women (Pence & Paymar, 1993) are similar to the control tactics used by women to control men. For example, Hines, Brown and Dunning (2007) found that almost 95% of the male victims of IPV who called the “Domestic Abuse Helpline for Men” reported controlling behaviours (classified from the Pence & Paymar (1993) model) from their female partner. The category “using male privilege” was not appropriate for use with female perpetrators so Hines et al. (2007) replaced this with “manipulating the system”. This referred to behaviours whereby the women used the current system designed to help female victims to her advantage and against the male: for example, “falsely obtaining a restraining order against the victim” (p.67), which was reported by 49% of the men. Women being able to “manipulate the system” may be a product of feminist influence and chivalry, because in accordance with these theories women are viewed as the appropriate victims (and therefore men are not). As a result female perpetrators can use the system so that they are viewed as the victim in need of help instead of the man, knowing that it is likely that the man’s victimisation may not be believed. Threats and coercion (77.6%) was the most commonly used method of control by women, followed by emotional abuse (74.1%), using the children (64.5%) and intimidation (63.3%). This suggests that male victims of severe IPV parallel female victims of severe IPV in terms of the similar controlling behaviours they experience from their intimate partners. Recent research has also indicated that control is a predictor of IPV for both men and women (Graham-Kevan & Archer, 2008; 2009). Therefore much of the research suggests that both men and women use power and control within relationships, which is further evidence against the argument that IPV stems entirely from patriarchy.

Felson and Outlaw (2007) did find that there were some sex differences in the use of individual control items (such as men were more likely to try and stop women from working outside of the home and women were more likely to demand to know the whereabouts of the man). So it appears as though the motivation to control a partner is equal for men and women, but they may choose to employ different methods to achieve that control. Research using non-selected samples (e.g. Stets, 1991; Harned, 2001) has also found no sex differences in the amount of controlling behaviour used in relationships. Some research has even suggested that the women were more controlling than the men (Stets & Hammond, 2002) within marriages. Therefore controlling behaviours seem to be as applicable to men as to women within intimate relationships, and so the feminist view that it is only men who seek to control a partner is not supported.

1.2.2.7. Criticisms of the Feminist perspective: Methods used

There is evidence to suggest that male victims may be insufficiently represented in data obtained from shelters and hospital records. For example the British Crime Survey (Walby & Allen, 2004) found that 14% of men as opposed to 27% of women used medical services for their injuries. At the hospital 94% of women were asked about the source of their injuries, whereas there was no mention of how many men were asked about the source of their injuries and screened for IPV. Therefore if half as many men as women seek medical treatment, and when men do they are not asked if their injuries were the result of IPV, many male victims of IPV are not going to appear in hospital records. Therefore many male victims and female perpetrators will go unnoticed. This biases the results in the female direction. Furthermore, sampling women from shelters will produce a sample of severely victimised women, but will not produce a sample of similarly victimised men. Therefore this type of research is unfit for the purpose of exploring sex differences in

perpetration and victimisation, as the researchers are essentially sampling using the dependent variable (Graham-Kevan, 2009).

Interestingly, research that has used shelter samples and asked the female victims about their own perpetration has found that these women report quite high rates of perpetration. For example, McDonald, Jouriles, Tart and Minze (2009) used a sample of help-seeking women and found that 67.1% of them reported that they had perpetrated severe aggression towards their male partners in the past 12 months. Saunders (1988) found that between 50 and 60% of the women in their shelter sample reported using severe violence towards their partner in the past 12 months, 8% of the women reported using a weapon (knife or gun) on their partner, and 12% reported threatening their partner with a weapon (knife or gun).

1.2.2.8. Criticisms of the feminist view: The self-defence argument

Critics of the gender symmetry argument have stated that female IPV is perpetrated in self-defence, in retaliation to the man's violence, or as a pre-emptive strike by the woman to protect themselves and/or their children from an attack by their male partner (e.g. Hamberger, Lohr, Bonge & Tolin, 1997; Hamberger & Potente, 1994; Kurz, 1993; Lloyd & Emery, 1994; Pleck, Pleck, Grossman & Bart, 1978; Saunders, 1986). Indeed, Henning, Jones and Holdford (2003) stated that "most women arrested for intimate partner violence are victims of abuse who may have been acting in self-defence" (p. 841). Although this may be true in some cases, this theory of women's violence has been challenged by researchers who have investigated which partner used physical violence first.

The evidence suggests that women's IPV is not solely motivated by self-defence; women can be violent towards nonviolent partners (Morse, 1995; Simmons, Lehmann, Cobb, & Fowler, 2005; Straus & Ramirez, 2007). Studies have also found that in one-sided

acts of aggression, women were likely to be the sole perpetrator more frequently than men (Anderson, 2002; Gray & Forshee, 1997; Riggs, 1993). Stets and Straus (1992) also challenged the self-defence theory. They investigated IPV in couples and found that when reporting either none or minor physical aggression from partners, women used severe physical aggression towards their partners significantly more than men. Severe violence from one partner coupled with minor/no violence from the other partner is akin to Johnson's "intimate terrorist" category. Therefore according to Stets and Straus there are more women than men intimate terrorists, which is not consistent with the feminist theory of women's defensive IPV.

Only a minority of women report that they are violent towards their partner in self-defence (DeKeseredy & Schwartz, 1998, Foo & Margolin, 1995; Stuart et al., 2006). Instead women are found to report similar reasons to men such as control, anger and jealousy (Carrado, George, Loxam, Jones & Templar, 1996; Harned, 2001; Henning, Jones & Holdford, 2005). Therefore men's and women's IPV may stem from similar causes, and self-defence is not a predominant motive. Also, research has found no sex differences in the use of self-defence as a reason for IPV perpetration (Follingstad, Wright, Lloyd & Sebastian, 1991; Carrado et al., 1996; Harned, 2001). Therefore men are as likely as women to only be violent towards their partner in self-defence: which is inconsistent with the feminist patriarchal perspective of IPV.

The risk factors for IPV are present at least three years prior to dating (Moffitt et al., 2001), which suggests that there is a prior underlying propensity for violence perpetration. An underlying propensity for violence does not fit with the idea that women only become violent in response to male violence. Therefore the findings reported in this section together suggest that self-defence cannot reliably account for all of women's perpetration of IPV,

and that men are as likely as women to use aggression in self-defence: this is inconsistent with the feminist proposal that women's violence is always defensive and men's violence is always coercive. If self-defence is not the only explanation for women's perpetration of IPV or general violence, then other influences need to be investigated to help explain why women aggress against their male partners and others. Risk factors for IPV will be investigated in Studies 3 and 4.

1.2.2.9. Criticisms of the feminist perspective: Perpetrator characteristics

Feminist theory deemphasises the role of psychopathology in IPV because IPV stems from "normal psychological and behavioral patterns of most men" and that "trait theories tend to excuse the abusive man through reference to alcohol abuse or poor childhood histories" (Bograd, 1988, p. 17). However, research has implicated psychopathology in the perpetration of IPV, and some findings indicate that IPV perpetrator characteristics are the same for men and women: this has been found by longitudinal (e.g. Moffitt, Robins & Caspi, 2001) and forensic research (e.g. Busch & Rosenberg, 2004). Using male victims' reports of female perpetrators, Hines et al. (2007) found that female perpetrators of IPV were "likely have a history of childhood trauma, may be suffering from a mental illness, and are likely to use alcohol and/or drugs" (p.71). This has also been found by other research into female violence (e.g., Swan & Snow, 2003; Henning et al., 2005). This is also consistent with previous findings regarding male perpetrators (e.g., Dixon & Browne, 2003; Gondolf, 1999; Holtzworth-Munroe & Stuart, 1994; Walker, 2000). These findings do not support the feminist theory because we would not expect to find that coercive and defensive IPV shared the same correlates.

The women in the study by Hines et al. were also reported to "have a high rate of threatening either suicide and/or homicide" (p.71), which is consistent with the findings of

Henning et al. (2005), who found that although male and female perpetrators both have a history of suicide attempts, this was significantly more pronounced in women. Therefore, research suggests that the intrapersonal characteristics of both men and women are associated with IPV, and so research needs to consider more than just the narrow perspective of male perpetrators and female victims of IPV. The current thesis considers the wider perspective that men and women can be the perpetrator and/or the victim of IPV, which is consistent with the family conflict theory of IPV.

1.2.2.10. Criticisms of the feminist perspective: Findings from other areas of domestic violence

Research in other types of family violence finds that women can be the perpetrators of severe forms of violence towards other family members, which is inconsistent with the feminist theory that women are only violent in response to violence from a male partner. Studies find that females are as likely as males to be perpetrators of sibling violence (Goodwin & Roscoe, 1990), and child physical and emotional maltreatment (Cawson, Wattam, Brooker & Kelly, 2000). Indeed some research in the US has found that perpetrators of child abuse are predominantly female and when acting alone, women were twice as likely as men to abuse their children (Gaudiosi, 2006, 2009). Although perpetrators of child sexual abuse are predominantly male (Cawson et al., 2000), women are still responsible for a significant amount (Fergusson & Mullen, 1999). This is further evidence that women can be perpetrators of aggression, and defies the myth that women are only violent defensively, as they can also be violent towards children and siblings.

1.2.2.11. Criticisms of the family conflict perspective: Methods used

Critics of the family conflict theory typically censure the findings and conclusions from the unselected sample studies. They do not deny the findings, and acknowledge that

female perpetrators do exist, but they do differ in the context in which women use IPV and the prevalence by which they believe it occurs. Feminists criticise the methods used to obtain the results, claiming that they are flawed and misrepresent the data on IPV (Dobash et al., 1992). The disparity between the findings and conclusions of the family conflict and feminist researchers, led to the methods used by the family conflict researchers being the focus of feminist criticism.

Dobash and Dobash (2004) acknowledged the reliability of the CTS (Archer, 1999), but state that its validity is questionable (Dobash et al., 1992; Kurz, 1993; Dobash et al., 1998). Feminist researchers argue that the CTS (and therefore the family conflict theory) does not take into account the consequences of the violence or the context it is used in. For example, Dobash and Dobash (2004) state that “throwing a lamp at a partner is very different from throwing a pillow” (p. 329). However, they do not seem to recognise that these ambiguities could be applied to men as well as women completing the items on the CTS. Feminist researchers argue that women’s violence is predominantly used in the context of self-defence. Therefore women may endorse items on the CTS and appear as perpetrators when they are using those acts defensively. They appear however, to have no clear argument as to why men could not also be using these acts defensively against a female partner.

In order to respond to some of the criticisms regarding the CTS, the CTS-2 (Straus, Hamby, Boney-McCoy & Sugarman, 1996) was developed. The authors added six injury items to offset the criticism regarding lack of consequences, and modified some of the items to make the context they were being used in clearer, such as adding the wording “that could hurt” to the “threw something at your partner” statement.

1.2.2.12. Criticisms of the family conflict perspective: Injuries and homicide statistics

Critics of the family conflict theory typically use injury evidence to discredit the theory. Dobash et al. (1992) argue that the consequences of IPV are very different for men and women, and that due to men's larger size and strength, women will sustain more injuries than men. Indeed, research has supported the claim that women are injured more than men. When examining the consequences of the aggressive acts, Archer's (2000) meta-analysis found that women were more likely to report being injured by their partner than were men (64% vs. 36%), but the effect sizes were very small, and the results still indicated that over a third of those injured were men. This does provide some support for the feminist theory but also suggests that women are responsible for a significant amount of injuries inflicted on their partner, and this is not consistent with the feminist theory.

Research since Archer's meta-analysis has also found that women are injured more than men (Feder & Henning, 2005; Frieze, 2005; Hamberger, 2005; Whitaker, Haileyesus, Swahn & Saltzman, 2007). Although, Felson and Cares (2005) also found that women were more likely to sustain injury than men from their intimate partners, analysis of the severity of injuries revealed that women were more likely than men to have sustained minor injuries, whereas men are more likely to sustain severe injuries. This is not an isolated finding, Buzawa, Austin, Bannon & Jackson (1992) also suggested that men were more likely to sustain severe injury than women as "male victims reported three times the rate of serious injury as their female counterparts, 38% compared to 14%" (p. 263). The above research suggests that both men and women can be injured by their intimate partner, but male victims may be more likely to experience severe injuries. This may be because men are reluctant to harm women (Felson, 2002) and may therefore restrain their level of violence as a result (Archer, 2000; Felson, 2002).

Men's larger size and strength can be negated by the use of weapons. As McNeely and Mann (1990) stated "the average man's size and strength are neutralized by guns and knives, boiling water, bricks, fireplace pokers, and baseball bats" (p. 130). Giordano et al. (1999) found, using a longitudinal sample of 721 men and women, that the women in the sample were more likely than the men to report threatening their partner with a weapon (knife or gun) or using a weapon on their partner. Archer's (2002) meta-analysis indicated that there were no significant sex differences in the two weapon acts on the CTS, but when using partner's reports, there was a very small effect size in the female direction for threatening their partner with a weapon, and an even smaller effect size in the male direction for using a weapon on a partner. Therefore if women use weapons in order to neutralise the male advantage due to size and strength, then intuitively the injuries they inflict are going to be more severe. Altogether, these results acknowledge that women are injured more than men, but there is still a substantial minority of men who are injured by their female partners, some of them severely injured. This finding that a significant proportion of women severely injure their male partner is inconsistent with the feminist theory of IPV and also suggests (contrary to Johnson's (2006) assertion) that there are a significant number of female intimate terrorists.

Critics of the claim that the sexes are equally violent within relationships also report evidence from homicide statistics (e.g. Dobash et al., 1992). For example, women are more likely than men to be killed (Daly & Wilson, 1988) by their intimate partners. However, approximately one quarter of partner homicides in the US are perpetrated by women, suggesting that female-to-male violence is not rare (Archer, 2000; Straus, 2005). Women who kill their partners are frequently understood as "battered women" finally driven to self-defensive lethal violence. Felson and Messner (1998) examined partner homicides in the

US and found that 56% of the female and 12% of the male perpetrators reported that they had acted in self-defence. Although this indicates that there were more female than male perpetrators reporting to be responding to prior IPV victimisation, it also indicates that not all were, which also suggests that women can be perpetrators of severe IPV and is further supported by the 12% of men who were acting in self-defence of female perpetration.

Titterington and Harper (2005) investigated the proportions of male and female perpetrators of intimate partner homicide in the US over a 15 year period (1985-1999) using data from the Houston police homicide division. They found that women perpetrated over 40% of the homicides. Therefore women are found to perpetrate a significant proportion of severe violence towards their intimate partners, which fits with the family conflict rather than the feminist theory of IPV.

1.2.3. Support for a generalist approach: Typology research

Research from a psychological or criminological perspective has for a long time recognised the heterogeneity of IPV perpetrators, with some being exclusively violent within their intimate relationship and others being violent in more than one context, i.e. their violence is not limited towards their partner but occurs outside their relationship as well. Research dating back to the 1980s has identified this overlap in the perpetration of general violence and IPV (e.g. Fagan, Stewart & Hansen, 1983; Shields, McCall & Hanneke, 1988; Cadsky & Crawford, 1988, Gondolf, 1988). Therefore, contrary to the feminist and family conflict theories, some IPV perpetrators are general offenders and not specialists.

Holtzworth-Munroe and Stuart (1994) reviewed the literature on male IPV perpetrators and proposed three subtypes of male batterers. These were: generally violent/antisocial, dysphoric/borderline and family-only. Each differed in terms of severity

and generality of violence and in presentation of personality disorders. Holtzworth-Munroe and Stuart (1994) suggested that the family-only subtype would account for 50% of IPV men, dysphoric/borderline would account for 25% of IPV men, and generally violent/antisocial would also account for 25% of IPV men.

It was predicted that family-only perpetrators would be the most similar to nonviolent control samples: having low levels of criminal behaviour and low levels of alcohol and drug abuse. Their violence would most likely occur within the home towards family members, rather than engaging in violence outside of the home. This type should engage in the least severe IPV. They are expected to show little psychopathology and have either a passive-dependent personality disorder or no personality disorder. They are also likely to have either a secure or preoccupied attachment style (for a detailed discussion of attachment see section 1.10.2.). This subtype would be most similar to Johnson's (1995, 2006) common couple violence category of IPV perpetrators.

Dysphoric/borderline perpetrators of IPV are predicted to engage in moderate to severe IPV. Their violence tends to be restricted to family members but they can also perpetrate some violence outside of the home, as well as engage in other criminal behaviour. Of the three subtypes this type is the most psychologically distressed, may show traits of borderline and schizoid personality disorders, and moderate levels of drug and alcohol abuse. This type of perpetrator is typically classified as having a preoccupied attachment style.

The generally violent/antisocial subtype engage in moderate to severe IPV, and are violent both within and outside of the home. They demonstrate high levels of criminal behaviour, as well as alcohol and drug abuse. This subtype is most likely to be characterised by antisocial personality disorder and psychopathy. They are likely to have a

dismissing attachment style. This subtype would be most similar to Johnson's (1995, 2006) intimate terrorist category of IPV perpetrators.

There is further support for Holtzworth-Munroe and Stuart's (1994) proposed typology (Hamberger et al., 1996; Tweed & Dutton, 1998; Waltz et al., 2000; White & Gondolf, 2000). Dixon and Browne (2003) reviewed nine empirical and two hypothetical studies and found support for the three category typology: they found that overall 50% of offenders were classed as family-only, 30% were classed as generally violent/antisocial and 20% were classed as dysphoric/ borderline. Therefore two of the three subtypes (generally violent/antisocial and dysphoric/borderline) covered general offenders: these men were violent towards their partners, violent towards others, as well as being involved in other criminal behaviour. Furthermore these categories were said to account for 50% of offenders. So half of male IPV perpetrators do not specialise in violence towards women, rather they are versatile and involved in a constellation of criminal activities.

The batterer classifications have more recently been confirmed for male (Holtzworth-Munroe et al., 2000) and female (Babcock, Siard & Miller, 2003) perpetrators. Babcock et al. (2003) conducted typology research on a small clinical sample of female perpetrators (n = 52) of partner violence and classified the women in their sample according to two *a priori* categories: „partner only“ and „generally violent“. Fifty per cent of the women fell into each group. Therefore, as with male perpetrators, half of the female IPV perpetrators did not specialise in IPV. Babcock et al. (2003) concluded that the findings for women parallel those for men, with perpetrators of IPV being a heterogeneous group.

This suggests that although some men and women are only violent towards their partners there are others who co-offend, and perpetrate other acts of criminal behaviour also. Although an association between types of violent offending has long been identified,

investigation into the overlap of offending behaviour in men and women has largely been neglected, particularly for women. This may be due to the feminist view that women are victims of IPV and not the perpetrators. This highlights the need for investigating co-offending in men and women.

Therefore, since 1994 we have been aware of the overlap in IPV, general violence and nonviolent offending, so we know that not all men (or women) specialise in being violent towards their partners. Research since 1994 has continued to find this overlap (e.g. Langhinrichsen-Rohlin, Huss & Ramsey, 2000; Waltz, Babcock, Jacobson & Gottman, 2000). Yet modern feminist literature is still reporting that IPV is a unique crime and solely the result of patriarchy (e.g. Dobash & Dobash, 2004). This therefore appears to ignore the evidence which suggests that in the case of those who do not specialise there may be different factors involved. Patriarchy as an explanation for IPV does not fit with the co-offending findings, because patriarchy cannot explain why men are violent outside their relationships or why they damage the property of others or take drugs, for example. Also, patriarchy cannot explain why women are involved in all three offence types. Therefore we need a theory that can explain why people co-offend.

1.2.4. Interim summary

Existing research has suggested that in unselected samples women can be equally as physically aggressive as men within relationships. Furthermore, although men inflict more injury on their intimate partners, women are still responsible for a significant amount of severe injury infliction. Therefore research on male and female perpetrators is warranted. The current research will investigate IPV in men and women to add to the knowledge base in this area regarding the predictors and if these predictors differ or are shared between the

sexes. Shared predictors would be inconsistent with the feminist theory of IPV and consistent with the family conflict theory.

From the typology research we know that not all men or women specialise in violence towards their partner: there are some who co-offend. This has implications for theory, because IPV theory has tended to develop in isolation to other theories of crime. However, if we can suggest the overlap of offending in men and women and that the correlates for the offences are shared, this will provide some support for the generalist theories of crime and highlight the need for theories that integrate IPV with other types of crime.

1.3. General Violence

1.3.1. Definitions and sex differences

For the purposes of this research, general violence refers to violence towards anyone other than an intimate partner, and can therefore include other family members, friends, colleagues, acquaintances and strangers. The same debate about sex differences is not found within the general violence literature. General offending and antisocial behaviour are male-dominated acts. Research has suggested that, outside intimate relationships, men are more violent than women at every age, and this is true for both self-reports, informant-reports and officially-recorded statistics (Archer, 2004, 2009; Baron & Richardson, 1994; Bettencourt & Miller, 1996; Campbell, 1995; Greenfield & Snell, 1999; Harris, 1996; Junger-Tas, Terlouw & Klein, 1994; Kruttschnitt, 1994; Moffitt, Caspi, Rutter & Silva, 2001; Steffensmeier & Allan, 1995, 1996). Statistics from the UK, USA and Australia indicate that the male:female ratio for violent offending averages 20:1 (Casale, 1998; Easta 1992; Koons, Burrow, Morash & Bynum 1997; Ogilvie, 1996; Simon & Landis,

1991; Walsh 1997), but can be as low as 7:1 (US Department of Justice, 2000) or 5:1 (Ministry of Justice, 2010). Due to the predominance of male violence, research has concentrated mainly on this, leaving the research on female violence a rather neglected area (Ogilvie, 1996).

Archer (2004) conducted a meta-analysis examining sex differences in aggression from self-reports, observations, peer reports and teacher reports. The results indicated that men were more physically aggressive than women across all 13 nations included in the analysis ($d = .39$). The sex difference was largest among college students ($d = .79$) and was also largest for the 18-21 ($d = .66$) and 22-30 ($d = .60$) age categories. This supports the evolutionary theory (e.g. Daly & Wilson, 1988) that it is young men who are the most likely to engage in physical aggression. (See section 1.7 for a discussion of the evolutionary theory).

Large scale crime surveys have also indicated sex differences in general violence. For example, Felson and Cares (2005) re-analysed the data from the National Violence Against Women Survey (NVAW) (Tjaden & Thoennes, 1998) to examine sex differences in IPV and in general violence using a sample of 5,258 male and female victims of assault. The results indicated that men were more likely than women to be violent towards strangers as well as known but unrelated people. Therefore the sex difference in the male direction for general violence appears to be consistent across different studies and populations.

Although men perpetrate more violence outside their relationships than women do, women are still found to engage in a significant amount of violence towards others. British crime figures indicate that violence against the person was the most common arrest category for men and women from 2006-2009, and in 2008/2009 accounted for 33.8% of female arrests and 33.1% of male arrests (Ministry of Justice, 2010). This equated to 82,983

women and 381,137 men. US crime figures indicate a similar trend. Violent crime and other assaults accounted for 12.9% of arrests for women and 13.8% for men in 2008 (US Department of Justice, 2009). This was the third largest offence category for women after „all other offences (except traffic)“ and property crime, and was the second largest offence category for men after „all other offences (except traffic)“.

Crime statistics of women’s violent convictions are likely to underestimate actual perpetration rates for several reasons. The first is that the ratio of self-reported offending to convictions is generally high, suggesting that the likelihood of being caught and convicted following an offence is low (Farrington et al., 2006). Women are also more likely to be cautioned or have their case dismissed than men are (George, 1999, 2003; Hedderman & Hough, 1994; Simmons, Lehmann, Cobb, & Fowler, 2005; Steffensmeier, Kramer & Streifel, 1993). Women’s choice of victim may also obscure their violence as this is usually a family member, even in the most extreme of violent crimes (e.g. George, 1999; Rodge, Hougen & Poulsen, 2000).

1.3.2. Stability of general violence

Sex differences in physical aggression have been found as early as 2 years of age (Baillargeon et al., 2007; Hay, Castle & Davies, 2000; Tremblay et al., 1999), and then consistently throughout the years through to adulthood. Longitudinal research has indicated that women’s and men’s aggressive behaviour is relatively stable over time from adolescence (age 14) to adulthood (age 27) (Pulkkinen & Pitkänen, 1993), and childhood (age 8) to adulthood (age 42) (Kokko & Pulkkinen, 2005). More recently, Huesmann, Dubow and Boxer (2009) illustrated the stability of aggression in men and women from their longitudinal research. They indicated that aggression was moderately stable for both

men ($r = .50$) and women ($r = .42$) from age 8 to 48. Therefore aggressive children are likely to become aggressive adults.

Knowing that aggression, and sex differences in aggression, are stable across the ages, is relevant to the current study. From the sex difference, it has been inferred that women are different from men in their capacity and motivation for violence, and some feminists use the sex difference in violence out of the home as evidence to support their view that generally women are not violent and are only violent in relationships when they need to be (e.g. Dobash et al., 1992). Therefore examination of these two forms of violence (one where there is a sex difference and one where there is not) in men and women may reveal similarities and differences between the two forms of violence and/ or between men's and women's use of these two forms of violence. Furthermore personality is also reported to be stable across time and situations (but to differ between individuals). As there are also sex differences in personality traits (see discussion in section 1.10.1.), certain personality traits may be risk factors for engaging in aggressive behaviours.

1.3.3. Interim summary

Campbell (1995) stated that although violent offending is less likely in women than in men (supported by the sex difference data discussed above), the age-crime increases and decreases follow the same pattern in both sexes. Therefore she has posited that women's violent offending may be a similar but muted version of men's violent offending behaviour, and so men's and women's violent offending may be associated with the same underlying causes and correlates. By examining violent offending in both sexes, this thesis will investigate the extent to which male and female offending behaviours share similar risk factors. The results of which will inform on the generalist and specialist theories of crime.

1.4. Overlap of IPV and general violence: General theory of violence (Felson, 2002)

Some theorists have suggested that IPV should be understood as violence rather than patriarchy (e.g. Felson, 2002), and should be informed by general theories of aggression instead of relying on monolithic theories such as feminism. Therefore violence should be viewed as a human problem and not a gender problem. Felson (2002) developed a general theory of violence. He stated that “violence is violence regardless of the target” (p. 5). He also stated that IPV should be considered in broad terms “within the larger context of violence” to “reveal important information about its causes” (p. ix).

Felson (2002) compared IPV and general violence to test whether men’s violence towards women is a special type of crime and found that there were similarities between the two. For example: the criminal histories were similar for both types of offenders; men who were violent towards women held similar sexist attitudes to those who were violent towards men, therefore sexism was not specific to men’s IPV; temporal and cultural variations were similar for general violence and IPV. Felson concluded that in order to understand where the similarities and differences lie we need to avoid studying IPV in isolation and should instead examine IPV with other types of violence.

Studying different types of violence simultaneously would elucidate whether the causes of IPV are similar or distinct to violence towards others. Only then will we know when specialist or generalist theories apply to particular types of violence and whether the underlying causes and motivations are the same or different. Assessing if there are differences in motive will test the feminist theory. The feminist theory appears to have missed a stage out, and reached the conclusion that IPV is distinct from other types of crime and violence without testing this theory empirically. The current research provides

empirical evidence regarding the overlap between different types of offence to inform theories regarding the specialist or generalist nature of offending.

1.5. Nonviolent offending behaviour

1.5.1. Definitions and sex differences

Nonviolent offending includes drug-related behaviour, theft, criminal damage, and fraud. Men have been found to consistently engage in more nonviolent offences than women (e.g. Heaven, 1996, Junger-Tas, Terlouw & Klein, 1994, Knight, Fabes & Higgins, 1996; Kruttschnitt, 1993; Moffitt et al., 2001; Steffensmeier & Allan, 1996). However, the sexes have been found to be most similar in their drug-related offences (Moffitt et al., 2001; Smith & Visher, 1980; Windle, 1990). Sex similarities in drug offences have also been found in other large scale national surveys (Canter, 1982; Huizinga, Loeber & Thornberry, 1993; Elliot, Huizinga & Menard, 1989; King, Wold, Tudor-Smith, & Harel, 1996).

Both men and women are more likely to perpetrate offences where the risk of confrontation, and therefore of physical harm, are low (e.g. nonviolent offences), than where the risks are high (e.g. violent offences). From an evolutionary perspective, avoiding harm increases the likelihood of reproductive success in both sexes. It is theorised however, that this effect may be more pronounced in women than men as they have less to gain and more to lose in terms of protecting existing offspring, making them more averse to physical risk (Campbell, 1999). Therefore we would expect to find that women's involvement to be lower than men's for all crime types, but that nonviolent offending would be the most common offence for men and women, and the offence where men and women are most similar.

Evidence in support of this theory can be found in UK and US crime statistics. The England and Wales Criminal Statistics indicates that theft and handling stolen goods accounted for the highest percentage of all indictable offences for women (51%) and men (30%) in 2007 (Ministry of Justice, 2007). This equates to 52, 100 women and 126, 600 men. The actual numbers for violence against the person are much lower for women (17, 200) and men (77, 100). These data are consistent with Campbell's (1999, 2002) evolutionary theory that both men and women are most likely to be involved in nonviolent than violent offences because nonviolent offences present a lower risk of physical harm. Also, this was suggested to be more applicable to women as a greater percentage of women's than men's offending could be attributed to nonviolent offending.

Similarly, U.S. Department of Justice Statistics (2008) indicate that „all other offences“ accounted for the highest percentage of arrests for women (25.6%) and men (27.8%), and property crime (which includes theft) accounted for the second highest for women (17.3%) and fifth highest for men (10.5%), drug abuse violations (13.2%) and driving under the influence (10.8%) were above the property crime percentages for men and were also in the top 5 offences for women (9.2% and 9.1% respectively). Therefore both UK and US statistics support the evolutionary perspective as they indicate that women and men are more likely to be involved in low risk nonviolent offences than in violent crimes, although this is more pronounced for women.

The results of Moffitt et al's (2001) large scale longitudinal study provided empirical evidence that is consistent with Campbell's evolutionary theory. They found that although men perpetrated more violent and nonviolent crime than women, the sex difference was smallest for drug offences and largest for violent offences, with theft offences falling in between. Therefore we would also expect to find that women and men

would differ most in their involvement in violent offences, consistent with the theory that women are more averse at putting themselves at risk. Also the sex difference would be smallest for nonviolent offences. This is because women may still prefer not to engage in any criminal activity as there is still an element of risk, but it is the lower risk strategies that women resort to when necessary.

1.6. Overlap of IPV, general violence and nonviolent offending: General Theory of Crime

Gottfredson and Hirschi (1990) went one step further than Felson (2002) with their General Theory of Crime, and argued that all crime, violent or otherwise, stems from the same underlying cause. Gottfredson and Hirschi (1990) proposed that criminal behaviour arises from the combination of low self-control and criminal opportunities. They asserted that low self-control was equally relevant to offending by men and women, and this claim has been supported by the results of a meta-analysis (Pratt & Cullen, 2000) plus empirical research since the meta-analysis (e.g. Blackwell & Piquero, 2005; Tittle, Ward, & Grasmick, 2003). This finding dismisses the need for sex-specific explanations of criminal behaviour and suggests that men's and women's crime has the same etiology.

Gottfredson and Hirschi (1990) define crimes as "acts of force or fraud undertaken in the pursuit of self-interest" (p. 15). This can be applied to any "act of force or fraud", and could therefore include IPV. Gottfredson and Hirschi (1990) do not explicitly refer to IPV. However, they do discuss two other forms of interpersonal violence: homicide and rape. This discussion suggests how other types of interpersonal violence, such as IPV, can fit with their theory of crime. Accordingly low self-control should be associated with IPV equally as well as it is with other forms of criminal behaviours. The General Theory of

Crime (Gottfredson & Hirschi, 1990) helps explain why people who perpetrate acts of violence also perpetrate other criminal behaviours. This is of direct relevance to the current research into the generalist or specialist nature of offending.

1.7. Evolutionary theories of offending

Sex differences in offending have also been used as evidence that the reasons for perpetrating violent and nonviolent offences differ for men and women. The sexual selection theory is an evolutionary approach to the issue of sex differences in aggression and proposes that men are more likely to be aggressive than women due to the imbalance in parental investment. Parental investment is greater for women than men due to the length of time it takes to produce and rear a child. Women's reproductive success is therefore constrained by the limited number of offspring they can produce in a lifetime. Men's reproductive success is instead dependent on the number of mates they can secure: therefore the number of offspring men can produce in a lifetime is much less limited. Women are therefore a resource over which men compete, so that they can secure a mate and ensure the survival of their genes through their offspring (Campbell, 1999). This leads to greater reproductive competition within men, and can result in physical aggression (Trivers, 1972). Aggression may also occur once males have secured a desirable mate if they feel they need to protect their relationship and fend off rival males. As a result the sex difference should be largest during young adulthood to correlate with the peak of reproductive competition (Daly & Wilson, 1988; Wilson & Daly, 1985). Empirical research supports this assertion (e.g. Archer, 2004).

Therefore it seems that men may be more aggressive towards other men at a time in their lives when they are trying to acquire status and resources to secure a mate and ensure

the survival of their genes. Furthermore, the sex difference in nonviolent offending may also be attributable to the sexual selection theory. Men may adopt strategies such as theft or damaging resources to acquire status and resources or to negatively affect their rivals' reputation in order to out-compete rivals and gain access to females (Kanazawa & Still, 2000; Walsh, 2000).

Campbell (1999, 2002) proposed an evolutionary theory which complements the sexual selection theory, as it also relates to reproductive success, but instead focuses on female aversion to risk to achieve this. Instead of focussing on the reasons for men's physical aggression being so high, Campbell's theory attempts to explain why women's physical aggression is so low. Campbell proposed that women are less likely to be involved in violent and risky behaviours due to their greater parental investment and because their presence is critical to the survival of their children. Campbell (1999) has proposed that this risk aversion may be mediated by fear, in that women are more fearful than men when their physical safety is threatened, and this lower fear threshold may serve to inhibit female involvement in aggression. Therefore, women are more likely than men to avoid risky situations where their survival (and as a result their offspring's survival), would be jeopardised. This would explain the sex difference in crime. Accordingly, we would expect to find that men would report being involved in more violent and nonviolent crime than women because men are less risk averse than women.

Campbell (2008, 2010) has also developed a theory to explain why women may be more physically aggressive within intimate relationships than they are within other settings. Campbell relates this rise in aggression within relationships to the oxytocin hormone. Oxytocin has been associated with the formation of pair-bonds. The effect oxytocin has on pair-bonding is that it increases women's trust and reduces her fear of her partner. If it is

fear of physical harm that prevents women from engaging in risky activities, then the reduction in fear as a function of oxytocin may serve to increase women's use of aggression towards her partner. Therefore according to Campbell's theory we would expect women's aggression towards an intimate partner to be higher than her aggression towards others.

1.8. Empirical evidence for the interrelatedness of offending

1.8.1. Overlap of offending

There is evidence that all three types of offences investigated in this thesis (IPV, general violence and nonviolent offending) co-occur in both men and women (Busch & Rosenberg, 2004; Farrington et al., 2006; Gottfredson & Hirschi, 2007; Moffitt, Kreuger, Caspi, & Fagan, 2000; Straus & Ramirez, 2004). Gottfredson and Hirschi (2007) suggested that offenders have a propensity to commit a wide variety of criminal acts, and that specialism in one type or another is actually quite rare. Farrington et al. (2006) conducted longitudinal research into the development of violent and antisocial behaviour in men, and found that self-reported offenders tended „to be deviant in many aspects of their lives“.

Evidence for the overlap of between general violence and nonviolent offending has been found in student samples (Heaven, 1996), prison samples (Ramoutar & Farrington, 2006) and a recent large scale offender sample (Howard & Dixon, 2011). All found moderate relationships between the two different types of offending which indicates covariance between the perpetration of violent and nonviolent offences. Therefore perpetration of violent and nonviolent offending behaviour is considered likely to overlap, which provides some support for the generalist theories of crime.

Criminological research has tended to examine the overlap between general violence and nonviolent offending (Campbell, et al., 2001; Ramoutar & Farrington, 2006),

but IPV is typically not examined alongside these other types of crime. This may be due to the idea that IPV is in some way different to these other types of crime. However there is some research that has examined the overlap of IPV with other types of crime. Moffitt et al. (2000) investigated IPV and general crime in 21 year old men and women, and found that many IPV perpetrators also engaged in physical aggression towards others and that IPV and general crime were moderately related. However, they reported similarities and differences between the two different types of offence: negative emotionality was related to both IPV and general crime; however, low self-control was related only to general crime and not IPV. This research suggests there is some, although not complete, overlap between these crimes because they do co-occur, although the risk factors for each may differ in some respects.

The overlap of IPV and crime has also been suggested by studies examining the criminal history of IPV perpetrators. This includes student samples (e.g. Straus & Ramirez, 2004) and forensic samples (e.g. Busch & Rosenberg, 2004). These results indicate that for both men and women there is overlap for IPV, general violence, and nonviolent offences as IPV perpetrators were reported to have violent and nonviolent criminal histories. This empirical evidence may support a generalist theory of crime.

There is other research that has investigated the criminal histories of IPV perpetrators (see Straus & Ramirez, 2004, for a summary). However, the majority of this previous research either samples only men, or only considers a history of assault rather than examining a history of violent and nonviolent offences. Therefore some of the previous research is limited in that it does not examine the criminal history of women, or the full criminal history of men or women. There is some research published since the summary of Straus and Ramirez that has examined the violent and nonviolent criminal histories of men

and women who perpetrate IPV. These have suggested that a substantial subgroup of these men and women have prior convictions for crimes unrelated to IPV (Babcock et al., 2003; Henning & Feder, 2004; Moffitt et al., 2000; Moffitt et al., 2001). The above research provides support for the interrelatedness of the IPV, general violence and nonviolent offending in men and women, and provides a rationale for assessing them all in the same sample. Therefore the current research is unique in examining the *concurrent* overlap of all three types of offence along with their predictors in men as well as women to inform the generalist/specialist debate.

1.8.2. Overlap of risk factors

Risk factors for aggressive and antisocial behaviour tend to be shared by both boys and girls (Broidy et al., 2003; Côté, Tremblay, Nagin, Zoccolillo & Vitaro, 2002; Moffitt et al., 2001), and the same influences predict both general aggression and partner aggression in men and women (Moffitt, Krueger, Caspi & Fagan, 2000, Tremblay et al., 2004). These shared risk factors include low self-control, negative emotionality, low intelligence and empathy deficits, and suggest that the different forms of aggression are developmentally similar and likely to co-occur.

Aggressive adults are highly likely to have a history of aggressive behaviour beginning in childhood (Conradi, Geffner, Hamberger & Lawson, 2009; Hay, 2005). Longitudinal research has found that men and women with a history of conduct problems are more likely to enter into a relationship with a violent partner, and are likely to perpetrate violence towards their partners, in excess of their own victimisation (Moffitt et al., 2001), suggesting that IPV “is but another expression of an earlier emerging antisocial propensity” (Moffitt et al., 2001, p. 65), and cannot be explained in terms of self-defence. Longitudinal studies have indicated that antisocial males and females tend to pair up with a

similarly antisocial romantic partner (Capaldi & Crosby, 1997; Krueger, Moffitt, Caspi, Bleske & Silva, 1998; Moffitt et al., 2001), and this influences the continuation of antisocial behaviour into adulthood (Moffitt et al., 2001).

Longitudinal data has also indicated that the overlap between IPV and general violence perpetration is similar for men and women, suggesting that partner violent men and women were both more likely to aggress against non-family members than those who were not violent to their partners (Ehrensaft, Cohen & Johnson, 2006; Moffitt et al. 2000). This research suggests that different types of aggressive and antisocial behaviours share similar risk factors and are likely to co-occur in men and women.

It is important to measure the overlap between general violence and IPV, as well as their individual associations, to compare whether the predictors of the two forms of violent behaviour are shared or different (Moffitt et al., 2000). Taken together, all the above research indicated that there are some shared correlates for men's and women's offending. Therefore it would be interesting to compare similarities and differences in risk factors for the three offence types more extensively, and to assess whether these risk factors are the same for men and women or whether there are correlates of offending that are unique to each sex.

1.9. Summary of IPV, general violence and nonviolent offending

In summary, IPV is generally studied separately from general violence and nonviolent offending behaviour. But in doing this we are not able to detect any common elements between different types of violence and crime. In order to inform theory, IPV needs to be investigated in a comparative context alongside other forms of crime. This thesis draws on sociological, criminological and psychological theories to investigate the

overlap, predictors and sex differences in different types of violent and nonviolent offending (IPV, general violence and nonviolent offences).

In this research we evaluate the following ideas: (1) whether IPV is unique as expected by feminist theory and occurs in isolation from other types of crime, or whether IPV overlaps with other crime as expected by the assumptions of A General Theory of Crime (generalist versus specialist perspectives); (2) whether predictors of IPV are the same as the predictors for other types of crime (common etiology would again indicate versatility as opposed to specialisation); (3) whether there are sex differences in the predictors for IPV, general violence and nonviolent offending (similarities in men's and women's offence perpetration would be inconsistent with the feminist specialist approach to IPV).

Investigating the co-offending of IPV, general violence and nonviolent offending can be approached in two ways (Moffitt et al., 2000): (1) investigating whether those who perpetrate IPV also perpetrate other violent and nonviolent offences; (2) investigating whether IPV, general violence and nonviolent offending have the same correlates and predictors. Both approaches are required, because even if we found complete overlap between the three offence types we would not know whether the underlying causes were the same or different. Therefore it is important to measure the overlap of offending within people *simultaneously* with the predictors of offending, which this thesis does. The theories discussed so far concentrate on theoretically important individual difference variables (e.g. control, low self-control, risk aversion) that predict offending. However there are many other variables which may be important predictors; and this thesis will examine some of them (see section 1.10. for a discussion).

1.10. Correlates and Predictors of violent and nonviolent offending behaviour

If the sexes differ in their use of general violence and nonviolent offending but are similar in their use of IPV, the risk factors for these three types of behaviour need to be investigated separately for men and women, to indicate whether women's offending has similar or different risk factors to men's.

1.10.1. Personality and offending behaviour

1.10.1.1. Personality traits

Personality refers to the internal characteristics of individuals, which are stable across time and situations but vary between individuals. Personality theorists have described broad traits that can be used to define personality. The two most prominent personality trait theories are the three factor theory (Eysenck & Eysenck, 1970), and the five factor theory (Costa & McCrae, 1992). The three factor model comprises extraversion, neuroticism, and psychoticism. The five factor model comprises neuroticism, extraversion, openness, agreeableness, and conscientiousness. Goldberg (1999) has also been influential in this field and developed a measure which is essentially the same as that of Costa and McCrae (except that it is freely available) called the IPIP „Big Five“.

Neuroticism and extraversion are consistent across both the three and five factor measures, openness measures sensation seeking behaviour, and it has been suggested that a combination of both agreeableness and conscientiousness from the five factor measure correspond to psychoticism in the three factor measure (e.g. Costa & McCrae, 1995; Digman, 1990; Eysenck, 1992). Extraversion refers to an individual's tendency towards being sociable, lively and outgoing and having positive emotions. Agreeableness relates to an individual's ability to maintain successful interpersonal relationships and is therefore negatively associated with aggression towards other people. The other end of the spectrum

to agreeableness is antagonism. Costa, McCrae and Dembroski (1989) state that antagonistic individuals “need to oppose, to attack, or to punish others... they are cool or cold, contemptuous, callous, unfeeling” (p. 45), they tend to be irritable, hostile, and mistrusting. Low scorers in agreeableness are characterised by being arrogant and manipulative, and they have a lack of concern for others. Conscientiousness refers to an individual’s ability to control their impulses, and to plan, organise and finish tasks. Conscientiousness is positively linked with self-control, and those higher in conscientiousness have more self-control and are therefore less likely to respond aggressively towards others. Conscientiousness should therefore be negatively related to all types of offending behaviour. Neuroticism refers to a person’s level of emotional stability and their ability to be calm and adapt successfully to stress inducing situations (Bettencourt, Talley, Benjamin & Valentine, 2006). Those scoring low on neuroticism have more stable emotions and are less likely to exhibit aggressive responses. Openness relates to preferences for new experiences and feelings, as well as creativity.

Research has investigated the existence of sex differences in personality traits using meta-analyses (Feingold, 1994) and large scale cross-cultural studies (Lippa, 2010; Schmitt, Realo, Voracek & Allik, 2008). Together the studies found that women reported higher values than men on neuroticism ($d = .28 - .40$), agreeableness ($d = .15 - .56$), extraversion ($d = .10 - .15$) and conscientiousness ($d = .12 - .13$). It has been argued that the sex difference in openness is not clear as men and women may differ in different aspects of openness, but not in overall openness. Men are thought to score higher on openness to ideas, whereas women are thought to score higher on openness to feelings (Costa, Terracciano & McCrae, 2001). Sex differences in personality traits may mediate sex differences in offending.

There has been much research interest in the relationship between personality and offending behaviour (e.g. Blackburn, 1993; Harris, Rice & Quinsey, 1993; Krueger, Caspi, Moffitt, Silva & McGee, 1996). Psychoticism, extraversion and neuroticism have been found to be predictors of self-reported nonviolent offending (Eysenck, 1996; Walker & Gudjonsson, 2006). Heaven (1996) used a student sample comprising 108 females and 106 males and examined the association between the five personality traits and violent and nonviolent delinquency. The results indicated that in males conscientiousness ($r = -0.28$) and agreeableness ($r = -0.36$) were significantly negatively associated with self-reported nonviolent delinquency (vandalism/ theft), and neuroticism ($r = 0.24$) was significantly positively associated with self-reported nonviolent delinquency, but agreeableness was the strongest predictor. In females, only conscientiousness ($r = -0.21$) was significantly negatively associated with “vandalism/ theft”. Therefore, conscientiousness has been found to be a shared predictor for male and female nonviolent delinquency. This may be related to the link between conscientiousness and self-control: individuals with lower control over their impulses are more likely to engage in antisocial behaviour. Therefore conscientiousness may be a factor relevant to men’s and women’s nonviolent offending in the current research.

Personality traits have also been correlated with aggression (Bettencourt et al., 2006; Jensen-Campbell & Graziano, 2001; Miller, Lynam & Leukefeld, 2003). Low agreeableness, low conscientiousness and high neuroticism have been found to be associated with physical aggression in men and women (Caprara, Barbaranelli, Pastorelli and Perugini, 1994; Caprara et al., 1996; Gleason, Jensen-Campbell & Richardson, 2004; Heaven, 1996; Jensen-Campbell, Knack, Waldrip & Campbell, 2007; Ruiz, Smith & Rhodewalt, 2001; Sharpe & Desai, 2001; Tremblay & Ewart, 2005). Individuals with high

levels of agreeableness have been found to respond better to interpersonal conflict than those lower in this trait (Graziano, Jensen-Campbell & Hair, 1996). Jensen-Campbell and Malcolm (2007) found that conscientiousness was related to success in peer relationships. Therefore agreeableness, (low) neuroticism and conscientiousness may be important for interpersonal success and the avoidance of aggressive behaviour. Research indicates that two of the Five Factors (low agreeableness and high neuroticism) are particularly related to aggressive behaviour (Bettencourt et al., 2006, Miller et al., 2003; Sharpe & Desai, 2001; Suls, Martin & David, 1998). However, as a result of the link between self-control and conscientiousness, we would infer from Gottfredson and Hirschi (1990) that low conscientiousness should be most associated with all forms of offending, whether violent or not.

Research into sex differences (see above) has found that women are more agreeable and neurotic than men. Being more agreeable may explain why women are less generally aggressive than men. However higher neuroticism should be associated with higher aggression. Although women are more neurotic, fear of being injured (e.g. Campbell, 1999) may prevent women from engaging in aggression.

Research suggests that neuroticism and agreeableness may be associated with different types of aggression. Bettencourt et al. (2006) conducted a meta-analysis to examine the role of personality with aggressive behaviour, specifically considering personality variables that were related to neuroticism and agreeableness. From their results they concluded that neuroticism may be related to aggression only when it occurs in response to provocation and antagonism may be associated with a propensity to be aggressive “across a variety of situations” (p. 770). Therefore low agreeableness (antagonism) may result in aggressive behaviour in conditions with or without provocation.

As a result of the above findings we would expect agreeableness and neuroticism to be associated with aggression perpetration; however they may be differentially associated with instrumental or impulsive aggression.

Empirical studies that were not included in Bettencourt's meta-analysis also indicated that neuroticism and agreeableness may relate to different types of aggression. Martin, Watson and Wan (2000) and Sharpe and Desai (2001) found that neuroticism was strongly and positively associated with trait anger and whereas agreeableness was strongly and negatively associated physical aggression. Therefore it is individuals with low agreeableness rather than high neuroticism that are more likely to exhibit physical aggression. Therefore we would expect low agreeableness to be most strongly related to aggression in the current research. With research indicating that general violence and IPV are moderately related (e.g. Moffitt et al., 2000), there may be similarities and differences in the personality traits that predict each type of aggression. These results would add to the debate regarding the generalist or specialist nature of offending.

There is evidence that personality disturbance may identify some of the most severe male IPV perpetrators (Holtzworth-Munroe et al., 2000; Holtzworth-Munroe & Stuart, 1994). Some studies have investigated personality traits in male and female IPV perpetrators, and like the results for general aggression, found that neuroticism was related to IPV perpetration in men (Barnes, Greenwood & Sommer, 1991; Moffitt et al., 2000; Robins, Caspi & Moffitt, 2002) and women (Moffitt et al., 2000; Robins et al., 2002; Sommer, Barnes & Murray, 1992). Therefore neuroticism has been found to be a shared risk factor for both IPV and general violence.

Some previous research has included all five adaptive personality traits when investigating IPV. For example, Buss (1991) found that low agreeableness, low openness,

and high neuroticism were related to IPV perpetration in men, and high extraversion was associated with IPV perpetration in women. This suggests that the causal origins of men's and women's IPV may be different, and may have unique elements, which provides support for the feminist theory of IPV. However, Buss defined IPV as a combination of physical and verbal behaviours, and research has indicated that verbal aggression is more prevalent than physical aggression (Hines & Saudino, 2003). Therefore Buss's results may be more reflective of the personality traits associated with verbal partner conflict than they are of physical aggression. Future research should separate physical and verbal aggression to investigate whether their correlates are shared or distinct, which would inform feminist theory.

To address this, Hines and Saudino (2008) used a sample of 480 university students to investigate all five personality traits in men and women for verbal and physical aggression separately. They found that for women, agreeableness was significantly negatively associated with physical aggression perpetration, and neuroticism was significantly positively associated with severe physical aggression perpetration. For men, neuroticism was significantly positively associated with physical aggression perpetration, but none of the five personality traits were significantly associated with severe physical IPV perpetration in men (although statistical power may have been low for these analyses due to only a minority of men ($n = 19$) reporting use of severe physical aggression). Therefore, like general violence, low agreeableness (women) and neuroticism (men and women) were the personality traits that appeared to be most relevant to IPV perpetration. Research suggesting that both traits are related to IPV and general violence indicates that these different types of violence may share a common etiology. Collectively, all the

research in this section suggests that men and women who offend (whether violently or not) have lower adaptive personality traits.

1.10.1.2. Personality Disorders

Personality disorders (PDs) have also been associated with offending behaviour (e.g. Hart & Hare, 1996), and so they are investigated in the current study to determine if violent and nonviolent offending share the same personality disorder predictors. The current fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM) defines personality disorder as “an enduring pattern of inner experience and behaviour that deviates markedly from the expectations of the individual’s culture” (DSM-IV-TR; APA, 2000, p. 685). The DSM identifies 10 personality disorders and has grouped these into three clusters, which are labeled A, B and C. Most studies focus on borderline and antisocial cluster B PDs, and so empirical data on the remaining eight PDs is sparse (Emmelkamp & Kamphuis, 2007).

Cluster A PDs consist of paranoid, schizoid and schizotypal, which together are known as the „odd“ disorders. Cluster A is characterised by a deep mistrust of others as well as suspiciousness and being emotionally distant. Cluster A PDs (i.e. schizoid) have been associated with men’s and women’s IPV perpetration (Ehrensaft et al., 2006) and have also been associated with violent and criminal behaviour in the dysphoric/borderline subtype of men (Holtzworth-Munroe et al., 2000). The link between cluster A PD and the borderline subtype may support a generalist theory of crime because the dysphoric/borderline offender is versatile. Cluster A traits have been reported by male (Hines et al., 2007) and female (e.g. Dutton, 1995) victims of IPV regarding their heterosexual partners. These same traits are also some of the reasons cited by men and women for perpetrating IPV (Harned, 2001;

Henning et al., 2005). Therefore those who perpetrate IPV are more likely to be emotionally unstable, suspicious of their partner's behaviour, and jealous.

Cluster B PDs consist of antisocial, borderline, histrionic and narcissistic, which together are known as the „dramatic“ disorders, and have been associated with perpetration of crime and violence. Antisocial PD is characterised by a lack of regard for others, aggressiveness and impulsivity, and a lack of remorse for actions (Emmelkamp & Kamphuis, 2007). Antisocial PD has been associated with nonviolent offending, as well as violent behaviour in and out of relationships, for men and women (Barros & Serafim, 2008; Ehrensaft et al., 2006; Emmelkamp & Kamphuis, 2007; Holtzworth-Munroe et al., 2000). Finding that antisocial PD has been implicated in violent and nonviolent offending suggests that these different types of offending behaviours may share underlying causes and correlates, which indicates that they may be similar rather than distinct. This may support the generalist theory of offending rather than the feminist theory regarding the uniqueness of IPV.

Borderline PD is characterised by general instability across many areas of life, including relationships, emotions (including unpredictable mood swings from extreme anger to despondency), fear of abandonment, insecure attachment and impulsivity (Emmelkamp & Kamphuis, 2007; Fossati et al., 2004; Lieb et al., 2004). Borderline PD has been associated with IPV perpetration, and also with violence outside relationships, in both men and women (Barros & Serafim, 2008; Dutton, 1994b; Emmelkamp & Kamphuis, 2007; Goodman & New, 2000; Holtzworth-Munroe & Stuart, 1994; Holtzworth-Munroe et al., 2000; Henning et al., 2003). Collectively this research suggests that individuals with borderline PD traits can be violent in different contexts. This indicates that violence in and

out of relationships may have similar origins, which may not support the feminist perspective of the specificity of IPV.

Likewise, narcissistic PD has also been associated with men's and women's violence within and outside of relationships (Bushman & Baumeister, 1998, 2002; Craig, 2003; Henning et al., 2003; Lawrence, 2006; Simmons et al., 2005; Stuke & Sporer, 2002; Twenge & Campbell, 2003). This provides evidence for an overlap between the underlying causes of these two types of violence. Individuals with narcissistic PD are characterised by an over-inflated sense of self-worth and self-entitlement, grandiosity, arrogance and lack of empathy (APA, 2000). Those with higher levels of narcissism are more likely to react with aggression in response to insults, criticism or conflict within relationships, or if they feel humiliated, socially rejected or feel that their self-esteem is challenged (Baumeister, Bushman & Campbell, 2000; Bushman & Baumeister, 1998; Emmelkamp & Kamphuis, 2007; Henning et al., 2003). These feelings in narcissists can lead to aggression to save face or seek revenge, and this can apply to both violence towards partners and violence towards others. If narcissism applies to men's and women's IPV then the argument that IPV is unique to men aggressing against women would not be supported. This is because we would not expect traits such as taking advantage of others or being aggressive in response to challenges to self-esteem to be related to self-defensive IPV.

The initial idea for the link between narcissism and aggression came from Baumeister, Smart and Boden (1996), who established that physical aggression was the result of a combination of threatened egotism and favourable self-appraisals. Lawrence (2006) developed and used the Situational Triggers of Aggressive Responses (STAR) Scale. She found that an unstable self-concept combined with high narcissism was linked with physical aggression. Also, narcissists were typically violent in response to

provocations from others. Lawrence (2006) posits that provocations relate to ego-threat, and it may be this perceived attack on their ego that elicits aggression in narcissistic individuals. "Provocations" within Lawrence's research included aggression in response to: being goaded, being insulted, being shown a lack of consideration, arguing or when another person becomes aggressive. Within an intimate relationship, a narcissistic partner may be provoked into being physically aggressive if they feel aggrieved from a perceived or actual wrongdoing. This is consistent with Felson's (2002) motives for dispute-related violence: (1) to control future behaviour of the individual, (2) to achieve justice, and (3) to protect self-image.

Individuals with histrionic PD are excessively emotional and misinterpret their relationships as being more intimate than they in fact are. They have a need to always be the centre of attention (and are unhappy when they are not the centre of attention), and behave inappropriately to increase attention: such as being overtly sexual, flirtatious and provocative (Emmelkamp & Kamphuis, 2007). Research has found that histrionic PD is present in female perpetrators of IPV (Simmons, Lehmann, Cobb & Fowler, 2005; Henning et al., 2003). Histrionic traits have been associated with men's and women's reasons for perpetrating IPV. For example, to get attention, wanting to prove love, or because their partner appears to not be fully committed (Harned, 2001; Henning et al., 2005; Fiebert & Gonzalez, 1997). Therefore those with histrionic PD may be more prone to perpetrating IPV because traits such as emotional instability and exploiting others for their own gain may result in anger being expressed as violence. It will be interesting to investigate whether histrionic PD relates only to IPV and not the other forms of offending, if so this would provide some support for the view that IPV is a specialist type of crime.

Cluster C PDs consist of avoidant, dependent and obsessive-compulsive, which together are known as the „anxious“ disorders, as anxiety is a core feature of this disorder (Emmelkamp & Kamphuis, 2007). Cluster C PDs have been associated with the perpetration of IPV in men (Dutton, 2003; Dutton & Kerry, 1999; Holtzworth-Munroe & Stuart, 1994) and women (Henning et al., 2003). Dutton and Kerry (1999) found that it was avoidant PD that predicted male spousal homicide, and those with avoidant PD are sensitive to “criticism, disapproval, and rejection” (Emmelkamp & Kamphuis, 2007, p. 14). Therefore people who score highly on cluster C PDs may respond with violence within relationships if they are faced with criticism, disapproval, or rejection by their partner. Therefore cluster C PDs may be related to IPV within the current research.

However, longitudinal research by Ehrensaft et al. (2006) found that cluster C PDs were protective in relation to IPV perpetration in men and women. This may be because those with Cluster C disorders avoid interpersonal contact through fear of inadequacy and not being liked, and this may protect them from perpetrating IPV as they may be less likely to enter into a relationship in the first place. Therefore the role of cluster C PDs in violent and nonviolent offending has not been found to be consistent, and we may find either a positive or negative association between cluster C and IPV. Cluster C PDs may be protective against perpetrating IPV by preventing these individuals from becoming romantically involved with others, or if they do they may be less involved. However, it may be that if these individuals do become romantically involved they may resort to unacceptable methods for resolving conflict (such as violence) to regulate their feelings of inadequacy, rejection or negative evaluations from others. It would also be interesting to observe whether there is also a relationship (positive or negative) between cluster C and general violence as this would inform the generalist/specialist debate, and this (to my

knowledge) has not been investigated before. Cluster C PDs may be protective in relation to general violence. Persons high in this trait may avoid entering into other relationships (such as friendships) through fear of being criticised and feeling inadequate in this context also.

Sex differences have been reported in personality disorders, and these may mediate sex differences in offending. Paranoid and Schizoid PD from cluster A are reported to be more common in men than women. The opposite is true for cluster C with Avoidant and Dependent PDs being more common in women than men. Sex differences in cluster B PDs is mixed; Antisocial and Narcissistic are reported to be more common in men, Histrionic is reported to be more common in women and it is reported that there is no sex difference in the prevalence of borderline PD (Emmelkamp & Kamphuis, 2007). However it could be argued that some sex differences are a result of sex biases in diagnoses. Some research (e.g. Ford & Widiger, 1989; Garb, 1997) has presented psychologists with case histories and varied the sex of the patient, and found that psychologists were more likely to diagnose female patients with histrionic than antisocial PD, and more likely to diagnose male patients with antisocial than histrionic PD. This may be because histrionic PD contains stereotypic traits of femininity (e.g. emotionality) and antisocial PD contains stereotypic traits of masculinity (e.g. aggressiveness): therefore creating a sex bias in diagnosis.

Personality disorders are strong predictors of violence among offenders (e.g. Hart & Hare, 1996), and the presence of personality disorders among IPV male and female perpetrators is often found (Simmons et al., 2005). Therefore research findings suggest that many perpetrators of violence in and out of intimate relationships, as well as perpetrators of nonviolent offending behaviour, will show evidence of personality disorders. This may be a particularly valuable area to research and for interventions to target as personality disorders

are stable over time, common among violent offenders, and their presence predates involvement in intimate relationships (Ehrensaft et al., 2006; Moffitt et al., 2001).

1.10.2. Attachment and offending behaviour

Bowlby (1980) proposed that children develop relationship prototypes based on their relationship with their primary caregiver, and these are fairly stable over time, operating as templates for relationships later in life. Attachment disruptions early in life have been associated with negative life outcomes later in life (Bowlby, 1973; Loeber & Le Blanc, 1990) and these disruptions have been found to persevere into adulthood and adult intimate relationships (Hamel, 2005). Researchers have considered offending within an attachment framework, and have suggested a link between maladaptive insecure attachment styles and criminal behaviour (Fonagy et al., 1996; Kempf, 1993), particularly violent criminal behaviour (Fonagy et al., 1996; Ireland & Power, 2004), IPV in men (e.g. Dutton, Saunders, Starzomski & Bartholomew, 1994; Holtzworth-Munroe & Stuart, 1994), and sexual offending (Beech & Mitchell, 2005; Marshall, 1993; Smallbone & Dadds, 2000). Therefore insecure attachment appears to be a common etiology for different types of crime.

Attachment theory, first proposed by Bowlby (1969, 1973, 1980), describes the pervasive human need to form close emotional bonds, and was initially used to explain the relationship between an infant and its caregiver. Derived from the original work of Bowlby, Ainsworth, Blehar, Waters and Wall (1978) proposed three types of infant attachment: these were secure, anxious/ambivalent, and avoidant. This initial research has since been applied to explain adult attachment, particularly between those in intimate relationships. Hazan and Shaver (1987) built on the work of Ainsworth et al. and applied the infant attachment styles to adult relationships. Hazan and Shaver (1987) proposed that healthy

romantic relationships develop from accessible, responsive and consistent caregiving, and in contrast unhealthy adult relationships originate from inconsistent, unresponsive or rejecting caregiving.

Bartholomew and Horowitz (1991) developed a four category model of attachment derived from Hazan and Shaver's model. This was based on two dimensions: view of self and view of other. Therefore adults can have a positive or negative view of themselves combined with a positive or negative view of others, thereby creating four adult attachment types: secure, preoccupied, dismissing, and fearful; the latter three attachment types are all insecure styles. The original avoidant category was separated into two contrasting views of the self and these became the fearful and dismissing categories.

Secure individuals have a positive view of themselves and of their partners, they are comfortable with closeness and intimacy and do not fear being alone. They have low attachment anxiety coupled with low attachment avoidance. Fearful individuals have a negative view of themselves and of their partner: they fear being abandoned and avoid intimacy and closeness. They have both high attachment anxiety and high attachment avoidance. Preoccupied individuals have a negative view of themselves but a positive view of their partner. They fear abandonment but are comfortable with intimacy and closeness. They have high attachment anxiety, but are low in attachment avoidance. Dismissing attached individuals have a positive view of themselves but a negative view of their partners. They do not fear abandonment but avoid intimacy and closeness. They have low attachment anxiety, but high attachment avoidance. The Bartholomew and Horowitz (1991) model has been used extensively in IPV research.

It is proposed that IPV may arise where there are conflicting demands for closeness or distance within a couple (Pistole, 1994). A person high in anxiety would respond to a

relationship threat by maintaining or instigating intimacy and closeness. Contrastingly, a person high in avoidance would respond to a relationship threat by distancing themselves from their partner. Therefore it could be argued that IPV would be most likely where a highly anxious individual is paired with a highly avoidant individual, as this is where the largest discrepancy between distance and closeness needs would be seen (Pistole, 1994). Indeed, this has been suggested by research investigating the interaction between the pairing of couples attachment styles with IPV perpetration (Doumas, Pearson, Elgin & McKinley, 2008; Roberts & Noller, 1998). Furthermore, the results applied to both men's and women's IPV perpetration. Finding that both men's and women's IPV is associated with the same insecure attachment style suggests that IPV stems from the same cause irrespective of sex, this is inconsistent with the feminist perspective of IPV and instead supports the family conflict theory of IPV. This indicates that the interaction of maladaptive attachment is a risk factor for violence between intimate partners.

Although attachment type has typically been used to understand men's violence towards their female partners, it is not considered to be an explanation specific only to men (Bartholomew & Allison, 2006). There are a few studies that have investigated the attachment styles of men and women as a predictor of IPV, and research that has adopted a gender-inclusive approach has found associations between insecure attachment styles and IPV for both sexes. For example, research using student (e.g. Bookwala & Zdaniuk, 1998) and community samples (e.g. Henderson, Bartholomew, Trinke & Kwong, 2005) found that a preoccupied attachment style was associated with IPV for men and women. There were no significant sex differences, therefore the association between IPV perpetration and preoccupied attachment held for men as well as women. The lack of a sex difference in the predictors of IPV is inconsistent with the feminist theory.

Bookwala (2002) used a student sample to investigate the role of perceived self *and* partner attachment styles on IPV. This was an update to the 1998 study enabling attachment style interactions to be examined. The results found that highest levels of IPV perpetration were reported under three attachment conditions: (1) when the partner was described as preoccupied (characterised by clinginess, high dependency and high abandonment anxiety); (2) when both self and partner were described as preoccupied; and (3) when self was described as secure and the partner was dismissive. The results were consistent for men and women. The results being consistent for men and women is inconsistent with the feminist theory of IPV because according to this theory we would not expect to find that men's and women's IPV was associated with the same correlates because the motives should be different.

Bookwala (2002) noted that the finding of securely attached individuals being violent if paired with a dismissive partner was unexpected. She suggested that because secure individuals want to develop intimate, close, interdependent relationships, they may be especially frustrated by a dismissive partner who is emotionally independent and wanting to avoid intimacy and closeness. This frustration may result in aggression on the part of the secure individual. Finding that securely attached women can be violent towards a dismissive partner is inconsistent with the feminist theory of IPV, because women are only supposed to be violent defensively and not in response to being annoyed or frustrated by their partner. Bookwala's findings highlight the need for assessing self and partner attachment styles when investigating IPV, because the link may be with an insecure *partner's* attachment style. The current thesis assesses both self and partner attachment styles.

Kesner and McHenry (1998), and Babcock et al. (2000) recruited couples and examined the interaction between attachment styles. Both found that insecure attachment was associated with men's IPV perpetration. It is disappointing that these studies did not include female perpetration, given that previous research that has focused on male perpetrators found that over half of the female partners were also violent within the relationship (Jacobson et al., 1994; Allison, Bartholomew, Mayseless & Dutton, 2008). This highlights the importance of investigating both male and female risk factors for IPV perpetration even when samples are selected based on male violence.

All the research discussed in this section provides support for a link between insecure attachment styles and perpetration of IPV despite the use of different measures of both IPV and attachment, and the use of different samples (student, community, couples). This suggests a strong and robust association for attachment as risk factor for IPV. Attachment styles (and their interactions) as an explanation for abuse perpetration fits with the evidence that IPV is mutual (Straus, 2008) and is typical of conflict within couples (Cascardi & Vivian, 1995). This provides support for the family conflict theory of IPV.

Assortative mating is defined as "the tendency for people to form unions with similar others" (Moffitt et al., 2001, pg. 185) "based on preexisting qualities and traits" (Bartholomew & Allison, 2006, p. 108). Longitudinal studies have indicated that antisocial males and females tend to pair up with a similarly antisocial romantic partner (Capaldi & Crosby, 1997; Kreuger, Moffitt, Caspi, Bleske & Silva, 1998; Moffitt et al., 2001; Serbin et al., 2004). Assortative mating has implications for the continuation of antisocial behaviour into adulthood. Odgers and Morretti (2002) have suggested that girls' delinquency may be related to their romantic relationships with boys. Criminality of a romantic partner moderates the persistence of antisocial behaviour in antisocial girls, such that it is only

antisocial girls who have criminal partners who continue to be antisocial in adulthood (age 21) (Moffitt et al., 2001). Antisocial men continue to be antisocial into adulthood regardless of the criminality of their female partner (Moffitt et al., 2001). Assortative mating suggests that the characteristics of both partners influences relationship success, as both partners' attachment styles have been reported to influence relationship success (Feeney, 2003; Barse, 2004): this is consistent with the family conflict perspective.

Given that most IPV is mutual (Straus, 2008) and that both men and women perpetrate IPV to a similar extent (e.g. Archer, 2000), it is important to examine the attachment orientations of men and women from the same couple to consider IPV perpetration from an interactional perspective. As research has implicated insecure attachment in perpetration of other types of violent and nonviolent crime (e.g. violent crime: Fonagy et al., 1996; prison bullying: Ireland & Power, 2004; property crime: Cooper, Shaver & Collins, 1998), it would also be important to consider the association between attachment styles and different types of violent and nonviolent crime simultaneously. This has not previously been examined, but will be considered in this research to inform theories regarding the generalist or specialist nature of offending.

1.10.3. Anger and offending behaviour

Anger is an emotion that increases the likelihood of aggression and is described as "an unpleasant or negative emotion that typically occurs in response to threat, disruption of ongoing behaviour or deliberate and unjustified harm" (Campbell, 2006, p. 239). Novaco (1994, p. 32) describes anger as "a subjective emotional state, entailing the presence of physiological arousal and cognitions of antagonism, and is a causal determinant of aggression". Novaco (1994, p. 33) has stated that "anger is neither necessary nor sufficient for aggression to occur....level of anger influences level of aggression and vice versa",

therefore aggression can take place even without the presence of anger and anger is not the sole variable that brings about aggression.

Typically studies tend not to find sex differences in the frequency or intensity of anger in adults (Archer, 2004; Costa et al., 2001; Driscoll, Zinkivskay, Evans & Campbell, 2006; Kopper & Epperson, 1991, 1996; Milovchevich, Howells, Drew & Day, 2001), or child (Buntain & Costenbader, 1997; Zenman & Shipman, 1996) populations. This is found to be the case for self-reports, experiments, psychometric assessments and emotional responses to vignettes. Studies that have found a sex difference tend to find that it is in the female direction, indicating that women report feelings of anger more than men (Brebner, 2003; Brody, 1997; Kring, 2000).

Studies also tend to find no sex differences in anger expression, but again where they do the difference is in the female direction (King & Emmons, 1990; Kring, 2000; Timmers, Fischer & Manstead, 1998; Ramirez, Santisteban, Fujihara, & Van Goozen, 2002) and this is also true for self-reports, experiments and vignettes. However, it is suggested that men and women may differ in the ways that they express anger, with men being more likely to physically and verbally aggress against their target (Deffenbacher, Oetting, Lynch & Morris, 1996; Timmers, Fischer & Manstead, 1998), and women being more likely to cry (Campbell, 1993; Timmers et al., 1998; Vingerhoets, Cornelius, Van Heck, Becht, 2000) or talk to someone external to the situation (Simon & Nath, 2004). The sex difference in anger expression may mediate sex differences in violent offending. Although the sexes tend not to differ in their experience of anger (suggesting that instigatory factors are similar for men and women) the difference in anger expression suggests that the sexes may differ in their ability to self-regulate and control their anger in nonviolent ways. Therefore it follows that men may have poorer self-regulatory

mechanisms than women (and therefore have lower self-control), and that women are more inhibited by fear than men (and therefore have higher self-control).

Campbell (2006) has considered this, stating that women may have “greater emotional and behavioural control” (p. 240) due to the finding that women are less likely to directly aggress against the target of their anger. This may account for the sex difference in general aggression, and therefore it is possible that anger may predict men’s physical aggression but not women’s. It would also be interesting to see if this sex difference in anger expression holds for both general aggression and also IPV as women experience less fear within relationships (Campbell, 2008, 2010) which may result in reduced violence inhibition towards their partner. Therefore women may be more likely to self-regulate and inhibit their anger outside of their relationship, but within their relationship may be more likely to express their anger in the form of physical aggression. This comparison between anger and the two violence types (to my knowledge) has not been investigated before, but will inform the generalist or specialist nature of offending.

Anger has been associated with violent crime (Novaco, 1994; Howells, 1998), and is a variable that can distinguish violent from nonviolent offenders (Cornell, Peterson and Richards, 1999; Granic & Butler, 1998; Mills, Kroner & Forth, 1998; Selby, 1984; Verona & Carbonell, 2000). Archer and Haigh (1997) investigated the association between anger and violent and nonviolent offending, using a sample of male and female prisoners. Violent offenders scored significantly higher than the nonviolent offenders on anger. Therefore within the current research we would expect anger to be associated with violent and not nonviolent offending for men and women.

Similar results distinguishing violent from nonviolent offenders have been suggested in the IPV literature from two meta-analyses. Stith et al. (2004) conducted a

meta-analysis to investigate risk factors for IPV. They found a moderate effect size for IPV perpetration and anger ($d = 0.54$). However, 7 of the 11 studies used to generate this result focused only on male-to-female IPV. Therefore evidence for the relationship between IPV and anger for women is sparse. The current research will add to the literature in this area.

Norlander and Eckhardt (2005) also conducted a meta-analysis on 28 studies to evaluate the relationship between anger, hostility and IPV but only in male perpetrators. The samples included in the analysis were either community or clinical ones. There was a moderate association ($d = 0.47$) between both anger and hostility and IPV perpetration, and this was the case for a variety of assessment methods, including self-reports and observational measures. Therefore empirical evidence on anger and IPV is largely focused on men. The current research will add to the literature in this area, but will also provide data for women.

Some research has examined the role of anger on different types of violence. For example, Maiuro, Cahn, Vitaliano, Wagner, and Zegree (1988) compared 39 male IPV perpetrators with 29 generally violent men and found that the anger scores were not significantly different for the two groups of violent offenders. This suggests that relationship with the target did not affect anger expression in men, and indicates that anger may be a common etiology for the different types of violence.

Although the majority of research in this area has been focused on male perpetrators, there are a small number of studies that have compared male and female perpetrators (Jacobson et al., 1994; Dye & Eckhardt, 2000): finding that partner violent men and women exhibited more anger compared with the nonviolent controls. Anger has also been found to be a motivation for IPV for men and women (Henning et al., 2005; Harned, 2001; Stuart et al. 2006; O'Keefe, 1997). Indeed, Harned (2001) found that women

were more likely than men to cite anger as the reason for their use of IPV, and this was a moderate effect ($d = 0.39$). Finding that anger is associated with men's and women's IPV perpetration does not fit with the feminist conceptualisation of IPV, because according to this theory men's and women's use of IPV is different. Therefore the correlates of their IPV should also be different. Most research in this area has investigated male perpetrators of violence, therefore anger as a predictor of female violence needs further investigation, particularly research investigating both general *and* partner violence as to date this has not been studied.

Anger has been linked to attachment. It has been suggested that "anger follows unmet attachment needs" (Dutton, 2006, p. 81), as attachment frustration following a perceived threat to the relationship (i.e. separation or rejection) can lead to anger being expressed as protest behaviour, in order to re-establish contact with the attachment figure (the intimate partner). Dutton et al. (1994) investigated anger and attachment styles in a community/clinical sample of male IPV perpetrators and found a strong relationship between anger and fearful attachment ($r = .49$), suggesting that an insecure attachment is likely to lead to anger and perpetration of partner violence. Follingstad, Bradley, Helff and Laughlin (2002) found that both male and female IPV was predicted by an anxious attachment style and angry temperament. The roles of anger *and* attachment on violence instigation have not been widely researched, particularly in women. Therefore research is required that simultaneously examines anger and attachment in both partner-violent and generally-violent men and women. This will inform the generalist and specialist theories of offending.

1.10.4 Self-control/impulsivity/constraint and offending behaviour

Low self-control is a trait thought to be largely the result of poor parenting, harsh and inconsistent discipline, and a lack of parental supervision (Gottfredson & Hirschi, 1990). Others argue that low self-control results from poor and inconsistent parenting in conjunction with the child's neuropsychological problems (Moffitt, 1993; Campbell, 2006). Girls are reported to receive more supervision and control from both parents than boys do (Brannigan, 1997; Gottfredson & Hirschi, 1990, p. 147), and may therefore be less likely to develop low self-control in childhood, which may account for the sex difference in low self-control, and therefore the gender gap in crime.

The concepts of self-control, impulsivity and constraint, overlap and may be measuring the same broad personality characteristic. All refer to an individual's ability (or lack thereof) to self-regulate their own behaviour, control their actions, and inhibit undesirable impulses. Impulsivity is defined as "the extent to which individuals are unable to control their thoughts and behaviours" (Bettencourt et al., 2006, p. 759). Constraint also refers to an individual's ability to control impulses, and relates to individuals who report that they are "reflective, cautious, careful, rational, and planful" (Moffitt et al., 2001, p. 124), and so it is lack of constraint that is synonymous with low self-control. Self-control is defined as "the differential tendency of people to avoid criminal acts whatever the circumstances in which they find themselves" (Gottfredson & Hirschi, 1990, p. 87), and therefore refers to an individual's propensity to either refrain from, or perpetrate, crime.

Low self-control is the central tenet in *A General Theory of Crime*, which was developed by Gottfredson and Hirschi (1990) to explain why some people offend and others do not. Low self-control is reported to be "one of the strongest known correlates of crime" (Pratt & Cullen, 2000, p. 952) and is found to be predictive of crime generally,

including violent and nonviolent offending (Gottfredson & Hirschi, 1990). According to Gottfredson and Hirschi's theory (1990, p. 90) there are six elements which characterise persons with low self-control: (1) impulsivity; (2) self-centredness; (3) risk-seeking; (4) preference for physical (rather than mental) tasks; (5) short-term focussed; and (6) non-verbal. All six aspects must feature within the same person in order for criminal activity to occur (Gottfredson & Hirschi, 1990; Arneklev, Grasmick & Bursik, 1999). Low self-control will also extend to seeking immediate gratification in the non-criminal elements of a person's life, e.g. smoking, gambling, abusing substances, and promiscuity (Gottfredson & Hirschi, 1990). Furthermore, offenders are likely to be recidivists because their short-term focus (a dimension of low self-control) will prevent the consideration of the future consequences and costs of committing the crime, e.g. fines or incarceration (Brannigan, 1997). Whichever term is used (impulsivity, low self-control, or weak constraint); all three have been associated with the perpetration of crime in men and women.

Low self-control is also believed to be stable over time (Arneklev et al., 1999; Gottfredson & Hirschi, 1990; Nagin & Farrington, 1992). Longitudinal studies have illustrated the stability of the constraint from adolescence to adulthood, and have found a correlation of $r = .67$ over an eight-year period (Roberts, Caspi & Moffitt, 2001) and a correlation of $r = .60$ over a 10-year period (McGue, Bacon & Lykken, 1993).

Sex differences in self-control have been found in a recent meta-analysis (Cross, Copping & Campbell, 2011) as well as in other studies not included in the meta-analysis (e.g. Driscoll et al., 2006; Gibson, Ward, Wright, Beaver & DeLisi, 2010) with men having lower self-control than women. It is thought that the sex difference may account for the disparity in general offending rates between men and women (Burton et al., 1998), as it reflects a greater propensity for men to commit crimes if they have less self-control over

their impulses than women. The sex difference is largest for the sensation seeking ($d = 0.41$) and behavioural risk-taking ($d = 0.36$) components of impulsivity (Cross et al., 2011). This suggests that although low self-control is proposed as a single overall construct, it may be sensation seeking and risk-taking that are mostly responsible for the link found between low self-control and criminal behaviour. Therefore low self-control may be an extension of impulsivity (Arneklev et al., 1999).

Although there are these reported sex differences, low self-control predicts offending behaviour equally well for men and women (Elkins, Ianoco, Doyle & McGue, 1997; Cale, 2006; Moffitt et al., 2001; Smith & Waterman, 2006). Caspi, Moffitt, Silva, Stouthamer-Loeber, Schmutte and Krueger (1994) examined personality correlates of crime from their birth cohort, using data collected at age 18, and found that the correlation between self-reported delinquency and constraint was exactly the same for women as it was for men ($r = -0.44$), and was very similar for informant-reported delinquency (see also Krueger, Schmutte, Caspi, Moffitt, Campbell & Silva, 1994). Longitudinal research (e.g. Caspi et al., 1994; Elkins et al., 1997; Krueger et al., 1994) has repeatedly indicated the role of constraint in antisocial behaviour, irrespective of sex, age, ethnicity (but only comparing whites with African-Americans), nationality, or the measure of constraint. This suggests that constraint is a robust predictor of criminal behaviour.

Ramoutar and Farrington (2006) interviewed 118 male and 93 female prisoners to investigate variables associated with participation in violent and property crimes, and the frequency of those crimes. The results indicated that impulsivity was significantly related to participation in violent and property crimes for both sexes. This is consistent with Gottfredson and Hirschi's (1990) proposal, that low self-control is the underlying influence for all criminal behaviour. The overlap also suggests that there may be a shared function of

violence and criminal damage: both may be emotional crimes. Indeed research has found that they share interpersonal features (see Howard & Dixon, 2011). Finding a shared correlate of different types of offending suggests that violent and nonviolent offending may share the same etiology.

Longitudinal studies have suggested that low self-control can predict future violent and nonviolent offending in men and women (White et al., 1994; Henry, Caspi, Moffitt & Silva, 1996). Caspi et al. (1997) used constraint scores collected from their birth cohort at age 18 to predict involvement in risky behaviours at age 21 in men and women, and found a large effect ($d = .85$) for the association between low constraint (age 18) and conviction for perpetration of violent crimes (age 21). Therefore, low self-control has been found to predict future violent offending, and this occurred even after controlling for gender. This is further support for the early development of maladaptive personality such as low self-control, its stability from childhood to adulthood, and its association with adult criminal behaviour.

Although it has been suggested above that low self-control is associated with violent offending behaviour (Piquero, MacDonald, Dobrin, Daigle & Cullen, 2005; Smith & Waterman, 2006), it is more closely linked with general violence than IPV (Krueger, Caspi & Moffitt, 2000). In fact feminists argue that IPV and low self-control should not be related because they regard IPV as an intentional and planned behaviour (instrumental aggression) that men choose to use to control and intimidate their female partner, and therefore it is not an impulsive, spur of the moment, act (see Corvo & Johnson, 2003, Appendix A).

According to this argument low self-control should not predict IPV. However, Hotaling et al. (1990) reported the results of 14 studies, and indicated that male perpetrators of IPV were characterised by „no impulse control“ (among other traits) which is

synonymous with low self-control. Moffitt et al. (2000) found that low self-control predicted general crime for both men and women but did not predict IPV, which suggests that these two types of violence may have different causal correlates. From Gottfredson and Hirschi's (1990) General Theory of Crime we would infer that low self-control should predict IPV perpetration, in the same way that it predicts other crime, because it is a general tendency to be criminal that pervades all aspects of the person's life rather than being specific to certain actions.

Holtzworth-Munroe and Stuart (1994) have provided an alternative explanation, and propose that perpetrators who are generally violent should have high impulsivity, but those who are violent only towards their partners should have low impulsivity. Moffitt et al. (2000) investigated this and found some support for Holtzworth-Munroe and Stuart's (1994) alternative explanation: when investigating IPV and controlling for perpetration of other crimes, low self-control and IPV were not related. This finding applied to both men and women. They concluded that the same person who is violent in different contexts may use aggression impulsively when violent outside of their relationship, but may have control over the violence they use within their relationship. Therefore, within the same person, different risk factors may predict different crimes, which may support a specialist perspective of crime. Considering all the above research, the picture regarding the relationship between low self-control and IPV is unclear.

Self-control has been linked with attachment. Tangney et al. (2004) found that high levels of self-control were linked with relationship success and a secure attachment style. This may be because partners high in self-control would be more able to resist the temptation of an affair, would be less likely to say mean words on an impulse, or have angry outbursts. Consistent with Gottfredson and Hirschi's (1990) proposition that low self-

control is the result of poor parenting, Hayslett-McCall and Bernard (2002) proposed that low self-control may be an outcome of attachment disruptions in childhood. They argued that attachment disruptions are most likely to occur for boys than girls, resulting in more men being low in self-control than women. This adds to the explanation for the gender gap in crime.

Anger has also been associated with individuals' low in self-control (Driscoll et al., 2006; Tangney et al., 2004). Anger expression is likely to be higher in persons with low self-control, as these people are unlikely to be able to control or restrain their emotions or actions, and may instead act impulsively in response to provocation. Alexander, Allen, Brooks, Cole and Campbell (2004), and Driscoll et al. (2006) have proposed a graphical representation of the relationship between aggression, anger and low self-control. Where inhibitory control parallels increases in anger, aggression is not expressed. However, where anger exceeds inhibitory control, aggression is expressed. Therefore, people with higher levels of self-control may have better anger management strategies and be less likely to express their anger in injurious ways.

Therefore individuals with low self-control are unlikely to specialise in any particular type of crime. Rather, they are likely to be versatile and commit any crime where there is opportunity. This is consistent with the investigation of the current thesis that violent and nonviolent offending are likely to overlap.

1.10.5. Psychopathic traits and offending behaviour

Psychopathic traits emerge in childhood and display stability from childhood and adolescence through to adulthood (Larsson et al., 2007; Lynam, Caspi, Moffitt, Loeber, & Stouthamer-Loeber, 2007; Viding, Frick, & Plomin, 2007). Callous-unemotional traits are thought to be the childhood expression of psychopathy and are linked with the perpetration

of severe violence (Frick & Marsee, 2006; Frick, Stickle, Dandreaux, Farrell & Kimonis, 2005), and longitudinal research has suggested that callous-unemotional traits also appear to be relatively stable from childhood to adulthood (Blonigen, Hicks, Kruger, Patrick & Iacono, 2006; Burke, Loeber & Lahey, 2007; Lynam et al., 2007). For example, Lynam et al. (2007) suggested that callous-unemotional traits in adolescence (age 13) were related to adult psychopathy (age 24). Indeed, antisocial youths with callous-unemotional traits have been found to show a more stable and aggressive pattern of behaviour. They also have a greater risk of early-onset delinquency and are at risk for developing severe delinquent behaviour (Frick & White, 2008). Therefore if callous-unemotional traits are linked to severe violence, and are fairly stable from childhood to adulthood, it may be adults with affective deficit psychopathic traits who are particularly prone to perpetrating violence.

Psychopathy is a personality pattern associated with some criminals. Criminals with this personality pattern tend to have an earlier onset to their criminal careers than other criminals, and they tend to perpetrate more severe and violent crimes (Gendreau, Goggin & Smith, 2002; Hare, 1994, 1999; Hemphill, 2007; Hemphill, Hare & Wong, 1998; Leistico, Salekin, DeCoster & Rogers, 2008; Porter & Woodworth, 2006, 2007; Walters, 2003). They also tend to perpetrate a greater variety of crimes (Hart & Hare, 1997), which is relevant to the current examination of the generalist versus specialist approach to offending.

The majority of research indicates that there are more men than women psychopaths (Bolt, Hare, Vitale & Newman, 2004; Cale & Lilienfield, 2002; Forth, Brown, Hart & Hare, 1996; Lilienfield & Hess, 2001; Lykken, 1995; Walsh et al., 2010; Weiler & Widom, 1996; Wilson, Frick & Clements, 1999; Zagon & Jackson, 1994). Despite the sex differences, the factor structure for psychopathy can be generalised to men and women (Cooke & Michie, 2001; Skeem, Mulvey & Grisso, 2003), suggesting that although

psychopathy base rates may be lower in women, the characteristics of psychopathy may be similar (although this does not mean that they are equivalent).

There is still much debate about the number of factors which best account for psychopathy (Cooke, Michie & Hart, 2006). However, it is suggested that there are a minimum of three factors to the structure of psychopathy in adults (Cooke & Michie, 2001). These are: (1) narcissistic and manipulative personality style, (2) callous and unemotional traits, and (3) impulsive and irresponsible behaviour (Cooke et al., 2006). Factor one comprises interpersonal features, factor two comprises affective deficits, and factor three comprises the behavioural features of psychopathy. Factor three is also associated with non-psychopathic criminals (Andershed et al., 2002) (also see previous discussion on impulsivity/ low self-control and offending).

Psychopathy has a well-documented link with aggression and violent behaviour (Gendreau et al., 2002; Hare, 1994, 1999; Hemphill, 2007; Hemphill et al., 1998; Leistico et al., 2008; Porter & Woodworth, 2006; Walters, 2003; Neumann & Hare, 2008). This has been found for adult offenders (Harpur & Hare, 1994; Hemphill, Templeman, Wong & Hare, 1998; Porter, Birt & Boer, 2001; Salekin, Rogers & Sewell, 1996) as well as in child and adolescent samples (Campbell, Porter & Santor, 2004; Edens, Poythress & Lilienfeld, 1999; Forth, Hart & Hare, 1990; Forth & Mailloux, 2000; Frick, 1998; Lynam, 2002; Waschbusch et al., 2004). Indeed, Hemphill et al. (1998) has found that psychopathy predicts future violent offending behaviour, correlating with both general and violent recidivism ($r = .27$). Therefore psychopathic traits may be a common underlying cause of both violent and nonviolent offending.

The role of psychopathy in IPV has not been widely studied (Douglas, Vincent & Edens, 2006), although there is some research that has associated psychopathic traits with

IPV perpetration (Gondolf & White, 2001; Grann & Wedin, 2002; Hilton, Harris & Rice, 2001; Holtzworth-Munroe & Stuart, 1994; Swogger, Walsh & Kosson, 2007; Walsh et al., 2010). Some studies have implicated affective deficits in IPV perpetrators, including empathy deficits, remorselessness and poor emotional expression (Dutton, 2003, 2006; Holtzworth-Munroe et al., 1994; Holtzworth-Munroe et al., 2000; Swogger et al., 2007; Umberson et al., 2003). These deficits map onto the affective factor (factor 2) of psychopathic traits, and suggest that IPV perpetrators may be characterised by callousness and unemotional traits. Therefore in the current research we would expect affective deficits to be related to IPV perpetration.

Holtzworth-Munroe and Stuart (1994) proposed that the generally violent/antisocial perpetrators were the subtype most likely to have psychopathy. Support for this was indicated by the research of Walsh et al. (2010), who found that highest levels of psychopathy were associated with generally violent/antisocial men and women. This subgroup had a higher level of psychopathy than other groups (family-only, dysphoric-borderline, and non-offenders). Other studies have found that although the family-only perpetrators had the lowest levels of psychopathy relative to the other subtypes, the dysphoric-borderline and generally/violent antisocial subtypes were not significantly different in psychopathy scores (Holtzworth-Munroe et al., 2000; Huss, Covell, & Langhinrichsen-Rohling, 2006). Therefore psychopathic traits seem to be most related to offenders who perpetrate violence in as well as outside their relationships. This suggests that there is a common etiology for these different types of violence. Douglas, Vincent and Edens (2006) report that there is a lack of research investigating the roles of the interpersonal, affective and impulsive psychopathic trait factors in IPV. Therefore the current research will investigate this and add to the knowledge in this area.

Hart and Dempster (1997) stated that although psychopaths are predominantly instrumental in their crimes, they can also be impulsive, and are therefore better described as “impulsively instrumental”. Impulsivity has been examined in relation to general violence and IPV (see discussion in section *1.10.4 Self-control/ impulsivity/ constraint and offending behaviour*), and it is also the third factor in psychopathic traits. The association between impulsivity and IPV is not clear (see discussion in section *1.10.4 Self-control/ impulsivity/ constraint and offending behaviour*). Callous-unemotional traits have been linked with instrumental aggression in men and women (Swogger et al., 2007), and therefore we would expect callous-unemotional traits to be positively related to the perpetration of IPV, this will be investigated in Study 3. IPV as instrumental is most consistent with feminist theory, because feminists view IPV as deliberate and willful rather than impulsive. However, if women’s IPV is also associated with callous-unemotional traits this would be inconsistent with the feminist theory because this would suggest that women’s IPV, like men’s, was instrumental rather than defensive. Finding that callous-unemotional traits are related to both men’s and women’s IPV would be most consistent with the family conflict research because men’s and women’s IPV would stem from the same cause.

Psychopathic traits link with impulsivity, negative emotionality (which includes anger) as well as attachment. Previous research has investigated these individual factors in relation to offending, but not all have previously been simultaneously measured in the same sample. Furthermore, no research has (as yet) simultaneously examined the similarities or differences between IPV, general violence and nonviolent perpetrators with regards to psychopathic traits. Therefore this is yet to be established.

1.11. Studying violent and nonviolent offending of University students

Although students are generally thought to be relatively law-abiding, especially with regards to violent crime, there is one violent crime which has been found to be prevalent in student populations, and that is IPV (e.g. Fiebert & Gonzalez, 1997; Foo & Margolin, 1995; Riggs & O'Leary, 1996; Straus & Ramirez, 2004; Straus, 2008; Nabors, 2010, White & Koss, 1991). In his meta-analysis, Archer (2002) found that over half of the studies published on IPV using the CTS used student samples. Research has found that undergraduate students do sometimes self-report severe acts of aggression that would be classed as a criminal offence (e.g. Archer, 2002; Smith & Waterman, 2006; Barratt, Stanford, Dowdy, Liebman & Kent, 1999). Therefore using a student population allows us to examine the overlap of self-reported offending in a sample unselected for criminal behaviour. Although violent and non-violent crime in university students may be low compared with other populations, research indicates that these behaviours are present: they may just be less frequent in a student sample. Therefore other samples may be likely to show similar patterns of offending, only at higher rates.

Statistics indicate that students form a quite large part of the population in many countries, for example in the UK there are approximately 2.5 million students (Higher Education Statistics Agency: HESA, 2011). Universities are employing strategies to widen participation to make university more accessible to underrepresented groups, and HESA collects and provides statistics on this. The university that this sample was taken from is above the UK average for widening participation to under-represented groups, including those from low-participation neighborhoods (top 10), and those from lower socio-economic statuses" (top 25) (HESA, 2011). Therefore the population from which the current sample was derived has a reasonably wide demographic representation for a university sample.

1.12. Research aims

The overall aim of this research was to advance our knowledge and understanding of co-offending, particularly for women because women's offending has previously been a neglected area of psychological research relative to the psychology of men's offending. As a result the existing literature on women's offending is not as advanced as that of men's. The focus on men so far has largely been because men are widely known to offend more than women (except in the area of IPV). Existing research has largely been conducted on men and research has identified risk factors for men's offending. Some research has examined risk factors in both sexes, and found that some of the same risk factors are present in men and women, and that they predict both general violence and IPV. Some research has found that IPV is a distinct type of crime with different motivations to other types of crime. Therefore the current research seeks to identify predictors of men's and women's offending to investigate whether predictors differ for men and women. The current research will also examine differences in risk factors between offence types to determine if different crimes are associated with the same or different risks, and if IPV is in fact distinct from other types of crime. These findings will be explored in relation to theory including: feminist, family conflict, general violence and the General Theory of Crime.

The plan for the thesis was to start by investigating violent and nonviolent offence perpetration in women to obtain an initial picture of the types of crimes women commit. Thus the aim of Study 1 was to provide an assessment of women's involvement in violent and nonviolent offending behaviour, using different sources: self-reports (women), victim reports (men), and third-party reports (men and women). The sample was an online one, unselected for previous criminal history, in order to capture the full range of women's offending. The aims of Study 1 were threefold: (1) to investigate a sample of unselected

women's involvement in violent and nonviolent offences using the three types of data; (2) using women's self-reports only, to investigate the interrelationships between the different types of offending; and (3) using women's self-reports only, to analyse the association between (1) general violence, and (2) IPV, with other offence variables, to determine the interrelatedness of offending.

The aim of the second study was to create a psychometrically sound scale that allows the assessment of violent and nonviolent offending in men and women. This allowed us to then examine sex differences in offending as well as the overlap between the different types of offences. Previous research that has investigated the three offence types (violent, partner violent and nonviolent) within the same population, have limitations: for example, using different measures with different response formats, using brief measures, or not separating general violence and nonviolent offending. The current study extends previous research by analysing the three offence types as three separate domains, and has comparable questions (that use the same response scale) for each offence type so that the results can be directly compared. The current research developed the Nonviolent and Violent Offending Behaviour Scale (NVOBS) to fill this gap in the existing research. Study 2 conducted factor analysis, and then confirmatory factor analysis, on the NVOBS for men and women separately (using data from Studies 3 and 4) to create a scale that identifies super-categories of offence types appropriate for use with both sexes. Additionally the scale was assessed for reliability. The creation of a scale that allows the assessment of violent and nonviolent offences is a new contribution to knowledge, and the development of a questionnaire that is relevant to men's and women's offending will aid the future study of sex differences in offending behaviour by providing a comprehensive scale to use in a comparison analysis.

Following on from the findings of Study 2, the next step (Studies 3 and 4) was to investigate the intrapersonal characteristics associated with the perpetration of general violence, IPV, and nonviolent offending, in order to identify whether these intrapersonal risk factors could predict involvement in the different crime categories for men and women, and how these predictors compared between the sexes. This would elucidate whether men's and women's offending were motivated by the same intrapersonal risk factors, and if the different types of crime shared the same underlying origins or if they were distinct phenomenon.

Study 3 investigated the roles of adaptive and maladaptive personality traits in violent and nonviolent offending behaviour, because the relationship between personality and crime can inform the generalist/specialist debate (see Study 3 introduction for a discussion). Although personality traits and disorders have been studied relatively extensively in the literature, they have not yet been investigated together in the same sample. No research to date has examined both adaptive and maladaptive personality simultaneously with violent and nonviolent offending in the same sample of men and women. The benefits of examining these variables simultaneously include being able to compare across offence types and between the two sexes to develop a deeper and more rounded understanding of those who offend. Therefore this research will extend previous research findings. The purpose of this study was to investigate predictors of violent and nonviolent offending separately for men and women to assess whether there were offence-specific and sex-specific risk factors.

The aim of study 4 was to examine risk factors additional to those in Study 3 to determine whether predictors consistently vary between the offence types and sexes, or if there are further shared risk factors. Therefore Study 4 investigated the predictors of

general violence, IPV and nonviolent offending separately for men and women using individual difference variables of anger, attachment, self-control, and psychopathic traits; all of which can be used to inform the generalist/specialist debate (see Study 4 introduction for a discussion). Previous research has examined these intrapersonal variables in isolation, but so far these variables have not been examined simultaneously alongside measures of general violence, IPV and nonviolent offending. Therefore this study will also extend previous research and will enhance our knowledge regarding the psychology of men's and women's offending behaviour. The purpose of this study was also to investigate predictors of violent and non-violent offending separately for men and women to assess whether there were offence-specific and sex-specific risk factors.

In summary, this program of research will provide a method of assessing a variety of offending behaviour in men and women in order to inform theory relating to the generalist or specialist nature of offending. This will be used to extend the findings of previous research regarding sex differences in, and predictors of, violent and nonviolent offending behaviour contributing new knowledge to this area of research.

CHAPTER 2

MEASURES, ETHICS AND SAMPLING

2.1. Measures

This chapter introduces the measures used in this thesis. A number of self-report questionnaires were used to measure the following: violent and nonviolent offending, personality traits, personality disorder traits, attachment, anger, self-control, and psychopathic traits. Each scale is described below.

2.1.1. *Violent and nonviolent offending*

To measure nonviolent and violent offending, I developed a scale, the Nonviolent and Violent Offending Behaviour Scale (NVOBS: Thornton, Graham-Kevan & Archer, submitted). Full details on the development of this scale are provided in *Chapter 3*. Study 1 used the first version of the scale. Study 2 developed the final (short) version (based on data from Studies 3 and 4), and studies 3 and 4 used the longer version. Items were selected by reviewing existing measures of delinquency (which included items relating to general violence as well as nonviolent offending), and IPV, in order to include a broad range of both violent and nonviolent criminal acts (e.g. Bendixen & Olweus, 1999; Borjesson, Aarons & Dunn, 2003; Dahlberg, Toal & Behrens, 1998; Huizinga, Esbensen & Weiher, 1991; Mak, 1993; Moffitt & Silva, 1988; Moffitt et al., 1997; Straus, 1979; Straus et al., 1996).

Initially 119 items were selected from the literature review and these items were used in Study 1 to investigate the prevalence of the behaviours in women, as the other violent and criminal scales tended to be developed on men (see Table 2.1a for a list of the

items). There were 12 general violence items (e.g. pushed or shoved someone), 19 IPV items (e.g. pushed or shoved partner), 14 sexual offence items (e.g. forced someone over 16 to do sexual acts), 3 robbery offences (e.g. used force to obtain money), 16 drug offences items (e.g. sold cannabis), 5 offence against vehicles items (e.g. stole a car), 14 other thefts items (e.g. stole over £100), 10 fraud and forgery items (e.g. been involved in benefit fraud), 10 criminal damage items (e.g. graffiti in a public place) and 16 other-offence items (e.g. driving under the influence of alcohol).

A number of items from this initial measure were eliminated due to ambiguity or very low endorsement, suggesting that they may not be characteristic of university students. Therefore a final pool of 70 items was generated and used in Studies 3 and 4 (see Table 2.1b for a list of the items). The general violence and IPV items were duplicates of each other in order that the same items were captured. Items were adapted for use in the current study so that they all had the same response options. The final version of the scale was developed in Study 2 and will be the published version of the scale, freely available for use for research purposes (see Table 2.1c for a list of the items). Tables 2.1a to c below list the items used for each version of the questionnaire.

For Study 1 the response options for these items were yes or no/not applicable. Women were asked to read each statement and then report whether they had committed that behaviour since the age of 18 years. They were also asked to report whether they personally knew a woman of 18 years or older who had committed that behaviour. Men were asked to read each statement and then report whether a woman of 18 years or over committed each offence towards them, and also whether they personally knew a woman of 18 years or older who had committed each offence. Men and women were also asked to report if the statement did not apply to either themselves or another woman, otherwise it would not have

been clear whether participants had not answered that question or if it was just not applicable to them.

For the remaining studies participants were administered questionnaires containing the 70 items, and were asked to report the extent to which they had been violent towards their partners, violent towards others, and engaged in nonviolent offences in the past 12 months. The 12-month time period is commonly used in both studies of IPV (e.g. Straus, 1979; Straus et al., 1996), and general aggression research (e.g. Richardson & Green, 1999; 2003). Items were answered on a 7-point scale of 0 (never happened) to 6 (happened more than 20 times). Straus et al. (1996) recommend recoding the responses to weight the data by creating midpoints for each of the items as follows: 4 (3-5 times), 8 (6-10 times), 15 (11-20 times), and 25 (more than 20 times: 25 is an assumed midpoint and is recommended by Straus et al., 1996 p. 305). Therefore this procedure was adopted here.

Table 2.1a NVOBS Study 1 items (listed by offence category)

Item

General violence – 12 items

Pushed, grabbed or shoved someone

Slapped someone

Kicked someone

Hit someone with a fist

Hit someone with something that could hurt

Threw something at someone that could hurt

Beat someone up

Threatened someone with weapon

Table 2.1a continued

Item

Used a weapon on someone

Injured someone in fight (no treatment required)

Injured someone in fight (treatment required)

Thrown objects at people

IPV (same items used to ask IPV victimisation) – 19 items

Threatened to hit throw something at partner

Threw something at partner that could hurt

Pushed grabbed shoved partner

Slapped partner

Kicked partner

Bit partner

Scratched partner

Hit partner with a fist

Hit partner with something hard besides fist

Beat partner up

Choked partner

Threatened partner with a weapon

Used weapon on partner

Injured partner in fight (no treatment required)

Injured partner in fight (treatment required)

Physically twisted partners arm or hair

Table 2.1a continued

Item

Slammed/held partner against wall

Bent partners fingers

Burned partner

Sexual offences – 14 items

Shown genitals in public

Hurt someone over 16 for sex

Forced someone over 16 to do sexual acts

Incest

Got paid for sex

Encouraged others to have sex for money

Arranged for someone to pay for sex

Paid for sex with someone

Hurt child under 16 for sex

Forced child under 16 to do sexual acts

Sexually touched child under 16

Abused children through prostitution/pornography

Forced partner to have sex

Forced partner to do sexual things

Robbery – 3 items

Took things from others

Table 2.1a continued

Item

Used force to obtain money

Used threats to get money

Drug offences – 16 items

Sold cannabis

Used cannabis

Sold heroin

Used heroin

Sold LSD

Used LSD

Sold cocaine

Used cocaine

Sold speed

Used speed

Sold ecstasy

Used ecstasy

Took steroids

Injected drugs

Sniffed glue

Abused barbiturates

Table 2.1a continued

Item

Offences against vehicles – 5 items

Stole from someone's car

Stole someone's car

Let tyres down on someone's car

Damaged a parked car

Joyriding

Other thefts – 14 items

Attempted to steal under £5

Attempted to steal £5-50

Attempted to steal £50 - 100

Stole over £100

Shoplifted

Stole purse/wallet pick pocket

Buy or sell stolen items

Possession of stolen items

Stole bike

Stole from vending machine

Steal from company

Fare dodging

Sell worthless items

Changed price tickets

Table 2.1a continued

Item

Fraud and forgery – 10 items

Forged cheque or money to pay

Used credit card without permission

Signed someone's name to get money

Identity fraud theft

Benefit fraud

Counterfeit currency to deceive

Internet fraud

Laundered money

Avoided paying income tax

Stole mail fraud

Criminal damage – 10 items

Vandalism

Damaged someone's property

Arson

Broke windows of empty building

Graffiti in public

Destroy public property

Damage something in public place

Move road signs

Messed others property

Table 2.1a continued

Item

Going round in a group of 3 or more damaging property, fighting or causing a disturbance

All other offences – 16 items

Drink drive and accident

Drink drive no accident

Threatening letters

Riots

Release damaging info blackmail

Bigamy

Pervert course of justice

Helped suicide

Involved in illegal political acts

Jumped bail

Made obscene phone calls

Drive without license

Trespassed

Yobbish in public place

Drunk in public

Thrown items from moving car

Table 2.1b NVOBS study 3 & 4 items (listed by offence category)

Item

General violence – 20 items

Threatened to hit throw something at someone

Threw something at someone that could hurt

Pushed grabbed shoved someone

Slapped someone

Kicked someone

Bit someone

Scratched someone

Hit someone with a fist

Hit someone with something hard besides fist

Beat someone up

Choked someone

Threatened someone with a weapon

Used weapon on someone

Injured someone in fight

Physically twisted someone's arm or hair

Slammed/held someone against wall

Bent someone's fingers

Burned someone

Forced someone to have sex

Forced someone to do other sexual things that they did not want to do

Table 2.1b continued

Item

IPV (same items used to ask IPV victimisation) – 20 items

Threatened to hit throw something at partner

Threw something at partner that could hurt

Pushed grabbed shoved partner

Slapped partner

Kicked partner

Bit partner

Scratched partner

Hit partner with a fist

Hit partner with something hard besides fist

Beat partner up

Choked partner

Threatened partner with a weapon

Used weapon on partner

Injured partner in fight

Physically twisted partners arm or hair

Slammed/held partner against wall

Bent partners fingers

Burned partner

Forced my partner to have sex

Forced my partner to do other sexual things that they did not want to do

Table 2.1b continued

Item

Nonviolent offences – 30 items

Criminal damage

Gone into or tried to go into a building to steal or damage something

Damaged something in a public place e.g. streets, cinema, buses, toilets, parked cars

Moved or damaged a traffic sign or road works equipment

Put graffiti in a public place

Broke windows of an empty building

Damaged or destroyed somebody else's property on purpose

Going round in a group of 3 or more damaging property, fighting or causing a disturbance

Theft

Travelled on a bus/train etc or gone to the cinemas without paying

Attempted to steal or actually stole money or things worth £5 or less.

Attempted to steal or actually stole money or things worth between £5 and £50.

Attempted to steal or actually stole money or things worth between £50 and £100.

Attempted to steal or actually stole money or things worth over £100

Tried to buy or sell things that were stolen

Been in possession of stolen property

Shoplifted or took something from a store

Drugs

Sold speed (amphetamines)

Table 2.1b continued

Item

Sold marijuana/cannabis

Used LSD

Used cocaine/ crack cocaine

Sold cocaine/ crack cocaine

Used speed (amphetamines)

Used ecstasy (MDMA)

Used marijuana/cannabis

All other offences

Made obscene phone calls

Drive without license

Been yobbish, loud, rowdy or unruly in a public place

Thrown things out of a moving car

Trespassed anywhere not meant to go (like railway yards, private property, empty house)

Drove a car/motorbike/other motor vehicle whilst drunk or on drugs and had an accident

Drove a car/motorbike/other motor vehicle whilst drunk or on drugs and not had an accident

Table 2.1c: Final version of NVOBS following scale development

Item

General Violence - 12 items

kicked someone

hit someone with a fist

pushed grabbed or shoved someone

beat someone up

scratched someone

slammed / held someone against a wall

hit or tried to hit someone with something hard besides a fist

bit someone

threw something at someone

slapped someone

twisted someone's arm or hair

bent someone's fingers

IPV - 8 items

kicked partner

hit partner with fist

slapped partner

bent partners fingers

threw something at partner

pushed grabbed or shoved partner

scratched partner

Table 2.1c: continued

Item

twisted partners arm / hair

Nonviolent offences

Drugs - 5 items

used ecstasy

used cocaine/crack

used speed

used cannabis

gang of 3 + fighting, causing damage / disturbance

Criminal Damage - 4 items

damaged something in a public place

graffiti

broke windows of empty building

damaged others property on purpose

Theft - 4 items

stole 5-50

stole <5

possessed stolen property

enter building to steal / damage

2.1.2. Personality Traits

Adaptive personality traits were measured using the International Personality Item Pool (IPIP; Goldberg, 1999). The IPIP is a 50 item scale and measures the Big Five personality traits identified by Costa and McCrae (1992): extraversion, agreeableness, conscientiousness, neuroticism, and openness. The IPIP has been found to have good psychometric properties in a number of different samples. The IPIP's five factor structure has been confirmed by other researchers (Gow, Whiteman, Pattie & Deary, 2005). Gow et al. (2005) also indicated that the IPIP had good internal consistency across three samples. They found that Cronbach's alphas ranged from .72 to .87 for their student sample, from .79 to .90 for their general population volunteer sample, and from .73 to .87 for their birth cohort sample. Other research has also suggested good internal consistency for the IPIP subscales. Goldberg (1999) has stated that the alpha reliabilities range from .79 to .87, and average at .84 for the whole scale. Lim and Ployhart (2006) reported that the alpha reliabilities for the IPIP subscales ranged from .74 to .90.

Research has also indicated that the IPIP has good concurrent validity as the subscales are highly correlated with their corresponding dimensions on other similar personality scales such as the NEO-FFI and the EPQ-R (Gow et al., 2005). Similarly, Goldberg (1999) has indicated high correlations between the IPIP and the NEO-PI-R, ranging from .70 to .82. Using 353 university students, Lim and Ployhart (2006) found support for the construct validity of the IPIP, as there were only small differences in scores as a function of race and gender. Lim and Ployhart (2006) also compared the IPIP with a similar and widely used five-factor measure (NEO-FFI), and found good support for the convergent and discriminant validity of the IPIP.

Altogether the IPIP has been found to demonstrate good reliability and validity as a measure of personality traits, and research has indicated this to be the case for student samples (Gow et al., 2005; Lim & Ployhart, 2006). Therefore the IPIP was selected for use in this research as it is a sound measure and appropriate for use in a student sample. The IPIP was also chosen for use in this research because it focuses on behaviour, such as “I start conversations” and “I insult people”, whereas other scales such as the Big Five Inventory (Benet-Martinez & John, 1998) instead focus on summary trait labels, such as “I see myself as someone who..... is generally trusting,... gets nervous easily”.

The IPIP instructions to participants were to “*Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age*”. These instructions were consistent with those provided by Goldberg (1999). Participants responded using a Likert scale which ranged from 1-5. The response options were: 1 = Very Inaccurate, 2= Moderately Inaccurate, 3 = Neither Inaccurate nor Accurate, 4 = moderately accurate, 5 = Very Accurate. There were 10 items for each of the 5 subscales; therefore scores for each personality trait could range from 10-50. Tables 2.2a to e below show the items that correspond to each subscale.

Table 2.2a: IPIP extraversion subscale

Item	Reverse scored
I am the life of the party.	
I don't talk a lot.	✓
I feel comfortable around people.	
I keep in the background.	✓

I start conversations.	
I have little to say.	✓
I talk to a lot of different people at parties.	
I don't like to draw attention to myself.	✓
I don't mind being the center of attention.	
I am quiet around strangers.	✓

Table 2.2b: IPIP agreeableness subscale

Item	Reverse scored
I feel little concern for others.	✓
I am interested in people.	
I insult people.	✓
I sympathize with others' feelings.	
I am not interested in other people's problems.	✓
I have a soft heart.	
I am not really interested in others.	✓
I take time out for others.	
I feel others' emotions.	
I make people feel at ease.	

Table 2.2c: IPIP conscientiousness subscale

Item	Reverse scored
I am always prepared.	
I leave my belongings around.	✓
I pay attention to details.	
I make a mess of things.	✓
I get chores done right away.	
I often forget to put things back in their proper place.	✓
I like order.	
I shirk my duties.	✓
I follow a schedule.	
I am exacting in my work.	

Table 2.2d: IPIP neuroticism subscale

Item	Reverse scored
I get stressed out easily.	✓
I am relaxed most of the time.	
I worry about things.	✓
I seldom feel blue.	
I am easily disturbed.	✓
I get upset easily.	✓
I change my mood a lot.	✓
I have frequent mood swings.	✓
I get irritated easily.	✓

I often feel blue. ✓

Table 2.2e: IPIP openness subscale

Item	Reverse scored
I have a rich vocabulary.	
I have difficulty understanding abstract ideas.	✓
I have a vivid imagination.	
I am not interested in abstract ideas.	✓
I have excellent ideas.	
I do not have a good imagination.	✓
I am quick to understand things.	
I use difficult words.	
I spend time reflecting on things.	
I am full of ideas.	

2.1.3. Personality Disorder Traits

Personality traits measure the adaptive elements of personality whereas personality disorders measure maladaptive traits. Therefore both personality traits and disorders were measured in this research in order to provide a more rounded view of personality. For the purposes of this research, the term personality-disorder traits will be used as no diagnoses were made and a screening questionnaire was used. To measure the participants' propensity for personality-disorder traits, the International Personality Disorder Examination – Screening Questionnaire (IPDE-SQ: Loranger, Janca, & Sartorius, 1997) was employed. The IPDE-SQ is a 77-item self-report measure which screens for all

10 DSM-IV personality-disorder traits and aims to detect any of these maladaptive traits during the last five years. The 10 personality disorders that the IPDE-SQ measures are: paranoid, schizoid, schizotypal, histrionic, antisocial, narcissistic, borderline, compulsive, dependent and avoidant. The endorsement of three or more items on each scale indicates the potential presence of that personality disorder.

The IPDE-SQ was chosen for use in this research because it includes the full range of personality disorders, is suitable for use in over 18s (fitting the current demographic), and is quick to administer (less than 15 minutes completion time), which is useful when a number of other measures are also being used. It is an appropriate measure for use in the current exploratory research, which aimed to examine the role of maladaptive personality in men's and women's offending behaviour, and the results could be used as a basis for future research. Loranger et al., (1997) have established the reliability and validity of the IPDE-SQ in a field trial across 11 countries (Africa, Asia, Europe, and North America). They note that the IPDE is a "valid method of assessing personality disorders for research purposes" (Loranger et al., 1997, p. 128). Rossier, Rigozzi and PACRG (2008) confirmed the construct validity of the IPDE, as there were only small differences in internal reliabilities across cultures. IPDE-SQ scores have been found to correlate with the five-factor model of adaptive personality traits, and this relationship has been found to be stable across cultures (Rossier et al., 2008), providing further support for the reliability and validity of the measure. The IPDE has also been reported to have good test-retest reliability (median = .87) (Echeburúa & Fernández-Montalvo, 2008). The IPDE-SQ was therefore deemed an appropriate measure for assessing maladaptive personality alongside adaptive personality in the current sample.

Instructions to participants were *“The purpose of this questionnaire is to learn what type of person you have been during the past five years. Please do not skip any items. If you are not sure of an answer, select the one – TRUE or FALSE – which is more likely to be correct. There is no time limit, but do not spend too much time thinking about the answer to any single statement. When the answer is true, circle the letter T. when the answer is false, circle the letter F”*. Response options were either true or false. False was scored as 0, true was scored as 1, except for the 12 items that were reverse scored, which were scored as 0 true, 1 false. These are indicated in the tables below. The paranoid, schizoid and antisocial subscales each contained 7 items; therefore scores for these PD traits could range from 0 to 7. The histrionic, compulsive, dependent, and avoidant subscales each contained 8 items, therefore scores for these could range from 0 to 8. The schizotypal, narcissistic and borderline subscales each contained 9 items: therefore scores could range from 0 to 9. Tables 2.3a to j below show the items that correspond to each subscale along with their item number on the scale.

Vcdrg"405c/1<RF G/US "Tgo qxgf "hqt"Eqr {tki j vltgcuqpu+"

2.1.4. Attachment

The Relationship Questionnaire (RQ; Bartholomew & Horowitz, 1991) is a widely used self-report measure of adult attachment. The RQ was originally developed using a student sample, and was found to have very good validity (Bartholomew & Horowitz, 1991). Griffin and Bartholomew (1994) assessed the validity of the self and other models of adult attachment, and found evidence for good convergent validity with moderate correlations being found between self-reports, peer interviews and family interviews on both the self and other dimensions (average correlation = .43). The self and other model structure to attachment was also verified using confirmatory factor analysis, where the model was found to have a good fit with the data (AGFI = .88), indicating the reliability of the self and other dimensions. Research has also indicated that the RQ demonstrates moderately high levels of stability over an 8 month period, with r 's ranging from .72 to .96 for the four subscales (Sharfe & Bartholomew, 1994).

The RQ has been used extensively within research investigating attachment as a risk factor for IPV (e.g. Bookwala, 2002; Bookwala & Zdaniuk, 1998; Dumas et al., 2008; Dutton et al., 1994; Kesner & McKenry, 1998; Mauricio & Gormley, 2001), and would therefore also be appropriate to use in the current research. Therefore due to the established psychometric properties of this measure, the fact that it was developed and validated using a student sample, and that this measure has been used recently in similar research, the RQ was chosen to measure attachment in the current research.

The RQ consists of four paragraphs, each describing a different attachment style: secure, dismissing, preoccupied and fearful. The RQ was worded to measure a participant's attachment to their intimate partner and was also worded in the third person to measure their intimate partner's attachment to them. Bookwala (2002) states that a person's perception of their partner's attachment style may be more important than their partner's actual attachment style because it related to how the participant sees their partner and then their response to that. Participants were asked to read each of the four paragraphs and then rate the extent to which each paragraph described them and then their partner using a seven point scale (1 = not at all like me, 7 = very much like me). The questionnaire was scored to create two attachment dimensions for self and partner: attachment anxiety and attachment avoidance (as described and recommended by Griffin & Bartholomew, 1994).

Attachment anxiety was calculated by subtracting positive self models (secure plus dismissing) from negative self models (fearful plus preoccupied) (see Figure 2.1 for details). This was carried out so that the current results would correlate with the „anxiety“ dimension often referred to in the attachment literature. Attachment avoidance was calculated by subtracting positive other models scores (secure plus preoccupied) from negative other models scores (fearful plus dismissing). Negative scores are indicative of

lower levels of both attachment anxiety and attachment avoidance; positive scores indicate higher levels of attachment anxiety and avoidance. Table 2.4 shows the descriptions and the relationship styles they correspond to.

Table 2.4: Descriptions of the four adult relationship styles from the RQ

Relationship style	Description
Secure	It is easy for me to become emotionally close to others. I am comfortable depending on them and having them depend on me. I don't worry about being alone or having others not accept me.
Fearful	I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others.
Preoccupied	I want to be completely emotionally intimate with others, but I often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them.
Dismissing	I am comfortable without close emotional relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.

	Model of self	
	Positive	Negative
Positive	<i>Secure</i>	<i>Preoccupied</i>
Model of other		
	Negative	
	<i>Dismissing</i>	<i>Fearful</i>

Figure 2.1. Bartholomew's (1990) Model of Adult Attachment

2.1.5. Anger

Anger was measured using the anger subscale from the Aggression Questionnaire (AQ; Buss & Perry, 1992). The AQ is a widely used self-report measure of trait aggressiveness. Research has generally supported the psychometrically-sound properties of the AQ (e.g. O'Connor, Archer & Wu, 2001). The AQ was originally developed using a student sample, and the anger subscale was found to have very good internal consistency ($\alpha = 0.83$) (Buss & Perry, 1992). More recently, the AQ has been used to examine the relationship between trait aggression and acts of aggressive behaviour using a sample of university students (Archer & Webb, 2006). They found that the anger subscale had a medium positive correlation ($r = .45$) with direct aggressive acts towards partners and same-sex others for men and for women. Men were found to have the highest correlation for same-sex aggression and anger ($r = .58$ vs. $r = .42$), but women were found to have the highest correlation for IPV and anger ($r = .50$ vs. $r = .33$). Therefore due to its psychometric properties, and because it has been used in recent similar research with student populations, the AQ was chosen to measure anger in the current research.

Participants were required to read seven statements that have been used to describe how people behave when they feel angry, and then choose the response that best describes them. Responses were scored on a Likert scale from 1 (extremely uncharacteristic of me) to 5 (extremely characteristic of me). High scores represent higher levels of anger, and total scores could range from 7 to 35. Table 2.5 below shows the 7 items that comprise the anger subscale of the AQ.

Table 2.5. AQ anger subscale

Item	Reverse Scored
1. I flare up quickly but get over it quickly	
2. When frustrated I let my irritation show	
3. I sometimes feel like a powder keg ready to explode	
4. I am an even-tempered person	✓
5. Some of my friends think I'm a hothead	
6. Sometimes I fly off the handle for no good reason	
7. I have trouble controlling my temper	

2.1.6. Self-control

Self-control was measured using the Brief Self-Control Scale (BSCS; Tangney, Baumeister & Boone 2004). The BSCS is a trait measure of self-control that has good psychometric properties and was developed using a university student population. Tangney et al. (2004) developed a total self-control scale and also the brief version of the same scale, with both scales measuring the same dimensions and including items pertaining to five factors, which were: (1) Self-Discipline, (2) Deliberate/Nonimpulsive action, (3) Healthy

Habits, (4) Work Ethic, and (5) Reliability. These five factors were produced by principal components factor analysis with varimax rotation. The BSCS was found to be highly correlated with the total self-control scale: correlations were .93 and .92 for Studies 1 and 2 respectively. Tangney et al. (2004) found good internal reliability of the BSCS across two studies with alphas of .83 and .85 in Studies 1 and 2 respectively. Test-retest reliability was assessed using 233 students from the second study by asking them to complete the measure again after a three week interval, and was found to be high ($r = .87$). Tangney et al. (2004) found that the BSCS correlated with attachment, anger, personality pathology and physical aggression: therefore the BSCS would be a very valuable measure for use in the current research as it would be used alongside these variables. These findings, coupled with the good psychometric properties of the measure, resulted in the decision that the BSCS was an appropriate measure to use in the current research.

Instructions to participants were to read each of the 13 statements and *“using the scale provided, please indicate how much each of the following statements reflects how you typically are”*. Responses were scored on a 5-point Likert scale from 1 (not at all) to 5 (very much). Table 2.6 below shows the 13 items that comprise the BSCS, and indicates the 9 items that are reverse scored.

Table 2.6 BSCS items

Item	Reverse scored
I am good at resisting temptation.	
I have a hard time breaking bad habits.	✓
I am lazy.	✓
I say inappropriate things.	✓
I do certain things that are bad for me, if they are fun.	✓

- I refuse things that are bad for me.
- I wish I had more self-discipline. ✓
- People would say that I have iron self- discipline.
- Pleasure and fun sometimes keep me from getting work done. ✓
- I have trouble concentrating. ✓
- I am able to work effectively toward long-term goals.
- Sometimes I can't stop myself from doing something, ✓
even if I know it is wrong.
- I often act without thinking through all the alternatives. ✓

2.1.7. Psychopathic Traits

The most commonly used measure to assess psychopathy in forensic samples is the Psychopathy Checklist-Revised (PCL-R; Hare, 1991). The PCL-R is usually conducted by a clinician using information from the client's institutional file in conjunction with a semi-structured interview. However, the gathering information from the file aspect of the PCL-R is an element of the methodology that cannot be transferred to research using general population samples as there are no files to examine. The lack of a self-report measure suitable for use in a general population sample led Frick and Hare (2001) to develop the Antisocial Process Screening Device (APSD) to assess the same content as the PCL-R to measure psychopathic traits in non-referred youths.

The APSD was originally designed for parent and teacher ratings, but was adapted into a self-report measure. However, there are limitations with the APSD. Andershed et al. (2002) have noted that because the APSD was originally designed as a measure for parents or teachers, "the items are straightforward measures of traits that are obviously negative,

and this will likely increase response biases” (p. 133). Andershed et al. (2002) also note that the APSD content is limited because there is only one item to assess each psychopathic trait. Therefore conducting analyses at the trait level may be unreliable. Furthermore, research has indicated that internal consistency for the callous-unemotional subscale on the self-report version is poor (Loney, Frick, Clements, Ellis & Kerlin, 2003; Pardini, Lochman & Frick, 2003; Poythress, Dembo, Wareham & Greenbaum, 2006; Munoz & Frick, 2007).

In view of these problems, Andershed et al. (2002) developed the Youth Psychopathic Traits Inventory (YPI). When designing their questionnaire, Andershed et al. (2002) considered the wording of their questions in order to minimise the temptation to lie. The items were worded so that the traits being measured would be perceived as positive by a person with psychopathic traits: for example, “I usually feel calm when other people are scared”. Items were also carefully worded so that they were portrayed as an ability rather than a deficit, because people with psychopathic traits would not want to feel that they lacked what others have: for example “I don’t let my feelings affect me as much as other people’s feelings seem to affect them” (Andershed et al., 2002).

The YPI is a 50-item self-report measure of psychopathic personality traits designed for use in a non-referred or general population sample aged 12 and above. The YPI was designed to measure 10 core personality traits associated with psychopathy, and each was measured with five items to enable analysis at the trait level. The questionnaire was developed using a school student sample. It is suitable for both males and females, as the factor analysis indicated a clear three factor solution for both sexes, and then a confirmatory factor analysis revealed that the three-factor solution was an acceptable fit in both sexes (GFI = .98, CFI = .98, NNFI = .98). The YPI has been found to be both reliable and valid. Andershed et al. (2002) reported the reliability of each subscale and most were

acceptable or good (Dishonest Charm: $\alpha = .82$; Grandiosity: $\alpha = .72$; Lying: $\alpha = .81$; Manipulation: $\alpha = .80$; Impulsivity: $\alpha = .71$; Thrill-seeking: $\alpha = .74$; Irresponsibility: $\alpha = .73$), those that were just below the recommended value of $\alpha < 0.7$ were the three affect subscales but they were approaching .7 (Callousness: $\alpha = .67$; Unemotionality: $\alpha = .66$; Remorselessness: $\alpha = .68$).

Recent research has used the YPI in a university student sample. Campbell, Doucette and French (2009) concluded that it had relatively high temporal stability, and validity, extending the validity from adolescents. Peace and Sinclair (2012) have also successfully used the YPI in an undergraduate sample. Therefore it is a psychometrically sound measure of psychopathic personality traits suitable for use in non-clinical and non-institutional sample, such as the present mixed-sex student population.

Participants were asked to read 50 statements that deal with what people think and feel about different things, and then decide how well the particular statement applies to them. There were four response options for each statement scored on a scale from 1-4: 1 = „does not apply at all“, 2 = „does not apply well“, 3 = „applies fairly well“, 4 = „applies very well“. Participants were asked to answer each statement according to how they most often feel and think, and not how they only felt right then, and also not to think too long on each statement. The 50 statements comprised 10 subscales each with five items. The subscales could also be combined into three factors: grandiose manipulative (or narcissistic), callous-unemotional and impulsive/irresponsible, which was the method employed by the current research. The three factors and their corresponding subscales and items are listed in Tables 2.7a to c.

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2.2. Ethical considerations

All research activity was undertaken with the consideration of professional ethics and ethical responsibilities, to meet the standards of the British Psychological Society. Ethical clearance was gained for all studies from the University of Central Lancashire School of Psychology Ethics Committee. In order to comply with ethical guidelines, a number of issues were addressed. Informed consent was obtained from all participants prior to them engaging in the research. In order to give informed consent, participants were provided with information regarding the general area of research on the front sheet of the questionnaire. Consent was provided verbally in order to avoid collecting participant's names, which preserves anonymity with the data relating to offending behaviour and minimises socially desirable responding. Participants were asked to read the coversheet and ask any questions or seek clarification, and then make the decision whether to take part in the study or not. Participants were considered as having consented to take part by returning the questionnaire.

The front cover sheet provided information to participants including details of their right to withdraw from the research and also how confidentiality and anonymity would be maintained. Participants were told that they could withdraw from the study at any time prior to submitting their completed questionnaire by not returning it. However, once

submitted, withdrawal would not be possible due to the anonymity of the questionnaire. Participants were informed that their participation in the research was entirely voluntary and that no identifying data would be linked to their submission (i.e. their name). Therefore their responses were completely anonymous. They were also told that all responses would remain confidential, as no individual data would be identified and only group data would be used in publications or presentations. Participants were also advised to be mindful of their surroundings whilst completing the questionnaire, to make sure no one could see what they were writing, as they may not want to share their answers with anyone.

Participants were given a detachable information sheet as part of their debriefing and this contained the purposes of the research, researcher contact details and sources of support. Researcher contact details were provided so that participants could contact the researcher for further information regarding the study or for details of the overall findings. Details of helplines and support services were provided should participants have been affected by the content of the questionnaires. Participants in Studies 2 and 3 were asked to return completed questionnaires to a secure locked metal mailbox in the university to which only the researcher had access, further assuring anonymity of the responses.

The research for Study 1 was conducted online and therefore additional ethical considerations were necessary and are detailed here. Cache clearance was considered so that the web history could not be viewed by future users of the PC to ensure that the participant was not endangered by taking part in a study that related to IPV. Participants were able to leave the study at any time and at any point they left they were diverted to a screen that contained details of helplines and support services should they have been affected by the content of the questionnaires. Participants were provided with a printable debrief information sheet.

Questionnaire content avoided using terms such as „domestic violence“ or „partner violence“ in order to minimise socially desirable responses which may occur if these terms were applied to these behaviours. Instead, so that participants remained fully informed regarding the content, and in order to avoid potentially causing distress to the participants, they were told that the study contained questions of a sensitive nature, which relate to subjects that people may find distressing. They were informed that they would be asked to respond to questions regarding their own behaviour or behaviour of others that has affected them, and that some of these are extremely violent and/ or sexual criminal offences, as well as drug, criminal and antisocial behaviour.

2.3. Sampling

The current research employed two sampling methods: an online sample (study 1) and a traditional pencil and paper sample (all other studies). An online sample was chosen for study 1 in response to a request from the Ethics Committee to increase the anonymity of the participants taking part, due to the serious nature of some of the items on the questionnaire (e.g. Involved in illegal political acts, Helped suicide). Such items were found to have low base rates and were therefore excluded from further studies, and so traditional samples were used for all remaining studies.

For the online sample, a link to the webpage was emailed to Psychology students (predominantly first year students), and was also advertised to University staff and students on other courses using the University electronic newsletter and University plasma screens located in various venues around campus, e.g. Canteens, reception areas, library. The link was also placed on research websites (e.g. the Online Psychology Research website). For the pencil and paper samples, participants were recruited on campus from open access

computer rooms, the university library and from large lectures. Participants were from a variety of courses, including Psychology.

There have been a number of criticisms associated with the use of online samples versus using traditional sampling methods, such as online samples not being as representative as traditional samples. For example, online participants need to be technologically proficient, and tend to be young, educated, white, middle class males (Hewson, 2003). But some studies have suggested that whereas traditional samples tend to comprise mainly female participants, online samples tend to be more balanced (e.g. Buchanan & Smith, 1999; Smith & Leigh, 1997). Therefore it may be that the growth of the internet population is increasing its representativeness (Hewson, 2003). Hewson (2003, p. 291) states that “that an internet sample could usefully complement a traditional sample by redressing the gender bias”.

Further criticisms of online research are that it may be more difficult to verify the identity of participants (Kraut, Olson, Banaji, Bruckman, Cohen & Couper, 2004) with online than traditional research. Also, researchers have less control over the circumstances under which data are collected. For example it may not be known whether participants are intoxicated with drugs or alcohol, or are distracted during participation, and factors such as these may affect the validity of the data (Hewson, 2003). However it can be argued that these factors may also be true for paper, postal and telephone samples which can share similar problems. Hewson (2003, p. 293) states that “level of trust of participants on the part of the researcher will always be required” whatever sampling method is used.

Online research can also have its advantages, such as allowing researchers to gather large quantities of data economically, reducing the likelihood of data entry errors, and reducing the timescale of research (Hewson, 2003). Additional benefits are that participants

may be more honest in online research (Joinson, 2001) and social desirability bias may also be reduced (Joinson, 1999) due to there not being a direct researcher presence. Furthermore, Kraut et al., (2004) state that online research is no riskier than traditional research methods.

CHAPTER 3

STUDY ONE:

Prevalence of women's violent and nonviolent offending: A comparison of self-reports, victims' reports and third- party reports.

The results from this Chapter are in press: Thornton, A. J. V., Graham-Kevan, N., & Archer, J. (in press). Prevalence of women's violent and nonviolent offending behaviour: A comparison of self-reports, victims' reports and third- party reports. *Journal of Interpersonal violence.*

3.1. Brief introduction and aims

Violent and nonviolent offending is traditionally considered to be male-dominated, and this is borne out by self-reports, informant reports and officially recorded statistics (Moffitt et al., 2001; Steffensmeier & Allan, 1996). Men are reported to commit significantly more theft and drug-related offences than women, and to be significantly more violent than women outside the home, at every age (Moffitt et al., 2001; Archer, 2004). As a result of this sex difference, research on delinquency and violence has focused mainly on male and criminal samples, making it difficult to assess female criminality. To add to the emerging literature in this area, we investigate the prevalence of women's violent and nonviolent offending behaviour and compare across sources of data (self-reports, victims' reports and third- party reports) in order to capture the full range of female offending behaviour.

Although men perpetrate more antisocial behaviour and violence outside their relationships than women do, women are still found to engage in a significant amount of violent as well as nonviolent offending behaviour (e.g. Ministry of Justice, 2007; US Department of Justice, 2009; George, 1999), including extremely violent crimes (e.g. Fox & Levin, 2005; Rodge, Hougen & Poulsen, 2000). Family conflict research over the last 40 years has consistently indicated that women perpetrate violence towards their intimate partners (Straus, 2007) at equal or higher rates than men, which contrasts with the pattern of men being more physically aggressive than women for same-sex conflicts (Archer, 2009).

General violence, IPV and nonviolent offending behaviour are usually researched independently, but there is some research evidence which suggests that these different offences co-occur in both men and women (Busch & Rosenberg, 2004; Farrington et al., 2006; Gottfredson & Hirschi, 2007; Moffitt et al., 2000; Straus & Ramirez, 2004). These interrelationships highlight the need for investigating the offences together. Further evidence for the overlap in offending comes from research that has suggested that risk factors for aggressive and antisocial behaviour are shared by both boys and girls (Broidy et al., 2003; Côté, et al., 2002; Moffitt et al., 2001), and both general aggression and partner aggression in men and women share the same predictors (Moffitt, et al., 2000; Tremblay et al., 2004). These shared risk factors suggest that violent and nonviolent offending may be developmentally similar and are likely to be interrelated.

Previous research examining the overlap in offending has been limited by the use of brief measures (e.g. Straus & Ramirez, 2004) or by not separating general violence and nonviolent offending (e.g. Moffitt et al., 2000). Furthermore, because there is currently no existing measure which assesses all three offences, all previous research has had to use

different measures with different response formats to assess general violence, IPV and nonviolent offending. This use of different measures hinders comparisons. The current study extends previous research by analysing the three offence categories as three separate domains, using the same measure with the same response format.

Sources of data

Research into offending behaviour frequently relies on self-report data, which although valuable can be subject to social desirability bias. Participants reporting about themselves may underreport their involvement in violent and nonviolent offences as a result of wanting to respond in a socially desirable manner. Using additional sources of data, such as victim reports and third-party reports, may provide more accurate prevalence rates for women's perpetration of offences. Third-party data has previously been used widely in research and in a variety of settings, although the current research is unique in using third-party reports in the current setting. Moffitt et al. (2001) used reports from parents, teachers and informants, as well as self-reports, to measure physical aggression in male and female participants of different ages. Third-party and partner reports have also been used alongside self-reports in partner violence research (Cui, Lorenz, Conger, Melby & Bryant, 2005) to examine discrepancies in reporting hostile behaviour within relationships. Using third-party data to report on the behaviour of others, as well as self-reports of participants' own behaviour, may result in a more accurate account of women's involvement in offending behaviour. Therefore the current study employed three types of data on women's offending, from two sources: self-reports (women only), victim reports (men only) and third-party reports (men and women).

The aim of the current chapter was threefold: (1) to investigate a sample of unselected women's involvement in violent and nonviolent offences, using the three types

of data; (2) using women's self-reports only, to investigate the interrelationships between the different types of offending.

3.2. Method

3.2.1. Participants

Participants were a convenience sample, recruited online at the University of Central Lancashire, Preston, in the UK. There were 344 participants, 60 men and 284 women. Age ranged from 18 years to 68 years with a mean of 25.8 years. The response rate was 75.3%, and was calculated using a statcounter, which identified the number of people on the homepage and the number of people on the end page. There were 497 people who visited the homepage and 374 of those submitted the questionnaire. Of those, 344 were retained for analysis: 30 were removed either due to missing data or respondents not being involved in a heterosexual relationship. Some data from homosexual participants was collected, but the response rates were very low, and due to the findings from previous research regarding higher rates of violence in these samples (e.g. Dutton, 1994a; Landolt & Dutton, 1997), these data were not included in the analysis.

3.2.2. Measures

See Chapter 2 section 2.1.1. for details.

The Nonviolent and Violent Offending Behaviour Scale (NVOBS) consisted of 119 items designed to measure perpetration of general violence, IPV and nonviolent offending. Kuder-Richardson Formula 20 (KR-20) was used to assess the internal reliability for the subscales as the measure is dichotomous. Reliability values for women's self-reports were: general violence = .84; IPV = .89; sexual offences = .78; robbery offences = .84; drug

offences = .80; offence against vehicles = .68; other thefts = .67; fraud and forgery = .78; criminal damage = .69; other-offence items = .67.

3.2.3. Procedure

A web link was emailed to students at a British university, and was placed on research websites alerting potential respondents to the online questionnaire. Here the questionnaire content was explained along with eligibility criteria (aged 18 years or older). Participants who consented were then directed to the questionnaire. The study was approved by the University of Central Lancashire Ethics Committee. Please see section 2.2 *Ethical considerations* for full details regarding the procedure and ethical issues.

3.3. Results

3.3.1. Data screening

Prior to analysis, the data was screened for accuracy, missing data, outliers and normality (Tabachnick & Fidell, 2007). For each variable outliers were reduced, so that the most extreme scores were recoded to be the equivalent value to the next most extreme score. For the variety scores, reducing outliers resulted in sexual offences, robbery, offences against vehicles, fraud and forgery, and criminal damage offence categories being converted into categorical variables on a 0/1 scale. To control for multiple comparisons the alpha level was set at .01 throughout.

3.3.2 Statistical analysis

Prevalence of women's offending: agreement between respondents

Offences were grouped into themes using Home Office categories of police-recorded crime. A prevalence score indicates whether one or more items in a scale were endorsed by respondents, and it was calculated for each offence category according to

whether men or women had reported „yes“ to one or more items (= 1), or „no“ to all items in that category (= 0), creating dichotomous variables. Prevalence figures do not allow differentiation between how often or how many behaviours were used. Women’s self-reports could involve male or female victims (except for IPV which only includes heterosexual relationships, so that victims could only be male). Men only reported victimisation from women. Table 3.1 shows the number and percentages of „yes“ responses as a function of offence type and data source. Sex differences in prevalence figures for each of the offence categories were analysed for each data source using a series of 2 x 2 χ^2 .

Table 3.1. Number and percentages of women's prevalence for each offence type by data source (N = 60 men, 284 women), with χ^2 for sex differences within data sources.

Offence category	Prevalence by data source					
	Men (victim reports)	Women (self-reports)	χ^2 (1)	Men (third-party)	Women (third-party)	χ^2 (1)
	Yes	Yes		Yes	Yes	
General violence	30 (50%)	170 (59.9%)	1.98	47 (78.3%)	194 (68.3%)	2.37
IPV	41 (68.3%)	165 (58.1%)	2.16	28 (46.7%)	153 (53.9%)	1.03
Sexual offences	13 (21.7%)	15 (5.3%)	17.79**	23 (38.3%)	54 (19%)	10.64*
Robbery	23 (38.3%)	50 (17.6%)	12.73*	21 (35%)	86 (30.3%)	0.52
Drug offences	--	133 (46.8%)	--	--	--	--
Offences against vehicles	15 (25%)	44 (15.5%)	3.15	17 (28.3%)	54 (19%)	2.63
Other thefts	21 (35%)	154 (54.2%)	7.33*	33 (55%)	157 (55.3%)	0.002
Fraud and forgery	14 (23.3%)	45 (15.8%)	1.96	24 (40%)	91 (32%)	1.41
Criminal damage	24 (40%)	68 (23.9%)	6.52	28 (46.7%)	113 (39.8%)	0.97
All other offences	20 (33.3%)	215 (75.7%)	41.08**	54 (90%)	184 (64.8%)	14.77**
Nonviolent offences	37 (61.7%)	243 (85.6%)	18.68**	57 (95%)	223 (78.5%)	8.88*

-- Omitted as some drug offences are victimless crimes

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

The levels of women's prevalence shown in Table 3.1 are generally high, and this is consistent across all four data sources. Women's prevalence for general violence ranges from 50% to 78.3%, and for IPV ranges from 46.7% to 68.3%. The total nonviolent offences indicate the highest prevalence rates and range from 61.7% to 95%. Although women were reporting their own behaviour towards both men and women, whereas men were reporting their victimisation experiences from women only, there was a degree of similarity between men's and women's reports of women's prevalence rates.

There was no significant difference between men's and women's reported prevalence of women's general violence, IPV, offences against vehicles, fraud and forgery, or criminal damage, although criminal damage was on the borderline of the adjusted significance level. See Table 3.1 for values.

There was a significant difference between men's and women's reports of women's prevalence for other thefts and all other offences: more women reported perpetrating these offences than men reported being victims of them. There was a significant difference between men's and women's reports of women's prevalence for sexual offences and robbery: men reported being victims of these offences more than women reported perpetrating them. See Table 3.1 for values.

Both men and women also reported as informants witnessing the behaviour of women, and these reports could refer to several different women. Again there was good agreement between men's and women's third-party ratings of prevalence rates. There were no significant differences between men's and women's reports of the following: general violence, IPV, robbery, offences against vehicles, other thefts, fraud and forgery or criminal damage. There was a significant difference between men's and women's third-party reported prevalence of sexual offences and all other offences with men reporting more of

these offences for other women than women did. See Table 3.1 for values. The prevalence of drug offences was omitted from the analyses because for some drug offences there is no immediate victim, rendering the comparison meaningless.

Comparing report type on occurrence of women's offending

Variety scores were calculated by summing the „yes“ responses for each item to create a scale of the variety of offences perpetrated for each category. The mean scores and standard deviations for each offence category are presented by sex for perpetrator and victim self-reports in Table 3.2 and by sex for third-party reports regarding other women in Table 3.3. In most cases, the data are overdispersed, i.e. the variance is greater than the mean. This is typically caused by a large proportion of zero values followed by a tail of other values. To accommodate this non-normal distribution, a series of negative binomial regressions (Gardner, Mulvey & Shaw, 1995; Hilbe, 2007; Hutchinson & Holtman, 2005) were used to analyse sex differences in the variety scores for the offence categories for each data source. The offence categories were the criterion variables and sex was dummy coded as the predictor variable, in order to compare men's and women's responses.

Women were reporting on their own behaviour (which could be towards men or women) whereas men were reporting all their victimisation experiences from women only (which could include several sources). The negative binomial regressions revealed some sex differences between men's and women's variety scores (Table 3.2). This does not reflect differences between two individuals experiencing the same acts, but instead refers to overall levels of personal experience. The scores for men's drug offences were omitted from the analysis, for the reason given before. The Goodness of Fit statistics were satisfactory as the Pearson Chi-Square value should be near 1 (general violence: Value/df =

0.87; IPV: Value/df = 0.74; sexual offences: Value/df = 0.93; robbery: Value/df = 0.72; offences against vehicles: Value/df = 0.92; other thefts: Value/df = 1.08; fraud and forgery: Value/df = 0.84; criminal damage: Value/df = 0.85; all other offences: Value/df = 1.04; total nonviolent offences: Value/df = 0.94).

There were no significant differences between men's and women's scores for general violence or fraud and forgery. There was a significant sex difference for IPV, sexual offences, robbery, offences against vehicles and criminal damage: men reported being victims of these offences more than women reported perpetrating them. There was also a significant sex difference for other thefts, all other offences, and nonviolent offences overall where women self-reported more perpetration of these offences than men reported being victims of them. All these differences involved a medium-sized effect according to Cohen's (1988) criteria, with the exceptions of robbery, other thefts and all other offences, which indicated large effect sizes. Overall, the levels were the highest for IPV, followed by general violence, although all other means were generally quite low.

Table 3.2. Means and standard deviations for variety scores of offences within each offence category, for men's victimisation and women's perpetration self-reports (N = 60 men, 284 women), and Wald χ^2 and d values for sex differences.

Offence Category	Men		Women		Wald χ^2 (1)	d ^a
	Mean	SD	Mean	SD		
General violence	1.40	1.81	1.73	2.21	1.15	-0.16
IPV	4.03	4.93	2.05	2.54	18.81**	0.51
Sexual offences♦	0.22	0.42	0.05	0.22	13.88**	0.51
Robbery♦	1.32	2.05	0.20	0.40	61.41**	0.76
Drug offences	--	--	0.82	1.07	--	--
Offences against vehicles♦	0.40	0.74	0.15	0.36	13.45**	0.43
Other thefts	0.18	0.39	0.88	1.02	25.84**	-0.91
Fraud and forgery♦	0.23	0.43	0.16	0.37	1.60	0.17
Criminal damage♦	0.63	0.88	0.24	0.43	23.07**	0.56
All other offences	0.60	1.00	1.51	1.30	25.88**	-0.79
Non-violent offences	2.18	2.84	3.76	3.31	13.27**	-0.51

^a Minus sign indicates that women's values are higher than men's.

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

-- omitted as men could not be the victim of some drug offences.

Note. ♦ indicates a dichotomous variable (range 0 to 1) – for robbery, offences against vehicles and criminal damage this refers only to women's self-reports.

Table 3.3. Means and standard deviations for variety scores of offences within each offence category, for men's and women's third-party reports (N = 60 men, 284 women), and Wald χ^2 and d values for sex differences.

Offence Category	Men		Women		Wald χ^2 (1)	d
	Mean	S.D.	Mean	S.D.		
General violence	4.28	4.27	2.77	3.05	6.86*	0.41
IPV	3.22	4.63	2.04	2.69	3.94	0.31
Sexual offences♦	0.70	1.13	0.19	0.39	39.53**	0.60
Robbery	1.38	2.08	0.75	1.17	5.83	0.37
Drug offences	3.40	3.72	2.32	2.89	5.44	0.32
Offences against vehicles♦	0.63	1.10	0.19	0.39	24.24**	0.53
Other thefts	2.33	2.83	1.33	1.74	8.04*	0.43
Fraud and forgery	1.40	2.21	0.56	0.93	14.50**	0.50
Criminal damage	1.27	1.98	1.07	1.70	0.45	0.11
All other offences	3.60	2.68	1.98	2.13	17.17**	0.67
Non-violent offences	12.63	11.72	7.45	7.70	10.46*	0.52

* $p < .01$, ** $p < .001$.

-- Omitted as some drug offences are victimless crimes

Note. ♦ indicates a dichotomous variable (range 0 to 1) for women's reports only

The means in Table 3.3 are larger than those reported in Table 3.2. Table 3.3 shows that there were significant sex differences in third party report scores for general violence, sexual offences, offences against vehicles, other thefts, fraud and forgery, all other offences, and nonviolent offences overall, with men reporting that women perpetrated more of these offences than did women. All these differences involved medium to large effect sizes according to Cohen's (1988) criteria. For IPV, robbery, drug offences, and criminal

damage the effect sizes were smaller ($d \leq .3$), and there were no significant differences between men's and women's third party report scores for these variables. Again, the Pearson Chi-Square Goodness of Fit statistics were satisfactory (general violence: Value/df = 0.81; IPV: Value/df = 0.67; sexual offences: Value/df = 0.98; robbery: Value/df = 0.68; drug offences: Value/df = 0.93; offences against vehicles: Value/df = 0.82; other thefts: Value/df = 0.78; fraud and forgery: Value/df = 0.77; criminal damage: Value/df = 0.78; all other offences: Value/df = 0.88; nonviolent offences: Value/df = 0.76).

Using women's self-reports to explore the interrelatedness of women's offending

Table 3.4 shows the correlations between the variety scores of offence types for women's self-reports, in order to address the question of how specific or general is women's offending. This is of course relevant to the issue of interrelatedness of offending introduced in the Introduction. Pearson correlations were calculated between scores where both variables are continuous, point-biserial correlations were calculated where one variable was continuous and the other was dichotomous, and phi was conducted where both variables were dichotomous (Howell, 2011). There were moderate, positive significant relationships between most offence categories, suggesting that women who commit one type of offending also tend to be involved in the commission of other types. Of particular interest, there was a moderate, positive, highly significant relationship between women's general violence and their IPV. Both general violence and IPV were positively correlated with nonviolent offences, including offences against vehicles, other thefts, criminal damage and all other offences. Overall, the correlational results indicate that violent and nonviolent offending is interrelated. There was no evidence of multicollinearity as there were no correlations above .7.

Table 3.4. Pearson, point biserial and phi correlations between offence categories for women's self-reports (N = 284 women).

	IPV	Sexual	Robbery	Drug	Vehicles	Other thefts	Fraud/forgery	Criminal damage	All
	others								
General violence	.43**	.17*	.31**	.24**	.35**	.24**	.22*	.41**	.38**
IPV	-	.14	.12	.35**	.21**	.20*	.21**	.18*	.30**
Sexual offences♦		-	.20*	.14	.20*	.23*	.16*	.16*	.28**
Robbery♦			-	.35**	.35**	.49**	.42**	.32**	.42**
Drug offences				-	.27**	.42**	.35**	.33**	.50**
Offences against vehicles♦					-	.27**	.16*	.26**	.46**
Other thefts						-	.38**	.38**	.52**
Fraud and forgery♦							-	.14	.32**
Criminal damage♦								-	.45**

* significant at the .01 level; ** significant at the .001 level

Note. ♦ indicates a dichotomous variable (range 0 to 1)

Negative binomial regression

In order to follow up the correlations between self-reports of different types of offences, we need to first consider the distribution of the values. It is apparent from Table 3.1 that for most variables, a majority of participants report zero scores. Even the two categories of principal interest, general violence and IPV, have over 40% of participants recording a zero score. This sort of distribution is typically found in studies of IPV using the Conflict Tactics Scale and similar measures (Straus, 1979; Straus et al., 1996). The preferred method for such data sets, which are truncated at zero, highly skewed in the positive direction, and overdispersed (variance is higher than the corresponding mean), is negative binomial regression (Gardner, Mulvey & Shaw, 1995; Hilbe, 2007; Hutchinson & Holtman, 2005). This has been used in recent studies of IPV (e.g., Archer et al., 2010; Finkel, DeWall, Slotter, Oaten, & Foshee, 2009; Hines & Saudino, 2008), and was used in the present case to analyse the association between, first general violence, and second IPV, and the other variables for women's self-reports.

Table 3.5 shows the results of a negative binomial regression with general aggression as the criterion and the other categories of offence as predictors. The Pearson Chi-Square Goodness of Fit statistic was satisfactory (Value/df = 1.12). Two variables were significant predictors of general violence: criminal damage and IPV. Table 3.6 shows a similar analysis using IPV as the criterion variable. The Goodness of Fit statistic was again satisfactory (Value/df = 1.04). General violence and drug offences were the only two significant predictors of IPV. These analyses confirm the close association between violence to partners and other forms of violence. They also suggest that violence to partners or to others have some specific predictors, drug offences in the case of IPV and criminal damage for violence to people who were not partners.

Table 3.5. Negative Binomial Regression of the other categories of offending behaviour onto self-reported general violence

Parameter	df	B	SE	Wald 95% CI		Wald χ^2	<i>p</i> -value
Intercept	1	1.440	.429	.599	2.28	11.28	<.001
IPV	1	.145	.026	.094	.196	31.45	<.0001
Criminal damage♦	1	.675	.163	.355	.995	17.14	<.0001
Vehicle offences♦	1	.422	.183	.064	.781	5.32	.021
Robbery♦	1	.444	.188	.076	.813	5.59	.018
Drug offences	1	-.125	.075	-.272	.022	2.79	.095
Other thefts	1	-.080	.084	-.245	.084	.91	.34
Other offences	1	.078	.068	-.056	.212	1.30	.25
Fraud/forgery♦	1	.136	.191	-.238	.511	.51	.48
Sex offences♦	1	.018	.274	-.520	.555	.004	.95

Note. ♦ indicates a dichotomous variable (range 0 to 1)

Table 3.6. Negative Binomial Regression of the other categories of offending behaviour onto self-reported IPV

Parameter	df	B	SE	Wald 95% CI		Wald χ^2	<i>p</i> -value
Intercept	1	-.314	.551	-1.39	.766	.325	.57
General violence	1	.170	.037	.097	.243	20.77	<.0001
Drug offences	1	.237	.079	.082	.392	9.03	.003
Robbery♦	1	-.383	.233	-.841	.074	2.70	.10
Criminal damage♦	1	-.309	.214	-.728	.110	2.10	.15
Other offences	1	.083	.078	-.070	.235	1.13	.29
Other thefts	1	.085	.095	-.101	.272	.80	.37
Fraud/forgery♦	1	.204	.231	-.248	.657	.78	.38
Sex offences♦	1	-.156	.329	-.489	.800	.22	.64
Vehicle offences♦	1	.049	.232	-.405	.504	.05	.83

Note. ♦ indicates a dichotomous variable (range 0 to 1)

3.4. Interim discussion

Women's prevalence of violent and nonviolent offending was assessed using self-reports from women, victim reports from men, and men's and women's third-party reports. The prevalence data suggested that women were involved in all types of offending behaviour, and this involvement was supported to a similar extent by different data sources. The variety data indicated that women were involved in a range of offences. Variety scores were highest for IPV and general violence from self and victim reports, and were highest for general violence, IPV, other thefts and all other offences from third party reports. Variety data were calculated for all categories: however, five categories were converted to binary variables following data screening. Overall, the results across data sources indicate that women are involved in both violent and nonviolent offences. Although third party reports have been used in aggression (Moffitt et al., 2001) and IPV (Cui et al., 2005) the present research is unique in using third-party reports when examining violent and non-violent offending, and it allows the full range of women's offending to be researched.

The intercorrelations between offence types for self-reports indicated the co-occurrence of different offences, and suggested that the same women were likely to be violent towards partners as well as towards others, and that violent women were also more likely to be involved in nonviolent offences, including thefts, offences against vehicles, and criminal damage. This interrelatedness of violent and nonviolent offending provides broad support for the General Theory of Crime (Gottfredson & Hirschi, 1990). However, although the overlap is good it is not 100%. Therefore the General Theory of Crime cannot be the whole answer because there are still some people who will engage in one type of crime but not others. This means that other factors may be involved, and so studies 3 and 4 will investigate the correlates of violent and nonviolent offending. The results also suggest

that IPV is not necessarily a specialist form of violence as some women engaged in both IPV and general violence. This supports Felson's (2002) theory that "violence is violence, regardless of the target" (p. 5) and therefore IPV should be researched under the umbrella of violence rather than gender.

Generally, there were few differences in prevalence estimates between women's self-reports and men's victim reports, and few differences between men's and women's third-party reports, indicating a good level of similarity between reports. Self and victim reports were similar for general violence and for IPV. Women reported perpetrating these offences to a similar extent as men reported being victims of the offences. Over 50% of men and women in the sample reported female perpetration of violent offences. The third-party prevalence rates for general violence and IPV were also similar when reported by men and women: approximately 50% reported female perpetration of IPV and approximately 70% reported women's involvement in general violence. These findings support previous research that has suggested that women can be violent towards intimate partners as well as outside their intimate relationship (e.g. Moffitt et al., 2001).

The only differences between self and victim reports for women's prevalence of offences were for the categories other thefts, all other offences, robbery and sexual offences. For thefts and all other offences, women reported more perpetration than men reported victimisation. For some of the offences in these categories (e.g. attempted to steal or stole £5-50, made obscene phonecalls), the male victims may not be aware of the identity of the perpetrator, whereas the women would always be aware of the offences they had committed: this would explain why women's self-reports were higher than men's victim reports. Men reported more victimisation from robbery than women reported perpetration. The perpetrators of these actions may be outside the current sample of

women, since female-to-male robberies tend to involve the use of weapons (Brookman, Mullins, Bennett & Wright, 2007), and such women may be at the extreme end of the distribution of female criminal behaviour.

For sexual offences, men reported more victimisation than women reported perpetration: this could be a result of biased self-reporting, where perpetrators underreport their involvement in sexual offences due to it being socially disapproved, or as a result of feeling ashamed (Fergusson & Mullen, 1999). Again, it could be because the perpetrators of these actions were outside the current sample. The rates were very low, however, so the finding should be treated with caution. Hines and Douglas (2010) used a help-seeking and a community sample of men, asking them to report their own as well as their female partner's perpetration of aggressive behaviour using the revised Conflict Tactics Scales (CTS2: Straus et al., 1996). These reports included data on sexual aggression. Men in the help-seeking sample reported that their female partners used sexual aggression (i.e. insisting on sex) at significantly higher rates than they did. In the community sample reports, results indicated that the men and their female partners engaged in similar levels of sexual aggression (i.e. insisting on sex). Therefore both the current study and that of Hines and Douglas (2010) confirm the occurrence of female sexual aggression towards male partners when using inclusive measures of aggression such as the CTS2.

The only sex differences in third-party reports of women's offending prevalence were for sexual offences and all other offences. Men reported more female involvement in sexual offences than women did. A discussion with an expert on sexual aggression (M. Davies, personal communication, October 2, 2009), suggested examining these offences at the item level, as it was suggested that the items "showing genitals in public" and "prostitution" may be responsible for the differences. This was the case. Men reported

knowing of a woman who showed her genitals in public or was being paid for sex more than women did. It is reasonable to expect that this significant effect was the result of men being more likely to witness female sex workers than women are, because more men than women access red-light districts and lap-dancing clubs.

Men's third-party reports for the category all other offences were also significantly higher than women's. This difference was also examined at the item level and it was found that five of the sixteen items were responsible for the overall significant effect. These five items relate to two main categories: direct and indirect relational aggression (e.g. threats and blackmail) and illegal risky behaviour (e.g. drink driving). The threat model of aggressive behaviour proposes that men are more likely than women to be aware of threats or potential threats from others (Richardson & Green, 1999). Therefore because men are more aware of threats, females' indirect (relational) aggression may be more salient to men than to women. This could explain why men's third-party reports for all other offences are higher. Furthermore, men tend to engage in more risk-taking behaviour than women do (Campbell & Muncer, 2009; Pawlowski, Atwal & Dunbar, 2008), and because they are present in such situations they would see any women who also took part. On the other hand, women do not generally take part in risky behaviour and so would largely be unaware of the few women who do. This may explain why men's third-party reports of risky behaviour are higher than women's.

The finding that women were involved in nonviolent offences, and that nonviolent offending accounted for the largest proportion of women's offending, was consistent with the view that women tend to be more represented in offences that do not generally carry a risk of physical confrontation, as women are more averse than men to exposing themselves to physical harm (Campbell, 1999, 2002). This risk aversion may be an evolutionary

adaptation since, due to their greater parental investment, women engage in less risky forms of behaviour in order to ensure the survival of their offspring (Campbell, 1999).

Consistent with previous research (Babcock et al., 2003; Moffitt et al., 2000; 2001) women in the current sample frequently reported engaging in more than one offence type. The correlational analysis found a moderately strong relationship between women's IPV and general violence, and this was confirmed as the strongest association in regressions of IPV and of general violence on the other variables. These findings support the previous limited literature on women's offending that finds that women who perpetrate IPV are likely to have also perpetrated violence towards others (Ehrensaft et al., 2006; Moffitt et al., 2000, 2001; Thornton et al., 2010), which is also consistent with the literature on men (Dixon & Browne, 2003; Holtzworth-Munroe & Stuart, 1994; Moffitt et al., 2000). These findings are consistent with the generalist theories of both Gottfredson and Hirschi (1990) and Felson (2002). Although between-sex comparisons are beyond the scope of the current study, they will be explored in Studies 2, 3 and 4.

IPV was also moderately correlated with drug offences and all other offences, although only drug offences were a significant predictor in a regression analysis (along with general violence). The finding that IPV is predicted by substance-related offences, suggests that drug use may be a risk factor for IPV: some women may be aggressive when they are intoxicated with substances, or the perpetrators of IPV could have been using drugs as a self-medicating response to the abuse they may be receiving within their relationship (since perpetration and victimisation are interrelated) (See section 1.8, where interrelatedness of offending is covered in more detail). Busch and Rosenberg (2004) also found that a sample of female perpetrators of IPV who had been arrested had substance abuse problems: 67% of the women were found to be using substances when they were

arrested, and 47% had a history of substance-related offences. The current findings are consistent with previous research (e.g. Babcock et al., 2003; Busch & Rosenberg, 2004; Henning & Feder, 2004; Moffitt et al., 2001) which found that female perpetrators of IPV tend to have a history of criminal behaviour, which suggests that offenders may be versatile and tend not to specialise in specific crimes.

Moffitt et al. (2000) measured general crime, which comprised general violence and nonviolent offences. The current study investigated these two variables separately and found that when the other variables were controlled, it was only criminal damage (along with IPV) that predicted general violence. Emerging research has also confirmed this relationship between violence and criminal damage. Howard and Dixon (2011) found that criminal damage predicted future violent offending. The current results suggest that the closest relationship is between violence to partners and to others, and that each of these have an additional predictor once the association with other types of offence have been controlled. This research supports the necessity of measuring general violence, IPV and nonviolent offending as three separate categories, and also builds the case for measuring them in the same sample. This allows research to inform the generalist and specialist theories of offending.

The current study is also unique in that it separates out the nonviolent offences. Other research does not provide data on women's prevalence in the different nonviolent offence categories (e.g. criminal damage, other thefts, offences against vehicles). In many ways the current findings support previous research that has focused on one or two offence domains, although the current study extends these findings by measuring all three offences in one sample.

Farrington et al. (2006, p. 1) found that self-reported male offenders tended “to be deviant in many aspects of their lives”. The current study builds on their findings by suggesting that deviant women tend to be deviant in many aspects of their lives too. Similarly, in their general theory of crime, Gottfredson and Hirschi (2007) reported that offenders commit a wide variety of criminal acts, and that specialism in one type of crime is rare. The moderate to high correlations between offence categories for women suggest that perpetration of one type of offence is associated with perpetration of other types, and indicates that women are unlikely to specialise in just one form of crime.

To conclude, the results suggest that women are involved in both violent and nonviolent offending behaviour, found across 10 criminal categories, four violent and six nonviolent. The prevalence rates indicated that women’s involvement is generally high: over 50% for general violence, IPV and nonviolent offences. The correlations suggest that the same women are involved in a variety of offences, as men are known to be: thus providing some empirical support for generalist theories of crime. A medium strength relationship was found between IPV and general violence, and between both general violence and IPV and nonviolent offending. Both the prevalence and variety results indicate a fair level of consistency across sources, except for some specific categories, e.g. sex offences, robbery and all other offences, for which I have provided explanations. Overall, this research suggests that women who commit IPV are likely to have a range of problematic behaviours and risk factors, and these all need to be addressed during interventions and in future research so that women can benefit from appropriate treatment.

CHAPTER 4

STUDY TWO: SCALE DEVELOPMENT – Development and confirmatory factor analysis on the nonviolent and violent offending scale (NVOBS).

The results from this chapter have been submitted for publication: see Thornton, Graham-Kevan and Archer, 2011.

4.1. Brief introduction and aims

General violence and nonviolent behaviour are frequently examined together in criminology, but IPV is typically studied separately. However, there is some psychological research that has analysed all three together in the same sample, suggesting that they co-occur in both men and women (e.g. Moffitt et al., 2000; Straus & Ramirez, 2004). Moffitt et al. (2000) investigated IPV and general crime in 21 year old men and women. IPV was measured using 13 items, including nine physical assault items from the original Conflict Tactics Scale (Straus, 1990). The four additional items were: physically twisted your partner's arm, physically forced sex on your partner, shaken your partner, and thrown or tried to throw your partner bodily (full item list published in Moffitt et al., 1997). The Self-Report Delinquency interview was used to measure general crime. General violence was measured using 5 items. Nonviolent offending was split into three categories; theft (12 items), fraud (9 items), and vice (23 items). The results suggested that many partner violence perpetrators also engaged in physical aggression towards others and that partner violence and general crime were moderately related.

Straus and Ramirez (2004) investigated the violent and nonviolent criminal history of male and female IPV perpetrators. They measured partner violence using the 12 item physical assault scale from the CTS2 (Straus et al., 1996). These 12 items consisted of 5 minor assault items and 7 severe assault items. Criminal history was measured using the criminal history scale of the Personal and Relationships Profile. There were four items, 2 measuring violent crime (physically attacked someone with the idea of hurting them; carried a hidden weapon), and 2 measuring property crime (stole or tried to steal something worth more than \$50; stole money from anyone including family). These four questions were asked in relation to crime perpetrated before age 15, and crime perpetrated after age 15. There were, therefore, 8 items in total. A prior criminal history predicted IPV perpetration, and the relationship was stronger for prior violent crime than for property crime.

Previous research into the interrelatedness of offending has used different measures with different response formats for each type, with some being very brief (e.g. Straus & Ramirez, 2004). The problem with using different measures with different response formats is that the results are not directly comparable as the different response scales (e.g. 1-4 or 1-7) will result in there being different variance in the units of measurement for each variable, which introduces different elements of measurement error and bias. It is also difficult to draw comparisons and conclusions between different offences if different measures have been used.

Straus and Ramirez (2004) commented that one limitation of their research is the brevity of the measure of general violence and nonviolent offending. Their research compared results from 12 IPV items to 2 general violence items and 2 nonviolent offence items. Other identified problems are that some previous research has not separated

involvement in general violence and nonviolent offending (e.g. Moffitt et al., 2000), and this does not allow differences in general violence and nonviolent to be explored. Moffitt et al. (2000) included both as „general crime“, and compared this with IPV, finding that general crime was predicted by low self-control whereas IPV was not. They did not assess whether general violence and non-violent crimes were distinct. Moffitt et al. (2000) also stated that the brevity of their general violence measure was a potential limitation. The current study extends previous research by creating a scale that allows the three offence types to be measured and analysed as three separate domains, using comparable numbers of questions for each offence type.

Although there are other comprehensive measures, such as the British Crime Survey (BCS) for the UK, the National Crime Victimization Survey (NCVS) for the US, and the Uniform Crime Reporting Survey (UCRS) for Canada, the questionnaire developed in this study is much shorter and hence more suitable for use in psychological research where attrition is a problem and it can be administered alongside other measures. Problems associated with these existing measures include the national crime surveys only measuring crimes that have a direct victim, so that victimless crimes (such as drug taking) are excluded. These are included in the current measure, making it a more comprehensive assessment of self-reported offending behaviour. The crime surveys measure crime victimisation only, whereas the current questionnaire measures offence perpetration too. Therefore the questionnaire developed in this study is a comprehensive measure applicable for use in psychological research.

Howard and Dixon (2011) developed a classification of violent offences to be used to predict violent reoffending as part of the Offender Assessment System (OASys). To create this violence predictor, they examined a number of the main violence risk assessment

instruments and found that there were 22 separate approaches to classifying criminal acts as either violent or nonviolent. These 22 ways consistently included “intentional homicides and injurious nonsexual assaults”; however they differed on their inclusion or exclusion of “contact sexual offences, robbery and aggravated burglary, criminal damage, public order offences, threats and harassment, and offences involving weapon possession” (Howard & Dixon, 2011, p. 143). None of these classifications included drug offences or theft, which were assessed in the current study. Howard and Dixon (2011) concluded that “this lack of consensus on the classification of violent criminal behaviour is an important issue for developers of new violence risk measures” (p. 143). Therefore, their research has also identified a need for a comprehensive measure that classifies violent and nonviolent offences. The results from Howard and Dixon’s study have confirmed that violent and nonviolent offences overlap, as a history of criminal damage was found to predict future violent offending.

Therefore previous research has used relatively brief measures to assess general violence and nonviolent offences, in comparison to the measurement of IPV, and has also used different response scales for each domain. Unfortunately, the use of different measures for the three offence types hinders comparisons. Brief measures may threaten validity, particularly for women, as less is known about the types of crimes in which they are involved. Therefore, existing measures of violent and nonviolent offending are limited. To overcome these limitations, a measure is required which has comparable questions for all three offence types, which uses the same response method throughout, and has a wide variety of criminal acts included so that the profile of men’s and women’s offending can be adequately captured. Examining existing scales revealed that there is no existing comprehensive measure that combines both violent and nonviolent offences, thus

highlighting the need for such a measure. The current research involves the development of such a scale. It is designed to aid the future study of sex differences in offending behaviour and also in the study of predictor variables (which will be investigated in the next 2 chapters) by providing a comprehensive scale to use in a comparison analysis.

Recent relevant research has also used factor analysis in scale development. Lawrence (2006) used principle components factor analysis with varimax rotation to develop the Situational Triggers of Aggressive Responses (STAR) scale. There were two triggers for aggressive responses: Frustrations and Provocations, and these were consistent for men and women. Provocations included feeling goaded by others and frustrations included feeling a lack of control. Provocations were positively associated with physical aggression and narcissism, and Frustrations were positively associated with anger and hostility and negatively associated with self-concept clarity. The STAR scale was reported to have good internal reliability. Brand and Anastasio (2006) used principal components factor analysis with oblimin (as well as varimax) rotation to test the psychometric properties of the violence-related attitudes and beliefs scale (V-RABS), which revealed seven factors. The V-RABS scale was reported to have acceptable to good internal reliability and good test-retest reliability. Archer (2010) also used principal components factor analysis with varimax rotation to develop the Hypermasculine Values Questionnaire (HVQ). Hypermasculine values have been found to be predictors of male physical aggression (Archer, 1994). The HVQ was reported to have good internal consistency and high test-retest reliability. Confirmatory factor analysis of the HVQ also revealed high internal consistency. Therefore using factor analysis and then confirmatory factor analysis was considered appropriate for the development of the current scale.

In summary, the aim of this research was to create a psychometrically sound scale that allows the separate assessment of violent and nonviolent offending in men and women. To achieve this, we conducted exploratory factor analysis, and then confirmatory factor analysis, on the NVOBS scale (see Chapter 2 for details) for the combined male and female sample, and then separately, to create a scale appropriate for use with both sexes. Additionally the scale was assessed for reliability. The creation of a scale that allows the simultaneous assessment of violent and nonviolent offences is a useful contribution because it can be used to inform the debate on the versatility of offenders.

4.2. Method

4.2.1. Item selection

See Chapter 2 for details.

4.2.2. Participants

There were a total of 653 participants (300 (45.9%) men and 353 (54.1%) women). Participants were either undergraduate or postgraduate students from a variety of courses, recruited on campus at a British university. Inclusion criteria comprised: being in a heterosexual relationships for at least one month in the past 12 months, and being over 18 years of age. Age ranged from 18 to 56 and the mean age was 22.14 years (men: 22.22; women: 22.08). It is important that men and women were matched for age as research has suggested that violence (e.g. Archer, 2004) and offending (Gottfredson & Hirschi, 2007) decrease with age: therefore failure to match men and women on age could distort sex differences. There was no significant sex difference in age ($t(651) = .17, p = .87$).

4.2.3. Procedure

See Chapter 2 for details.

4.3. Results

4.3.1. Statistical analysis

For the purposes of factor analysis, the sample was randomly divided into two subsamples, one used to conduct exploratory factor analysis ($n = 337$, men = 152, women = 185) and the other used to validate the structure using confirmatory factor analysis ($n = 316$, men = 148, women = 168). To examine potential sex differences, exploratory factor analyses were also conducted separately for men and women. The sexes were matched for age within each subsample.

The dataset was initially assessed for suitability for factor analysis. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy ranges from 0-1, and the result should be .6 or above to indicate appropriateness for factor analysis (Kaiser, 1974; Field, 2009, Tabachnick & Fidell, 2007). For this study $KMO = .76$, which is above the recommended minimum value. Bartlett's test of sphericity was statistically significant ($\chi^2 (903) = 6515.93$, $p < .001$), indicating that the inter-item correlations were sufficiently large for principal component factor analysis. Therefore the data are suitable for factor analysis.

A principal component analysis (PCA) with Varimax (orthogonal) rotation was conducted. Varimax rotation was chosen to highlight the distinctiveness of each of the factors. Oblique rotation (Direct Oblimin) was also tested: however the inter-factor correlations were all weak (.2 or below). Therefore the decision to use an orthogonal rotation method was justified.

The number of factors to retain is often determined by a Scree test (Cattell, 1966; Klein, 1994). However the Scree test can be subject to ambiguity where there is either no clear break in the curve or where there appears to be more than one definite break. Since the Scree plot was ambiguous in this case (see Appendix 5 for Scree plot), Horn's Parallel

Analysis was used (Horn, 1965). Parallel analysis (PA) calculates average eigenvalues from a random dataset that is based on the sample size and number of variables contained within the real dataset. The real eigenvalues are then compared with the random eigenvalues, and only those where the actual values are higher than the corresponding random values are retained (see Hayton, Allen & Scarpello, 2004 for an outline of the PA procedure).

Following parallel analysis, five factors were retained for the final solution. Together these five rotated factors explained 42.95% of the total variance. By studying the items that load on to each factor, the five factors were labeled, as (1) general violence, (2) drug-related offences, (3) IPV, (4) criminal damage, and (5) theft. Only items which loaded $>.4$ on to at least one factor (Stevens, 1992) were retained, and no items loaded on more than one factor. Factor 1 (general violence) contained 12 items, factor 2 (drugs) contained 5 items, factor 3 (IPV) contained 8 items, factor 4 (criminal damage) contained 4 items and factor 5 (theft) contained 4 items. Because each factor refers to a different offence-related dimension, the factors will now be used as subscales. The factor loadings for each item, along with Eigenvalues and percentage variance explained by each factor, are displayed in Table 4.1 for the final rotated solution.

Reliability analysis was used to measure the internal consistency of the subscales. Cronbach's alpha coefficient (α) is one of the most popular indicators of internal consistency (Field, 2009). Values range from 0-1 with higher values indicating greater reliability. According to Kline (1999), α values of at least .7 or .8 are generally considered to be acceptable, values below .7 are indicative of an unreliable scale. Alphas for each subscale on the NVOBS ranged from acceptable to good (see Table 4.1). To examine potential sex differences, exploratory factor analyses were also conducted separately for men and women. Examination of the factor compositions and percentage variance

explained suggested similarities between the sexes: therefore data was combined for men and women.

Table 4.1. Results of principal components factor analysis with Varimax rotation (n = 337) of NVOBS for men and women showing the final five-factor solution.

Item	Rotated Factor Loadings					Parcel
	1	2	3	4	5	
Factor 1. General Violence (GV: 12 items)						
1. kicked someone	.85	.01	.00	.03	.00	GV1
2. hit someone with a fist	.77	.13	.03	.17	.11	GV1
3. pushed grabbed or shoved someone	.75	.13	.09	.01	.11	GV1
4. beat someone up	.70	.21	.04	.19	.25	GV2
5. scratched someone	.67	.03	.08	.04	.10	GV2
6. slammed / held someone against a wall	.65	.11	.08	.28	.13	GV2
7. hit or tried to hit someone with something hard besides a fist	.63	.03	.03	.21	.23	GV3
8. bit someone	.61	.03	.06	.06	.16	GV3
9. threw something at someone	.61	.01	.04	.02	.39	GV3
10. slapped someone	.58	.06	.21	.09	.25	GV4
11. twisted someone's arm or hair	.57	.12	.10	.22	.16	GV4
12. bent someone's fingers	.54	.09	.01	.06	.28	GV4
Eigenvalue	6.32					
% variance explained	14.71					
α	.89					

Table 4.1. continued

Item	Rotated Factor Loadings					Parcel
	1	2	3	4	5	
Factor 2. Drug-related offences (5 items)						
13. used ecstasy	.02	.84	.05	.11	.00	D1
14. used cocaine/crack	.07	.79	.02	.02	.02	D1
15. used speed	.01	.77	.06	.01	.07	D1
16. used cannabis	.01	.73	.07	.01	.13	D2
17. gang of 3 + fighting, causing damage / disturbance	.05	.61	.07	.38	.06	D2
Eigenvalue	3.48					
% variance explained	8.09					
α	.79					
Factor 3. IPV (8 items)						
18. kicked partner	.10	.00	.79	.07	.01	IPV1
19. hit partner with fist	.02	.08	.76	.07	.07	IPV1
20. slapped partner	.02	.00	.75	.14	.04	IPV1
21. bent partners fingers	.06	.05	.68	.06	.30	IPV2
22. threw something at partner	.06	.06	.63	.03	.05	IPV2
23. pushed grabbed or shoved partner	.14	.01	.48	.17	.35	IPV2
24. scratched partner	.13	.01	.45	.14	.30	IPV3
25. twisted partners arm / hair	.14	.03	.43	.05	.10	IPV3

Table 4.1. continued

Item	Rotated Factor Loadings					Parcel
	1	2	3	4	5	
Eigenvalue					3.37	
% variance explained					7.83	
α					.74	
Factor 4. Criminal Damage (CD: 4 items)						
26. damaged something in a public place	.07	.05	.04	.67	.01	CD1
27. graffiti	.12	.07	.00	.62	.06	CD1
28. broke windows of empty building	.19	.03	.02	.55	.02	CD2
29. damaged others property on purpose	.21	.03	.15	.46	.04	CD2
Eigenvalue					2.90	
% variance explained					7.74	
α					.71	
Factor 5. Theft (T: 4 items)						
30. stole 5-50	.03	.03	.05	.27	.67	T1
31. stole <5	.01	.33	.05	.32	.66	T1
32. possessed stolen property	.25	.04	.06	.01	.48	T2
33. enter building to steal / damage	.21	.30	.02	.30	.44	T2
Eigenvalue					2.40	

% variance explained

5.58

overall α

.70

Confirmatory factor analysis

The model fit of the five-factor solution was tested using confirmatory factor analysis, performed using AMOS version 18.0. Item parcels were used. The items were parceled for a number of reasons. Firstly, the current data is not normally distributed (it has a negative binomial distribution), and item parceling has been reported to reduce the effects of non-normality because parcels “are more likely to be normally distributed than single items and consequently they are more likely to meet the assumptions of the commonly used maximum likelihood estimation methods” (Nasser & Wisenbaker, 2003, p. 730). Secondly, it has been suggested that “factor structures are difficult to confirm where more than five to eight items are free to load on each latent variable” (Floyd & Widaman, 1995), therefore with the general violence factor having 12 items and the IPV factor having 8 items parceling was preferred to entering individual items. Thirdly, parcels are more reliable than individual items (Hall, Snell & Foust, 1999) therefore parceling increases the stability of parameter estimates (Holt, 2004) and results in more precise parameter estimates (Nasser & Wisenbaker, 2003). Therefore the use of item parcels was considered appropriate in this research. To create parcels, scale items were bundled into conceptually coherent groups and averaged across the items. Averaging (rather than totaling) keeps the means more interpretable and comparable regardless of the number of items in the bundle. Table 4.1 shows the parcel placement for each item. Model fit was assessed using comparative fit index (CFI), root mean square error of approximation (RMSEA), and goodness of fit index (GFI). CFI values range from zero to 1.00, and values greater than .90 are indicative of good fitting models. RMSEA values less than .05 indicate good fit, values of .08 to .10 indicate mediocre fit, and values greater than .10 indicate poor fit. GFI values also range from zero to 1.00, and values close to 1.00 indicate good fit (Byrne, 2001). The current

model was recursive and identified. Confirmatory factor analysis produced a model of good fit ($\chi^2 = (55) 147.90$, $p < .001$, RMSEA = .07, GFI = .94, CFI = .94).

Further analyses of the NVOBS subscales

Subscales were derived from the factors by totaling the items for each of the five offending behaviour factors. The subscale totals were screened for outliers and normality (Tabachnick & Fidell, 2007). For each variable outliers were reduced, so that the most extreme scores were recoded to be the equivalent value to the next most extreme score. Descriptive statistics are provided for each subscale (i.e. general violence, drug-related offences, IPV, criminal damage, and theft) in Table 4.2.

It is evident from Table 4.2 that the data is overdispersed (variance is higher than the corresponding mean). Therefore negative binomial regression (see p. 157 for discussion) was used in the present case to test for differences between the factor analysis and the confirmatory factor analysis subsamples on each of the five NVOBS subscales. The Goodness of Fit statistics were satisfactory as the Pearson Chi-Square value should be near 1 (general violence: Value/df = .69; drug-related offences: Value/df = 0.59; IPV: Value/df = 0.75; criminal damage: Value/df = 0.65; theft: Value/df = 0.61). There were no significant differences between the factor analysis and confirmatory factor analysis subsamples on each of the five NVOBS subscales: general violence (Wald $\chi^2 (1) = 0.97$, $p = 0.33$), drug-related offences (Wald $\chi^2 (1) = 0.07$, $p = 0.79$), IPV (Wald $\chi^2 (1) = 0.14$, $p = 0.71$), criminal damage (Wald $\chi^2 (1) = 0.75$, $p = 0.39$), and theft offences (Wald $\chi^2 (1) = 0.13$, $p = 0.72$). Therefore the data from the two subsamples (FA and CFA) were combined, and means, standard deviations and frequencies of scores were calculated for each subscale overall, and for men and women separately.

Table 4.2. Means and standard deviations of NVOBS subscales overall and by sex (n = 653), and χ^2 and d for sex differences

Factor	Overall		Men		Women		χ^2	d^a
	Mean (SD)	Range (%0)	Mean (SD)	Range (%0)	Mean (SD)	Range (%0)		
GV	7.85 (11.13)	0-39 (30.2%)	10.44 (12.26)	0-39 (23.7%)	5.65 (9.55)	0-23 (35.8%)	21.89 (1)*	.43
IPV	1.74 (3.01)	0-11 (57.8%)	0.84 (1.85)	0-9 (69.3%)	2.51 (3.55)	0-11 (48%)	51.32 (1) *	-.59
IPV-V	1.47 (2.31)	0-8 (57.7%)	2.03 (2.90)	0-8 (53.3%)	1.00 (1.51)	0-4 (61.4%)	24.34 (1)*	.45
Drugs	2.40 (4.24)	0-16 (61.3%)	3.64 (5.52)	0-16 (56.3%)	1.99 (3.73)	0-12 (65.4%)	10.97 (1)*	.35
CD	0.79 (1.62)	0-5 (74%)	1.12 (1.86)	0-5 (64.7%)	0.50 (1.31)	0-5 (81.9%)	16.66 (1)*	.39
Theft	1.00 (1.82)	0-6 (69.7%)	1.37 (2.19)	0-6 (63%)	0.68 (1.35)	0-4 (75.4%)	15.34 (1)*	.38
Total Non-V	4.76 (6.29)	0-26 (36.4%)	6.65 (7.70)	0-26 (28.3%)	3.16 (4.15)	0-13 (43.3%)	39.63 (1)*	.56

* $p < .001$

^a Minus sign indicates that women's values are higher than men's.

Negative Binomial Regressions (NBR) were used to test for sex differences on the five NVOBS subscales (see Table 4.2 for the NBR results), plus IPV victimisation (IPV-V) and total nonviolent offending. The Goodness of Fit statistics were again satisfactory as the Pearson Chi-Square values were near 1 (general violence: Value/df = 0.67; drug-related offences: Value/df = 0.51; IPV: Value/df = 0.86; IPV-V: Value/df = 0.89; criminal damage: Value/df = 0.76; theft: Value/df = 0.62; total nonviolent offending: Value/df = 1.03). Men perpetrated higher levels of general violence (Wald χ^2 (1) = 21.89, $p < .001$), drugs (Wald χ^2 (1) = 10.97, $p < .001$), criminal damage (Wald χ^2 (1) = 16.66, $p < .001$), theft offences (Wald χ^2 (1) = 15.34, $p < .001$), and total nonviolent offences (Wald χ^2 (1) = 39.63, $p < .001$) than women, but women perpetrated significantly more IPV (Wald χ^2 (1) = 51.32, $p < .001$) than men. Men reported significantly more IPV victimisation than women (Wald χ^2 (1) = 24.34, $p < .001$). According to Cohen's (1988) criteria, effect sizes (shown in Table 4.2) were small for drug-related offences, theft and criminal damage, and medium for IPV, IPV victimisation, general violence and total nonviolent offending.

Intercorrelations between the five offending behaviours

Table 4.3 shows the Pearson correlations between the five identified offence types separately for men and women to indicate the interrelatedness of offending for men and women. The results revealed small to moderate significant correlations between all offences for women, and small to moderate significant correlations between most offences for men. For men IPV was not correlated with drug offences or criminal damage. Overall the correlational results suggest that men's and women's violent and nonviolent offending is interrelated, and supports the theory that offenders are „cafeteria“ criminals rather than specialists and are likely to be involved in a variety of criminal behaviour where there is

opportunity (Gottfredson & Hirschi, 1990). There was no evidence of multicollinearity as there were no correlations above .70.

Table 4.3. Pearson correlations for all five categories of offending behaviour for men and women

	Men						Women					
	GV	IPV	IPV-V	Drugs	CD	Theft	GV	IPV	IPV-V	Drugs	CD	Theft
GV	-	.20*	-	.18*	.35*	.33*	-	.28*	-	.20*	.31*	.26*
IPV		-	.65*	.03	.01	.20*		-	.71*	.23*	.21*	.23*
Drugs				-	.38*	.40*				-	.35*	.39*
CD					-	.47*					-	.43*

* $p < .001$

Associations between the five offending behaviours

In order to follow up the correlations between self-reports of different types of offences, we used NBR to analyse the association between general violence, and then IPV, using the other variables as the predictors, separately for men and women. Table 4.4 shows the results of NBR with general violence as the criterion and the other categories of offending as predictors. The Pearson Chi-Square Goodness of Fit statistic was satisfactory for men (Value/df = 1.15) and women (Value/df = 1.01). For both men and women two variables were significant predictors of general violence: criminal damage and IPV. Table 4.5 shows the NBR analysis using IPV as the criterion variable. The Pearson Chi-Square Goodness of Fit statistic was satisfactory for men (Value/df = 1.36) and women (Value/df = 1.35). General violence was the only significant predictor of IPV for men and women. These analyses confirm the close association between different types of violent offending, as well as with violent and nonviolent offending. Each table contains the z statistic for comparing the equality of the regression coefficients between men and women using the formula suggested by Paternoster, Brame, Mazerolle and Piquero (1998: p. 862) and also Howell (1997: p. 260):

$$z = \frac{b1 - b2}{\sqrt{SEb1^2 + SEb2^2}}$$

There were no significant sex differences between the beta coefficients.

Table 4.4. Negative Binomial Regression of the other categories of criminal behaviour onto self-reported general violence

Parameter	Men			Women			z
	B	SE	χ^2	B	SE	χ^2	
IPV	.11	.05	5.42*	.08	.02	11.22**	.50
Drugs	.01	.02	.15	.02	.04	.16	.20
Criminal damage	.15	.05	10.59*	.19	.07	7.33*	.44
Theft	.07	.04	3.08	.08	.07	1.38	.13

** p < .001 * p < .01

Table 4.5. Negative Binomial Regression of the other categories of criminal behaviour onto self-reported IPV

Parameter	Men			Women			z
	B	SE	χ^2	B	SE	χ^2	
General Violence	.03	.01	5.38*	.05	.01	13.64**	1.00
Drugs	-.02	.03	.74	.07	.04	2.65	1.80
Criminal damage	-.05	.07	.48	.01	.07	.03	.60
Theft	.13	.06	4.22	.08	.07	1.23	.56

** p < .001 * p < .01

4.4. Interim discussion

The aim of this study was to develop a self-report measure of violent and nonviolent offending behaviour which could be used by researchers to investigate the range of self-reported offending behaviour in men and women in non-forensic populations. Exploratory and confirmatory factor analysis revealed five factors measuring violent and nonviolent offending behaviour in men and women. These were: general violence, IPV, drug-related offences, criminal damage, and theft. These categories are similar to the Home Office crime categories, and cover similar categories, such as violent crime, acquisitive crime, vandalism/criminal damage, and drug offences (Home Office, 2010). The NVOBS was found to be psychometrically sound, with the resulting subscales having moderate to good internal consistency. Therefore the NVOBS should be a useful instrument for measuring offending behaviour in non-selected samples, such as the ones used in the present study (although it is currently only known to be suitable for use within student populations, and further research will seek to assess its generalisability).

The new questionnaire distinguishes the components of offending, and allows for comparisons to be made between male and female offending. It can be used to detect overlap and commonalities between these different types of crime and can therefore be used to inform generalist and specialist theories of crime. Examining sex differences in the NVOBS factors has provided support for previous research. We found that men self-reported more general violence than women: this was an expected finding, as a large body of research suggests that men are usually more aggressive than women outside intimate relationships, at every age and for various measures (Archer, 2004, 2009; Moffitt et al., 2001). The finding that men are more generally violent than women fits with the sexual selection theory where intrasexual competition is motivated by status and resource acquisition, in order to successfully secure a mate or to protect an established relationship

from rival males (Archer, 2004). Therefore sex differences should be most evident during young adulthood to correlate with the peak of reproductive competition (Daly & Wilson, 1988; Wilson & Daly, 1985). The current sample comprised predominantly young adults as the mean age of the current sample was 22 years.

The results also indicated that women perpetrated more physical aggression towards their intimate partners than men did. This was according to self-reports and victimisation reports. This sex difference in the female direction of IPV perpetration is consistent with some previous research. Research using unselected samples (such as student samples) suggests that women can be as physically aggressive as men within intimate relationships, if not more so (Archer, 2000, 2002, 2006; Graham-Kevan & Archer, 2003; Mirrlees-Black et al., 1998; Moffitt et al., 2001; Thornton, Graham-Kevan & Archer, 2010). Therefore the current findings are consistent with family conflict theory, and are inconsistent with feminist theory. When interpreting this finding culture needs to be considered because the sex difference in the female direction occurs more in developed western nations, such as the UK, USA and Canada, where gender equality and individualism are both high (Archer, 2006, 2009).

The current research also indicated a significant sex difference in IPV victimisation, where men reported more IPV victimisation than women: men being victimised more fits with the findings that women perpetrate more IPV. The victimisation result provides broad support for British Crime Survey data which has found that equal numbers of men and women reported being victims of IPV in the last year (Coleman et al., 2007; Mirrlees-Black et al., 1998). The correlations between IPV perpetration and victimisation were large and significant for men and women in the sample, which also supports the argument of mutual combat within relationships (e.g. Cascardi, Langhinrichsen & Vivian, 1992; Straus & Ramirez, 2007). Common couple violence (Johnson, 1995) is the most common type of

mutual IPV and is characterised by „everyday“ conflicts that typically involve the use of aggressive tactics by both couple members. Alternatively, the violence may be occurring cyclically where the victim seeks revenge or is retaliating against the partner for a prior wrongdoing, thereby becoming the perpetrator.

Reporting issues may have influenced the finding that women are more physically aggressive in relationships than men. Research has indicated that both men and women underreport their perpetration of IPV compared to reports about their partners, but this bias is more pronounced for men (Archer, 1999), leading to sex differences being slightly more in the female direction for perpetrators“ reports than for victims“ reports (Archer, 2000). This reporting bias may have affected the current results for perpetration if men disclosed less of their IPV perpetration than women did.

Alternatively, the current findings may be related to male students having more to lose in terms of reputation by physically aggressing against their female partners: in a student sample, people live within close proximity of each other, so that any IPV by men is likely to be detected. Male IPV is not socially sanctioned in such groups, making it more likely female victims would seek help and others would intervene on the women“s behalf (Felson, 2002). Therefore male students may have more to lose in a student sample than males in a community sample, and so they may inhibit their aggression towards their female partners, as the costs of not doing so are particularly high. Women“s IPV is not viewed as negatively as men“s and evokes less disapproval (Gerber, 1991), and therefore may attract less third party involvement. Therefore, men may inhibit their aggression towards their female partners, particularly when the consequences of not doing this are severe.

Knowing that the man is unlikely to be violent in such situations, women may feel more comfortable aggressing against their partner, safe in the knowledge that they are

unlikely to be retaliated against. This would account for the higher levels of female than male IPV. Indeed, there is some research which is consistent with this. Fiebert and Gonzalez (1997) examined the reasons for female-initiated IPV in a sample of 978 undergraduate women (77% were between the ages of 20 and 30, similar to the mean age of the current sample), and found that 29% of these women reported that they had initiated violence in their relationship. Of the 285 women admitting IPV initiation, 38% believed that their violence would not hurt their partner, 24% believed that the man should be able to protect themselves and therefore the woman was not concerned about her level of violence, and 19% believed that their partner would not retaliate because “most men have been trained not to hit a woman” (p. 587). Therefore these beliefs, coupled with social disapproval of male violence, may serve to increase female IPV and decrease male IPV in general, but particularly in a university setting where there is less chance of concealing this behaviour. This may explain the current findings.

Perpetration of IPV will have severe negative effects on the male’s reputation, as male violence towards women violates the chivalry social norm (Felson, 2002), which serves to protect women, and male-to-female violence is viewed more negatively by third parties than female-to-male violence (Felson, 2002). Therefore men may be less likely to engage in IPV due to the damaging effect it would have on their reputation. Men’s inhibition and the costs of IPV perpetration being lower for women than men may serve to facilitate women’s violence towards her partner (George, 1994), which would result in fewer male perpetrators and more female perpetrators in a sample such as the current student sample.

Both men and women are more likely to perpetrate nonviolent than violent offences as the risk of confrontation, and therefore of physical harm, are lower. From an evolutionary perspective, avoiding harm increases the likelihood of reproductive success in

both sexes (Campbell, 1999). Women's involvement in nonviolent offences is consistent with the forensic literature, which suggests that women are more risk-averse than men, due to their greater parental investment, and so they generally perpetrate offences where there is low risk for physical harm in order to ensure their own, as well as their children's, survival (Campbell 1999; Campbell, 2002). We found that men perpetrated more nonviolent offences (drugs, criminal damage and theft) than women, which supports existing research findings (e.g. Moffitt et al., 2001). The effect sizes were smallest for drug-related offences, theft, and criminal damage and largest for IPV and general violence. This is consistent with Campbell's (1999) evolutionary theory that women would most resemble men in their perpetration of nonviolent offences. This pattern in the magnitude of sex differences has also been indicated by longitudinal research (e.g. Moffitt et al., 2001) and in a meta-analysis (Smith & Visher, 1980). The sexual selection theory may also account for why men may be involved in more nonviolent crimes than women. Men may employ strategies such as stealing or damaging resources in order to outcompete rivals and increase the likelihood of their own access to females (Kanazawa & Still, 2000; Walsh, 2000).

Drug use involves entering into the criminal underworld (Steffensmeier & Allan, 1996) where the likelihood of being involved in more crime is greater: therefore the sex difference in drug use may be related to women being less likely to be able to access drug resources due to the perceived high risk of associating with the criminal underworld, or having less need for access as men obtain drugs for women. Men are more sensation-seeking than women (Cross et al., 2011; Roberti, 2004; Zuckerman, 1994), and drug use is a sensation seeking activity, and is therefore an activity that men are more likely to be involved in. Furthermore, the item being part of a "gang of 3 plus fighting, causing damage/disturbance" loaded strongly onto the drug-related offending subscale, and gang members are predominantly male (Bjerregaard & Smith, 1993, Campbell, 1991; Esbensen,

et al., 1993; Esbensen & Winfree, 1998; Fagan, 1990; National Alliance of Gang Investigators Associations, 2005, 2009). Therefore the “gang” item may contribute to the sex difference as men are more likely to be involved in gang activity than are women.

The current findings indicated moderate to high correlations between the offence categories for men and women, which suggests that perpetration of one type of offence is associated with the perpetration of other types of offence. This provides broad support for Felson’s (2002) general theory of violence and Gottfredson and Hirschi’s (1990) General Theory of Crime. However, we did find that IPV and some of the nonviolent offending categories were unrelated for men, which suggests less overlap of offending behaviour in men than in women. The overlap of IPV with other violent and nonviolent crime is inconsistent with feminist and family conflict theory because it suggests that IPV is not a completely specialist type of crime. Our results support and extend those of Farrington et al. (2006) and Gottfredson and Hirschi (2007), who found that offenders commit a wide variety of criminal acts. They also support the findings of Moffitt et al. (2000), that many partner violence perpetrators are also violent towards others. This was indicated by the moderate correlations between perpetration of general violence and IPV for men and women. Therefore the current results provide broad support for the generalist theories of crime.

The interrelationships between the different types of crime highlight the need for examining violent and nonviolent offences together. General violence and IPV predicted each other for men and women. General violence and IPV have been found to share the same risk factors (Moffitt et al., 2000; Tremblay et al., 2004). Therefore they are developmentally similar, and it would be expected that these two violent offences should co-occur as the shared risk factors indicate a general propensity to be aggressive towards others. General violence and criminal damage also predicted each other for men and

women, although the effect of general violence on criminal damage was greater for women than men.

Recent research has found that general violence and criminal damage are associated (Howard & Dixon, 2011; Soothill, Francis & Fligelstone, 2002), but the finding that general violence has a greater association with criminal damage for women than men requires replication. General violence and criminal damage share similar interpersonal features, and criminal damage is likely to be preceded by a heated argument (Howard & Dixon, 2011). Therefore, women who are generally violent may be more likely than men to also resort to non-injurious methods of expressing their feelings following a heated argument, such as damaging their target's property. This would be consistent with the finding that men are more likely than women to express their anger directly towards their target in the form of physical aggression (Deffenbacher et al., 1996; Timmers et al., 1998) whereas women are more likely to express their anger in non-injurious ways, such as throwing things when angered (Campbell & Muncer, 1987). Considering that criminal damage is related to general violence and that women's general violence (i.e. towards non-intimates) is more expressive than men's (e.g. Driscoll et al., 2006), it follows that women's criminal damage may also be more expressive than men's and may reflect a loss of inhibitory control (Campbell & Muncer, 2009). Taken together, these interrelationships between the offences indicate the comorbidity of violent and nonviolent offending behaviour.

Studies such as the present one are limited in a number of ways. First, factor analysis itself has limitations. It is a highly subjective procedure at a number of stages. The judgments made throughout the analysis including deciding which analytic method to use, which rotation method to use, and how many factors or items to retain or omit at each stage. However we countered these limitations by confirming the same results using an

alternative rotation method which indicated a robust solution. Also, parallel analysis was used to identify the number of factors to retain. This has been suggested to be a more accurate method than using either Kaiser's Criterion or Cattell's Scree plot alone (Hayton et al., 2004). Furthermore, there can be any number of solutions and the interpretation of the solution is left to the researcher. There are also no external criteria against which to assess the validity of the solution. However, our use of CFA to confirm the NVOBS factor structure addresses this limitation. Acknowledging the limitations, both factor analysis and CFA have been widely used in scale development and are deemed to be very useful evaluative methods.

A further potential limitation is that self-reports were used. Self-reports can be affected by socially-desirable responding, and participants may deliberately distort their responses by underreporting violent and antisocial acts in order to minimise their involvement. This has been found to be the case in the area of partner violence, where both men and women underreport their perpetration of IPV (Archer, 1999). Furthermore, we do not know whether the same results would be obtained through alternative data collection methods, for example victim reports or third party reports. Indeed, Study 1 found similarities in reporting of women's offending behaviour using different sources of data: self-reports, victim reports and third party data (see Thornton, Graham-Kevan & Archer, in press).

All participants in the current study were university students. However the university sample used in the current study has a wide demographic range and there is a great deal of research in this area that has used student samples (see section 1.11. for details), and therefore this scale will be of use in similar future research. A non-student sample could also be used to establish norms and generalisability of the factor structure.

Therefore researchers using the NVOBS should report the internal consistency of the factors from their research samples.

In conclusion, the questionnaire developed in this study is an improvement and extension of pre-existing measures because it is a comprehensive one that contains comparable questions for all three offence types (general violence, IPV and nonviolent offending), and uses the same response format throughout. The NVOBS appears to be a useful self-report measure of violent and nonviolent offending with good psychometric properties. This research was original in its examination of the comorbidity of violent and nonviolent offending simultaneously in men and women, which has not previously been investigated.

In this Chapter we have suggested that there is some overlap in violent and nonviolent offending for men as well as women. Therefore we know that there are some men and women who are not selective in terms of which offences to engage in, and are instead involved in a variety of crimes. This provides broad support for the generalist theories of crime. The finding that IPV overlaps with violence towards others as well as nonviolent offences challenges feminist theories of IPV by suggesting that some partner violent men (and women) do not specialise. Through the overlap in offending we have indicated that often those who are violent towards their partners are the same people who are also violent outside their relationships as well as being involved in nonviolent offences. However, without examining the correlates of these offences we cannot rule out the possibility that these different types of violent and nonviolent behaviours may have different underlying origins and motivations. Therefore, as well as assessing the overlap in offending, it is complementary to assess whether (or not) different types of offending share the same predictors. To achieve this, Studies 3 and 4 investigate the predictors of men's and

women's violent and nonviolent offending behaviour. These results will further inform the generalist/specialist debate of offending.

CHAPTER 5

STUDY THREE: Adaptive and maladaptive personality traits as predictors of violent and nonviolent offending behaviour in men and women.

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5.1. Brief introduction and aims

The differing perspectives of generality and speciality extend to personality and crime (Eysenck, 1964, p. 4). The specialist theory postulates that all of a persons actions are separate, specific, and sufficiently disconnected and therefore the idea of there being common personality traits is unlikely. Alternatively, the generalist view proposes that a persons different actions combine in “broad, general categories which give rise to traits and types; and that the notion of personality is quite indispensable” (Eysenck, 1964, p. 4).

Therefore if personality is a stable dispositional trait that does not change across time and situations, we would expect personality traits to be stable across different offending situations. Eysenck (1964, p. 21) states that “conduct is sufficiently general that we should enquire into the causes of generality, and that it appears to be related to personality to such an extent that we should enquire into the precise nature of the relationship”. Therefore, as suggested by Eysenck, the current research enquires into the relationship between personality and crime. The generality perspective allows us to

investigate similarities between offenders, and is therefore of direct relevance to the aims of the current research.

There has been much research interest in the relationship between personality and offending behaviour (Blackburn, 1993; Krueger, Caspi, Moffitt, Silva & McGee, 1996; Harris, Rice & Quinsey, 1993), and personality disorders (PDs) and offending behaviour (e.g. Hart & Hare, 1996). As a result, personality has been regarded as an influential risk factor for violent and nonviolent offending behaviour. See Chapter 1 section 1.10.1. for a detailed discussion of personality traits and disorder traits.

The “Big Five” have been investigated in relation to offending behaviour and research suggests that neuroticism, agreeableness and conscientiousness are related to general violence (Bettencourt et al., 2006; Caprara et al., 1994; Jensen-Campbell & Graziano, 2001; Miller et al., 2003; Sharpe & Desai, 2001; Suls, Martin & David, 1998), IPV (Barnes, Greenwood & Sommer, 1991; Buss, 1991; Hines & Saudino, 2003; Moffitt et al., 2000; Robins, Caspi & Moffitt, 2002; Sommer, Barnes & Murray, 1992), and nonviolent offending (Eysenck, 1996; Heaven, 1996; Walker & Gudjonsson, 2006). Finding that personality traits are associated with different types of offending behaviour provides some support for Eysenck's (1964) theory of the generalist perspective of crime.

Personality disorders are also strong predictors of violence among offenders (e.g. Hart & Hare, 1996), and the presence of personality disorders among IPV male and female perpetrators is often found (Simmons et al., 2005). Research suggests that cluster A and B PDs are related to general violence, IPV, and nonviolent offending (Barros & Serafim, 2008; Craig, 2003; Dutton, 1994b; Dutton, 1995; Ehrensaft et al., 2006; Henning et al., 2003; Hines et al., 2007; Holtzworth-Munroe et al., 2000; Simmons et al., 2005). Cluster C also relates to IPV, although the precise relationship is unclear (Ehrensaft et al., 2006). Finding that cluster A and B PDs relates to both men's and women's IPV perpetration

supports the argument that the underlying correlates of IPV do not differ by sex. This does not fit with the feminist theory that IPV is a specialist crime by men towards women: for example we would not expect traits such as jealousy, overpossessiveness, and suspicion to be associated with women's defensive aggression. Therefore, this suggests that men and women have similar reasons for perpetrating IPV, which suggests that IPV has an underlying cause unrelated to sex. This supports Felson's (2002) argument that IPV should be investigated as violence rather than sexism.

Personality as a theory for IPV contrasts with the feminist theory in a number of ways. Firstly, the feminist theory is specific in that it is applied to all men and not women. Whereas personality theory suggests that the individual differences associated with IPV do not apply to everyone, and therefore only some men (and some women) will be violent towards their partners. Feminists propose that perpetrators of IPV are not deviant because IPV is sanctioned by society, and is therefore a normal part of all men's behaviour. However personality theory would suggest that it is only those who are atypical who would perpetrate IPV. Therefore finding relationships between personality and IPV perpetration would conflict with the feminist theory of IPV, particularly if personality affected the behaviour of both sexes.

Furthermore, if the three offence types (IPV, general violence and nonviolent offending) share the same underlying causes (e.g. cluster B PDs), this would suggest that the different types of crime may be similar rather than distinct. This would also contrast with the feminist theory which states that IPV is rooted in patriarchy and therefore has a different etiology to other types of violence. Together prior research findings suggest that violent as well as nonviolent offenders show evidence of personality disorders and have lower adaptive personality traits.

Existing research has typically investigated personality alongside either nonviolent offending, or general violence or IPV. However, separate analysis does not allow for commonalities between offences to be detected. Therefore to inform theories on the generalist or specialist nature of offending it is important to study the correlates of different types of offences together.

Eysenck (1996) concluded that “personality is a concept that is an essential feature of any acceptable theory of criminality” (p. 34), therefore personality was investigated in the current research to inform the general theories of crime. Furthermore, there appear to be no studies investigating *both* adaptive and maladaptive personality in violent (general violence and IPV) *and* nonviolent offending behaviour simultaneously in men and women. The current research aims to address this, by using the „Big Five“ personality traits to investigate adaptive personality and the IPDE-SQ to investigate maladaptive personality traits, with all three offence categories in men and women. It is important to investigate adaptive as well as maladaptive personality so as to avoid labeling people with a „deviant personality“, and to assess how adaptive traits may also be involved. Focusing only on the maladaptive part of personality can lead to psychopathologising of offenders. Therefore, considering personality in terms of adaptive and maladaptive traits considers protective as well as risk factors. This extends current knowledge of the role of personality in offending behaviour, which may have important clinical implications.

Violent and nonviolent offending behaviour was assessed in a single, mixed-sex, population. A comprehensive measure of general violence, IPV and nonviolent offending behaviour was administered to male and female students, together with measures of personality and personality disorder traits. The purpose of this study was to investigate predictors of violent and nonviolent offending separately for men and women to assess whether there were offence-specific and sex-specific risk factors. It was predicted that:

1. Personality disorders would predict offending behaviour, specifically:
 - a) Cluster B PDs would be positively associated with all three offences
 - b) Cluster A would be positively associated with IPV
 - c) Cluster C may be associated with IPV
2. Adaptive personality traits would be protective factors for offending behaviour, specifically:
 - a) Agreeableness and neuroticism would be associated with both types of aggressive behaviour
 - b) Conscientiousness would be associated with all three types of offending behaviour

5.2. Method

5.2.1. Participants

Participants were a convenience sample recruited on a British university campus. There were 116 (39.1%) men and 181 (60.9%) women. Ages ranged from 18 to 49 with a mean of 23.83 years (men: 23.08; women: 24.31). The response rate was 71.6%. Of the 358 returned questionnaires, 61 were removed either due to missing data, respondents not having had a partner in the past 12 months or respondents not being in a heterosexual relationship: therefore 297 were retained for analysis. Individuals in homosexual relationships were not included in the present study for the same reasons as detailed in section 3.2.1.

5.2.2. Measures

Full details of the measures used are discussed in Chapter 2.

Offending behaviour

The Nonviolent and Violent Offending Behaviour Scale (NVOBS: Thornton, Graham-Kevan & Archer, submitted) was used. Cronbach's alpha (α) was $\alpha = .90$ for general violence, $\alpha = .75$ for IPV perpetration, and $\alpha = .75$ for nonviolent offending.

Adaptive personality

The International Personality Item Pool (IPIP, Goldberg, 1999) was used to measure adaptive personality. Cronbach's alpha (α) was used to assess scale reliability and found to be $\alpha = .86$ for Extraversion, $\alpha = .77$ for Agreeableness, $\alpha = .76$ for Conscientiousness, $\alpha = .84$ for Neuroticism and $\alpha = .71$ for Openness/Intellect.

Maladaptive personality

The International Personality Disorder Examination – Screening Questionnaire (IPDE-SQ, Loranger et al., 1997) was used to measure maladaptive personality. Personality disorder traits are referred to throughout rather than personality disorders, because the IPDE-SQ is a screening questionnaire and not a diagnostic tool. Cronbach's alpha (α) was used to assess scale reliability and found to be $\alpha = .68$ for cluster A PD traits, $\alpha = .77$ for cluster B PD traits, and $\alpha = .77$ for cluster C PD traits.

5.2.3. Procedure

A questionnaire pack (containing the measures listed above) was distributed to university students on campus, along with return envelopes. Participants were recruited from open access computer rooms, the university library and from large lectures. Participants were from a variety of courses, including Psychology. Students did not receive course credit or compensation for taking part in the research. See Chapter 2 for details of ethical considerations.

5.3. Results

5.3.1. Data screening

Prior to analysis, the data was screened for accuracy, missing data, outliers and normality (Tabachnick & Fidell, 2007). For each variable outliers were reduced, so that the most extreme scores were recoded to be the equivalent value to the next most extreme score. There were no multivariate outliers. Once outliers had been adjusted there were no violations of normality. A p value of .05 was deemed not to be stringent enough as it may result in type I errors: therefore an alpha level of .01 was used throughout.

5.3.2. Statistical analysis

Frequency of offending

Frequency scores were calculated for each personality disorder trait and personality trait separately for men and women. The means and standard deviations are presented in table 5.1. A series of independent samples t-tests were used to test for sex differences between the individual difference variables of personality disorder traits and personality traits. There were no significant sex differences on any of the personality disorder traits. There were significant sex differences for agreeableness, conscientiousness and neuroticism where women were found to score higher than men. The effect sizes were large for agreeableness and neuroticism, and were medium for conscientiousness, according to Cohen's (1988) criteria.

Table 5.1. Means and standard deviations for each personality disorder traits and personality trait for men and women, and *t* and *d* values for sex differences¹

Personality disorder traits and personality traits.	Men		Women		<i>t</i> (<i>df</i>)	<i>d</i> ^a
	Mean	S.D.	Mean	S.D.		
Paranoid	2.12	1.40	2.16	1.42	0.22 (279)	-0.03
Schizoid	1.41	1.12	1.16	1.23	1.67 (279)	0.21
Schizotypal	2.02	1.58	1.82	1.65	0.98 (280)	0.12
Histrionic	2.57	1.82	2.77	1.74	0.79 (278)	-0.11
Antisocial	1.07	1.09	0.71	0.99	2.79 (280)	0.35
Narcissistic	2.96	1.80	2.43	1.79	2.35 (279)	0.30
Borderline	2.22	1.93	2.76	2.24	2.04 (280)	-0.26
Compulsive	2.90	1.76	3.46	1.56	2.75 (278)	-0.34
Dependent	1.89	1.70	2.16	1.89	1.20 (280)	-0.15
Avoidant	3.52	2.16	3.63	2.34	0.40 (279)	-0.05
Extraversion	32.49	6.53	33.16	7.35	0.79 (216.06)	-0.10
Agreeableness	37.99	5.12	41.34	4.68	5.52 (280)**	-0.68
Conscientiousness	32.34	4.96	35.10	5.89	4.16 (225.87)**	-0.51
Neuroticism#	32.50	6.49	27.26	6.89	6.17 (280)**	0.78
Openness	35.21	4.98	35.35	4.93	0.23 (280)	-0.03

^a Minus sign signifies higher scores for women than men, except neuroticism, see below.

A lower score on the neuroticism scale means higher in neuroticism.

** significant at $p < .001$

¹ The findings are no different when age is controlled.

Correlational analyses

Table 5.2 shows the Pearson correlations between individual difference variables and each offence category, separately for men and women. There were medium and significant correlations between the three non-violent factors (criminal damage and theft: $r = .39, p < .001$; criminal damage and drugs: $r = .31, p < .001$; theft and drugs: $r = .39, p < .001$), therefore these were collapsed into one scale in order to be more parsimonious and interpretable, and to fit with the main hypotheses of the research questions. There are similarities and differences between the correlations for men and women. General violence was significantly related to IPV perpetration and nonviolent offending in both sexes, suggesting that general violence overlaps to some degree with perpetration of other offences. However, IPV was only significantly related to nonviolent offending in women, suggesting less overlap in this case for men, although despite being weak, the correlation was in the same direction for men. Age was significantly related to general violence, but not IPV or nonviolent offending, for both men and women, suggesting that both sexes are less generally violent with age. Cluster A PD traits (paranoid, schizoid, schizotypal) were significantly correlated with IPV and nonviolent offending in men. Cluster B PD traits (histrionic, antisocial, narcissistic, borderline) were related to all three offence types in both men and women. Cluster C PD traits (compulsive, dependent, avoidant) were not significantly related to any of the offence types in either sex. Of the „Big Five“ traits, men’s nonviolent offending was negatively associated with conscientiousness and with neuroticism, whereas women’s IPV was negatively associated with neuroticism and their general violence was negatively associated with agreeableness. These findings indicate sex similarities and differences in the associations between offence types and personality variables.

Table 5.2. Pearsons correlations between general violence (GV), IPV, nonviolent offending (NV), personality disorder traits, personality traits and age, for men's and women's self-reports (N = 116 men, 181 women).

	Men			Women		
	GV	IPV	NV	GV	IPV	NV
Age	-.35*	-.10	-.19	-.33**	-.17	-.19
Paranoid	.23	.26	.19	.19*	.26**	.17
Schizoid	.14	.37**	.16	-.12	.06	-.002
Schizotypal	.30*	.42**	.40**	.07	.11	.05
Cluster A total	.31**	.46**	.33*	.10	.18	.14
Histrionic	.33*	.18	.47**	.21*	.15	.30**
Antisocial	.36*	.24*	.41**	.19*	.26**	.26**
Narcissistic	.27*	.04	.19*	.16	.16	.21*
Borderline	.34**	.35**	.49**	.15	.30**	.22*
Cluster B total	.46**	.29*	.55**	.25*	.32**	.36**
Compulsive	.07	.04	-.07	-.02	.10	.08
Dependent	.41**	.23	.27*	.03	.13	.04
Avoidant	.19	.11	.11	.09	.14	.01
Cluster C total	.29*	.16	.13	.06	.17	.08
Extraversion	.12	-.02	.10	.09	.002	.15
Agreeableness	-.02	-.11	-.17	-.31**	-.14	-.15
Conscientiousness	-.07	.09	-.31*	-.13	-.06	-.14
Neuroticism	-.20	-.18	-.32**	-.14	-.24*	-.16
Openness	-.18	-.07	-.01	-.07	.002	-.02

* significant at the .01 level, ** significant at the .001 level

Multiple Regression Analysis¹

Two hierarchical and four standard multiple regressions were conducted, to assess the predictors of general violence, IPV and nonviolent offending, separately for men and women. Hierarchical regression was used so that age could be controlled for general violence in step 1, since research has suggested that offending behaviour decreases with age and there were consistent negative correlations in the present study (Table 5.2); step 2 added the other six predictor variables, three of the „big five“ personality traits (agreeableness, conscientiousness, neuroticism) and the three personality disorder trait clusters (A, B and C). Table 5.3 displays the standardised regression coefficients (β), R^2 for step 1, and R^2 change for step 2.

¹It would have been appropriate to use NBR here as the criterion variables were overdispersed. The data in this chapter was analysed prior to the discovery of the NBR technique. The analyses have been repeated using NBR, but the overall results were the same. Therefore the original published version of results remains in this Chapter.

Table 5.3. Summary of Hierarchical and Standard Regression analyses displaying the standardised regression coefficients (β) for personality traits and personality disorder traits, as predictors of (1) general violence, (2) IPV and (3) nonviolent offending, for men (N=116) and women (N=181). ^{1, 2}

Variable	General Violence		IPV		Nonviolent offending	
	Men	Women	Men	Women	Men	Women
Step 1						
Age	-.35**	-.32**				
Step 2						
Age	-.28*	-.25*				
Cluster A	.16	.01	.41**	.03	.20	.03
Cluster B	.35*	.24*	.09	.33**	.47**	.39**
Cluster C	.11	-.10	-.05	-.05	-.18	-.04
Agreeableness	.00	-.22*	-.09	-.15	-.13	-.15
Conscientiousness	-.03	.03	.12	.03	-.20*	.01
Neuroticism	.06	-.04	-.03	-.12	-.02	-.11

Note. $R^2 = .12$ for step 1; $\Delta R^2 = .17$ for step 2 ($p < .01$) – General violence men

Note. $R^2 = .10$ for step 1; $\Delta R^2 = .10$ for step 2 ($p < .005$) – General violence women

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

¹ Multiple regressions were also conducted using the yes/no variety scoring method (as advocated by Moffitt et al., 2000), however the overall results remain unchanged. The same variables predicted the criterion variables.

² Regressions were also conducted using NBR using the scale developed in Chapter 4; the overall results remain unchanged. The same variables predicted the criterion variables.

General violence for men.

The hierarchical regression indicated that age explained a significant proportion of variance in general violence for men in step 1. In step 2, age and cluster B PD traits

significantly explained a further 17.4% of the variance. The increase in explained variance contributed by the final model was significant ($F(7, 106) = 3.73, p < .01$). Age was negatively associated with general violence suggesting that men get less violent as they get older. Cluster B PD traits were positively associated with violence, so that men scoring higher on these traits are more likely to be physically aggressive towards other people. Overall the model accounts for 29.6% of the variability (24.2% adjusted) in general violence for men and the overall regression model was significant ($F(8, 106) = 5.56, p < .001$).

General violence for women.

For women, a significant proportion of the variance in general violence was again explained by age in step 1. In step 2, age, cluster B PD traits, and agreeableness significantly explained a further 10.2% of the variance. The increase in explained variance contributed by the final model was significant ($F(7, 168) = 3.08, p < .01$). The negative association with age indicates that women's general violence decreases as they get older. Agreeableness was also negatively associated with general violence, and there was a positive association for cluster B PD traits (as there was for men). Overall the model accounts for 20.5% of the variability (16.7% adjusted) in general violence for women and the overall regression model was significant ($F(8, 168) = 5.42, p < .001$).

IPV men

Cluster A PD traits significantly explained 23.5% of the variance in IPV for men. The positive association for cluster A PD traits indicates that higher scores were associated with more physical aggression towards partners. Overall the model accounts for 23.5% of the variability (19.2% adjusted) in IPV for men, and the overall regression model was significant ($F(8, 106) = 5.57, p < .001$).

IPV women

Cluster B PD traits significantly explained 16% of the variance. The positive association between these two variables indicates that the higher women score on cluster B PD traits the more likely they are to be physically aggressive towards their partner. The overall model accounts for 16% of the variability (13.1% adjusted) in IPV for women and the overall regression model was significant ($F(8,168) = 5.53, p < .001$).

Nonviolent offending for men

Cluster B PD traits and conscientiousness significantly explained 38.5% of the variance. The positive sign for cluster B PD traits indicates that men scoring higher on these traits are more likely to perpetrate nonviolent offences. The negative association for conscientiousness indicates that men scoring higher on this trait are less likely to perpetrate nonviolent offences. The overall model accounts for 38.5% of the variability (35.1% adjusted) in nonviolent offending for men and the overall regression model was significant ($F(8, 106) = 11.38, p < .001$).

Nonviolent offending for women

Cluster B PD traits significantly explained 18.3% of the variance. The positive association indicates that women scoring higher on cluster B PD traits are more likely to perpetrate nonviolent offences. The overall model accounted for 18.3% of the variability (15.5% adjusted) in nonviolent offending for women and the overall regression model was significant ($F(8, 169) = 6.54, p < .001$).

Conclusions from multiple regression analyses.

The multiple regressions suggest similarities and differences in the predictors of men's and women's offending. For general violence, men's and women's offending share two predictors, a negative association with age and a positive association with cluster B PD traits. However women's general violence was also predicted by lower agreeableness and

men's was not. The predictors of IPV perpetration were different for men and women. Men's perpetration of IPV was predicted by cluster A PD traits, whereas women's perpetration of IPV was predicted by cluster B PD traits. Both men's and women's nonviolent offending was predicted by higher cluster B PD traits. However, men's nonviolent offending was also predicted by lower conscientiousness, and women's was not. Overall these results suggest that men's and women's offence perpetration may share similar risk factors, and that there may also be risk and protective factors that are more relevant to one sex than the other. However only by comparing the magnitude of the correlations, as we do in the next section, can we conclude this.

Comparison of male and female regression coefficients

In order to examine whether the effect of the risk factors on offending behaviour was the same for men and women the difference between the two independent regression coefficients was tested. The formula used to test the difference has been recommended by Paternoster et al. (1998: p. 862) and also Howell (1997: p. 260). See page 185 for the formula.

For general violence there was no significant sex difference between the beta coefficients for age ($z = 0.48$), cluster A PD traits ($z = 0.85$), cluster B PD traits ($z = 1.73$), cluster C PD traits ($z = 1.25$), agreeableness ($z = 1.43$), conscientiousness ($z = .03$), or neuroticism ($z = 1.34$). Therefore the effect of all risk factors on the perpetration of general violence is similar for males and females. Although there was no significant difference in the beta weights for the effect of agreeableness on men's and women's general violence, the beta for men was almost zero and agreeableness was found to be a significant predictor of women's general violence in the regression analysis. The lack of a significant sex difference in the beta weights may be because this procedure for examining the regression coefficients is quite a conservative test.

For IPV there was no significant sex difference between the beta coefficients for cluster A PD traits ($z = 2.00$), cluster C PD traits ($z = 0.01$), agreeableness ($z = 0.88$), conscientiousness ($z = 0.13$), or neuroticism ($z = 1.00$). There was a significant sex difference between the beta coefficients for cluster B PD traits ($z = 2.59$, $p < .01$), in that the effect of cluster B PD traits on IPV perpetration was significantly greater for females than males. Therefore the effect of all risk factors (except cluster B) on the perpetration of IPV is similar for males and females.

For nonviolent offending there was no significant sex difference between the beta coefficients for cluster A PD traits ($z = 1.29$), cluster B PD traits ($z = 1.66$), cluster C PD traits ($z = 0.88$), agreeableness ($z = 0.26$), or neuroticism ($z = 0.51$). There was a significant sex difference between the beta coefficients for conscientiousness ($z = 2.67$, $p < .01$), in that the effect of conscientiousness on the perpetration of nonviolent offending was significantly greater for males than females. Therefore the effect of all risk factors (except conscientiousness) on the perpetration of nonviolent offending is similar for males and females.

5.4. Interim discussion

In the current study, self-reported offending was measured in men and women, together with personality variables. Investigating personality is important in order to inform theories of crime regarding the generalist or specialist nature of offending (Eysenck, 1964). The results suggested some consistent predictors of violent and nonviolent offending, but also revealed some unique risk and protective factors. In many ways, the current findings support previous research that has investigated one or two of the variables used in this study (offending behaviour, personality traits and personality disorder traits), but not all have previously been investigated together in the same sample. Therefore the current

research has extended previous findings by examining these variables simultaneously rather than in isolation.

The current study found no sex differences in personality disorder traits. Previous studies have found sex differences in personality disorders but some of these could be the results of sex-bias in diagnosis (Emmelkamp & Kamphuis, 2007). However the use of a self-report measure eliminates this bias because it does not involve clinicians diagnoses, this may explain why we did not find sex differences in PDs. Also, the current study only involved PD traits, so that the lack of sex differences could also be attributed to the use of traits rather than diagnoses in this study. Sex differences were found in three of the „Big Five“ personality traits. Women scored higher than men on agreeableness, conscientiousness and neuroticism, which is consistent with the findings of previous research (Feingold, 1994; Heaven, 1993; Lippa, 2010; Schmitt et al., 2008).

Similar to Moffitt et al. (2000), the current study suggests that although there are moderate relationships between the three offence types for both sexes (indicated in Chapter 3), there are also some differences in predictors between offence types and between men and women. This suggests that the three offence types may have both shared and unique risk and protective factors in terms of their associations with personality variables: thus providing support that both the generalist and specialist approaches to crime are partially correct and partially incorrect.

There were some shared predictors for general violence in men and women. Age and cluster B PD traits were significant predictors of general violence for both sexes, but agreeableness was a protective factor for women’s general violence. The first association supports the well-known finding that offending behaviour in general (Gottfredson & Hirschi, 2007; Quetelet, 1833/1984), and violence in particular (e.g., Archer, 2004; Courtwright, 1996; Daly & Wilson, 1990, 2001; Eisner, 2003), decrease with

age. Cluster B PDs, such as borderline and antisocial PDs, have been associated with men's general violence in the batterer typology of Holtzworth-Munroe and Stuart (1994), but there is little prior research on women's general violence and maladaptive PD traits. Therefore the current research addresses the gap in this area of research. The regressions indicated that men's and women's general violence was related to cluster B PD traits, and by comparing the regression coefficients it was found that cluster B PD traits had a similar effect on male and female perpetration of general violence. Previous research has suggested that agreeableness is a protective factor for aggression in both sexes (Gleason et al., 2004; Sharpe & Desai, 2001), but in the current study this association was only found for women. These results suggest that men and women have some common risk factors for general violent offending, but that agreeableness may protect women but not men.

Predictors for IPV were different for men and women. Men's IPV was predicted by higher cluster A PD traits whereas women's IPV was predicted by higher cluster B PD traits. Both cluster A and B PD traits correlated significantly with IPV for men, but the relationship was stronger for cluster A as only cluster A emerged as a significant predictor in the regression analysis, and only cluster B was a significant correlate of IPV in women.

Cluster A PDs are the least researched cluster (Emmelkamp & Kamphuis, 2007), and have not typically been linked with offending behaviour, so this is a novel finding. However, one cluster A PD (schizoid) has been associated with violent and criminal behaviour in the borderline subtype of IPV men (Holtzworth-Munroe et al., 2000) and with male and female IPV perpetration (Ehrensaft et al., 2006). Individuals with cluster A PDs have also been found to score higher on neuroticism and lower on agreeableness (Emmelkamp & Kamphuis, 2007), results that correspond with previous links found between aggression and these two Big Five factors (Gleason et al., 2004; Sharpe & Desai, 2001). This could account for the link between IPV and cluster A PD traits in the current

sample of men. Cluster A PD is the cluster that is closest to mental illness. It is possible that men need to be more disordered than women do before they perpetrate IPV, due to the inhibiting factor of negative social attitudes towards male perpetrators of IPV (Harris & Cook, 1994; Simon, Anderson, Thompson, Crosby, Shelley, & Sacks, 2001; Taylor, & Sorenson, 2005) and internalised chivalry.

In the current sample, both men's and women's IPV correlated with borderline PD traits, which has previously been linked to men's (Dutton, 2003; Holtzworth-Munroe & Stuart, 1994) and women's (Spidel, Nicholls, Kendrick, Klein & Krop, 2004) perpetration of IPV. However, cluster B PD traits were only a significant predictor of IPV for women in the present study: comparing the beta coefficients indicated that cluster B PD traits had a greater effect on female than male IPV perpetration. These findings suggest that although male and female perpetrators of IPV indicate similar correlations with personality and PD traits, the predictors vary overall, indicating that there are likely to be risk factors for IPV that are unique for each sex. This provides some support for the feminist theory that men's and women's motivations for IPV are different.

Previous research has suggested that low conscientiousness, low agreeableness and high neuroticism correlate with aggressive behaviour (Caprara et al., 1996; Tremblay & Ewart, 2005). The current study found that high neuroticism was related to IPV in women, and that low agreeableness was related to general violence in women. These findings partially support previous research findings but are not consistent for both sexes.

Cluster B PD traits were also a significant predictor of nonviolent offending in both sexes, but conscientiousness was a protective factor for men's (but not women's) nonviolent offending. Previous research has found an association of antisocial PD and nonviolent offending behaviour (Barros & Serafim, 2008; Emmelkamp & Kamphuis, 2007), so that the present findings are consistent with these results. Previous research has

also found low conscientiousness to be associated with nonviolent offending (Heaven, 1996), which supports the present findings for men but not for women. Conscientiousness refers to a person's ability to control impulses (John & Srivastava, 1999), and is therefore associated with impulsivity, low self-control and constraint, which have been widely linked to perpetration of crime (e.g. Gottfredson & Hirschi, 1990). Therefore men who are low in conscientiousness have low self-control (or high impulsivity) and are more likely to perpetrate nonviolent crimes. Again there are similarities in men's and women's risk factors for offending behaviour, but there is also a protective factor, conscientiousness, that is specific to one sex.

To conclude, the current study found that adaptive personality traits were not consistent predictors of offending in men and women: men's nonviolent offending was inversely related to conscientiousness, and women's general violence was inversely related to agreeableness. Maladaptive traits were related to all three offence types. Cluster B PD traits were a consistent predictor of offending behaviour in women, predicting involvement in general violence, IPV and nonviolent offending.. These traits were not as consistent a predictor for men, predicting only general violence and nonviolent offending. Men's IPV was instead predicted by cluster A PD traits, so that predictors of men's and women's IPV perpetration differed. This supports the view that there may be different risk factors involved in men's and women's IPV perpetration. This provides some support for the feminist view that men's and women's IPV has different motivations.

Overall, the results suggest that offending behaviour is related to similar intrapersonal factors for men and women, with the exception of IPV. The common etiology for different offences suggests that they may be similar phenomena that stem from similar causes. In order to advance research in this area, other variables need to be investigated to determine whether predictors consistently vary between the offence types and sexes, or if

there are further shared risk factors. Therefore Study 4 leads on from these findings and assesses additional risk factors for men's and women's offending.

CHAPTER 6

STUDY FOUR: Violent and nonviolent offending behaviour in men and women: Their associations with anger, attachment, self-control, and psychopathic traits.

6.1. Brief introduction and aims

Following on from the investigation into personality variables, this study uses the same scale as before to widen out the variables that may be associated with the different types of offending in order to further inform the generalist/specialist theories of offending. Self-control is one variable to investigate for all forms of offending; attachment deprivation has also been associated with both violent and nonviolent offences; anger may be specific only to violent offences and may differentiate between violent and nonviolent offences; and psychopathic traits are characteristics of a versatile offender. Previous research has investigated these four variables individually in relation to specific offence types, but so far no research has investigated them all simultaneously with violent and nonviolent offending in a mixed-sex sample. Offending is the result of many complex factors, and all four of the variables in this study are related constructs (see section 1.10. for a discussion).

Attachment is one form of individual difference variable, but it also has an interpersonal level to it. Bowlby (1946) was the first to relate insecure attachment to crime. He found that prolonged maternal separation had severe negative effects on the child: including the child becoming an “affectionless character” (p. 49) and a persistent offender. Bowlby noted that stealing was related to other offences including aggression, therefore insecure attachment may be a common etiology for different types of offence. There is evidence for a link between attachment and different forms of offending from the literature on the heterogeneity of IPV perpetrators. Indeed, insecure attachment has been found to be

characteristic of the subtypes of offenders who are violent in and outside their relationships, and engage in nonviolent criminal behaviour (e.g. Holtzworth-Munroe & Stuart, 1994; Tweed & Dutton, 1998). Therefore insecure attachment appears to be a correlate of different forms of offending. See section 1.10 for a full discussion of attachment and its association with crime.

Anger is a reliable predictor of violent crime (Novaco, 1994; Howells, 1998), and can distinguish violent from nonviolent offenders (Archer & Haigh, 1997; Cornell, Peterson & Richards, 1999; Mills, Kroner & Forth, 1998; Selby, 1984): which suggests that violent offending may be distinct from nonviolent offending, which may support a specialist theory of crime. With regards to the current research it would be expected that anger would predict violent offending but would be unrelated to nonviolent offending in this research. However criminal damage has been found to share similar interpersonal features to general violence (e.g. Howard & Dixon, 2011), therefore criminal damage may provide a link between anger and nonviolent offending. Research has found that women are less likely than men to directly aggress against the target of their anger (Campbell, 2006) and therefore women may have “greater emotional and behavioural control” (p. 240) than men. The sex difference in anger expression may explain the gender gap in the perpetration of physical aggression. Therefore, in relation to the current study, anger may predict men’s, but not women’s, physical aggression. However, it would also be interesting to examine whether the sex difference in anger expression applies to *both* general aggression and also IPV, as this (to my knowledge) has not been investigated before.

The majority of research in the area of anger has focused on male perpetrators of violence: therefore anger as a predictor of female violence needs further investigation. Indeed, Babcock, Canady, Graham & Schart (2007, p. 226) stated that “to date, no research has looked at anger among domestically violent women”. There are associations between

anger and attachment (see section 1.10), however, the roles of anger *and* attachment on violence have not been widely researched, particularly in women. Therefore research is required that simultaneously examines anger and attachment in both partner-violent and generally-violent men and women.

Low self-control has been proposed as a predictor of all offending irrespective of its violent or nonviolent nature and irrespective of gender (Gottfredson & Hirschi, 1990). Therefore we would expect to find that low self-control would be associated with all three types of offence studied in the current research. (See section 1.10. for a detailed discussion of low self-control). However, its relation to IPV has been queried (Moffitt et al., 2000), on the grounds that IPV is willful and intentional rather than impulsive (e.g. See Corvo & Johnson, 2003, Appendix A). However, some research has found associations between self-control and relationship success (Tangney et al., 2004) or IPV (Hotaling et al., 1990): therefore low self-control may be related to IPV.

Research has also identified a link between anger and low self-control (Alexander, et al., 2004; Driscoll et al., 2006; Tangney et al., 2004). Individuals with low self-control are more likely to express their anger aggressively, because these people will be less likely to be able to control or restrain their emotions or behaviours, instead acting impulsively in response to provocation.

Psychopathic traits have been linked with criminal behaviour, including severe and violent crimes (Gendreau, Goggin & Smith, 2002; Hare, 1994, 1999; Hemphill, 2007; Hemphill, Hare & Wong, 1998; Leistico, Salekin, DeCoster & Rogers, 2008; Porter & Woodworth, 2006, 2007; Walters, 2003). See section 1.10.5 for a detailed discussion. Psychopaths have been found to be criminally versatile (e.g. Hart & Hare, 1997), and therefore psychopathic traits may be useful for identifying similarities between different types of violent and nonviolent offenders. Furthermore, psychopathic traits have not been

researched extensively in relation to IPV (Swogger et al., 2007). However, the psychopathology associated with the generally violent/antisocial subtype of IPV perpetrator (as proposed by Holtzworth-Munroe & Stuart, 1994) is markedly similar to the core features of psychopathy (Cleckley, 1976). Therefore psychopathic traits may be important for identifying the similarities between IPV and generally violent offenders: thus supporting Felson's (2002) proposal that violence is violence. Furthermore, to date no research has simultaneously examined psychopathic traits as a predictor of IPV, general violence *and* nonviolent offences. Therefore this has yet to be investigated and is an original contribution to knowledge.

In the current study attachment, psychopathic traits, self-control, and anger were used to predict general violence, IPV and nonviolent offending separately for men and women, using the same comprehensive measure of violent and nonviolent offending behaviour used in Study 3. Study 4 extends existing research (and the findings of Study 3) by investigating whether these alternative predictors are consistent between offences and between men and women, to see if there are any common risk factors. Overall this research builds on the existing research into women's violent and nonviolent offending behaviour to investigate whether women's perpetration of different offences has similar as well as different risk factors to those for men, thus informing the generalist and specialist theories of offending. The aim of the present study was to investigate predictors of violent and nonviolent offending separately for men and women to assess whether there were offence-specific and sex-specific risk factors. It was predicted that:

1. Low self-control would predict all offending behaviour.
2. Anger expression would predict violent but not nonviolent offending.
3. Insecure attachment would predict all offending behaviour.
4. Psychopathic traits would predict all offending behaviour.

6.2. Method

6.2.1. Participants

Participants were a convenience sample recruited on a British university campus. There were 355 participants, 184 men and 171 women. Ages ranged from 18 to 56 with a mean of 21.74 (women = 21.82, men = 21.68). The response rate was 75.1%. Of the 413 returned questionnaires, 58 were removed either due to missing data, respondents not having had a partner in the past 12 months or respondents not being in a heterosexual relationship: therefore 355 were retained for analysis. Individuals in homosexual relationships were not included in the present study for the same reasons as detailed in section 3.2.1.

6.2.2 Measures

Full details of the measures are provided in Chapter 2.

Nonviolent and violent offending

The NVOBS (see Chapters 2 and 3) was used to investigate IPV, general violence and nonviolent offending. This is the same measure of offending as used in Study 2. Cronbach's alpha (α) was used to assess scale reliability and found to be $\alpha = .88$ for general violence, $\alpha = .86$ for IPV and $\alpha = .78$ for nonviolent offending.

Attachment

The Relationship Questionnaire (RQ; Bartholomew & Horowitz, 1991) was used to measure self-reports of attachment. Two attachment dimensions were calculated for self and partner: attachment anxiety and attachment avoidance. In the tables these have been labeled Attachment anxiety (S) or (P) and Attachment avoidance (S) or (P) - S refers to self-reports, P refers to reporting perceived partner attachment style. Reliabilities could not be calculated as they were single-item measures.

Anger

Anger was measured using the anger subscale from Buss and Perry's (1992) Aggression questionnaire (AQ). Reliability was $\alpha = .83$.

Psychopathic traits

The Youth Psychopathic Trait Inventory (YPI: Andershed, Kerr, Stattin & Levander, 2002) measured three subtypes of psychopathy: narcissism, callous-unemotional, and risktaking/impulsivity. Cronbach's alpha (α) was used to assess scale reliability and was found to be good ($\alpha = .88$ for YPI total). For the three dimensions reliability was found to be $\alpha = .93$ for narcissism, $\alpha = .71$ for callous unemotional traits and $\alpha = .74$ for impulsivity and risktaking.

Low self-control

Tangney, Baumeister and Boone's (2004) Brief Self-Control Scale measured self-reports of self-control. Cronbach's alpha (α) was used to assess scale reliability and was found to be good ($\alpha = .80$).

6.2.3. Procedure

The procedure was the same as for Study 3 (see section 4.2.3). See Chapter 2 for details of ethical considerations.

6.3. Results

6.3.1. Data screening

The data screening procedure was the same as for Study 3 (see section 4.3.1).

6.3.2. Statistical analysis

Frequency of offending

Frequency scores were calculated for each risk factor, separately for men and women. The means and standard deviations for each risk factor, along with t values and d

values for the sex differences are shown in Table 6.1. A series of independent samples t-tests were used to test for sex differences for each risk factor. It was found that there were some sex differences in the risk factors. Men scored higher than women on narcissism, callous-unemotional and risk-taking psychopathic traits. Men and women also differed on their perceptions of their partner's attachment anxiety and attachment avoidance. Women reported lower levels of partner attachment anxiety than men, and women reported higher levels of partner attachment avoidance than men. These were all medium to large effect sizes according to Cohen (1988). Men and women did not differ on levels of anger, self-control, or on self-reports of their own attachment anxiety and attachment avoidance levels.

Table 6.1. Means and standard deviations for risk factor variables, for men and women (N = 184 men, 171 women), and *t* and *d* values for sex differences^{1, 2}.

Risk factor	Men		Women		<i>t</i> (<i>df</i>)	<i>d</i> ^a
	Mean	S.D.	Mean	S.D.		
YPI narcissism	41.17	11.68	33.78	9.90	6.37 (342.26)**	0.68
YPI CU	32.35	6.15	29.53	4.93	4.71 (333.51)**	0.51
YPI risk-taking	36.35	10.24	32.98	6.65	3.61 (343)**	0.39
Anger	16.90	5.53	17.64	6.01	-1.22 (352)	-0.13
Attachment anxiety (S)	-1.96	4.20	-1.60	4.41	-.76 (322)	-0.09
Attachment avoidance (S)	-0.04	3.84	-0.03	4.12	-.04 (322)	-0.003
Attachment anxiety (P)	-0.19	3.56	-1.99	4.14	3.95 (291)**	0.47
Attachment avoidance (P)	-1.63	3.74	0.26	4.05	-4.15 (291)**	-0.48
Self-control	37.91	8.26	38.83	7.16	-1.10 (336)	-0.12

^a Minus sign signifies higher values for women than men.

** significant at .001 level

¹ controlling for age has no effect on these sex differences.

² Note that the attachment measures are overdispersed (NBR was not appropriate to use here as some attachment values are less than zero, which is invalid for negative binomial probability distribution).

Correlational analyses

Table 6.2 shows the Pearson correlations between individual difference variables and each offence category, separately for men and women. There are similarities and differences between the correlations for men and women. Age was significantly negatively related to general violence, but only for men; age did not correlate with men's IPV or nonviolent offending, or with women's offending.

The results from the YPI indicated some similarities between men and women. Narcissism was significantly related to all three offence types in men, but was only related

to general violence and nonviolent offending in women. Callous-unemotional traits were significantly related to general violence and IPV but not nonviolent offending in women, and related to only IPV in men. Risk-taking was significantly correlated with all three offence types in women, but only correlated with general violence and nonviolent offending in men. Anger indicated a different pattern between the sexes. Anger correlated with both violent offences (general violence and IPV) for women, but only correlated with general violence in men. Attachment style was coded in terms of self attachment style and partner's attachment style. A person's own attachment style did not correlate with any offence type, and neither did partner's attachment anxiety. However, partner's attachment avoidance was related to IPV, but only for women. This finding is consistent with previous research that has investigated the outcome where one partner demands intimacy and closeness, but the other partner withdraws from that. For example both Bond and Bond (2004) and Roberts and Noller (1998) found that men's attachment avoidance predicted women's IPV. Low self-control was related to nonviolent offending in both men and women, and was also related to general violence but only in women. Low self-control did not relate to IPV for men or women. These findings indicate sex similarities and differences in the associations between offence types and individual variables.

Table 6.2. Pearsons correlations between general violence (GV), IPV, nonviolent offending (NV), psychopathic traits, anger, attachment, self-control, and age, for men's and women's self-reports (N = 184 men, 171 women).

	Men			Women		
	GV	IPV	NV	GV	IPV	NV
Age	-.22**	-.12	-.19	-.13	-.18	-.06
YPI narcissism	.24**	.34**	.30**	.35***	.18	.35***
YPI CU	.17	.23**	.12	.25**	.23**	.13
YPI risktaking	.22**	.16	.39**	.33***	.23**	.39***
Anger	.36**	.11	.10	.38***	.26**	.17
Attachment anxiety (S)	.08	-.04	-.03	.06	.01	.13
Attachment avoidance (S)	.08	.04	-.02	.12	.08	.09
Attachment anxiety (P)	.09	.01	.02	.08	.01	.03
Attachment avoidance (P)	-.02	.02	.02	-.02	.23**	.02
Self-control	-.11	-.16	-.37**	-.22**	-.12	-.25**

** significant at the .01 level *** significant at the .001 level

Multiple Regression Analysis¹

Two hierarchical and four standard multiple regressions were conducted, to assess the predictors of general violence, IPV and nonviolent offending, separately for men and women. Hierarchical regression was used for general violence so that age could be controlled for in step 1, since research has indicated that offending behaviour decreases with age and there was a negative correlation in the present study (Table 6.2); step 2 added the other six predictor variables, the three psychopathic constructs (narcissism, callous-unemotional traits and risk-taking/ impulsivity), anger, self-control and attachment (partner attachment avoidance models only). The variables for attachment anxiety (self and partner) and attachment avoidance (self) were not taken forward into the regressions because they were not significant in the correlations. Table 6.3 displays the standardised regression coefficients (β), R^2 for step 1, and R^2 change for step 2.

¹It would have been appropriate to use NBR here as the criterion variables were overdispersed. The analyses were repeated using NBR, but the overall results were the same. Therefore the original version of results remains in this Chapter to be consistent with the previous chapter.

Table 6.3. Summary of Hierarchical and Standard Regression analyses displaying the standardised regression coefficients (β) for psychopathic traits, anger, attachment and self-control, as predictors of (1) general violence, (2) IPV and (3) nonviolent offending, for men (N= 184) and women (N = 171). ^{1, 2}

Variable	General Violence		IPV		Nonviolent offending	
	Men	Women	Men	Women	Men	Women
Step 1						
Age	-.22*	-.13				
Step 2						
Age	-.20*	-.09				
Narcissism	.04	.15	.30*	-.11	.14	.34**
CU	.05	-.00	.05	.20*	-.05	-.11
Risk-taking	.13	.20	.00	.17	.28**	.34**
Anger	.30**	.30**	-.04	.19*	-.12	-.04
Attachment Avoidance (P)	-.04	-.06	.02	.26**	-.03	.00
Self-Control	.11	.11	-.01	.15	-.23*	-.02

Note. $R^2 = .05$ for step 1; $\Delta R^2 = .14$ for step 2 ($p < .01$) – General violence men

Note. $R^2 = .02$ for step 1; $\Delta R^2 = .20$ for step 2 ($p < .001$) – General violence women

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

¹ Multiple regressions were also conducted using the yes/no variety scoring method (as advocated by Moffitt et al., 2000), however the overall results remain unchanged. The same variables predicted the criterion variables.

² Regressions were also conducted using NBR using the scale developed in Chapter 4; the overall results remain unchanged. The same variables predicted the criterion variables.

General violence for men.

The hierarchical regression indicated that age explained a significant proportion of variance in general violence for men in step 1. In step 2, age and anger significantly explained a further 13.6% of the variance. The increase in explained variance contributed

by the final model was significant ($F(6, 123) = 3.42, p < .01$). Age was negatively associated with general violence suggesting that men get less violent as they get older. Anger was positively associated with violence, so that men scoring higher on this trait were more likely to be physically aggressive towards other people. Overall the model accounts for 18.5% of the variability (13.8% adjusted) in general violence for men and the overall regression model was significant ($F(7, 123) = 3.98, p < .01$).

General violence for women.

Age did not explain a significant proportion of the variance in general violence for women in step 1. In step 2, anger significantly explained 20.3% of the variance. The increase in explained variance contributed by the final model was significant ($F(6, 141) = 6.10, p < .001$). Anger was also positively associated with general violence (as it was for men) so women scoring higher on this trait were more likely to be physically aggressive towards other people. Overall the model accounts for 21.9% of the variability (18.0% adjusted) in general violence for women and the overall regression model was significant ($F(7, 141) = 5.64, p < .001$).

IPV men

Narcissistic psychopathic traits significantly explained 10.6 % of the variance in IPV for men. The positive association for narcissistic psychopathic traits indicates that higher scores were associated with more physical aggression towards partners. Overall the model accounts for 12.1% of the variability (7.1% adjusted) in IPV for men, and the overall regression model was significant ($F(7, 123) = 2.42, p < .01$).

IPV women

Anger, CU traits and partners attachment avoidance significantly explained 17.3% of the variance. The positive associations for anger, CU traits and partner's attachment avoidance indicates that the higher women score on these traits the more likely they are to

be physically aggressive towards their partner. The overall model accounts for 20.6% of the variability (16.6% adjusted) in IPV for women and the overall regression model was significant ($F(7, 141) = 5.22, p < .001$).

Nonviolent offending for men

Self-control and risk-taking psychopathic traits significantly explained 20.2% of the variance. The positive association for self-control and risk-taking indicates that men scoring higher on these traits are more likely to perpetrate nonviolent offences. The overall model accounts for 23.7% of the variability (19.3% adjusted) in nonviolent offending for men and the overall regression model was significant ($F(7, 123) = 5.45, p < .001$).

Nonviolent offending for women

Narcissistic and risk-taking psychopathic traits significantly explained 21% of the variance. The positive association indicates that women scoring higher on these psychopathic traits are more likely to perpetrate nonviolent offences. The overall model accounted for 21.4% of the variability (17.4% adjusted) in nonviolent offending for women and the overall regression model was significant ($F(7, 141) = 5.47, p < .001$).

Conclusions from multiple regression analyses.

The multiple regressions suggest similarities and differences in the predictors of men's and women's offending. For general violence, men's and women's offending share one predictor, a positive association with anger. However men's general violence was also predicted by age and women's was not. The predictors of IPV perpetration were different for men and women (as in Study 3). Men's perpetration of IPV was predicted by narcissistic psychopathic traits, whereas women's perpetration of IPV was predicted by anger, callous-unemotional traits, and partner's attachment avoidance. Both men's and women's nonviolent offending was predicted by risk-taking traits. However, men's nonviolent offending was also predicted by low self-control, and women's was not. And

women's nonviolent offending was also predicted by narcissism whereas men's was not. Overall these results suggest that although men's and women's offence perpetration shares similar risk factors, there are also risk and protective factors that are more relevant to one sex than the other, thereby providing partial support to both the generalist and specialist theories of crime.

Comparison of male and female regression coefficients

In order to examine whether the effect of the risk factors on offending behaviour was the same for men and women the difference between the two independent regression coefficients was tested. The formula used was detailed in study 2 (see page 185).

For general violence there was no significant sex difference between the beta coefficients for age ($z = 1.87$), anger ($z = 1.60$), low self-control ($z = .41$), narcissistic psychopathic traits ($z = .32$), callous-unemotional psychopathic traits ($z = 0.42$), risk-taking psychopathic traits ($z = 0.15$), or partners attachment avoidance ($z = 0.72$). Therefore the effect of all risk factors on the perpetration of general violence is similar for males and females.

For IPV there was no significant sex difference between the beta coefficients for low self-control ($z = 1.42$), narcissistic psychopathic traits ($z = 1.40$), callous-unemotional psychopathic traits ($z = 1.93$), or risk-taking psychopathic traits ($z = 1.46$). There was a significant sex difference between the beta coefficients for anger ($z = 2.30$, $p < .05$) and partners attachment avoidance ($z = 3.11$, $p < .001$). The effect of anger and partner's attachment avoidance on IPV perpetration was significantly greater for females than males. Therefore the effect of all risk factors (except anger and partners attachment avoidance) on the perpetration of IPV is similar for males and females.

For nonviolent offending there was no significant sex difference between the beta coefficients for anger ($z = 1.10$), narcissistic psychopathic traits ($z = .04$), callous-

unemotional psychopathic traits ($z = 0.44$), risk-taking psychopathic traits ($z = 1.01$), or partners attachment avoidance ($z = 0.31$). There was a significant sex difference between the beta coefficients for low self-control ($z = 2.12, p < .01$), the effect of low self-control being significantly greater for males than females. Therefore the effect of all risk factors (except low self-control) on the perpetration of nonviolent offending was similar for males and females.

6.4. Interim discussion

In the current study, self-reported offending was measured in men and women, together with a number of intrapersonal variables. The aim was to investigate further whether individual differences could predict offending separately for men and women. The results indicated some consistent predictors of violent and nonviolent offending, but also some unique risk factors. The current findings parallel those of Study 3 (also see Thornton et al., 2010), in that the IPV risk factors differed for men and women but there are shared risk factors for general violence and nonviolent offending between the sexes.

Anger was a shared predictor for general violence in men and women. Previous research has suggested that although there are no sex differences in anger expression (Archer, 2004; Timmers et al., 1998; Ramirez et al., 2002) men and women may differ in their methods of anger expression. Men are more likely to directly aggress against their target whereas women are more likely to use non-injurious tactics such as crying or talking to a third party (Timmers et al., 1998). Therefore the current results do not fit with this finding. However anger has been associated with low agreeableness (Caprara et al., 1996; Martin et al., 2000) and Study 3 found that low agreeableness also predicted women's general violence. Anger and low agreeableness have both been associated with aggression in response to provocation. Therefore if women were provoked they may be just as likely as

men to express their anger as aggression. The current research did not assess the conditions under which aggression was perpetrated (e.g. provocation or neutral conditions), but this would be useful to consider for future research.

Previous research has associated anger with the perpetration of violent offences (Novaco, 1994; Howells, 1998). Anger has also been reliably able to distinguish violent offenders from nonviolent offenders (Cornell, et al., 1999; Mills et al., 1998), and in this study anger was associated with violent but not nonviolent crime, which is in keeping with previous findings. This provides some support for the specialist theories in that violent offences are specialist to nonviolent offences. The results also indicated that the effect of anger on general violence was the same for men and women. Furthermore, there were no sex differences in self-report anger levels which support the findings of previous research (Archer, 2004; Buss & Perry, 1992; Costa et al., 2001; Driscoll et al., 2006; Milovchevich et al., 2001).

Age was negatively related to general violence perpetration, but only for men. Previous research has suggested that offending behaviour in general (Gottfredson & Hirschi, 2007; Quetelet, 1833/1984), and violence in particular (e.g., Archer, 2004; Courtwright, 1996; Daly & Wilson, 1990, 2001; Eisner, 2003), decrease with age, but in the current study this association was only found for men. This may be a function of the age range used: some of the above citations concern much larger ranges, some even across the whole life span. The three psychopathic trait constructs (narcissism, callous-unemotional traits and risktaking) correlated with general violence for men and women, with the exception of callous-unemotional traits for men, but none were significant predictors in the regression analyses. These results suggest that men and women share a common risk factor for general violent offending (anger), and that men's general violence reduces with age.

Predictors for IPV were different for men and women, which is consistent with the findings from Study 3, and also provides some support for the feminist theory of IPV. Men's IPV was predicted by higher narcissistic psychopathic traits whereas women's IPV was predicted by higher callous-unemotional traits, anger, and partner's attachment avoidance. By separately analysing attachment style by the four attachment types (secure, preoccupied, dismissing and fearful), it was found that it was the partner's *dismissing* attachment style that was producing the effect. Therefore women with dismissive partners were more likely to perpetrate IPV irrespective of their own attachment style. This is consistent with the statement by Hamel (2005) that "even securely attached individuals became aggressive when frustrated by a dismissive partner" (p. 138). Partners who are dismissing avoid intimacy and closeness, they have a negative view of their partner, and do not fear being abandoned. Therefore if the participants in this study had dismissing partners, they may feel rejected and unloved which may provoke them to become angry and their attempt to connect with their partner could escalate into violence. This may explain why only dismissive partner attachment style predicted IPV in this study. Roberts and Noller (1998) also found that attachment difficulties predicted women's but not men's IPV, and this is consistent with the results of the current study.

Victim-precipitation has been associated with homicides (Wolfgang, 1958), and refers to the victims' participation in their victimisation. Victim precipitation may also be relevant to investigating violence between partners. This is not intended to lay blame with the victim, but may help develop preventative measures. With respect to attachment, men may be inadvertently precipitating their victimisation, by appearing to avoid intimacy and closeness with their partner. If the knowledge regarding women becoming aggressive when they perceive attachment avoidance from their male partners can be disseminated and used to educate female perpetrators, it may form the basis of a preventative measure.

In the current sample, both men's and women's IPV correlated with the psychopathic trait constructs (except for narcissism for women and risk-taking for men), elements of which have previously been linked to men's (Dutton, 2003; Holtzworth-Munroe & Stuart, 1994) and women's (Spidel et al., 2004) perpetration of IPV. Narcissistic psychopathic traits were only a significant predictor of IPV for men, and callous-unemotional traits were only a significant predictor for women. However, when comparing the predictors between men and women the effect of these psychopathic traits on IPV was the same for men and women. Therefore the present findings suggest that male and female perpetrators of IPV have similar associations with psychopathic traits, therefore the risk factors for IPV may be similar for the sexes. This is more consistent with a generalist rather than specialist approach to offending, and is inconsistent with feminist theory of IPV.

There was a shared predictor for nonviolent offending in men and women. Risk-taking psychopathic traits significantly predicted nonviolent offending in both sexes. Risk-taking is the impulsivity component of psychopathic traits, and therefore the results suggest that men and women who perpetrate nonviolent offences are impulsive and are likely to perpetrate crime on the spur of the moment where an opportunity presents itself without considering the consequences of their actions. Alternatively, „risk-taking“ may be as much to do with a lack of fear of consequences as a lack of self-control. Each sex also had a unique risk factor: low self-control predicted men's nonviolent offending, and narcissism predicted women's nonviolent offending.

Impulsivity is an element of low self-control, but self-control also includes other elements. The measure used in this study involved self-discipline, deliberate/ nonimpulsive action, healthy habits, work ethic, and reliability. Therefore it may be that impulsivity better accounts for women's nonviolent offending whereas other aspects of self-control are more relevant to male than female offending. Work ethic and reliability relate to

conscientiousness, on which women score higher than men (Feingold, 1994; Schmitt et al., 2008). Study 3 found that conscientiousness was negatively related to men's but not women's nonviolent offending. When comparing the equality of the beta coefficients (Paternoster et al., 1998) it was found that low self-control had a greater association with nonviolent offending for men than women. This suggests that low impulse control may be particularly relevant to men's nonviolent offending. Although women also had low self-control, fear of the consequences (Campbell, 1999) may have been a stronger force than the initial impulse and may therefore have restrained women from engaging in these nonviolent offending behaviours. Therefore there may be some sex-specific factors for nonviolent offending.

Individuals with narcissistic psychopathic traits take advantage of and violate the rights of others, and also have an inflated sense of entitlement and self-importance. Therefore it seems likely that, in this sample at least, female perpetrators of nonviolent offences are comfortable exploiting others: this could be because they feel that they are superior to others and have unreasonable expectations regarding entitlement. Again the results indicate that there are similarities in men's and women's risk factors for offending behaviour, but there are also unique factors (narcissism and low self-control) that are specific to each sex.

To conclude, the current study found some support for both the generalist and specialist theories of crime. Both general violence and nonviolent offending shared risk factors between the sexes (anger for general violence, and risk-taking for nonviolent offending): this suggests that there is a common etiology for each offence for both sexes. Anger also predicted women's IPV: therefore anger predicted both types of violence for women which supports Felson's (2002) theory that violence is violence irrespective of who the target is. However the predictors of men's and women's IPV perpetration differed:

men's IPV was predicted by narcissistic psychopathic traits whereas women's IPV was predicted by callous-unemotional traits, partner's attachment style and anger. This provides some support for the feminist theory that the causes of men's and women's IPV are different because the function of the violence is different (coercive versus defensive). However, the fact that psychopathology is related to men's and women's IPV (albeit differently) is inconsistent with feminist theory because it suggests that it is atypical men (and women) who are physically aggressive towards their partners. Therefore not all men are violent towards their partners, and some women are. The IPV results are therefore more consistent with a personality theory of crime which is general in the sense that it can affect the behaviour of both men and women.

Future research could examine additional variables to those investigated in this thesis. This would further advance the research in this area, and determine whether predictors consistently vary between the offence types and sexes, or if there are further shared risk factors. Finding variables that are shared between the offences and the sexes would support Felson's (2002) argument that IPV should not be examined in isolation.

CHAPTER 7

GENERAL DISCUSSION

The research from this thesis has made new contributions to the knowledge of IPV and other violent and nonviolent offending behaviours by designing a new measure of offending and by informing feminist, family conflict, general violence and general theories of crime. This section will begin by summarising the main findings and introducing the key themes that have emerged from the thesis, followed by a detailed discussion of each theme.

7.1. Overall summary of results

The purpose of the first study was to provide a background for the remaining studies by investigating the range and interrelation of women's offending behaviour in a non-forensic sample. In the first study women's prevalence in offending was investigated using reports from different sources, in order to ascertain the variety of crimes women were reported to be involved in as well as the overlap of offences. Once establishing that women were involved in a wide range of violent and nonviolent crimes, as men are known to be, the research went on to sample men and women to develop a scale for investigating sex differences in offending. Studies 1 and 2 suggested interrelatedness of offending for women, and study 2 suggested interrelatedness of offending for men, providing broad support for the generalist theories of offending. In Study 2 IPV was found to be largely mutual for males and females providing support for the family conflict but not the feminist theories of IPV. A number of intrapersonal traits were considered as correlates of offending across studies 3 and 4. Together they suggested that the pattern of risk factors was similar for men and women for general violence and for nonviolent offending, but the risk factors

for IPV were consistently different for men and women across studies 3 and 4 (providing some support for specialist theories).

Overall, three key themes have emerged from the results of this thesis and these are: (1) sex differences in offending, and mutuality of IPV, (2) the overlap between offences, and (3) the pattern of correlates and predictors of offending.

7.1.1. Sex differences in offending, and mutuality of IPV

The sex differences observed in this thesis for general violence and nonviolent offending are consistent with the evolutionary theories of offending. Across the full sample of 653 undergraduate students general violence was the most prevalent category of offending self-reported by men and women with 69.8% of the sample reporting perpetrating one or more acts of violence towards someone other than an intimate partner. This result was significantly higher for men (76.3%) than for women (64.2%), with a medium effect size ($d = .43$), but still accounted for approximately $\frac{2}{3}$ of women and $\frac{3}{4}$ of men in the current sample.

The sexual selection theory may explain sex differences in general aggression. The sexes were matched for age, and the average age of the sample was 22 years for men and for women putting them in the peak of sexual activity and therefore intrasexual competition. Therefore the large sex difference in the current study correlates with the peak of reproductive competition (Daly & Wilson, 1988; Wilson & Daly, 1985). This is consistent with data, such as the results of The British Crime Survey (e.g. Flatley, Kershaw, Smith, Chaplin & Moon, 2010), which indicate that males in the 16-24 age group are at most risk of being the victim of violence, and it is also this age group (14-24) that are most likely to be the perpetrators of physical violence (Campbell, 1995). The sex difference in

physical aggression is consistent with the results of Archer (2004) who found that the sex difference was largest among college students ($d = .79$).

Although the female rates of physical aggression are lower than those of males, they still perpetrate a significant amount of violence towards others. Campbell (1995) and Campbell et al. (2001) have proposed that the sexual selection theory may also be a valid explanation for female aggression because interfemale aggression tends to occur in response to rivalry over men, defending an existing relationship from rival females, or when defending their sexual reputation, as damage to a female's sexual reputation can affect males' perceptions of their fidelity, which may reduce the chances of the female securing a mate. These are activities that would be more prevalent during the years where sexual activity is at its highest: therefore young women (like young men) are more likely to perpetrate violence towards others at this life-stage.

Campbell's (1999) complementary evolutionary theory involves fear as a motivational variable for avoiding harm, and may also be able to explain our sex difference in general aggression. Engaging in physical aggression is high-risk and therefore women's lower fear threshold should result in women being inhibited more than men from engaging in violence. This fits with the current findings that men are more likely than women to engage in physical aggression outside their relationships. Prior research supports the view that women are more fearful than men. For example a large scale longitudinal study (Moffitt et al., 2001) and a recent meta-analysis (Cross et al., 2011) found that women score higher than men on the harm avoidance component of self-control. This is in line with Campbell's (1999, 2006) evolutionary theory, and suggests that women are more fearful and avoid harm more than men.

Sex differences were consistently observed in the male direction for nonviolent offending ($d = .56$). And where nonviolent offending was divided into 3 sub categories of

theft, criminal damage, and drug-related offending, sex differences in the male direction were observed there also. The current results are consistent with previous research which has found that men consistently offend more than women (e.g. Campbell, 1999; Campbell et al., 2001; Kruttschnitt, 1993; Moffitt et al., 2001). The effect sizes were lowest for the nonviolent offences: therefore the gender gap was smallest for these offences. This fits with Campbell's (1999, 2006) evolutionary theory: nonviolent offences present less risk than violent offences; therefore it is within this category that women's offending is most likely to resemble men's.

Overall over a third of the total sample ($n = 653$) reported engaging in drug-related offences (38.7%), and this was significantly higher for men (43.7%) than for women (34.6%). Drug use is a sensation-seeking behaviour and research has found a robust sex difference in the male direction for sensation-seeking behaviour (Cross et al., 2011; Roberti, 2004; Zuckerman, 1994). Sensation seeking involves a predilection for risky activities and has been negatively associated with fear (Roberti, 2004). Women are more inhibited by fear than men, and are therefore less likely to be involved in sensation-seeking behaviour such as illicit drug use, which may explain the sex difference in drug-taking.

Just under a third of the total sample committed theft offences (30.3%), and there were significantly more men (37%) than women (24.6%). Moffitt et al. (2001) also found that men committed more theft offences than women at every age in their longitudinal analysis. The sexual selection theory of aggression could also be applied as an explanation for sex differences in theft. Men may perpetrate such offences in order to acquire resources to impress women, and make themselves seem more appealing as a mate to the opposite sex, thus increasing the likelihood of reproductive success (Kanazawa & Still, 2000; Walsh, 2000). Men with more resources may be perceived as better able to provide for and support offspring, which may make them more desirable. Research states that women prefer

resource-rich men and are willing to compete for them (e.g. Buss, Larsen & Westen, 1996; Campbell, 1995). Some studies suggest that the likelihood of engaging in violence is higher among those with fewer resources (Courtwright, 1996; Daly & Wilson, 1988): therefore acquiring resources via theft may be a less risky strategy for sexual selection and may prevent the need for resorting to physically aggressive intermale competition.

Criminal damage was the crime that participants engaged in least (26%), but again engagement was significantly more frequent for men (35.3%) than for women (18.1%). Men may be more represented in criminal damage offences because this category has been linked with violent offending (Howard & Dixon, 2011; Soothill et al., 2002). Accordingly, it follows that women will be less likely than men to be involved in this crime, similar to their lower involvement than men in general violence. Emerging research (Howard & Dixon, 2011) has found that criminal damage is associated with violent offending. Through checking the text data accompanying the convictions, which details the nature of the acts that led to the conviction, Howard and Dixon (2011) found that the descriptions for criminal damage convictions often met the legal requirements for assault, but without the resulting injury. The criminal damage offences were noted as having occurred at the same time or immediately following a heated debate, and involved the property of the opponent.

Also, from analysing recidivism data Howard and Dixon (2011) found that prior convictions for criminal damage offences predicted future violent offences (homicide/wounding and homicide/assault). Therefore they included criminal damage offences as part of the classification for the OASys Violence Predictor that is being developed. Similarly, Soothill et al. (2002) analysed the data for criminal convictions from a birth cohort of 9, 232 males to examine patterns in offending behaviour, and found nine clusters of male offending patterns with criminal damage being part of the „general violence“ cluster. Explanation for the sex difference could include women having higher

levels of self-control than men, and either not allowing heated debates to escalate into damaging the property of their opponent, or avoiding entering into heated debates in the first instance, instead choosing other methods such as crying (e.g. Campbell, 1993) or talking to a third party (Simon & Nath, 2004). Levels of fear may also be able to account for the sex difference. Women experience higher levels of fear than men, and it is proposed that they avoid high risk situations where there is a danger of physical harm (e.g. Campbell, 2006; Cross et al., 2011). This has been used as an explanation for why women engage in less general violence than men, and may also be similarly applicable to criminal damage, as criminal damage has many of the same interpersonal features as assault (Howard & Dixon, 2011). Therefore criminal damage may be seen as more „high-risk“ to women than men.

The sex difference for IPV supports the family conflict theory that when conflict occurs women are as likely as men to perpetrate violence within their relationship. From the total sample of 653 participants (study 2), 42.2% reported perpetrating one or more acts of violence towards their intimate partner, and this was significantly higher for women (52%) than men (30.7%), with a large effect size ($d = -.59$), accounting for over half of the women in the sample and about a third of the men. Therefore women consistently self-reported perpetrating significantly more IPV towards their partner than men did. This result is therefore consistent with the family conflict theory of IPV and not the feminist theory. The observed sex difference may be the function of using a young undergraduate sample, and may therefore be related to the proximity within which students live and also that there is more social disapproval for male-to-female than female-to-male IPV (see page 190-191 for a detailed discussion of this).

Negative effects on reputation may also account for the sex difference in IPV. A qualitative study by Campbell and Muncer (1987) found that men and women have different social representations of aggression. Men tended to view aggression in

instrumental terms, using it as a means of gaining control over others, whereas women's aggression was expressive, viewed as representing a loss of self-control. Men's use of aggression was mediated by weighing up the „odds“ of situation, focusing on whether the target was too tough, too weak or just right. However, research has found that instrumental beliefs are related to both men's and women's perpetration of IPV (e.g. Archer & Graham-Kevan, 2003; Archer & Haigh, 1999). The finding that instrumentality is a feature of male and female student IPV perpetration is particularly relevant to the current sample which also used a male and female student population. The results of study 4 also link traits associated with instrumental aggression to female IPV (callous-unemotional traits), (see section 7.1.3. for a discussion of this). Feminist researchers propose that men's IPV is instrumental, but finding that women's IPV may also be instrumental supports the family conflict perspective of IPV, because it suggests that the motivations for IPV are the same for men as for women.

If instrumental beliefs are associated with weighing up the odds (i.e. the costs and benefits) of being aggressive (e.g. the social interactionist approach to aggression: Felson, 2002; 2004), then finding that men and women equally endorse instrumental beliefs suggests that both sexes may assess the costs and benefits of aggressing against a partner before engaging in aggression. When weighing up the odds you would not pick someone too big or too small, and instead would pick someone equally matched. Fighting someone too big would most likely result in failure, therefore the individual would lose face. However, the benefits of winning may be worth the risk. Fighting someone too small, who would be seen as weak or vulnerable, would make it appear as though that person preyed on the vulnerable because they could not win with someone of their own size: therefore they would lose reputation again. In this vein, a man fighting a woman would be perceived as being weak as he would be fighting someone viewed by society as being weaker,

whereas a woman fighting a man may be seen as heroic as she would be fighting someone larger and stronger.

The social costs of IPV are much greater for a man than a woman: women do not believe that men will retaliate (Fiebert & Gonzalez, 1997), male IPV is more likely to attract third party involvement (such as the police: Felson, 2002), and the man would lose reputation for fighting someone classed as weaker, and not equally matched, whereas women may stand to gain reputation by fighting someone perceived as tougher. This suggests that women may believe it is acceptable, or even commendable, to be violent towards men within the context of a relationship: therefore women may be less inhibited and so can be less disordered than men. Whereas men would have a higher threshold for aggressing against a woman due to not wanting to lose reputation and so may need more provocation or may need to be more disordered.

There are two theories about whether it is appropriate for men to be violent towards a female partner. These theories consist of the patriarchal approach, that violence is supported by society as an appropriate method for men to use to control and dominate women (Dobash & Dobash, 1980; Lips, 1991), and the second approach is that it is not appropriate for men to hit women (e.g. Koski & Mangold, 1988), which is a belief to which women who hit their male partners subscribe (“most men have been trained not to hit a woman”, Fiebert & Gonzalez, 1997, p. 587). This norm against violence towards women is also known as chivalry, and it “discourages would-be attackers and encourages third parties to protect women” (Felson, 2002, p. 67). There may also be a dual belief theory: a balance between the two. In some societies notions of protecting family honour take precedence over chivalry; in most western societies, the first has more or less disappeared so that the second is stronger. Therefore the current findings of a sex difference in the female direction

are more in accordance with the second theory (chivalry), and may explain why the male rate of IPV is significantly lower than the female rate in this population.

All the above suggests that the sex difference in IPV observed in this research is a legitimate result. However, the finding could instead be the result of biased self-reporting (see page 190 for a discussion). An alternative explanation is that if men who use IPV are more dysfunctional than women who use it, then male IPV perpetrators are less likely to be students than female IPV perpetrators. Therefore, our sample of university students may be less likely to include male perpetrators.

IPV victimisation was also investigated in Study 2. The results suggested a significant sex difference in IPV victimisation: men reported significantly more victimisation than women ($d = .45$), a medium effect size according to Cohen's (1988) criteria. Data from British Crime Survey's (Coleman et al., 2007; Mirrlees-Black et al., 1998) have found equal numbers of male and female victims of IPV. Other national survey data, such as Statistics Canada (Mihorean, 2005) has found similar numbers of male and female victims (6% and 7% respectively representing approximately 546,000 men and 653,000 women). It is possible that because crime victimisation surveys ask questions in the „context of crime“ (and men are less likely to perceive themselves as victims of crime from a female partner) that men are less likely to self-report in this section of the BCS than women. This may account for why the current research finds a sex difference in the male direction for IPV victimisation, and the crime surveys do not. Taken together, these results suggest that men are victimised to a similar (and sometimes greater) extent as women, and therefore male victimisation needs to be taken seriously. The finding that men are victimised to an equal (or greater) extent as women supports the family conflict theory and not the feminist theory of IPV.

Male victims of IPV are often perceived as being more responsible for the abuse (Harris & Cook, 1994; Worthern & Sullivan, 2005) as they are perceived to be able to defend themselves against a female perpetrator due to the advantage they have with being of greater size and strength, and their victimisation is often not taken as seriously as women's (Coontz et al., 1994; Harris & Cook, 1994; Follingstad et al., 2004; Worthern & Sullivan, 2005). These negative stereotypes surrounding male victimisation may serve to prevent men from seeking the help and support that they need, and may also have a negative effect on the provision of help and support that is on offer. According to Hines et al. (2007), male victims are often revictimised by the current system that is designed to help only female victims of IPV. Such stereotypes may also effect the decisions of professionals, such as the police, medical staff and juries. Therefore increased education and training regarding victims of IPV is required to dispel these myths, so that all victims, whether male or female, are taken seriously, so that the provision of help and treatment is available to both sexes.

Another consistent finding is that IPV was found to be largely mutual in the samples of men and women, indicated by the highly significant correlations for men ($r = .65$) and for women ($r = .71$). Therefore a substantial number of men and women were reporting that they were both the victim and the perpetrator within their relationship, although this is not necessarily during the same incident. From the current data it is not possible to establish whether the violence was occurring simultaneously from both members of the couple or if each member was the perpetrator one time and the victim another, oscillating between the two. For the purposes of this research „mutuality“ refers to a participant reporting both IPV perpetration and victimisation at some point within the past year. Future research could pursue whether mutual violence was perpetrated simultaneously or on separate occasions, and also whether it was similar in intensity and level for each partner.

These results are consistent with the body of literature from the family conflict perspective that has also suggested mutuality of offending in men and women (e.g. Ansara & Hindin, 2009; Kessler et al., 2001; Straus, 2008, 2009; Whitaker et al., 2007), and that mutuality of offending was found to be the most prevalent type in each of these studies (compared to male only or female only violence). Therefore both current and previous research suggests that violence is one method used by both members of the dyad to resolve conflict within a relationship.

One of the strongest predictors of IPV victimisation is IPV perpetration (Hendy et al., 2003; Graham-Kevan & Archer, 2005; Stith et al., 2004). Therefore being violent towards a partner is likely to result in that same person experiencing violence from their partner in return. Some research that has investigated the reasons for IPV perpetration has found that a common motive is retribution for a prior wrongdoing. For example, Carrado et al. (1996) found that out of 106 women and 85 men, 52% of women and 53% of men aggressed against their partner to get them back for either saying something nasty or threatening to do something nasty to them. 22 (21%) women and 23 (27%) men aggressed against their partner to get them back for using physical action towards them. Therefore if each partner keeps getting the other one back, then violence within relationships is likely to be cyclical and mutual. This fits with Felson (2004) and the social interaction approach to violence, which suggest that all violence is “goal-orientated” (p. 104), and in terms of mutual IPV the goal may be to seek revenge for a previous perceived wrong-doing.

The current research suggests that the divide between offender and victim is far from absolute (Deadman & MacDonald, 2004), and is not representative of a large body of research finding mutuality of offending within different domains (e.g. IPV: Straus, 2008; stalking: Mohandie, Meloy, McGowan & Williams, 2006; and bullying: Ireland & Ireland, 2008). Understanding that the majority of IPV is mutual is important for developing a

theoretical understanding of IPV relationships and individuals. It is also important in terms of treatment provision for males and females, as their treatment needs may be different from those of a pure perpetrator or a pure victim.

Overall the results indicated that offending behaviour was fairly prevalent among the men and women in this research which suggests that having committed some form of offence is essentially normative. This is an interesting finding given that it may not be obvious that we would get this level of self-reported offending from a student sample. Routine activity theory (Cohen & Felson, 1979) may help explain this finding. According to the routine activity theory offending behaviour involves the convergence of three aspects: (1) a motivated offender; (2) a suitable target; and (3) the absence of a capable guardian. At university there is a constant absence of capable guardians because students tend to live away from home. Therefore the likelihood of perpetrating a violent or nonviolent offence is increased. Furthermore, the social interaction lifestyle of student populations, such as going to lectures, visiting other areas of the university (e.g. library, canteen), and socialising in pubs and clubs, constantly brings students into contact with others (suitable targets) and therefore creates opportunities for motivated offenders. This thesis examined the motivations of offenders by investigating a range of intrapersonal variables.

7.1.2. Overlap between offences

The overlap between offences was another consistent finding in this research, and provides broad support for the generalist theories of offending. The overlap is indicated for women in studies 1 and 2, and for men in Study 2. Specialist theories would predict zero overlap in offending: therefore the positive intercorrelations found in this thesis are inconsistent with the specialist theory of crime. However, in all studies the overlap was not

100%; therefore there is generality of offending, but not complete generality. Therefore both the generalist and specialist theories of crime are “right in what they assert, but wrong in what they deny” (Eysenck, 1964, p. 18).

Study 1 was conducted to assess the variety of crimes women were reported to be involved in. Women’s self-report data revealed considerable overlap between a wide range of offences. The results suggested that criminal damage and IPV predicted general violence, and that general violence and drug offences predicted IPV. The link between general violence and criminal damage supports other findings (Howard & Dixon, 2011; Soothill et al., 2002), and also provides evidence to support the *General Theory of Crime* because offenders are found to engage in a variety of crimes. The link between IPV and general violence supports the number of studies which have found that women who are violent towards intimate partners are also more likely to be violent towards non-intimates (e.g. Busch & Rosenberg, 2004; Moffitt et al., 2000; Straus & Ramirez, 2004). Finding an overlap between these two different forms of violence provides support for Felson’s (2002) theory that violence is violence irrespective of who it is perpetrated towards.

Busch and Rosenberg (2004) also found that IPV men and women were equally likely to have problems with substance abuse. Study 1 found that drug offences predicted women’s IPV perpetration. Due to the large overlap between IPV perpetration and victimisation it may be the case that the female perpetrators of IPV in this research are using drugs as a self-medicating response to the abuse they are receiving within their relationship. As a whole, the results from study 1 suggest that women were likely to be violent in different contexts and also found to be criminal in a number of aspects in their lives thus providing some support for generalist theories of crime.

Following on from Study 1, Study 2 investigated the overlap in general violence, IPV and nonviolent offending in men as well as women. Study 2 revealed a five factor

structure of offending behaviour that was found to be relevant to both sexes. The resulting five factors were IPV, general violence and three nonviolent categories: drugs, theft and criminal damage. Results revealed that some of the crime categories were correlates of other crime categories, indicating the interrelatedness of offending and thereby providing some support for the generalist theories of crime. For women all types of offence were found to correlate significantly. For men, however, IPV did not correlate with some of the nonviolent offences (drug-related offending and criminal damage). Therefore it appears that there may be less overlap in offending behaviour for men than for women. This could be due to the men in this student sample perpetrating significantly less IPV than women (for the reasons mentioned before), so that there is less chance of IPV overlapping with other crimes for men.

IPV was predicted only by general violence for men and women, and general violence was predicted by IPV and criminal damage for men and women. Previous research has found that the same risk factors predict general violence and IPV in men and women (Moffitt et al., 2000; Tremblay et al., 2004). Therefore the interrelatedness of these two violent behaviours was expected as they are both related to the same risk factors (e.g. negative emotionality, lack of empathy), and this suggests the presence of an underlying propensity to behave violently towards others irrespective of the victim/perpetrator relationship. Felson (2002) discussed love triangles, and stated that both sexes are possessive regarding their relationships and when relationships are threatened, violence can occur between partners and between rivals irrespective of their sex. The overlap between general violence and IPV may therefore be the result of sexual selection or sexual jealousy, where men and women both want to secure a mate and are prepared to fight off rivals where necessary.

Felson's (2002) perspective states that aggression has three main motives: (1) for compliance and control over others, (2) to achieve justice, and (3) to preserve self-image. All three motives can be applied to both general violence and IPV, and the three motives are not mutually exclusive as there can be multiple motivations for violence. In the case of love rivals, men and women may be violent to both their partner and the rival to receive justice and punish them for their wrongdoings, or to deter them from behaving the same way in the future. The act of aggression is also likely to preserve self-image, as the perpetrator will save face by being dominant over the wrongdoer. In the current research we do not know the target of the general violent acts perpetrated by the participants. Future research could investigate this to elucidate if there is a connection between IPV perpetration and general violence perpetration.

The association between general violence and criminal damage has been found before (see page 247-248 for a discussion), and the overlap is likely to be the result of similar interpersonal features between the offences. Criminal damage may be the act that occurs first and then escalates into general violence, therefore it is expected that the two offences would be interrelated.

The three nonviolent offences were also interrelated in men and women. Criminal damage was associated with both theft and drugs in both men and women. Drug use may be related to criminal damage due to intoxication. Criminal damage has been found to be associated with alcohol intoxication (e.g. Jeffs & Saunders, 1993), and this could also be extended to drug intoxication. Jeffs and Saunders (1993) found that 88% of individuals arrested for criminal damage had been drinking alcohol prior to the offence. Soothill et al. (2002) found that drugs and minor criminal damage offences clustered together when examining patterns of offending. Drug use lowers inhibitions and reduces the ability to

make judgments (Cobb, 2001), which may increase the likelihood of criminal behaviour, such as criminal damage.

Soothill et al. (2002) also found that those involved in a variety of theft offences were also involved in criminal damage. In order to steal something the offender may have to damage the property of others to gain access. Indeed, one of the items on the NVOBS theft measure was “enter building to steal / damage”. This item is part of the theft subscale but is also relevant to the criminal damage subscale and may account for some of the overlap between the two categories.

Altogether, these results indicate the close association between violent and nonviolent offending in men and women, and suggest that violent and nonviolent offending tend not to occur in isolation and instead form an interrelated set of complex behaviours. Therefore offenders are likely to be versatile, and unlikely to specialise in one particular type of crime (Gottfredson & Hirschi, 1990; Farrington et al., 2006). This has important implications for theory because it supports the argument that IPV is not a unique type of crime as suggested by feminist and family conflict researchers, and should therefore not be studied in isolation to other types of violence (Felson, 2002) or general crime (Gottfredson & Hirschi, 1990).

These findings also have important implications for the treatment of offenders. Offenders tend to be entered onto treatment programs for the offence for which they have been arrested or referred: for example, entering someone onto a substance abuse program for their drug use, or onto an anger management program for their general violence may not address the full needs of a versatile offender. By only addressing one aspect of their offending, such as their IPV, but not their general violence or nonviolent offending, does not treat the individual, only that particular crime. Therefore those working in this setting

need to be aware of the concurrency of IPV, general violence and nonviolent offending so that the *full* treatment needs of offenders are met.

This research is particularly pertinent to the treatment of female offenders because currently the majority of domestic violence perpetrator programs in the UK are for male (and not female) perpetrators (Respect, 2011). The treatment programs tend to be based on the feminist theory of IPV (Pence & Paymar, 1993) which precludes women from being perpetrators and men from being victims (despite the large body of family conflict research to the contrary). Similarly, prevention programs typically focus on men. For example, in Britain plans for tackling domestic violence were announced, and from 2011, as follows: “Every school pupil in England is to be taught that domestic violence against women and girls is unacceptable” (<http://news.bbc.co.uk/1/hi/uk/8376943.stm> Downloaded 18th May 2011). In addition, the message that violence by females towards males is also unacceptable and is a criminal act also needs to be disseminated, if for no other reason than for both men and women, perpetration of IPV increases the risk of victimisation (Straus, 2005). Therefore the vast majority of current treatment programs are not set up to treat women, which is not acceptable for women or their victims. In order to successfully treat individuals with multiple criminality, treatment programs need to be based on empirical evidence and address the risk factors identified in it.

Although we know from the correlations that the people who are violent towards their partners are also likely to be violent towards others, and that the people who are violent are also likely to perpetrate nonviolent offences, we also know (from Studies 3 and 4) that there are similarities and differences in the predictors for the offences and for the sexes. Moffitt et al. (2000) also found that there were similar as well as different risk factors for IPV and general crime. Therefore the different types of crime, and crime in men and women, may stem from similar causes and motivations, but each crime and sex may

also have risk factors that are unique to them (see Section 7.1.3. for a discussion). This has important implications for theory. These results suggest that there is some (but not complete) generality between the offences: therefore there are some offenders who engage in a variety of crimes, but there are also others who specialise in only general violence or IPV or drugs, for example. Therefore although IPV, general violence and nonviolent offending are moderately related and resemble each other in some respects, they are also special in other respects: this provides support for both generalist and specialist theories. However, this finding emphasises the need to study IPV in a comparative context with other types of violence and crime, because this is the only way to detect the commonalities between them.

No previous research has examined all types of offending simultaneously in a mixed-sex sample. The development of the NVOBS facilitates future research on the association between offences in mixed-sex samples alongside various behavioural and dispositional characteristics in order to further elucidate similarities and differences between the predictors of the different types of offending for men and women. This can be used to inform theory regarding the generalist or specialist nature of IPV and other offences, and can help clarify the ways in which criminal specialists are different to criminal generalists. The interrelatedness between the five types of crime for men and women builds the case for measuring them together to assess their comorbidity, which is essential for extending our knowledge regarding the onset, development, and underlying mechanisms related to the different aspects of offending behaviour in men and women.

7.1.3. Correlates and predictors of offending

The current research has identified a number of risk factors that correlate with and predict the perpetration of violent and nonviolent offending in men and women. This

research has highlighted a key theme: that the pattern of predictors is similar for men and women for general violence and nonviolent offending, but is different for IPV. These results have implications for theory and will be discussed in relation to feminist theory, family conflict theory, general violence theory and the General Theory of Crime.

7.1.3.1. Unique correlates and predictors of IPV

There were some similarities in the correlates of men's and women's IPV perpetration across the studies: for example both were correlated with antisocial, borderline and callous unemotional psychopathic traits. However, men's and women's IPV perpetration were consistently predicted by different intrapersonal variables. This finding can be interpreted in two ways. Firstly this result could be seen to support the feminist view, in that the motives for men's IPV are different to women's and therefore it would follow that men's IPV would be related to different causes. Alternatively it could mean that men need to be more dysfunctional than women before they resort to IPV due to them being reluctant to violate social norms (see Study 2 Discussion).

Men's IPV was significantly related to narcissistic psychopathic traits, whereas women's was significantly predicted by callous-unemotional psychopathic traits. Lawrence (2006) suggested that narcissists perpetrated aggression in response to provocation. The callous-unemotional traits dimension has been linked with a more instrumental style of aggression (Swogger et al., 2007). Therefore it appears as though women's IPV may have an element of instrumentality. Previous research has found that instrumental beliefs are related to women's IPV (e.g. Archer & Graham-Kevan, 2003; Archer & Haigh, 1999; Moffitt et al., 2000). Feminists have argued that male IPV is instrumental in nature (e.g. See Corvo & Johnson, 2003, Appendix A), used as a means for exerting control and dominance over their female partner. The current results indicate that women may be

instrumental in their use of IPV, just like men have been found to be in other research. This is further evidence that refutes the feminist perspective of women's IPV being self-defensive because women's IPV may be a deliberate and willful action. Callous-unemotional traits have not been widely researched in relation to IPV (Swogger et al., 2007), therefore the current findings contribute to an emerging literature in this area.

Cluster B PD traits were found to have a greater effect on women's than men's IPV: suggesting that women may be more likely to have unstable interpersonal relationships and fear abandonment by their partners than men. This can be associated with fluctuation between idealising and devaluing their partners, sometimes seeing them as perfect and other times as worthless. Cluster B traits also suggest a disregard for the safety and rights of others, and indifference to the suffering of others. Previous research has also indicated the role of cluster B PDs in IPV perpetration (Craig, 2003; Ehrensaft et al., 2006; Henning, et al., 2003; Simmons et al., 2005). Taken together, current and previous research suggests that female perpetrators of IPV are more emotionally unstable, angry, self-centred, and impulsive than men. Finding that maladaptive personality is associated with women's IPV perpetration is not consistent with the feminist theory because we would not expect defensive IPV to be predicted by cluster B characteristics: for example, finding enjoyment in the suffering of others, having high levels of irritability and difficulty controlling anger.

There is some overlap between the characteristics of callous-unemotional and cluster B PD traits (e.g. lack of empathy, guilt and remorse, shallow expression of emotions, feelings of emptiness), which may be what links them both to women's IPV perpetration. Unemotional and remorseless tendencies may increase the propensity for IPV because the perpetrators are indifferent to the suffering of others and therefore do not experience guilt as a negative consequence of their actions. Lack of remorse and empathy

have been linked with male IPV perpetrators (Gondolf, 1988; Shields et al., 1988), and as a result of the current research have now been linked with female perpetrators of IPV.

The current study found that both anger and women's perceptions of their partner's attachment styles were predictive of women's IPV, furthermore both of these intrapersonal variables had a significantly greater effect on women's than men's IPV. The attachment results were related to women's perceptions that their male partner was attachment avoidant: this was consistent with previous findings (Bookwala, 2002; Bond & Bond, 2004; Doumas et al, 2008; Roberts & Noller, 1994). Therefore if these women want intimacy and closeness in their relationship and they perceive that their needs are not being met, they may express their anger towards the attachment figure in the form of aggression. Indeed, Dutton (2006) stated that "anger follows unmet attachment needs" (p. 81). The finding that the mispairing of attachment styles can predict IPV highlights the need for treating both partners in a relationship where there is IPV. The relationship between partner's attachment style and IPV is relevant to clinical practice as targeting the disparity between one partner's need for intimacy and closeness and the other's need for distance may be an effective method for treating IPV (Doumas et al., 2008). Therefore attachment provides a theoretical framework for investigating IPV from a dyadic perspective (Bartholomew & Allison, 2006). Again, finding that anger and attachment are a better predictor of women's than men's IPV is inconsistent with the feminist self-defensive theory.

Previous research on anger and IPV has predominantly focused on male perpetrators (e.g. Norlander & Eckhardt, 2005; Stith, et al., 2004). However, anger has been cited as a motivation for violence in both sexes (Henning et al. 2005; Harned, 2001; Stuart et al. 2006; O'Keefe, 1997). Therefore the roles of anger *and* attachment on violence have not been widely researched, particularly in women: the present research goes some way

towards addressing this and indicates that it is important to investigate anger and IPV in women as well as men.

Fear of abandonment appears to be a theme common to women's IPV perpetration. Cluster B PD traits are characterised by a fear of abandonment (amongst other traits), whereas cluster A PD (linked to men's IPV) is characterised by a preference for solitude and a dislike of close relationships. Furthermore, Study 4 indicated that women's IPV was linked to their male partner's attachment avoidance (which reflects high scores on fearful and dismissing attachment, and low scores on secure and preoccupied attachment). Individuals high in attachment avoidance avoid intimacy and closeness with their partner. If the female partner fears abandonment (cluster B PD trait: Study 3), but the male partner prefers to be by himself (Study 3) and avoids intimacy and closeness (according to the women's reports in Study 4), then the behaviour of the male partner may accentuate women's fear of abandonment, and ultimately result in IPV perpetration. Pistole (1994) proposed that IPV may be the result of differences in the need for closeness or distance within a couple.

Women's greater fear abandonment relative to men's may be explained by evolutionary theory. Women make a greater parental investment than men, and are limited to a smaller number of offspring than men. Therefore women need to secure and retain a resource-rich man who can provide food, protection and long-term paternal investment (Campbell, 1995). Therefore women may be more committed to their relationship than men. Being abandoned by a partner would result in women needing to secure another partner. However children are at an increased risk of being murdered by a step-father (e.g. Daly & Wilson, 1988): therefore women with children may be more motivated than men to prevent abandonment by their partner in order to increase the likelihood of their child's survival. Women's greater fear abandonment may also have a cultural explanation.

According to feminist theory the sex difference in aggression “maintains women’s subordination to, dependence on, and fear of men” (White & Kowalski, 1994, p. 492): therefore women may fear abandonment because they rely on men for protection.

Antisocial and borderline cluster B PDs also correlated with men’s IPV, but it was cluster A rather than cluster B which predicted men’s IPV perpetration. The correlations indicated that men’s IPV was related to schizoid and schizotypal cluster A PD traits. These PDs are associated with traits such as detachment, restricted emotions, a preference for interpersonal isolation, and no desire for close relationships. Cluster A PDs are the closest to mental illness and represent severe personality pathology. This is further evidence that men may need to be more disordered than women before they perpetrate IPV, which is inconsistent with the feminist theory that IPV is a normal part of men’s behaviour.

There is also some research that has found a link between cluster A PDs and men’s IPV (Ehrensaft et al., 2006; Holtzworth-Munroe et al., 2000). Traits associated with Cluster A PDs have been reported by female victims (e.g. Dutton, 1995) of male IPV and are also some of the reasons men (and women) give for their use of IPV (Harned, 2001; Henning et al., 2005). Therefore men who are violent towards their partners are likely to be characterised by suspiciousness, jealousy, and hypervigilance towards threats. This result is consistent with the male sexual proprietariness evolutionary theory (e.g. Wilson & Daly, 1996), which proposes that sexual jealousy is associated with IPV, and (similar to the feminist theory) that men use IPV as a tactic to control their partner and her reproductive life.

Given the link between ego-threat and aggression (Bushman & Baumeister, 1998) it may be that the comorbidity of some of the cluster A PD traits (e.g. suspiciousness, distrust, sensitivity to insults, perceive threats to reputation, belief that the motives of others are malevolent) coupled with narcissistic psychopathic traits heighten the narcissistic

individual's attention towards potential threats to their self-concept. This may result in a greater propensity for such men to be aggressive towards partners in order to defend their grandiose self-image. Defending self-image is one motive identified for the perpetration of aggression and IPV (Felson, 2002). This may link the findings that cluster A PD traits (Study 3) and narcissistic psychopathic traits (Study 4) both predict men's perpetration of IPV.

Narcissistic psychopathic traits predicted men's IPV in Study 4, but narcissistic PD was not correlated with men's IPV in Study 3. This may be due to differences in the measures used in the two studies. The IPDE-SQ assessed narcissism using 7 items, whereas the YPI used 20 statements that covered dishonest charm, grandiosity, lying and manipulation. The IPDE-SQ items predominantly related to grandiosity (e.g. People think I have too high an opinion of myself), few were related to manipulation (e.g. I use people to get what I want), and none appeared to measure lying or dishonest charm. The YPI has worded the items so that they appear to be positive to someone possessing those traits in order to maximise truthful responses. Some of the items on the IPDE-SQ are worded negatively, for example „I get annoyed when people won't do what I ask“, and „People think I have too high an opinion of myself“. Therefore with the IPDE-SQ being a briefer scale, having negatively worded statements, and mainly only measuring grandiosity, it may not have tapped into the underlying antisocial propensities as effectively as the YPI. This may explain the differences in the findings across the two studies.

In summary, the risk factors for IPV were consistently different for men and women across the studies which suggests that IPV may be motivated by different variables in men and women. This is to some extent more consistent with the feminist theory than with the family conflict theory of IPV. However, cluster B PD traits, anger and partner's attachment avoidance had a significantly greater effect on women's than men's IPV perpetration. This

suggests that intrapersonal traits may be a better predictor of women's than men's IPV perpetration. This may be because the social norms that discourage IPV have a greater effect on men than women (e.g. Felson, 2002), and therefore the social norms that inhibit male IPV may actually serve to suppress the expression of these intrapersonal traits. Therefore, men may need to be more disordered than women to violate social norms and perpetrate IPV (see Discussion in Study 3).

Furthermore, finding that personality was related to IPV is not consistent with the feminist theory of IPV, but is consistent with the family conflict theory. Feminists typically reject the notion of personality being related to IPV because this would suggest that IPV has a psychology (Bograd, 1988), which would imply that IPV only applies to some (rather than all) men and may also provide perpetrators with an excuse for their violence, letting "batterers of the hook" (Goldner, Penn, Sheinberg, & Walker, 1990, p. 345). Personality pathology as a predictor of IPV is consistent with the family conflict perspective because this suggests that atypical men or women can be violent towards their partners, therefore IPV applies to some (but not all) men and women.

7.1.3.2. Shared correlates and predictors of IPV and GV

Some of the intrapersonal variables that were associated with IPV were also associated with general violence. This supports Felson's (2002) general violence theory that IPV resembles other forms of violence and should therefore be studied under the heading of violence rather than gender (which is not consistent with the feminist theory). However, because men's IPV was consistently associated with different intrapersonal variables (for reasons mentioned before) the overlap between predictors for general violence and IPV mainly applies to women. Finding commonalities between men's general violence, women's general violence and women's IPV, further suggests that it may be men's IPV

that is the distinct form of violence. Again, this either supports the feminist theory or is further evidence that men who use IPV are more deviant than women who use IPV.

For men cluster A PDs, cluster B PDs and narcissistic psychopathic traits were correlated with both general violence and IPV, but there were no variables that predicted both types of violence for men. For women cluster B PDs, callous unemotional psychopathic traits, risk-taking psychopathic traits and anger were correlated with both types of violence, with cluster B and anger predicting both types of violence. This provides some support for the theory that different types of violence share similarities but also have qualities that are special to them (Felson, 2002): thereby providing partial support to both the generalist and specialist theories of violent crime.

Anger and cluster B PD traits were the only predictors common to both men's and women's general violence. Therefore although the sex difference in general aggression finds that men are consistently more physically aggressive than women, finding that there are shared underlying causes for the sexes supports Campbell's (1995) theory that women's violence may be similar to men's, but is just a muted version. Campbell's (1999) fear hypothesis may explain women's muted behaviour.

The anger result suggests that, irrespective of sex, people who are more readily roused to anger are on average more likely to be violent than those who get angry less often. So general violence may be expressive rather than instrumental and result from provocation. Lawrence (2006) found that those who scored higher on provocations rather than frustrations were likely to be physically aggressive, and this applied to both men and women. Anger has reliably been found to predict aggression in men and women (Bettencourt et al., 1996). Therefore the current research supports previous findings.

Trait anger has been found to be positively associated with low agreeableness (Caprara et al., 1996; Martin et al., 2000). In Studies 3 and 4, agreeableness and anger were

found to predict women's general violence. It has been proposed that anger is related to aggression under provocation, and low agreeableness is associated with aggression perpetrated either under neutral or provoking conditions (Bettencourt et al., 1996).

Therefore the combination of anger and lack of agreeableness would suggest that women's general aggression was a response to provocation, and therefore a loss of self-regulatory control (Campbell, 2006).

Anger is a variable that has been found to distinguish violent from nonviolent offenders in previous research (Archer & Haigh, 1997; Cornell et al., 1999; Mills et al., 1998; Selby, 1984). This was also suggested in the current research where anger predicted general violence in men and women, but did not predict nonviolent offending in either sex. This suggests that there may be some differences in the underlying causes of violent and nonviolent offending: thus suggesting that those who engage in violent offences may not be the same as those who perpetrate nonviolent offences providing some support for specialist theories of crime.

7.1.3.3. Correlates and predictors of all three offences

By taking a generalist approach to the study of violent and nonviolent offending we were able to investigate whether there were similarities among those who offend. The overall results provide broad support for the General Theory of Crime (Gottfredson & Hirschi, 1990) in that individuals (men or women) with a propensity to offend will do so where there is an opportunity: therefore supporting the theory that offenders are versatile.

The results indicated that cluster B PD traits were most related to men's and women's offending behaviour, predicting all three offences in women, and also general violence and nonviolent offending in men (but not men's IPV perpetration – see section 7.1.3.1.). Therefore traits such as being impulsive, emotionally labile, angry, exploitative,

and lacking empathy and remorse were indicative of individuals (men and women) who perpetrate violent and nonviolent offences. The finding that all women's offending, irrespective of whether it is violent or not, is related to cluster B PD traits has important implications for theory because it suggests that the different types of crime are not completely distinct phenomenon and share similar underlying causes. These results have theoretical implications because they provide some support for the generalist theories of crime such as the General Theory of Crime (Gottfredson & Hirschi, 1990) and also Felson's (2002) theory of general violence. The results also have clinical implications, as these traits can be targeted during interventions for all types of crime.

These results are also consistent with Eysenck's (1964) generalist theory of crime and personality: Eysenck stated that behaviour was general and that personality appeared to be related to this generality. Therefore the results suggest that there is some generality to human behaviour. As well as cluster B there were some other traits that correlated with all three offences. For men these were cluster A PD traits and narcissistic psychopathic traits, and for women there was risk-taking psychopathic traits.

Although men's and women's general violence and nonviolent offending shared the same predictor (cluster B PD traits), they also had unique risk factors each and these will be discussed in turn. Women's general violence was associated with low agreeableness (or antagonism). Agreeableness is one trait that is particularly related to aggressive behaviour (Bettencourt et al., 2006, Miller et al., 2003; Sharpe & Desai, 2001; Suls et al., 1998). Individuals low in agreeableness are irritable, hostile, mistrusting, arrogant and manipulative, and high agreeableness is required to maintain successful interpersonal relationships (Bettencourt et al., 2006). Therefore it is clear that low agreeableness (high antagonism) should be positively associated with aggression towards other people, and this

sample has found that being high in agreeableness may be a protective factor for female physical aggression.

Men's nonviolent offending was uniquely associated with low conscientiousness and low self-control. Conscientiousness is related to low self-control (John & Srivastava, 1999): comparing the equality of the beta coefficients, it was found that these variables had a greater effect on nonviolent offending for men than women. Therefore a lack of impulse control appears to be particularly pertinent to men's nonviolent offending. However, although low self-control and conscientiousness were related to nonviolent offending (in men only), they were not related to the violent crimes. This is inconsistent with Gottfredson and Hirschi's (1990) General Theory of Crime which proposes that low self-control is a pervasive characteristic of all offenders regardless of the type of crime they commit, because all crimes are crimes of opportunity.

This finding may be a function of the sample used, in that university students should have relatively high levels of self-control (or conscientiousness) as this is required for planning, being organised and completing tasks (an essential requirement for academic success). Therefore this population may already be higher in self-control and conscientiousness than other samples. However, some students are not very successful academically so that this would be consistent with lower self-control. Indeed, Tangney et al. (2004) found that academic success was significantly related to high self-control, those who self-reported higher levels of self-control attained higher grades than those with lower levels of self-control. A different sample, where conscientiousness may not feature as a requirement, may produce different results, such as that of Ramoutar and Farrington (2006) who used a prison sample and found support for Gottfredson and Hirschi's theory as low self-control was consistently related to violent and nonviolent offending in the male and female prisoners. Our results were more consistent with those of Heaven (1996), also using

a student sample, who also found that conscientiousness was related to nonviolent offending in men and women, but was not related to violent offending.

Narcissistic psychopathic traits were a unique predictor for women's nonviolent offending (see section 6.4. for a discussion). Risk-taking psychopathic traits were a shared predictor for men's and women's nonviolent offending. Risk-taking relates to impulsivity and is an element of low self-control so male and female perpetrators of nonviolent offences are more likely to act impulsively where an opportunity presents itself: this is consistent with previous research findings (e.g. Ramoutar & Farrington, 2006; White et al., 1994). Previous research has suggested that it is impulsivity and risk-taking that is most related to overall low self-control (Arneklev et al., 1993; Arneklev et al., 1999; Nakhaie et al., 2000; Piquero & Rosay, 1998). Therefore impulsivity and risk-taking may be predominantly responsible for the relationship between low self-control and criminal behaviour. Therefore we would expect risk-taking and low self-control to predict men's and women's nonviolent offending but low self-control only predicted men's nonviolent offending. The reason for the discrepancy may again be due to the measures used.

The YPI assessed risk-taking using 15 items spread equally over three subcategories: thrill-seeking, impulsiveness and irresponsibility. Tangney et al.'s BSCS used 13 items not spread evenly over 5 subcategories: Self-Discipline (5 items), Deliberate/Nonimpulsive action (3 items), Healthy Habits (2 items), self-regulation regarding Work Ethic (2 items), and Reliability (1 item). Therefore the YPI covers more content that is found to be most indicative of low self-control (Arneklev et al., 1993) than perhaps the BSCS does. Some of the BSCS items were negatively worded, which Andershed et al. (2002) suggested may lead to socially desirable responding, as those possessing psychopathic traits are renowned for lying and deception, and may therefore not respond truthfully to items that are not viewed as positive. Therefore the YPI may have

obtained more truthful findings from participants than the BSCS, which may account for the stronger correlations for the risk-taking scale and nonviolent offending, and for the risk-taking scale predicting both male and female nonviolent offending. Or it may be that risk-taking/impulsivity better accounts for women's nonviolent offending (see section 6.4 for a discussion). Conscientiousness was unrelated to women's nonviolent offending in Study 3, and therefore the elements of low self-control that relate to conscientiousness in Study 4 may also be unrelated.

Thus the motives behind male and female nonviolent offending have their similarities (impulsiveness) as well as differences (narcissism). Combined with the other predictors found across this research, it is evident that women who perpetrate nonviolent offences are impulsive, with an exaggerated sense of self-entitlement and are willing to exploit others for their own purposes. Therefore they are prepared to steal off others and damage the property of others if it serves their ends, without recognising the effects it has on others due to a lack of empathy. In contrast, men's nonviolent offending is only predicted by elements of impulsivity and low self-control: therefore men are likely to steal and damage the property of others where there is opportunity without fully considering the consequences for them and their victims.

Interim Summary

Taken together the overall pattern of results suggests that men and women share some risk factors for violent and nonviolent offending, but also have unique risk factors. This suggests that the crime types are related but reflect slightly different underlying propensities, and that offending may be motivated by different influences for men and women. Therefore there is some support for both the generalist and specialist theories of crime, as both are partially correct. This suggests that all theories discussed have merits, but

also all have shortfalls. The current research is consistent with previous findings, but extends them, in that it has *simultaneously* examined general violence, IPV and nonviolent offending in *both* sexes, and considered a variety of interpersonal variables that are known to be associated with or differentiate between versatile offenders.

7.2. Limitations

This research has several limitations that need to be considered alongside the conclusions that can be drawn from it. The samples for all studies were derived from student populations, and may therefore not be representative of the British population. Future research could examine the predictors and risk factors identified from this research in a community or even nationally representative sample which could include the full range of ages, ethnicities and socio-economic classifications, and could therefore explore the current findings and explore whether they generalise to other UK populations. However, the university the current sample was drawn from does have a wide demographic range: it includes a significant proportion of mature as well as traditional entry students, and is above the UK average for widening participation to those from lower socio-economic classifications and those from low participation neighbourhoods. Furthermore, those from a university sample are generally low risk for offending and therefore these findings deserve replication in the wider community and in at-risk samples. However, the offences were found to be prevalent in the current sample, and so it would be expected that other samples would be similar and offence prevalence may just be attenuated in student samples.

The questionnaires were presented in a standard order in all studies, and so the later questionnaires may have suffered from fatigue effects. Future research would benefit from counterbalancing the questionnaires to prevent any effects that may arise from the order of presentation.

All studies employed self-report screening measures which are subject to socially desirable responding. Unfortunately this research did not assess social desirability and therefore the means reported by men and women for the three types of crime may be distorted by social desirability bias. Specifically men and women may have minimised their involvement in these socially undesirable behaviours in order to conform to what is socially acceptable, and this may be particularly the case for IPV. IPV is a particularly difficult area to study because there is low disclosure and also social desirability effects, and although both male and female perpetrators systematically underreport engagement in IPV this has been found to be particularly the case for men (Archer, 1999). As a result men's perpetrator reports are likely to be lower than women's, which may inflate the sex difference. Therefore the means of men's IPV perpetration may actually be higher than has been reported. However, recent research examining men and women arrested for IPV has found similar report biases for both sexes. For example, both Henning et al. (2005) and Simmons et al. (2005) found that both the male and female IPV perpetrators in their samples indicated evidence of socially desirable responding. Therefore the rates of offending for IPV, general violence and nonviolent offending obtained in this research are likely to be lower than is actually the case for men as well as women. Scales such as the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960) or the Social Desirability Scale from the Personal and Relationships Profile (PRP: Straus, Hamby, Boney-McCoy, & Sugarman, 1999) could be used to measure Social Desirability within research such as this. Straus and Ramirez (2004) found that criminal history was significantly negatively correlated with Social Desirability ($r = -.35$), and that IPV was also significantly negatively correlated with Social Desirability ($r = -.20$). This indicates that participants with higher social desirability scores are more likely to underreport undesirable behaviour, and suggests the need to control for social desirability when assessing offending behaviour. Therefore

future research should assess the extent to which participants are biased towards not disclosing socially undesirable behaviour, for example IPV and other types of offending. By measuring participants' tendencies towards socially desirable responding we can then control for it in any analyses.

The current research collected data for IPV by requesting information on both partners from one member of a couple. We did not request partner reports, and therefore the external validity of the participants' responses cannot be authenticated. Straus et al. (1996) did note that "the desirability of couple data does not mean that data from one partner are invalid" (p. 303), as it is sometimes not practical or ethical to obtain data from couples. It would not have been ethical in the current research to request contact details for the partners of those reporting IPV perpetration or victimisation so that reports could be corroborated, as this contact in itself could result in the instigation of a violent episode between partners. So collecting self and partner reports from one member of the dyad is a valid and common practice in IPV research, and this method has been employed in other similar research (e.g. Graham-Kevan & Archer, 2003; Hines & Douglas, 2010; Hines & Saudino, 2008; Straus & Ramirez, 2007; Walker, 2000). However, it is important to note that IPV occurs between two people in a relationship, and therefore that the current results need replicating using research with couples' reports in order to validate each partner's claims regarding the prevalence and frequency of IPV from both members of the dyad. Therefore future research should seek to replicate the findings from this research using couples rather than individuals reporting on their own and their partner's behaviour.

The current study employed a cross sectional design and investigated the relationships between offending and associated risk factors at a specific point in time. It would be important to look at offending and risk factors prospectively to examine the progression and potential escalation of the offending behaviours engaged in, as well as

potential changes in the characteristics of the perpetrators over time. Gottfredson and Hirschi (1990) underrate the use of longitudinal research because individual difference variables, such as self-control, are temporally stable. However, prospective, longitudinal studies are renowned to be more effective for identifying risk factors of offending behaviour (Ehrensaft et al., 2006; Farrington, 1997; Moffitt et al., 2001). Therefore future research would benefit from the use of a longitudinal design.

In the current research, participants were asked to report their own as well as their partner's attachment style. However obtaining this information from only one member of the dyad may not be representative of the partner's actual response, even though such a method is used in research (e.g. Bookwala, 2002). Although this reflects the participant's perception of their partner's attachment style rather than their partner's *actual* attachment style, Bookwala (2002) has suggested that this may be more useful to obtain because perceptions refer to how you see your partner and then how you respond to that. For example, if you perceive your partner to be high in attachment avoidance (whether or not they actually are) this may cause anger and frustration and increase the likelihood of aggression. Therefore perceptions of a partner's attachment style may be more influential in terms of IPV than their actual attachment style.

The current research only specified that general violence reports could not include violence towards partners (as this information was requested in a separate section), and therefore men's and women's general violence could be towards anyone other than a partner, and may therefore include other family members as well as friends, acquaintances or strangers. Felson and Cares (2005) found that women perpetrate violence towards family members at a particularly high frequency, and more so than men. Therefore if the responses for women's general violence included more family member targets than men then this may have elevated women's involvement in "general violence", which may more normally be

thought of as non-family members. However, the traditional sex difference in the male direction for general violence was still observed in Study 2. Separate categories of victim/target such as family members, others who were known to the perpetrator but not related (including co-workers, employers, friends, acquaintances, roommates), and strangers (Felson & Cares, 2005) could be analysed separately to further explore target selection differences between men and women.

The current research only examined physical violence within relationships; however partners can also perpetrate psychological aggression towards each other, the effects of which can be equally, or more, damaging than physical violence (Marano, 1996; Migliaccio, 2002). Research has found that similar to physical IPV, men and women perpetrate psychological IPV at equal rates (Cercone et al., 2005; Straus & Sweet, 1992). Straus (2011) and Winstok (2008) have both stated that women's use of psychological aggression needs to be addressed because such behaviours tend to provoke retaliation from the partner and escalates abuse by both partners. Therefore it is important that future research investigates the predictors identified in this study alongside psychological IPV perpetrated by men and women.

Hines and Saudino (2008) included psychological IPV in their research, and examined it in relation to the five adaptive personality dimensions using Goldberg's (1999) IPIP measure. The results indicated differences between the risk factors associated with men's and women's perpetration of psychological IPV. Neuroticism was the one common risk factor and was significantly positively associated with men's and women's use of psychological aggression. There were no other predictors for men, but women's use of psychological IPV was also significantly predicted by higher levels of extraversion and conscientiousness and lower levels of agreeableness. Therefore the research of Hines and Saudino (2008) suggests that men and women have shared and unique risk factors for

psychological aggression. However, the range of variables considered in the current program of research has not been considered with regard to psychological IPV. Therefore it would seem likely that future research examining the risk factors identified in the current research alongside psychological IPV will reveal further shared and unique risk factors for men's and women's use of psychological IPV. This has important implications for treatment and prevention of escalation into physical aggression.

The inclusion criteria for taking part in the current studies specified that participants had to be aged 18 or over and had to have been in a relationship for at least one month in the past 12 months, so that they could report any violence within the context of a relationship. Those who had not had a relationship for at least one month in the past 12 months were excluded from the analysis. Therefore, participants could be reporting on their current or most recent relationship, which is a commonly used method in the area of IPV (e.g. Straus et al., 1996). However former intimate partner harassment can occur following the breakdown of a relationship, and is common among university students (Spitzberg & Cupach, 2007). We asked participants to report on behaviours in the last year, therefore it is possible that participants reporting on past relationships may have included post-relationship harassment. Therefore future research could examine differences between risk factors for IPV in current and most recent relationships.

Another issue that requires consideration is the disparity between the extent to which men and women participate in research generally, and particularly with regard to violence, and especially partner violence. Women take part in research on IPV more than men (Gray & Forshee, 1997; Straus, Gelles, & Steinmetz, 1980). It can be argued that this is because male IPV is associated with more social disapproval than female IPV (Arias & Johnson, 1989; Bookwala, Frieze, Smith, & Ryan, 1992). Therefore men may be less inclined to participate in such research. Furthermore, the greater social disapproval may

cause the men who do participate to deliberately minimise their engagement in IPV perpetration. Therefore the finding that women perpetrate IPV at equal or greater rates than men may actually be a function of fewer partner violent men taking part in such research or because those that do underreport their involvement. It may also be that if IPV men are more dysfunctional then they are also less likely to complete questionnaires. Archer (1999) found that men and women underreport their perpetration of IPV compared to reports about their partners, but this effect is more exaggerated in men, which has been interpreted as male underreporting.

The Nonviolent and Violent Offending Behaviour Scale (NVOBS) is a new measure that is currently developed for use in a male and female student population. Therefore the measure requires further use in additional samples in order to establish its validity and confirm its reliability. Future research could assess additional psychometric properties of the measure, for example test-retest reliability. Anonymity regarding participant responses precluded test-retest data being obtained during the current research. The measure should be used in alternative populations, such as prison and community samples, to examine whether the norms identified in the student sample are generalisable to other samples. Longitudinal research could be conducted to collect data regarding change in behaviour following offending treatment interventions for men and women to examine the effectiveness of the interventions.

7.3. Future directions

The current research has highlighted potential avenues for further investigation, some of which have been discussed above in the limitations section. For all risk factors examined in Studies 3 and 4 (except attachment styles) data was only collected about the participants themselves; data on their partners' personality traits and disorders, self-control,

anger and psychopathic traits were not collected. Regarding IPV perpetration and victimisation a beneficial avenue of future research would be to collect data from both members of the couple, to study the dyadic processes involved in IPV and intrapersonal functioning. Moffitt et al.'s (2001) research using a birth cohort of men and women indicates that the risk characteristics of both couple members cumulatively increase the likelihood of IPV. For example, mispairing of certain personality traits in couples (similar to mispairing attachment styles) may prove particularly volatile and increase the likelihood of aggression within relationships. For example a pairing of two individuals with paranoid PD (cluster A) would be characterised by both partners being suspicious and distrusting of the other, particularly regarding sexual fidelity, causing both to be angry, hostile and unforgiving. Jealousy and suspicion regarding female sexual fidelity is related to male IPV and spousal homicide (Wilson, Johnson & Daly, 1995). Therefore there may be a greater likelihood of aggression in relationships where both partners suspect sexual infidelity on the part of the other. Investigating the riskiness of personality pairings would be a new avenue for research and a very important one for guiding interventions.

Future research could assess general violence victimisation as well as perpetration. The IPV (Straus, 2008), stalking (Mohandie et al., 2006), and prison bullying (Ireland & Ireland, 2008) literature have all identified that there are pure victims, pure perpetrators and victim/perpetrators. Therefore it is likely that the same groups would be identifiable with general violence. This study only collected data regarding perpetration, and so mutuality of general violence could not be examined. The previous research in other domains has found differences in risk factors between the pure victims, pure perpetrators and the victim/perpetrators, so that it would be appropriate to apply this to the examination of the variables investigated in the current research. This may be useful for guiding general violence interventions.

Due to the mutuality of offending (e.g. Straus, 2008), and the argument that victims and offenders should not be treated as two separate entities (Deadman & MacDonald, 2004) future research could investigate predictors of IPV and general violence victims because certain victim characteristics may put them more at risk of being aggressed against. That is not to say that victims should in any way be blamed for being victimised or that perpetrators should be less responsible for their actions, but preventative measures may be discovered. Victim precipitation has been discussed in homicide research (Wolfgang, 1958), and IPV homicide research (Browne, Williams, & Dutton, 1999; Felson & Messner, 1996). Therefore those who initiate violence may end up being the victim. Felson and Cares (2005) found that violence perpetrated by anyone other than a stranger (e.g. partner / family member) was more likely to be precipitated by the victim than violence between strangers. Felson and Cares also found that female IPV perpetration was not particularly likely to be precipitated by the victim, which is further evidence against the proposal that women are only violent in self-defence as a response to violence initiated by their partner. Therefore it would be pertinent to examine victim characteristics in men and women, because by analysing victim characteristics preventative strategies may be identified, which may reduce violence in and out of relationships for men as well as women.

IPV can result in the eventual breakdown of a relationship, and IPV during a relationship is a risk factor for intimate partner harassment post-relationship (Mohandie et al., 2006). Being rejected by a partner may serve to accentuate the perpetrators PD traits (Ehrensaft et al., 2006). Therefore longitudinal research that investigates the risk factors from the current research in relation to pre- and post-relationship harassment may be clinically relevant to both stalking, IPV and PD research.

Attachment styles have been related to coping styles (Torquati & Vazsonyi, 1999; Greenberger & McLaughlin, 1998): for example, those with insecure attachment styles use

different coping styles. Maladaptive coping styles in conjunction with insecure attachment styles may increase the likelihood of violent resolution strategies being utilised within relationships. Therefore attachment may influence coping styles, which may affect the likelihood of IPV in men and women. Therefore future research examining additional variables to the current research could investigate the effect of coping styles on IPV perpetration and victimisation. Coping styles could then be targeted within treatment interventions.

The risk factors identified in this research should be examined in homosexual relationships. Homosexual relationships have been reported to be as violent, if not more so, than heterosexual relationships (e.g. Landolt & Dutton, 1997), and lesbian relationships have been found to be significantly more violent than gay relationships (e.g. Dutton, 1994a). Dependency and jealousy have been found to be the main contributors to lesbian IPV (Renzetti, 1992) and these same factors have also been found in heterosexual male to female IPV studies (Dutton, 1994b). Therefore examining the predictors of IPV identified by the current research may reveal similarities and differences in the predictors of homosexual IPV, which would have clinical implications and be useful for guiding treatment. Research by Fortunata and Kohn (2003) found that high scores on the antisocial and borderline PDs (cluster B PDs) predicted IPV perpetration in lesbian relationships, which is similar to previous findings as well as current research findings regarding perpetrators of IPV in heterosexual relationships. Therefore it appears as though personality pathology rather than sex of victim/perpetrator is the best predictor of IPV. Some homosexual data was collected in the current research, but the response rates were very low, and due to the findings from previous research regarding higher rates of violence in these samples, these data were not included in the analysis. However, extra data could be collected and examined in future research.

The current research has highlighted the overlap in offending for men and women, and that the different crime types have similar as well as unique risk factors for men and women. This could be used to guide future research on the development of therapy, treatment or training that is suitable for multiple crime types and men and women. Currently, interventions tend to be focused on treating the offence the perpetrator has been referred for (i.e. drugs, violence, IPV), but the current research has found that other crimes may co-occur but may not have been brought to the attention of the authorities. Therefore it is imperative that interventions address the multiple needs of the offender in order to be successful treatments, because treating just one aspect of men's and women's offending is unlikely to be successful and is therefore not helpful to the perpetrators or their victims. Current practices could be adapted based on this emerging evidence regarding the overlap of offending and the risk factors associated with them.

The NVOBS was developed and its psychometric properties confirmed using a student sample. Student samples are generally low risk for offending, although IPV has been found to be prevalent in student populations (e.g. Archer, 2002; Fiebert & Gonzalez, 1997; Foo & Margolin, 1995; Riggs & O'Leary, 1996; Straus & Ramirez, 2004; Straus, 2008; Nabors, 2010, White & Koss, 1991), and undergraduate students have been found to self-report acts of aggression so severe that they would be classed as a criminal offence (e.g. Smith & Waterman, 2006; Barratt et al., 1999). Nevertheless, it is important to validate the newly developed NVOBS scale in a forensic sample using male and female offenders, to determine whether the pattern of characteristics is the same for the offender sample, as it is for the student sample. It would also be useful to assess the norms, validity and reliability of the scale using a community-referred sample of male and female offenders. The perpetration of violent and nonviolent crimes may be low in university students in comparison to the other populations, but previous research has indicated the

presence of these behaviours. Therefore it would seem likely that the community and forensic samples may evince similar patterns of offending but at a higher frequency. This new measure is available for other researchers in the field to use, and additional research will advance knowledge and understanding in this area.

7.4. Overall summary

Overall each study in this thesis has made original contributions to the knowledge of the psychology of offending behaviour in men and women. This research has extended existing research into women's violent and nonviolent offending behaviour and has provided original findings not previously published by suggesting that women's perpetration of different offences has similar as well as different risk factors to that of men, and that this is particularly the case for IPV. This research has informed general theories of crime and violence by suggesting that there is some overlap between offences and their correlates which rules out the possibility that IPV is completely distinct from other types of crime: thereby informing both feminist and family conflict theory. Finding that personality and other individual difference variables are related to offending also supports the general theories of crime and violence as well as the family conflict theory of IPV, but is inconsistent with the feminist theory.

Therefore the current research is original and is potentially influential both theoretically and clinically. It has clinical relevance as it highlights the need for the adaptation of current perpetrator treatment programs to address the multiple needs of versatile perpetrators, and also identifies risk factors on which interventions can focus. Therefore treatments should be more directed and successful. Findings regarding the predictors of offending behaviour can be used by those involved in treating offenders, but can also help those who intervene (e.g. police officers) particularly in cases of IPV. These

findings suggest that education and training is required for those working with offenders to highlight that both men and women can be „real“ perpetrators and „legitimate“ victims, as currently half of the perpetrators (women) and half of the victims (men) of IPV are largely ignored. Straus (2006) called for research to “raise the ratio of data to theory” (p. 1087) with respect to sex and IPV, and the current research adds to the data in this area.

APPENDICES

Appendix 1: Study 1 Online Questionnaire Coversheet

This research is being conducted by Abi Thornton, a Psychology PhD student from the University of Central Lancashire. This study will be used to develop a scale for women's involvement in crime and antisocial behaviour towards other women and men. It should take approximately 30 minutes to complete.

Please be aware it contains questions of a sensitive nature, and relate to subjects that people may find distressing. You will be asked to respond to questions regarding behaviours that you have engaged in or been affected by, **some of these being extremely violent and sexual criminal offences** and antisocial behaviour.

You do not need to answer any questions that you are not comfortable answering and you may withdraw from the study at any time before submitting the questionnaire. As the questionnaire will be anonymous it will not be able to be withdrawn once submitted as there will be no way of identifying it. All responses will remain confidential.

Take great care not to reveal information about your criminal behaviour to others, e.g. make sure no one can see the computer screen when you are completing the questionnaire. Failure to do this may result in people knowing about your criminal history, and this could have serious repercussions for you.

Please print off the feedback sheet at the end of the questionnaire that contains further information about the study as well as contact details for the researchers, along with telephone numbers of relevant help and support groups.

If you have any questions, please contact Abi Thornton: email - ajthornton@uclan.ac.uk, tel – 01772 893754.

Anyone over the age of 18 is welcome to take part. If you would like to take part, please click the link below.

Yes - I understand the nature of the study and I would like to take part
--

Appendix 2: Study 1 Information for participants

Instructions for female participants

Please answer the following questions in relation to **your** behaviour between **18 years old and the present day** by ticking *the box* in the column labeled *Me* if you have done this behaviour. Also please could you indicate whether you personally (i.e. not through other people or the media) know of any victims or perpetrators of each type of behaviour **conducted by a woman (18 years or older)** by ticking the box *Other woman*. If the behaviour does not apply to you or another woman then please tick *the box* in the column labeled *not applicable (N/A)*. You can click both boxes where the options 'Me' and 'Other woman' both apply.

Instructions for male participants

Please answer the following questions in relation to behaviour a **woman** aged over **18 years old has done towards you** by ticking *the box* in the column labeled *A woman did this to me* . Also please could you indicate whether you personally (i.e. not through other people or the media) know of a female over the age of 18 who has behaved this way towards someone other than yourself by ticking the box *A woman did this to someone else*. If you do not know of a female over the age of 18 who has behaved this way click the box in the column labeled *not applicable (N/A)*. You can click both boxes where the statements 'A woman did this to me' and 'A woman did this to someone else' both apply.

Appendix 3: Studies 2, 3 and 4 Questionnaire Coversheet



This research is being conducted by Abi Thornton, a Psychology PhD student from the University of Central Lancashire. It should take approximately 15-20 minutes to complete. Anyone, male or female, **over the age of 18** is welcome to take part.

Please be aware this study contains questions of a sensitive nature, and relate to subjects that people may find distressing. You will be asked to respond to questions regarding behaviours that you may have engaged in or been affected by. Some of these being extremely violent and/or sexual criminal offences, as well as drug, criminal and antisocial behaviour. You will also be asked some questions about yourself (e.g. to what extent certain statements describe you).

Please answer each question, but if there are questions that you would prefer not to answer you can skip them.

You can withdraw from the study at any time before returning the questionnaire. As the questionnaire will be completely anonymous it will not be able to be withdrawn once handed in, as there will be no way of identifying your questionnaire.

If at any time whilst completing the questionnaire you require contact telephone numbers that can provide you with help and support, please turn to the last page.

Whilst completing the questionnaire be aware of your surroundings. You may not want to share your answers with anyone, so make sure no one is able to see what you are writing.

Participation in this research is entirely voluntary and no identifying data will be linked to your submission, therefore your responses are **completely anonymous**. All responses will remain confidential, no individual data will be identified and only group data will be used in publications or presentations.

If you have any questions please email Abi Thornton at: ajthornton@uclan.ac.uk

Appendix 4: Studies 2, 3 and 4 Information for participants

IPV

Sometimes conflict gets out of hand and physical fights occur. Couples have many different ways of trying to settle their differences. This is a list of things that might happen when you have differences. Please use the following scale to answer the questions below. Please read each statement carefully, and then circle the number that corresponds to how many times you did each of these in the last year, and how many times your partner did them in the last year. If your relationship did not last for the whole of the past year, please indicate how many times you and your partner did each of these during your whole relationship.

How often did this happen in the past year?

0 =This has never happened, **1** = Once in the past year, **2** =Twice in the past year, **3** = 3-5 times in the past year, **4** = 6-10 times in the past year, **5** = 11-20 times in the past year, **6** =More than 20 times in the past year.

General violence

Sometimes conflict gets out of hand and physical fights occur. Please answer the following questions in relation to **your** behaviour. Please **do not** include fights you have had with a romantic partner (such as a boyfriend / girlfriend **as you have already been asked about this in section 1**), only include fights with someone other than your partner e.g. friend, family member, stranger etc.

Please use the following scale to answer the questions below. Please read each statement carefully, and then circle the number that corresponds to your reply.

How often did this happen in the past year?

0 =This has never happened, **1** = Once in the past year, **2** =Twice in the past year, **3** = 3-5 times in the past year, **4** = 6-10 times in the past year, **5** = 11-20 times in the past year, **6** =More than 20 times in the past year.

Non-violent offending

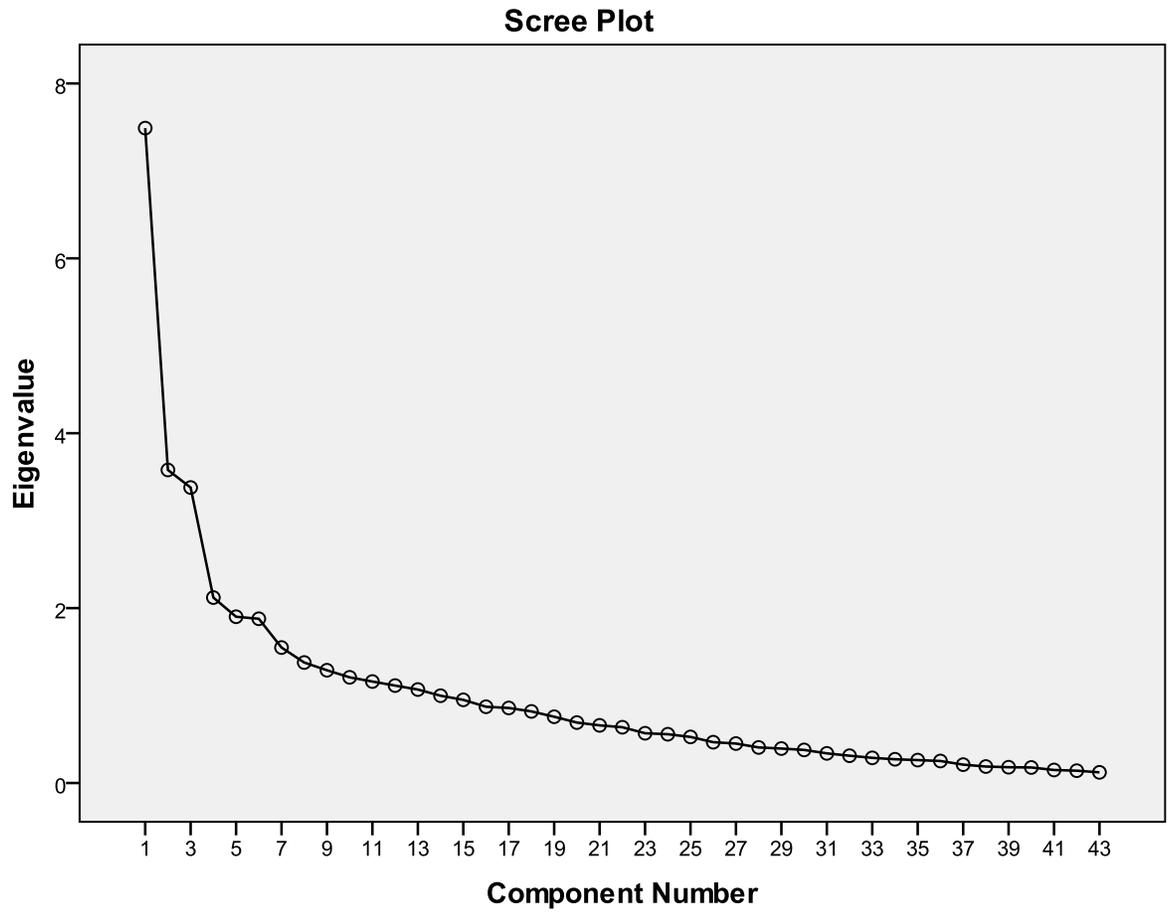
Please answer the following questions in relation to **your** behaviour.

Please use the following scale to answer the questions below. Please read each statement carefully, and then circle the number that corresponds to your reply.

How often did this happen in the past year?

0 =This has never happened, **1** = Once in the past year, **2** =Twice in the past year, **3** = 3-5 times in the past year, **4** = 6-10 times in the past year, **5** = 11-20 times in the past year, **6** =More than 20 times in the past year.

Appendix 5: Study 2 Scree Plot



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